UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

COMPILATION OF WATER-TEMPERATURE DATA FOR OREGON STREAMS

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By A. Albert M. Moore

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Prepared in cooperation with:

Oregon State Water Resources Board

U.S. Bureau of Reclamation

U.S. Corps of Engineers

U.S. Public Health Service

U.S. Soil Conservation Service

Open-file report
Portland, Oregon
November 1964

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ILLUSTRATIONS

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INTRODUCTION

Practically all water-temperature data collected through September 30, 1962, by various agencies, both public and private, are presented herein. Only those records with so few observations as to be of no significant value have been omitted.

Through the 1962 water year, the Geological Survey has collected up to 16 years of spot-observation data (periodic measurements) at more than 200 sites and 1 or more years of thermograph records at 55 sites. Some thermograph records that began as early as 1950 are still being collected and more than 55 records are being collected currently. However, about 25 of these records were begun during the summer of 1963 and are therefore not included in this compilation.

Through 1962, other agencies have collected more than 70 thermograph records and about as many spot-observation records. Many of the thermograph records, however, are only a few months to a year in length.

The thermograph records collected by the Geological Survey have been published through 1958 in the annual series of water-supply papers, "Quality of Surface Waters of the United States". Beginning with records for 1962, the Geological Survey in Oregon is publishing thermograph records, along with discharge records for the same site, in the annual statewide report. The temperature records for 1959-61 will eventually be published in the annual water-supply papers on quality of water, but meanwhile this open-file compilation will serve to make available the monthly figures of water temperature at thermograph sites.

Most of the thermograph and spot-observation records collected by other agencies have never been published, and the same is true for all spot observations made by the Geological Survey. This compilation does not show daily temperatures or individual observations because their inclusion would greatly increase the size of the report and because mean monthly temperatures and monthly extremes of temperature are believed to be of more significance.

The report was prepared under the general supervision of R. B. Sanderson, District Engineer, in charge of surface-water investigations in Oregon. E. H. Stolte assisted in the preparation of manuscript descriptions for the various observation sites.

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Most of the thermograph and once-daily water-temperature data collected by other agencies have never been published, and the same is true for all spot observations made by the Geological Survey. This compilation does not show daily temperatures or individual observations because their inclusion would greatly increase the size of the report and because monthly temperatures and monthly extremes of temperature are believed to be of more significance.

The report was prepared under the general supervision of K. N. Phillips, District Engineer, in charge of surface-water investigations in Oregon. [illegible] assisted in the preparation of thermograph descriptions for the various observation sites.

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EXPLANATION OF DATA

Station Descriptions

Each water-temperature record is preceded by a short description in which is given location of the measuring site, the drainage area at the site (if known), a short description of the records available, and a "Remarks" paragraph, if necessary. The number preceding the name of the station is the compilation number. These numbers run from 1 to 381 and are also used to designate sites on plate 1 (in pocket). Numbers shown parenthetically after the name of the station designate Geological Survey gaging stations in accordance with the national numbering system for such stations. Absence of this number means the site is other than a Geological Survey station.

Location

The measuring-site location is described in several ways--by latitude and longitude; by township and range; by physical features such as tributary streams, highway bridges, and towns; and by miles above mouth, where that information is readily available. River mileages have for the most part been taken from the various basin indexes prepared by the Columbia Basin Inter-Agency Committee, Subcommittee on Hydrology. Only preliminary unchecked figures for river mileage were available for the Rogue and Umpqua River basins, but these are believed to be reasonably accurate and subject to little change.

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Drainage Area

Drainage-area figures were available for all sites where data were collected by the Geological Survey; time and funds did not permit determination of drainage area at other sites. However, many of these other locations are between sites for which drainage areas have been determined and, therefore, the drainage areas can be estimated within rough limits.

Water-Temperature Records Available

This paragraph indicates the type of record and the period for which it was obtained. For spot-observation records, the number of spot observations made during the given period is listed and, where necessary, attention is called to any unusual distribution of the observations. In some instances, two or more agencies collected records at the same site, or practically the same site, and sometimes for the same period or overlapping periods. Such records are listed under one station description. In some instances, the Geological Survey made spot observations over a long period of years and, in addition, obtained a thermograph record for a year or two. There, too, both records are given, but generally when the thermograph record is at least 4 years in length, the spot-observation record is omitted.

Remarks

In the "Remarks" paragraph, mention is made of regulation by reservoirs or powerplants that could conceivably affect water temperature. Also, credit is given to the agency that furnished the record; omission of such credit means that records were obtained by the Geological Survey.

Tables of Water-Temperature Data

The water temperatures shown for the various sites are in degrees Fahrenheit. Records furnished by the State Sanitary Authority were converted from the Celsius (centigrade) to the Fahrenheit scale for uniformity throughout. All tables are arranged in water-year form. The water year begins October 1 and ends September 30. Water year 1959, for example, extends from October 1958 to September 1959.

Thermograph Records

For thermograph records, the maximum, minimum, and mean water temperatures are listed for each month of each year. These data are then summarized for each month for the period of record. If a thermograph record was obtained prior to and subsequent to the construction of a reservoir immediately upstream, period-of-record means and extremes are computed for both periods to show the effect of the reservoir. In some instances, short gaps in the record are filled through correlation with another thermograph record. Where this is done, a footnote is used to designate the estimated temperatures and to show which record was used for correlation.

[illegible]

[illegible] [illegible] cooperated, [illegible] is made of [illegible] [illegible] of programs that [illegible] [illegible] temperature. Also credit is given to the agency that furnished the records [illegible] of [illegible] [illegible] [illegible].

Tables of Temperature Data

The water temperatures [illegible] in the [illegible] were [illegible] in [illegible] Minnesota. [illegible] [illegible] furnished by the State Sanitary [illegible] were obtained from the [illegible] to the [illegible] [illegible] University [illegible]. All data are arranged in water-year form. The water year begins October 1 and ends September 30. Water year 1959, for example, extends from October 1958 to September 1959.

Thermograph Records

For thermograph records, the maximum, minimum, and mean [illegible] temperatures are listed for each day of each year. [illegible] [illegible] were computed for each month for the period of record. [illegible] records [illegible] obtained prior to [illegible] in [illegible] [illegible] [illegible] partially [illegible], [illegible] records [illegible] and [illegible] [illegible] [illegible] for [illegible] [illegible] of the [illegible]. In some instances, short gaps in the records are filled through correlation with nearby [illegible] records. [illegible] [illegible] is done, a footnote is used to indicate the estimated temperatures and the [illegible] used for correlation.

Spot-Observation Records

Where the spot observations are once daily or more frequent, the record is compiled just as for the thermograph records. All the other spot observations are generally made every 5 or 6 weeks and therefore it is not possible to compute observed monthly means and extremes for each month of each year. Consequently, the monthly means, maximum, and minimum for the period of record are computed and shown for each calendar month. Two sets of monthly means and extremes for the period of record are shown. The "observed" means and extremes are listed first, followed by the "adjusted" means and extremes. The individual spot observations themselves are not shown. A footnote to the table shows the thermograph record with which spot-observations were correlated to obtain the adjusted figures. (See open-file report on "Correlation and Analysis of Water-Temperature Data for Oregon Streams", by A. M. Moore, 1964.) A few records which include observations before and after the construction of an upstream reservoir have been split into two periods to show the effect of the reservoir.

Even though the spot observations were generally not made once each month, correlation with a thermograph record would have permitted the computation of "adjusted" means and extremes at the spot observation site for each month of each year for the period of record at the thermograph site. However, time and funds did not permit this. Also, period-of-record means and extremes probably are sufficient for most purposes.

Note that, in general, the "adjusted" means and extremes shown for the spot-observation sites are those that probably occurred during the period of record for the thermograph with which the spot-observations are correlated. This is because the adjusted period-of-record temperatures at the spot-observation sites were obtained by entering the correlation with the period-of-record monthly means and extremes for the thermograph. Thus, if observed temperatures are correlated with Desolation Creek near Dale, the adjusted figures represent probable monthly means and extremes for the period 1951-58; where Middle Santiam River at mouth near Foster was used, the adjusted figures are representative for the period 1954-62; where Breitenbush River above Canyon Creek, near Detroit was used, the adjusted figures are representative for the period 1951-62. One of these three records was used for the correlations, and because all three records include the cool summers of 1954 and 1955 and the warm summer of 1958, the difference in periods of record is of little significance so far as summer temperatures are concerned.

For various reasons, "adjusted" temperatures are not shown for some streams. In some instances, this is because correlation with a thermograph record is so poor that improvement of the "observed" temperatures is not possible and a statement to this effect is included in the "Remarks" paragraph of the station description. In other instances, the monthly means and extremes based on the observed temperatures are so accurate that improvement through correlation is not possible. This latter condition frequently exists where large spring-flow contributions or releases from reservoirs result in relatively uniform water temperatures. Time of observation is not known for some of the records furnished by other agencies, and this is needed for a correlation in order to take into account the diurnal fluctuation of temperature. For all spot-observation sites for which adjusted temperatures are not shown, a reasonable approach is to assume that each monthly maximum could be about 2°F higher than the observed maximum temperature and that each monthly minimum, except those of 32° or 33°F, could be about 2°F lower than the observed minimum temperature. If there are a large number of observations, the observed means may be accurate within about 1°F.

190-South Santiam River below Cascadia (14-1850.)

Location.--Lat 44°23'35", long 122°30'35", in SE¼ sec.36, T.13 S., R.2 E., on right bank 100 ft downstream from bridge at Cascadia ranger station, 0.5 mile downstream from Mouse Creek, 0.5 mile upstream from Deer Creek, 1.5 miles southwest of Cascadia, and at mile 48.5.

Drainage area.--174 sq mi at gaging cable, 177 sq mi at gage.

Water-temperature records available.--122 spot observations January 1947 to September 1962 and thermograph record for July to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	-	-	63	62	58
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	69 58	68 57	63 54

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	44	41	38	39	41	44	48	52	62	61	59
	Max.-Min.	55 47	48 40	45 35	43 34	43 34	46 36	49 40	58 44	59 46	71 54	64 54	62 51
†Adjusted	Mean	50	44	42	40	42	42	45	48	55	62	62	58
	Max.-Min.	59 42	50 37	48 35	46 33	48 34	47 34	53 40	61 41	69 44	72 47	70 54	66 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

191-Middle Santiam River at mouth, near Foster (14-1865.)

Location.--Lat 44°25'25", long 122°37'25", in NE¼SE¼ sec.24, T.13 S., R.1 E., on right bank 0.7 mile upstream from mouth and 2.7 miles northeast of Foster.

Drainage area.--287 sq mi.

Water-temperature records available.--Thermograph record October 1953 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1954	Mean	50	46	43	40	42	41	44	51	52	62	62	58
	Max.-Min.	55 45	50 44	46 41	43 37	43 40	44 39	48 41	58 42	61 47	67 53	67 57	66 50
1955	Mean	48	46	41	40	40	40	43	46	49	56	64	60
	Max.-Min.	54 42	48 40	43 38	42 38	42 37	44 38	48 40	49 42	54 44	66 47	68 60	70 53
1956	Mean	50	44	42	40	38	42	44	47	54	66	66	62
	Max.-Min.	55 44	49 37	45 39	42 35	40 34	45 39	47 42	54 43	63 47	73 56	74 60	68 55
1957	Mean	51	43	42	38	40	44	46	52	60	65	64	62
	Max.-Min.	60 43	46 40	45 38	43 35	44 36	45 41	54 42	64 47	67 51	69 61	68 58	70 54
1958	Mean	52	42	42	42	44	42	45	56	60	70	70	62
	Max.-Min.	61 46	48 37	44 38	44 40	45 42	45 39	50 43	63 47	73 53	77 59	76 65	71 55
1959	Mean	53	46	46	44	44	44	47	50	58	67	66	57
	Max.-Min.	61 45	51 40	48 43	47 39	46 39	46 41	52 43	59 44	66 49	74 57	72 61	66 49
1960	Mean	50	44	42	38	42	43	45	46	55	66	a66	a60
	Max.-Min.	53 45	49 40	45 39	43 36	45 36	47 37	49 42	52 41	63 48	71 58	a72 a59	a65 a54
1961	Mean	52	44	42	44	44	44	45	49	63	69	70	58
	Max.-Min.	62 46	49 41	44 40	46 38	48 42	46 41	49 41	57 43	73 53	75 60	75 63	66 52
1962	Mean	51	43	42	40	40	40	46	48	58	67	66	62
	Max.-Min.	60 44	46 38	45 38	45 34	42 34	46 34	51 42	54 44	66 48	74 58	71 60	68 54
1954-62	Mean	51	44	42	41	42	42	45	49	57	65	66	60
	Max.-Min.	62 42	51 37	48 38	47 34	48 34	47 34	54 40	64 41	73 44	77 47	76 57	71 49

a Computed on basis of correlation with thermograph records for Fall Creek below Winberry Creek, near Fall Creek and South Fork Coquille River near Powers.

192-Wiley Creek near Foster (14-1870.)

Location.--Lat 44°22'20", long 122°37'20", in NE¼NE¼ sec.12, T.14 S., R.1 E., on right bank 0.4 mile downstream from Little Wiley Creek, 3.5 miles southeast of Foster, and at mile 4.4.

Drainage area.--52.3 sq mi.

Water-temperature records available.--120 spot observations November 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	44	41	41	40	41	46	51	57	66	63	61
	Max.-Min.	59 49	48 38	45 34	48 36	45 34	44 36	48 43	66 44	67 49	74 59	72 53	65 57
†Adjusted	Mean	53	44	41	41	42	44	47	50	58	64	66	60
	Max.-Min.	63 44	52 37	48 34	48 33	48 33	49 35	56 41	66 42	73 46	75 48	75 53	70 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

200-Santiam River at Jefferson (14-1890.)

Location.--Lat 44°42'55", long 123°00'40", in SE¼ sec.11, T.10 S., R.3 W., on right bank 350 ft upstream from Southern Pacific railroad bridge at Jefferson, 2.0 miles downstream from confluence of North and South Santiam Rivers, and at mile 9.6.

Drainage area.--1,790 sq mi, approximately.

Water-temperature records available.--104 spot observations May 1947 to September 1962. Thermograph record May to October 1950 on U.S. Highway 99 E bridge about 400 ft downstream.

Remarks.--Flow regulated since 1953 by Detroit Reservoir; spot-observation record has been split, therefore, to show effect of reservoir. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	49	52	65	68	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	56 43	64 45	74 56	76 60	74 52
1951	Mean	52	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	56 48	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Water temperature (°F)

1947-52		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	46	43	44	41	40	54	60	55	66	66	61
	Max.-Min.	55 54	49 40	44 42	44 44	42 40	44 37	63 45	65 56	59 49	68 63	68 65	67 55
†Adjusted	Mean	57	50	45	43	43	45	48	52	58	65	67	64
	Max.-Min.	69 47	65 36	57 35	55 35	52 33	50 33	63 41	65 43	72 47	79 50	76 59	74 53

1953-62		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	48	44	44	41	44	48	52	50	62	63	61
	Max.-Min.	57 52	51 46	47 43	48 40	46 36	47 41	51 46	63 42	54 44	74 55	68 60	68 53
†Adjusted	Mean	55	49	45	44	43	44	47	50	55	61	62	59
	Max.-Min.	64 47	61 39	55 37	53 37	50 33	49 33	55 41	63 42	66 44	74 48	70 55	68 51

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

Note.--Adjusted figures for both periods are generally representative of water temperatures for 1951-62; those for 1947-52 exclude, and those for 1953-62 include, effect of Detroit Reservoir.

201-Santiam River at Highway 99 Bridge, near Jefferson

Location.--Lat 44°44'15", long 123°03'05", in sec.4, T.10 S., R.3 W., 2.4 miles northwest of Jefferson and at mile 6.4.

Water-temperature records available.--35 spot observations, July to September only, 1950-61. No observations were made in 1956 and 1957.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated since January 1953 by Detroit Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	68	66	61
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	73 64	72 59	66 57
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

202-Luckiamute River near Hoskins (14-1895.)

Location.--Lat 44°43'10", long 123°30'10", in NE¼ sec.11, T.10 S., R.7 W., on right bank 0.2 mile downstream from Benton County line, 3.5 miles northwest of Hostins, and at mile 43.2.

Drainage area.--34.3 sq mi.

Water-temperature records available.--120 spot observations March 1947 to September 1962.

Remarks.--Logponds upstream cause diurnal fluctuation of flow at times.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	47	43	40	42	44	48	51	57	63	59	58
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Chief, Special Reports Unit, WRD,
Washington, D. C.

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District Chief, WRD, Portland, Oreg.

PUBLICATIONS--Reports prepared in the Oregon District

Under separate cover, this office is sending two copies of each of the following reports reproduced locally for open-file release, copies of which have not been previously sent for your file:

Compilation of Water-Temperature Data for Oregon Streams
Evaporation Study at Warm Springs Reservoir, Oregon
Selected Flow Characteristics of Streams in the Willamette River Basin, Oregon
Water Supply for Oregon Caves National Monument, Southwestern Oregon
U.S. Geological Survey Water-Quality Data in the Willamette Basin, Oregon, 1910-64
Floods of December 1964 in the Far Western States
Selected Ground Water Data in the Eola-Amity Hills Area, Northern Willamette Valley, Oregon
Records of Wells and Springs, Water Levels and Chemical Quality of Ground Water in the East Portland Area, Oregon
Pacific Northwest Economic Base Study for Power Markets, v. II, pt. 10, The Role of Water in Shaping the Economy of the Pacific Northwest

A number of additional copies of the first three publications are available if your office or some other branch of the Washington office has need of them.

Stanley F. Kapustka

Enclosures under separate cover

cc: Regional Hydrologist, WRD, PCR

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Drainage-area figures were available for all sites where data were collected by the Geological Survey; time and funds did not permit determination of drainage area at other sites. However, many of these other locations are between sites for which drainage areas have been determined and, therefore, the drainage areas can be estimated within rough limits.

Water-Temperature Records Available

This paragraph indicates the type of record and the period for which it was obtained. For spot-observation records, the number of spot observations made during the given period is listed and, where necessary, attention is called to any unusual distribution of the observations. In some instances, two or more agencies collected records at the same site, or practically the same site, and sometimes for the same period or overlapping periods. Such records are listed under one station description. In some instances, the Geological Survey made spot observations over a long period of years and, in addition, obtained a thermograph record for a year or two. There, too, both records are given, but generally when the thermograph record is at least 4 years in length, the spot-observation record is omitted.

Remarks

In the "Remarks" paragraph, mention is made of regulation by reservoirs or powerplants that could conceivably affect water temperature. Also, credit is given to the agency that furnished the record; omission of such credit means that records were obtained by the Geological Survey.

Tables of Water-Temperature Data

The water temperatures shown for the various sites are in degrees Fahrenheit. Records furnished by the State Sanitary Authority were converted from the Celsius (centigrade) to the Fahrenheit scale for uniformity throughout. All tables are arranged in water-year form. The water year begins October 1 and ends September 30. Water year 1959, for example, extends from October 1958 to September 1959.

Thermograph Records

For thermograph records, the maximum, minimum, and mean water temperatures are listed for each month of each year. These data are then summarized for each month for the period of record. If thermograph records were obtained prior to and subsequent to the construction of a reservoir immediately upstream, period-of-record means and extremes are computed for both periods to show the effect of the reservoir. In some instances, short gaps in the record are filled through correlation with another thermograph record. Where this is done, a footnote is used to designate the estimated temperatures and to show which record was used for correlation.

Spot-Observation Records

Where the spot observations are once daily or more frequent, the record is compiled just as for the thermograph records. All the other spot observations are generally made every 5 or 6 weeks and therefore it is not possible to compute observed monthly means and extremes for each month of each year. Consequently, the maximum, minimum and mean for the period of record is computed and shown by calendar month. Two sets of monthly means and extremes for the period of record are shown. The "observed" means and extremes are listed first, followed by the "adjusted" means and extremes. The individual spot observations themselves are not shown. A footnote to the table shows the thermograph record with which spot observations were correlated to obtain the adjusted figures. (See open-file report on "Correlation and Analysis of Water-Temperature Data for Oregon Streams", by A. M. Moore, 1964.) A few records which include observations before and after the construction of an upstream reservoir have been split into two periods to show the effect of the reservoir.

Even though the spot observations were generally not as frequent as once monthly, correlation with a thermograph record would have permitted the computation of "adjusted" means and extremes at the spot-observation sites for each month of each year for the period of record at the thermograph site. However, time and funds did not permit this. Also, period-of-record means and extremes probably are sufficient for most purposes.

Note that, in general, the "adjusted" means and extremes shown for the spot-observation sites are those that probably occurred during the period of record for the thermograph with which the spot observations are correlated. This is because the adjusted period-of-record temperatures at the spot-observation sites were obtained by entering the correlation with the period-of-record monthly means and extremes for the thermograph. Thus, if observed temperatures are correlated with Desolation Creek near Dale, the adjusted figures represent probable monthly means and extremes for the period 1951-58; where Middle Santiam River at mouth near Foster was used, the adjusted figures are representative for the period 1954-62; where Breitenbush River above Canyon Creek, near Detroit was used, the adjusted figures are representative for the period 1951-62. One of these three records was used for the correlations, and because all three records include the cool summers of 1954 and 1955 and the warm summer of 1958, the difference in periods of record is of little significance so far as summer temperatures are concerned.

For various reasons, "adjusted" temperatures are not shown for some streams. In some instances, this is because correlation with a thermograph record is so poor that improvement of the "observed" temperatures is not possible and a statement to this effect is included in the "Remarks" paragraph of the station description. In other instances, the monthly means and extremes based on observed temperatures are so accurate that improvement through correlation is not possible. This latter condition frequently exists where large spring-flow contributions or releases from reservoirs result in relatively uniform water temperatures. Time of observation is not known for some of the records furnished by other agencies and this is needed for a correlation in order to take into account the diurnal fluctuation of temperature. For all spot-observation sites for which adjusted temperatures are not shown, a reasonable approach is to assume that each monthly maximum could be about 2°F higher than the observed maximum temperature and that each monthly minimum, except those of 32° or 33°F, could be about 2°F lower than the observed minimum temperature. If there are a large number of observations, the observed means may be accurate within about 1°F.

MALHEUR AND HARNEY LAKES BASIN

1-Silvies River near Burns (10-3935.)

Location.--Lat 43°43', long 119°11', in NW¼ sec.31, T.21 S., R.30 E., on left bank 5 miles downstream from Emigrant Creek and 11 miles northwest of Burns.

Drainage area.--934 sq mi.

Water-temperature records available.--62 spot observations October 1954 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	38	33	32	32	35	46	58	67	70	68	61
	Max.-Min.	54 44	48 32	34 32	35 32	33 32	41 32	46 46	67 46	72 61	75 66	77 57	71 46
†Adjusted	Mean	50	38	33	32	35	36	45	57	67	70	69	61
	Max.-Min.	67 33	51 32	44 32	39 32	45 32	50 32	59 33	71 41	75 47	76 49	77 54	73 42

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

2- Donner und Blitzen River near Frenchglen (10-3960.)

Location.--Lat 42°47', long 118°52', in NW¼ sec.20, T.32 S., R.32½ E., on left bank 1½ miles upstream from upper diversions for Malheur Waterfowl Refuge, 2 miles downstream from Fish Creek, and 3½ miles southeast of Frenchglen.

Drainage area.--200 sq mi, approximately.

Water-temperature records available.--120 spot observations May 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	36	33	33	35	40	45	48	56	64	65	57
	Max.-Min.	58 35	42 32	36 32	38 32	43 32	49 33	50 36	56 40	71 45	70 54	74 52	68 49
†Adjusted	Mean	49	38	34	32	35	38	45	49	55	66	65	57
	Max.-Min.	69 34	50 32	44 32	39 32	45 32	56 32	58 34	61 39	71 44	82 47	80 51	71 44

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

3-Bridge Creek near Frenchglen (10-3970.)

Location.--Lat 42°50', long 118°51', in NW¼ sec.33, T.31 S., R.32½ E., on right bank at mouth of canyon, 3½ miles northeast of Frenchglen.

Drainage area.--30 sq mi, approximately.

Water-temperature records available.--109 spot observations May 1947 to September 1962.

Remarks.--Low-water flow is sustained by large springs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	48	44	44	46	50	54	54	62	62	62	59
	Max.-Min.	59 48	54 42	51 36	48 37	50 42	55 47	60 50	63 40	69 52	69 55	68 54	68 53
†Adjusted	Mean	55	49	46	45	47	50	52	54	58	61	60	56
	Max.-Min.	68 44	57 42	53 36	50 37	53 42	58 47	62 44	67 38	71 44	72 47	71 50	68 45

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

4-Silver Creek near Riley (10-4030.)

Location.--Lat 43°41', long 119°39', in E½ sec.1, T.22 S., R.25 E., on right bank 0.4 mile downstream from Rough Creek, 1.4 miles upstream from Nicoll Creek, and 14 miles northwest of Riley.

Drainage area.--228 sq mi.

Water-temperature records available.--109 spot observations August 1951 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	34	32	32	34	35	44	52	63	69	70	56
	Max.-Min.	55 38	41 32	34 32	34 32	40 32	40 32	50 37	61 45	77 48	81 57	80 57	65 48
†Adjusted	Mean	49	35	32	32	33	34	45	50	63	69	68	60
	Max.-Min.	64 32	51 32	41 32	37 32	42 32	48 32	56 34	63 34	77 47	81 47	80 52	69 38

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

ALVORD LAKE BASIN

5-Trout Creek near Denio, Nev. (10-4065.)
(Formerly published as Trout Creek near Denio, Oreg.)

Location.--Lat 42°10', long 118°28', in SW¼ sec.26, T.39 S., R.36 E., on right bank 0.4 mile upstream from bridge at mouth of canyon, 5 miles east of Trout Creek Ranch, and 14 miles northeast of Denio.

Drainage area.--88 sq mi, approximately.

Water-temperature records available.--35 spot observations November 1954 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	43	33	34	36	40	48	55	64	71	67	--
	Max.-Min.	53 44	43 43	34 32	36 32	43 32	44 36	50 47	59 51	71 60	76 66	77 60	- -
†Adjusted	Mean	51	40	35	34	37	39	47	52	59	69	68	61
	Max.-Min.	66 36	52 34	46 32	42 32	47 32	51 34	59 36	65 36	71 45	78 59	77 55	72 45

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

KLAMATH RIVER BASIN

6-Crooked Creek near Klamath Agency

Location.--Lat 42°39'05", long 121°56'50", in NE¼SW¼ sec.1, T.33 S., R.7½ E., at fish hatchery 2.3 miles north of Klamath Agency and 4.4 miles southeast of Fort Klamath.

Water-temperature records available.--Thrice-daily observations (6 a.m, 12 m., and 6 p.m.) January 1943 to January 1945.

Remarks.--Records furnished by Oregon State Game Commission. Crooked Creek arises from several springs at the hatchery and a few miles above.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	46	46	46	46	46	46	46	46	46
	Max.-Min.				46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46
1944	Mean	46	46	46	46	46	46	46	46	46	46	46	46
	Max.-Min.	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46
1945	Mean	46	46	46	46	-	-	-	-	-	-	-	-
	Max.-Min.	46 46	46 46	46 46	46 46	- -	- -	- -	- -	- -	- -	- -	- -
1943-45	Mean	46	46	46	46	46	46	46	46	46	46	46	46
	Max.-Min.	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46	46 46

7-Williamson River near Klamath Agency (11-4935.)

Location.--Lat 42°44'25", long 121°50'00", in NW¼SW¼ sec.1, T.33 S., R.7 E., on right bank 250 ft downstream from highway bridge, 0.6 mile southwest of railroad station at Kirk, 10 miles upstream from Spring Creek, and 10 miles northeast of Klamath Agency.

Drainage area.--1,290 sq mi, approximately.

Water-temperature records available.--50 spot observations July 1954 to September 1962.

Remarks.--Natural regulation by Klamath Marsh. Correlation with thermograph records is so poor that only observed temperatures are published.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	40	35	33	32	37	42	56	64	70	63	-
	Max.-Min.	65 40	45 35	43 31	35 32	32 32	48 32	56 36	64 52	73 55	87 64	66 60	- -
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

8-Sprague River near Beatty (11-4975.)

Location.--Lat 42°26'50", long 121°14'15", in NW¼SE¼ sec.13, T.36 S., R.12 E., on right bank 200 ft downstream from highway bridge, 1.6 miles east of Beatty, and 4.6 miles upstream from Sycan River.

Drainage area.--513 sq mi.

Water-temperature records available.--64 spot observations October 1953 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	44	41	40	41	43	48	54	62	66	67	62
	Max.-Min.	54 39	49 39	44 39	46 36	44 38	48 39	52 44	63 48	67 49	71 62	67 67	64 57
†Adjusted	Mean	49	42	39	38	43	43	49	53	64	65	66	60
	Max.-Min.	63 39	50 34	46 35	46 32	53 32	52 32	61 40	68 45	72 49	78 49	77 55	69 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

9-Sprague River near Chiloquin (11-5010.)

Location.--Lat 42°35'05", long 121°50'55", in NE¼NW¼ sec.35, T.34 S., R.7 E., on right bank 1.0 mile northeast of Chiloquin, 4.6 miles upstream from Modoc Point Canal intake, and 5.4 miles upstream from mouth.

Drainage area.--1,580 sq mi, approximately.

Water-temperature records available.--96 spot observations June 1947 to May 1958, May 1960 to September 1962.

Remarks.--Regulation of flow by ponding at irrigation dams. Correlation with thermograph records is so poor that only observed temperatures are published.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	40	35	36	35	41	49	59	63	70	67	61
	Max.-Min.	52 43	43 36	38 33	42 32	38 32	49 33	62 42	66 51	74 52	79 58	71 60	68 57
† Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

10-Williamson River below Sprague River, near Chiloquin (11-5025.)

Location.--Lat 42°34'15", long 121°52'35", in NE¼NE¼ sec.4, T.35 S., R.7 E., on right bank 0.2 mile downstream from Sprague River and 0.8 mile southwest of Chiloquin.

Drainage area.--3,000 sq mi, approximately.

Water-temperature records available.--65 spot observations at left bank July 1947 to May 1958; 86 spot observations at right bank July 1941 to May 1958 and December 1959 to September 1962.

Remarks.--Some regulation by diversion dams and logpond operations on Sprague River. Sprague River water is not completely mixed with Williamson River water when it passes gaging station. For this reason temperatures are listed for both right bank and left bank. Left bank temperature is more representative of Sprague River.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
RB Observed	Mean	44	40	38	38	38	42	44	54	56	59	54	50
	Max.-Min.	47 39	47 33	41 35	42 34	41 33	51 39	54 37	60 46	59 49	64 54	63 45	53 48
RB† Adjusted	Mean	46	40	36	36	38	42	45	51	58	60	60	51
	Max.-Min.	57 38	47 33	42 33	42 32	44 32	51 34	54 37	65 43	73 46	71 43	70 52	61 41

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
LB Observed	Mean	43	40	35	36	37	40	47	59	59	67	60	59
	Max.-Min.	48 36	47 34	38 33	41 34	38 32	49 35	49 35	68 49	68 56	74 54	67 52	65 56
LB† Adjusted	Mean	48	41	36	36	39	42	45	54	63	67	68	57
	Max.-Min.	61 37	50 33	43 32	43 32	46 32	48 32	56 39	71 44	82 48	81 45	80 52	70 44

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

11-Keno Canal at Klamath Falls (11-5065.)

Location.--Lat 42°13', long 121°48', in SW¼ sec.32, T.38 S., R.9 E., at Klamath Falls, 300 ft above penstock to powerplant; at canal spillway on right bank of Link River, a quarter of a mile above Link River bridge, opposite gaging station on Link River.

Water-temperature records available.--72 spot observations July 1947 to September 1962. No observations were made January to December 1958, and August 1959 to April 1960.

Remarks.--Pacific Power and Light Co. diverts into canal at storage dam three-quarters of a mile upstream. Regulated to supply water necessary for powerplant just below gage.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	39	36	36	36	39	49	53	62	71	63	67
	Max.-Min.	56 45	41 37	38 35	38 34	37 35	42 34	53 46	57 50	69 53	79 65	66 59	69 64
† Adjusted	Mean	51	40	37	35	37	38	51	56	65	72	69	62
	Max.-Min.	61 37	51 32	47 32	45 32	47 32	47 32	62 35	71 46	75 53	81 58	77 59	72 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

12-Link River at Klamath Falls (11-5075.)

Location.--Lat 42°13'25", long 121°47'35", in SW¼NW¼ sec.32, T.38 S., R.9 E., on left bank 600 ft upstream from outlet of Keno Canal and 0.4 mile upstream from Main Street Bridge (U.S. Highway 97) at Klamath Falls.

Drainage area.--3,810 sq mi, approximately, including 27 sq mi in closed basin of Crater Lake.

Water-temperature records available.--93 spot observations July 1947 to September 1962.

Remarks.--Flow regulated since April 1919 by Upper Klamath Lake. Large diurnal fluctuation in flow caused by powerplant above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	40	36	37	36	40	47	53	63	71	62	67
	Max.-Min.	56 42	46 36	37 35	43 33	39 35	48 34	52 42	68 43	69 54	79 64	65 59	69 64
†Adjusted	Mean	51	43	36	35	36	41	48	52	63	71	67	64
	Max.-Min.	61 42	49 36	41 32	43 32	41 32	48 32	57 42	68 43	78 51	82 54	77 59	74 54

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

13-Klamath River at Keno (11-5095.)

Location.--Lat 42°08'00", long 121°57'40", in NW¼SE¼ sec.35, T.39 S., R.7 E., on left bank 1.7 miles northwest of Keno and 4.5 miles upstream from Spencer Creek.

Drainage area.--3,920 sq mi, approximately (not including Lost River or Lower Klamath Lake basins).

Water-temperature records available.--85 spot observations July 1947 to December 1957, December 1958 to September 1962.

Remarks.--Flow regulated by Upper Klamath Lake since 1919. Diurnal fluctuation in flow caused by powerplants above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	41	37	36	39	41	49	56	64	73	66	65
	Max.-Min.	56 44	47 38	44 33	38 34	43 36	46 34	54 43	66 53	70 48	76 67	71 63	71 47
†Adjusted	Mean	50	43	36	35	39	41	46	57	64	71	68	60
	Max.-Min.	62 41	50 36	44 33	42 32	46 32	46 33	56 41	74 48	83 48	86 48	82 56	75 45

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

14-Keene Creek near Ashland (11-5145.)

Location.--Lat 42°10'15", long 122°28'40", in NW¼ sec.21, T.39 S., R.3 E., on right bank 0.3 mile upstream from Burnt Creek, 0.6 mile downstream from Hyatt Dam, and 12 miles east of Ashland.

Drainage area.--12.1 sq mi.

Water-temperature records available.--71 spot observations December 1948 to July 1958, August 1959 to September 1962.

Remarks.--Flow regulated since December 1922 by Hyatt Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	39	35	36	37	38	43	51	58	64	66	64
	Max.-Min.	46 38	46 33	39 32	38 34	39 32	39 37	55 39	63 41	69 51	72 56	72 60	73 48
†Adjusted	Mean	41	36	36	35	36	39	45	52	58	65	66	62
	Max.-Min.	50 33	49 32	44 32	42 32	44 32	49 32	59 37	68 38	74 41	75 46	75 57	74 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

OWYHEE RIVER BASIN

15-Owyhee River near Rome (13-1810.)

Location.--Lat 42°52', long 117°39', in NE¼ sec.14, T.31 S., R.41 E., on right bank half a mile downstream from Jordan Creek and 2½ miles north of Rome.

Drainage area.--About 8,000 sq mi.

Water-temperature records available.--59 spot observations August 1955 to September 1962.

Remarks.--Flow regulated by Antelope Reservoir, Wild Horse Reservoir, and numerous small reservoirs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	41	34	33	40	45	50	63	73	78	75	69
	Max.-Min.	63 47	45 36	37 32	38 32	48 35	52 42	51 48	66 59	78 62	83 74	82 67	76 65
†Adjusted	Mean	54	42	37	35	38	40	50	56	64	73	76	67
	Max.-Min.	74 37	56 35	48 32	43 32	50 35	55 35	64 35	72 37	81 47	86 53	89 59	82 47

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

16-Malheur River near Drewsey (13-2140.)

Location.--Lat 43°47', long 118°20', in SE¼ sec.31, T.20 S., R.36 E., on left bank 300 ft downstream from bridge on U.S. Highway 20, half a mile downstream from Cottonwood Creek, and 3 miles southeast of Drewsey.

Drainage area.--910 sq mi, approximately.

Water-temperature records available.--67 spot observations August 1955 to September 1962.

Remarks.--Slight regulation of flow by 13 small reservoirs above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	40	33	33	33	38	46	58	67	74	71	59
	Max.-Min.	57 44	47 33	34 32	39 32	34 32	42 34	48 44	64 52	74 55	82 69	76 59	66 52
†Adjusted	Mean	49	38	33	32	35	36	44	56	63	72	71	64
	Max.-Min.	69 33	50 32	43 32	39 32	44 32	48 32	58 33	70 43	76 51	83 57	81 59	76 52

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

17-Malheur River below Warmsprings Reservoir, near Riverside (13-2150.)

Location.--Lat 43°34', long 118°12', in SW¼ sec.17, T.23 S., R.37 E., on left bank 1 mile downstream from Warmsprings Dam, 3 miles upstream from South Fork, and 4 miles northwest of Riverside.

Drainage area.--1,100 sq mi, approximately.

Water-temperature records available.--13 spot observations (April to September) 1949 to 1955 and 17 spot observations (April to September) 1958-62. No spot observations were made October to March as during those months flow consists only of small amounts of leakage from Warmsprings Reservoir.

Remarks.--Flow completely regulated since November 1919 by Warmsprings Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	48	52	56	63	68	63
	Max.-Min.	- -	- -	- -	- -	- -	- -	50 44	55 48	59 53	69 55	76 60	65 60
†Adjusted	Mean	-	-	-	-	-	-	46	53	54	62	66	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	54 40	62 44	65 45	73 48	76 56	70 50

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

18-North Fork Malheur River above Agency Valley Reservoir, near Beulah (13-2165.)

Location.--Lat 43°57', long 118°10', in NE¼ sec.4, T.19 S., R.37 E., on left bank 500 ft upstream from Agency Valley Reservoir, 2½ miles upstream from Warm Springs Creek, and 3½ miles northwest of Beulah.

Drainage area.--355 sq mi.

Water-temperature records available.--65 spot observations October 1955 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	35	32	34	37	40	43	56	62	70	66	57
	Max.-Min.	55 46	40 32	33 32	40 32	41 32	47 34	48 41	64 51	72 52	77 62	80 58	68 43
†Adjusted	Mean	47	37	33	32	35	37	43	52	60	67	66	57
	Max.-Min.	63 33	48 32	42 32	40 32	43 32	47 32	54 33	64 37	75 47	80 50	80 50	71 41

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

19-North Fork Malheur River at Beulah (13-2175.)

Location.--Lat 43°54', long 118°09', in NW¼NE¼ sec.22, T.19 S., R.37 E., on left bank at Beulah, a quarter of a mile downstream from Agency Valley Dam and 12 miles northwest of Juntura.

Drainage area.--440 sq mi, approximately.

Water-temperature records available.--33 spot observations (April to September) 1955 to 1962. During October to March flow consists only of leakage from Agency Valley Reservoir.

Remarks.--Flow regulated by Agency Valley Reservoir since December 1935.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	46	52	56	64	70	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	49 43	54 48	61 52	66 58	77 64	68 49
†Adjusted	Mean	-	-	-	-	-	-	43	52	56	61	68	57
	Max.-Min.	- -	- -	- -	- -	- -	- -	50 35	59 35	62 47	67 50	77 61	68 46

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

20-Malheur River at Little Valley, near Hope (13-2200.)

Location.--Lat 43°54', long 117°30', in SE¼ sec.24, T.19 S., R.42 E., on right bank 500 ft downstream from highway bridge at Little Valley, 8 miles southwest of Hope, and 14 miles southwest of Vale.

Drainage area.--3,010 sq mi, approximately.

Water-temperature records available.--67 spot observations August 1955 to September 1962.

Remarks.--Flow regulated by Warmsprings and Agency Valley Reservoirs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	55	43	36	34	36	46	57	61	78	77	73	70
	Max.-Min.	67 45	50 34	39 34	42 32	41 32	49 43	62 52	69 50	83 74	83 72	83 65	75 58
†Adjusted	Mean	52	42	37	34	39	45	55	61	73	73	72	68
	Max.-Min.	67 37	52 33	47 32	43 32	48 32	52 40	63 48	70 50	83 63	83 60	83 62	75 56

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

21-Bully Creek near Vale (13-2270.)

Location.--Lat 43°57'30", long 117°20'30", in SW¼ sec.33, T.18 S., R.44 E., on right bank 5 miles southwest of Vale and 7 miles upstream from mouth.

Drainage area.--570 sq mi, approximately.

Water-temperature records available.--34 spot observations December 1946 to November 1951, 69 spot observations August 1955 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	55	46	37	35	37	46	54	61	70	74	70	64
	Max.-Min.	63 47	53 40	48 33	40 32	42 31	52 42	61 47	72 48	78 56	83 64	76 63	71 55
†Adjusted	Mean	54	44	37	35	40	42	51	60	70	70	69	66
	Max.-Min.	67 37	55 33	49 32	45 32	51 32	54 32	61 37	72 48	81 56	83 53	80 56	78 54

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

22-Bully Creek at county bridge, near Vale

Location.--Lat 43°56'30", long 117°18'30", in SE¼ sec.3, T.19 S., R.44 E., at county bridge 2 miles downstream from U.S. Geological Survey gaging station, 4 miles southwest of Vale, and 5 miles upstream from mouth.

Drainage area.--570 sq mi, approximately, at gaging station 2 miles upstream.

Water-temperature records available.--10 to 31 spot observations per month December 1958 to September 1960.

Remarks.--Monthly figures based on observations not adjusted because little or no improvement through correlation is possible, owing to large number of observations and fact that correlation is poor.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	57	43	38	36	40	46	60	62	68	76	70	64
	Max.-Min.	64 54	49 34	44 32	45 32	53 32	60 36	69 43	79 50	80 60	82 60	79 58	70 55
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

BURNT RIVER BASIN

23-Burnt River near Hereford (13-2730.)

Location.--Lat 44°30'20", long 118°10'50", in SE¼ sec.21, T.12 S., R.37 E., on left bank at entrance to canyon, 1,250 ft downstream from Unity Dam, 0.3 mile upstream from Van Cleve ditch, 0.7 mile downstream from South Fork, and 7 miles west of Hereford.

Drainage area.--309 sq mi.

Water-temperature records available.--86 spot observations February 1951 to September 1962.

Remarks.--Flow regulated since 1938 by Unity Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	41	35	36	36	39	46	54	61	67	66	58
	Max.-Min.	55 43	46 35	38 32	39 32	37 35	42 34	52 37	60 49	64 56	77 62	71 63	66 48
†Adjusted	Mean	50	42	36	33	38	40	48	52	62	67	66	58
	Max.-Min.	62 36	51 33	47 32	43 32	48 33	51 33	56 36	60 36	71 52	77 54	74 57	67 46

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

24-Burnt River near Bridgeport (13-2742.)

Location.--Lat 44°32'30", long 117°41'20", in SW¼ sec.3, T.12 S., R.41 E., on left bank 0.5 mile downstream from Dark Canyon, 4.5 miles upstream from Deer Creek, and 5 miles northwest of Bridgeport.

Drainage area.--650 sq mi, approximately.

Water-temperature records available.--63 spot observations July 1956 to September 1962.

Remarks.--Flow regulated since 1938 by Unity Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	38	34	34	36	40	52	61	65	69	68	62
	Max.-Min.	57 44	43 33	36 32	39 32	40 32	47 33	58 46	64 60	66 65	76 63	72 65	66 60
†Adjusted	Mean	50	41	36	33	38	40	51	58	63	70	69	61
	Max.-Min.	61 36	50 32	46 32	42 32	47 32	50 32	59 38	67 47	72 53	78 57	77 60	70 48

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

25-Burnt River at Huntington (13-2750.)

Location.--Lat 44°21'30", long 117°16'20", in NE¼ sec.13, T.14 S., R.44 E., on right bank 0.5 mile northwest of Huntington and 3.5 miles upstream from mouth.

Drainage area.--1,093 sq mi.

Water-temperature records available.--41 spot observations July 1956 to October 1959, August 1961 to September 1962.

Remarks.--Flow regulated since 1938 by Unity Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	37	35	33	37	44	52	62	69	75	74	63
	Max.-Min.	57 49	38 35	38 33	35 32	41 32	48 37	57 50	63 60	69 69	81 70	74 73	65 61
†Adjusted	Mean	50	42	36	32	38	43	53	61	65	72	71	63
	Max.-Min.	61 36	51 32	47 32	43 32	47 32	56 35	61 39	69 51	73 57	81 60	78 63	74 57

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

POWDER RIVER BASIN

26-Powder River near Baker (13-2755.)

Location.--Lat 44°39'20", long 117°52'30", in NE¼ sec.36, T.10 S., R.39 E., on right bank 700 ft downstream from Stices Gulch and 8½ miles south of Baker.

Drainage area.--219 sq mi.

Water-temperature records available.--99 spot observations February 1951 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	44	37	32	32	32	36	43	52	59	72	65	59
	Max.-Min.	54 35	43 33	33 32	34 32	33 32	43 32	47 39	58 48	66 53	76 66	76 56	67 54
†Adjusted	Mean	49	38	33	32	35	36	45	52	60	66	65	57
	Max.-Min.	68 33	51 32	44 32	40 32	45 32	49 32	59 33	67 35	72 48	80 47	78 49	70 39

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

27-Powder River near Haines (13-2815.)

Location.--Lat 44°56'30", long 117°56'40", in SW¼ sec.21, T.7 S., R.39 E., 0.1 mile upstream from Muddy Creek, 1 mile downstream from Rock Creek, and 1.7 miles north of Haines.

Drainage area.--572 sq mi.

Water-temperature records available.--63 spot observations December 1946 to October 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	33	36	33	35	37	51	49	61	71	67	61
	Max.-Min.	58 43	33 33	41 32	34 32	37 32	40 33	58 45	58 40	69 52	78 64	77 62	64 56
†Adjusted	Mean	53	39	34	32	35	37	46	58	64	74	73	62
	Max.-Min.	71 37	52 32	45 32	40 32	46 32	50 32	59 34	64 34	76 52	85 56	83 60	76 43

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

28-Wolf Creek near North Powder (13-2840.)

Location.--Lat 45°03', long 118°01', in SE¼ sec.11, T.6 S., R.38 E., on left bank 5 miles northwest of North Powder and 6½ miles upstream from mouth.

Drainage area.--32.9 sq mi.

Water-temperature records available.--63 spot observations December 1946 to October 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	34	33	33	33	35	44	42	53	60	62	56
	Max.-Min.	53 43	34 34	36 32	35 32	34 32	38 33	48 39	43 41	59 48	65 56	67 55	61 5
†Adjusted	Mean	48	36	33	32	34	35	41	45	54	63	62	55
	Max.-Min.	62 39	45 32	40 32	37 32	41 32	44 32	50 33	55 35	66 44	77 48	75 50	67 4

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

29-Powder River near Richland (13-2867.)

Location.--Lat 44°46'40", long 117°17'30", in SE¼ sec.14, T.9 S., R.44 E., on left bank 0.4 mile upstream from Upper Timber Canyon and 6 miles west of Richland.

Drainage area.--1,310 sq mi, approximately.

Water-temperature records available.--Thermograph record August 1959 to January 1961.

Remarks.--Flow partly regulated by several reservoirs, the largest being Thief Valley Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1959	Mean	-	-	-	-	-	-	-	-	-	-	69	61
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	83 58	71 5
1960	Mean	52	34	32	32	34	38	48	a57	70	a79	a76	-
	Max.-Min.	62 40	45 32	32 32	32 32	37 32	48 35	55 43	70 48	84 57	86 62	86 59	81 5
1961	Mean	50	36	32	32	-	-	-	-	-	-	-	-
	Max.-Min.	65 40	43 32	34 32	33 32	- -	- -	- -	- -	- -	- -	- -	-
1959-61	Mean	51	35	32	32	34	38	48	57	70	79	72	61
	Max.-Min.	65 40	45 32	34 32	33 32	37 32	48 35	55 43	70 48	84 57	86 62	86 58	81 5

a Computed on basis of available record and correlation with thermograph record for Eagle Creek above Skull Creek near New Bridge.

30-Eagle Creek above Skull Creek, near New Bridge (13-2882.)

Location.--Lat 44°52'50", long 117°15'10", in SE¼ sec.7, T.8 S., R.45 E., on left bank 0.5 mile upstream from Skull Creek and 6¼ miles northwest of New Bridge.

Drainage area.--156 sq mi.

Water-temperature records available.--Thermograph record June 1959 to August 1961.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	-	-	-	-	-	-	-	-	56	a52	a47
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	58 42	64 45	a62 a45	a57 4
1960	Mean	45	36	32	32	34	36	42	45	50	59	56	-
	Max.-Min.	51 38	44 32	36 32	36 32	36 32	42 33	49 36	54 40	58 43	68 47	58 46	a60 a4
1961	Mean	44	36	32	34	37	38	41	44	53	60	-	-
	Max.-Min.	51 36	42 33	37 32	36 32	39 34	42 35	46 38	52 40	61 43	69 50	70 -	- -
1959-61	Mean	44	36	32	33	36	37	42	44	52	58	54	47
	Max.-Min.	51 36	44 32	37 32	36 32	39 32	42 33	49 36	54 40	61 42	69 45	70 46	60 4

a Computed on basis of available records and correlation with thermograph record for Powder River near Richland.

31-Powder River near Robinette (13-2895.)

Location.--Lat 44°46'10", long 117°04'10", in E½ sec.22, T.9 S., R.46 E., on left bank 2¼ miles northwest of Robinette and 2½ miles upstream from mouth.

Drainage area.--1,660 sq mi, approximately.

Water-temperature records available.--80 spot observations April 1947 to October 1957.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	38	35	34	34	39	51	52	56	68	70	61
	Max.-Min.	64 42	45 32	41 32	37 32	39 32	43 35	54 47	58 46	61 52	74 60	75 66	67 56
†Adjusted	Mean	52	41	36	32	36	41	49	54	60	69	68	61
	Max.-Min.	66 36	53 32	47 32	44 32	47 32	52 32	59 36	65 39	72 47	80 52	79 56	72 47

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

SNAKE RIVER MAIN STEM

32-Snake River at Brownlee Dam, Idaho-Oregon State line

Location.--Lat 44°50'10", long 116°54'00", in SE¼ sec.2, T.17 N., R.5 W., Boise Base Line and Meridian, at Brownlee Dam, 1.1 miles upstream from Wildhorse River, 3½ miles downstream from Brownlee Creek, 10½ miles east of Halfway, Oreg., and at mile 145.2 from Lewiston, Idaho.

Drainage area.--72,590 sq mi, approximately.

Water-temperature records available.--Thermograph record October 1956 to December 1959. Prior to January 1958, record obtained about a quarter of a mile downstream.

Remarks.--Records furnished by U.S. Fish and Wildlife Service. Flow regulated by Brownlee Reservoir beginning in 1958 and by many other reservoirs above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1957	Mean	53	42	37	35	36	44	50	57	64	71	69	64
	Max.-Min.	60 46	47 36	40 34	37 32	40 32	48 40	56 46	64 52	70 59	74 68	72 64	70 58
1958	Mean	54	43	39	36	41	44	49	57	62	67	71	65
	Max.-Min.	64 50	50 38	42 36	40 34	46 38	48 42	54 45	62 54	68 60	71 65	74 69	71 61
1959	Mean	57	49	40	40	40	42	48	53	59	65	68	66
	Max.-Min.	62 54	54 42	44 38	41 39	41 39	44 40	51 44	57 50	63 54	68 59	70 62	69 64
1960	Mean	59	50	44	-	-	-	-	-	-	-	-	-
	Max.-Min.	63 55	56 46	46 41	- -	- -	- -	- -	- -	- -	- -	- -	- -
1957-58	Mean	54	42	38	36	38	44	50	57	63	69	70	64
	Max.-Min.	64 46	50 36	42 34	40 32	46 32	48 40	56 45	64 52	70 59	74 65	74 64	71 58
1959-60	Mean	58	50	42	40	40	42	48	53	59	65	68	66
	Max.-Min.	63 54	56 42	46 38	41 39	41 39	44 40	51 44	57 50	63 54	68 59	70 62	69 64

33-Snake River below Pine Creek, at Oxbow (13-2902.)

Location.--Lat 44°58'40", long 116°51'25", in NW¼NW¼ sec.9, T.7 S., R.48 E., on left bank at Oxbow, 0.1 mile upstream from Hansaker Creek, 0.1 mile north of Oxbow school, a third of a mile downstream from Pine Creek, 3.2 miles south of Homestead, 3.8 miles downstream from Oxbow Dam, and at mile 130.4 from Lewiston.

Drainage area.--73,150 sq mi, approximately.

Water-temperature records available.--Thermograph record February 1954 to September 1962.

Remarks.--Records prior to October 1956 furnished by U.S. Fish and Wildlife Service. Flow regulated by Brownlee Reservoir, beginning in 1958 and by many other reservoirs above station. Extreme diurnal fluctuation of flow caused by Oxbow powerplant 0.6 mile upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1954	Mean	-	-	-	-	42	44	53	60	64	75	70	64
	Max.-Min.	- -	- -	- -	- -	46 39	49 40	58 44	66 50	72 57	81 66	78 62	70 56
1955	Mean	52	46	36	34	35	41	49	58	66	72	73	66
	Max.-Min.	59 45	48 39	43 32	36 32	38 33	46 35	54 44	64 51	74 58	80 64	78 70	76 58
1956	Mean	55	41	38	37	35	43	51	59	64	76	72	67
	Max.-Min.	59 49	49 32	43 35	40 33	40 32	50 38	56 45	66 53	71 58	80 66	76 67	69 62
1957	Mean	55	43	37	34	37	45	51	59	66	72	71	65
	Max.-Min.	61 48	48 36	39 34	37 32	41 33	48 41	59 47	67 53	72 60	75 69	74 65	70 58
1958	Mean	55	44	40	37	42	45	51	61	65	-	-	69
	Max.-Min.	65 51	51 39	42 38	40 35	46 38	49 42	55 46	66 55	70 62	- -	- -	72 64
1959	Mean	61	53	44	41	39	43	51	57	62	68	70	69
	Max.-Min.	64 56	56 46	46 42	43 38	41 38	46 41	53 46	60 53	65 58	72 64	71 67	71 64
1960	Mean	60	51	44	40	38	42	52	57	62	66	71	68
	Max.-Min.	65 56	56 46	46 42	42 38	40 37	47 40	55 47	59 54	66 59	71 63	74 66	69 64
1961	Mean	62	52	45	38	38	42	50	56	66	70	72	a69
	Max.-Min.	66 57	57 49	49 42	42 36	41 36	45 41	52 45	62 52	70 61	72 69	73 a71	a71 65
1962	Mean	60	a51	43	39	36	38	50	58	64	66	70	69
	Max.-Min.	65 56	a57 a46	a49 42	43 36	37 34	45 35	56 44	60 56	66 60	68 65	71 68	71 67
1954-58	Mean	54	44	38	36	38	44	51	59	65	74	72	66
	Max.-Min.	65 45	51 32	43 32	40 32	46 32	50 35	59 44	67 50	74 57	81 64	78 62	76 56
1959-62	Mean	61	52	44	40	38	41	51	57	64	68	71	69
	Max.-Min.	66 56	57 46	49 42	43 36	41 34	47 35	56 44	62 52	70 58	72 63	74 66	71 64

a Computed on basis of available record and correlation with thermograph record for Snake River near Anatone, Wash.

34-Snake River near Pleasant Valley Damsite, Idaho

Location.--Lat 45°39', long 116°29', in sec.29, T.27 N., R.1 W., Boise Base Line and Meridian, at mouth of Pleasant Valley Creek, 1 mi downstream from Curry Creek, 74 miles upstream from Clarkston, and 82 miles downstream from Brownlee Dam.

Water-temperature records available.--Thermograph record June 1955 to June 1958.

Remarks.--Records furnished by U.S. Fish and Wildlife Service. Flow regulated by many reservoirs above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1955	Mean	-	-	-	-	-	-	-	-	65	72	73	66
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	74 56	81 62	78 69	75 56
1956	Mean	55	41	39	39	36	42	48	50	a63	73	70	64
	Max.-Min.	59 48	48 32	44 36	42 33	40 31	48 36	50 46	52 49	71 a56	80 64	76 64	68 58
1957	Mean	55	44	38	35	38	46	a51	a59	64	72	72	66
	Max.-Min.	62 48	49 38	42 36	38 32	43 33	48 42	a55 a48	64 a54	70 60	76 70	76 66	72 60
1958	Mean	56	44	39	37	42	46	50	57	62	-	-	-
	Max.-Min.	66 50	50 38	42 38	41 34	46 38	50 44	52 48	63 50	64 60	- -	- -	- -
1955-58	Mean	55	43	39	37	39	45	50	55	64	72	72	65
	Max.-Min.	66 48	50 32	44 36	42 32	46 31	50 36	55 46	64 49	74 56	81 62	78 64	75 56

a Computed on basis of available record and correlation with thermograph record for Snake River below Pine Creek, near Oxbow, Idaho.

IMNAHA RIVER BASIN

35-Imnaha River above Gumboot Creek (13-2910.)

Location.--Lat 45°11', long 116°52', in NW¼ sec.31, T.4 S., R.48 E., on left bank, 0.1 mile upstream from Gumboot Creek and 5 miles northeast of Coverdale forest guard station.

Drainage area.--99.6 sq mi (revised).

Water-temperature records available.--38 spot observations July 1947 to November 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	38	35	32	34	39	42	42	47	53	57	53
	Max.-Min.	45 36	38 37	38 32	32 32	34 34	41 36	45 41	43 42	51 42	56 50	62 51	59 45
†Adjusted	Mean	43	39	35	33	36	38	43	44	49	56	56	51
	Max.-Min.	52 36	46 33	43 32	40 32	43 32	45 33	50 35	51 36	63 42	64 45	63 47	59 42

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

36-Imnaha River at Imnaha (13-2920.)

Location.--Lat 45°33'45", long 116°50'00", in SW¼ sec.16, T.1 N., R.48 E., on left bank at Imnaha, 0.4 downstream from Big Sheep Creek and at mile 22.6.

Drainage area.--622 sq mi.

Water-temperature records available.--123 spot observations February 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	38	37	34	36	40	46	47	50	61	64	55
	Max.-Min.	59 40	43 32	43 32	38 31	38 32	48 34	49 43	58 37	56 44	71 54	70 59	59 48
†Adjusted	Mean	49	41	36	32	38	40	45	50	53	64	63	57
	Max.-Min.	61 36	50 32	46 32	43 32	47 32	50 32	53 36	59 36	63 43	73 49	72 52	66 47

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

37-Imnaha River near Imnaha

Location.--Lat 45°37'20", long 116°50'40", in NW¼SE¼ sec.29, T.2 N., R.48 E., on right bank 4.5 miles downstream from Imnaha and approximately 20 miles above mouth.

Water-temperature records available.--Thermograph record October 1955 to July 1957.

Remarks.--Records furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1956	Mean	41	a40	37	36	34	39	44	47	49	60	60	55
	Max.-Min.	50 32	a46 32	42 32	40 32	39 32	45 34	47 40	51 42	56 42	66 50	64 55	60 50
1957	Mean	48	a40	36	a33	36	43	47	48	54	63	-	-
	Max.-Min.	52 40	a47 32	a42 32	a36 31	44 32	50 36	58 40	55 43	62 47	73 54	- -	- -
1956-57	Mean	44	40	36	34	35	41	46	48	52	62	60	55
	Max.-Min.	52 32	47 32	42 32	40 31	44 32	50 34	58 40	55 42	62 42	73 50	64 55	60 50

a Computed on basis of available record and correlation with thermograph record for Snake River at Pleasant Valley damsite.

SNAKE RIVER MAIN STEM

38-Snake River at Mountain Sheep damsite, Idaho

Location.--Lat 45°50", long 116°48', in sec.14, T.29 N., R.4 W., Boise Base Line and Meridian, 2.6 miles downstream from Imnaha River and 50 miles upstream from Lewiston.

Water-temperature records available.--Thermograph record October 1955 to February 1956.

Remarks.--Records furnished by U.S. Fish and Wildlife Service. Flow regulated by many reservoirs above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1956	Mean	53	40	35	-	35	-	-	-	-	-	-	-
	Max.-Min.	58 46	46 33	40 32	- -	40 32	- -	- -	- -	- -	- -	- -	- -

GRANDE RONDE RIVER BASIN

39-Grande Ronde River above Limber Jim Creek, near Starkey

Location.--Lat 45°04'20", long 118°19'20", in sec.5, T.6 S., R.36 E., on right bank 1.5 miles upstream from Limber Jim Creek and 13 miles southeast of Starkey.

Water-temperature records available.--Thermograph record June to September 1959.

Remarks.--Records furnished by Oregon State Fish Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	-	-	-	-	-	-	-	47	55	54	48
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	59 38	72 40	70 42	60 38

40-Grande Ronde River at La Grande (13-3190.)

Location.--Lat 45°21', long 118°08', near center sec.36, T.2 S., R.37 E., on left bank 2 miles northwest of La Grande and 5 miles downstream from Fivepoint Creek.

Drainage area.--678 sq mi.

Water-temperature records available.--Thermograph record September 1959 to August 1961.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	-	-	-	-	-	-	-	-	-	-	58
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	73 47
1960	Mean	48	36	33	32	32	36	43	48	60	72	66	60
	Max.-Min.	56 38	43 33	36 32	33 32	36 32	45 32	51 36	59 40	75 48	86 57	84 50	73 46
1961	Mean	46	-	32	32	35	39	45	50	64	72	-	-
	Max.-Min.	59 40	- 32	35 32	32 32	40 32	47 33	56 38	61 40	81 51	86 59	85 -	- -
1959-1961	Mean	47	36	32	32	34	38	44	49	62	72	66	59
	Max.-Min.	59 38	43 32	36 32	33 32	40 32	47 32	56 36	61 40	81 48	86 57	85 50	73 46

41-Catherine Creek above Little Catherine Creek, near Union

Location.--Lat 45°07', long 117°40', in sec.22, T.5 S., R.41 E., on right bank 0.8 mile downstream from junction of North and South Forks of Catherine Creek, 3.5 miles upstream from Little Catherine Creek, and 12 miles southeast of Union.

Water-temperature records available.--Thermograph record May to September 1958.

Remarks.--Records furnished by Oregon State Fish Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	-	-	-	-	-	-	-	41	47	55	57	49
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	49 36	58 41	65 43	67 49	61 38

42-Catherine Creek near Union (13-3200.)

Location.--Lat 45°09'20", long 117°46'40", in SE¼ sec.2, T.5 S., R.40 E., on right bank 3 miles downstream from Little Catherine Creek and 6 miles southeast of Union.

Drainage area.--105 sq mi.

Water-temperature records available.--74 spot observations September 1950 to September 1962. No observations were made March to July 1951, April to August 1957, 1958, 1959.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	35	33	33	35	39	47	49	50	65	65	54
	Max.-Min.	45 40	44 32	41 32	37 32	38 32	45 32	52 39	52 45	53 47	71 58	71 56	67 45
†Adjusted	Mean	44	38	34	32	36	38	45	49	52	65	64	57
	Max.-Min.	54 34	45 32	42 32	39 32	42 32	48 32	53 34	56 34	64 39	75 51	73 54	68 45

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

43-Grande Ronde River near Elgin (13-3235.)

Location.--Lat 45°31', long 117°56', in NW¼ sec.3, T.1 S., R.39 E., on right bank 700 ft upstream from highway bridge, 1½ miles downstream from Willow Creek, and 3 3/4 miles south of Elgin.

Drainage area.--1,250 sq mi, approximately.

Water-temperature records available.--74 spot observations August 1955 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	38	35	34	37	40	50	55	62	73	69	61
	Max.-Min.	54 40	47 32	38 32	36 32	43 32	45 36	53 47	62 47	65 59	78 67	75 63	69 57
†Adjusted	Mean	52	38	32	32	35	37	49	54	62	71	68	62
	Max.-Min.	68 37	54 32	45 32	39 32	44 32	52 32	59 38	65 38	73 52	82 55	78 58	72 52

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

44-Wallowa Falls powerplant tailrace, near Joseph (13-3245.)

Location.--Lat 45°16', long 117°13', in SE¼ sec.29, T.3 S., R.45 E., on right bank a quarter of a mile upstream from mouth and 6 miles south of Joseph.

Water-temperature records available.--105 spot observations March 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	41	35	34	34	34	36	39	39	45	50	51	43
	Max.-Min.	45 34	38 32	39 33	35 32	38 32	40 32	44 36	42 36	50 39	54 46	55 45	47 39
†Adjusted	Mean	42	35	34	32	34	37	38	41	45	49	51	46
	Max.-Min.	51 33	43 32	40 32	38 32	40 32	44 32	45 32	48 32	53 37	56 39	58 43	54 35

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

45-East Fork Wallowa River near Joseph (13-3250.)

Location.--Lat 45°16'20", long 117°12'35", in NE¼ sec.29, T.3 S., R.45 E., on left bank 0.2 mile upstream from confluence with West Fork, 1 mile upstream from Wallowa Lake, and 5½ miles south of Joseph.

Drainage area.--10.3 sq mi.

Water-temperature records available.--131 spot observations March 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	41	36	35	33	33	34	40	42	44	53	52	48
	Max.-Min.	47 34	39 32	37 32	34 32	38 32	39 32	47 34	45 37	52 38	56 50	58 46	49 42
†Adjusted	Mean	42	36	35	32	33	34	39	42	43	51	50	47
	Max.-Min.	49 33	42 32	40 32	37 32	40 32	41 32	47 32	48 34	52 35	58 45	58 44	52 39

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

46-Wallowa River at Joseph (13-3275.)

Location.--Lat 45°20'15", long 117°13'35", in NW¼ sec. 5, T.3 S., R.45 E., on left bank 1,000 ft downstream from Wallowa Lake dam and 0.8 mile south of Joseph.

Drainage area.--50.9 sq mi.

Water-temperature records available.--59 spot observations October 1950 to September 1962, of which only 16 were made prior to October 1957.

Remarks.--Flow regulated by Wallowa Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	45	38	36	37	38	42	43	52	64	65	59
	Max.-Min.	59 44	48 42	40 38	38 33	39 36	40 37	45 37	44 42	59 48	66 62	67 63	61 59
†Adjusted	Mean	54	46	39	35	36	36	41	45	54	63	63	59
	Max.-Min.	68 39	56 35	45 35	40 33	41 34	44 34	50 35	56 35	66 44	75 47	74 51	70 47

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

47-Wallowa River near Enterprise

Location.--Lat 45°23'30", long 117°15'00", in sec.13, T.2 S., R.44 E., on right bank 2 miles upstream from Enterprise and 3 miles northwest of Joseph.

Water-temperature records available.--Thermograph record April to September 1958, December 1958, May to October 1959.

Remarks.--Records furnished by Oregon State Fish Commission. Flow slightly regulated by storage in Wallowa Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	-	-	-	-	-	-	43	50	54	55	53	50
	Max.-Min.	- -	- -	- -	- -	- -	- -	56 37	61 39	63 48	65 48	61 48	59 45
1959	Mean	-	-	39	-	-	-	-	46	52	54	53	51
	Max.-Min.	- -	- -	43 35	- -	- -	- -	- -	61 38	62 44	64 46	63 48	59 45
1960	Mean	47	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	54 43	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1958-1960	Mean	47	-	39	-	-	-	43	48	53	54	53	50
	Max.-Min.	54 43	- -	43 35	- -	- -	- -	56 37	61 38	63 44	65 46	63 48	59 45

48-Hurricane Creek near Joseph (13-3295.)

Location.--Lat 45°20'15", long 117°17'30", in NE¼ sec.3, T.3 S., R.44 E., on left bank 350 ft upstream from intake of Moonshine ditch and 3½ miles southwest of Joseph.

Drainage area.--29.6 sq mi.

Water-temperature records available.--70 spot observations October 1950 to September 1962, of which only 14 were made prior to December 1955.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	44	40	35	35	38	38	43	43	45	52	52	50
	Max.-Min.	49 36	41 39	37 33	39 32	42 36	42 34	50 37	45 39	50 39	56 50	54 48	53 47
†Adjusted	Mean	44	39	35	33	34	37	43	43	45	50	49	49
	Max.-Min.	52 35	45 33	42 32	40 32	42 32	45 32	50 34	51 35	53 38	57 41	56 41	56 41

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

49-Deer Creek near Enterprise.

Location.--Lat 45°25'05", long 117°18'00", in NW¼SE¼ sec.3, T.2 S., R.44 E., about 500 feet upstream from small dam and 1.2 miles southwest of Enterprise.

Water-temperature records available.--Three observations a day (6 a.m., 12 m., and 6 p.m.) January 1943 to January 1946, and once-daily observations from February 1946 to September 1962. No record November 1946 to January 1947, July 1947, February to December 1948, and April 1954.

Remarks.--Records furnished by Oregon State Game Commission. The diversion for the hatchery is about 2,000 feet above the hatchery building.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	44	43	41	43	43	48	51	53	53
	Max.-Min.	- -	- -	- -	44 42	43 40	42 40	44 40	48 42	54 44	54 46	54 52	53 52
1944	Mean	51	48	45	43	39	38	40	45	48	52	53	52
	Max.-Min.	53 49	50 46	46 43	44 42	43 38	39 36	42 37	53 40	53 44	57 46	59 47	56 44
1945	Mean	48	47	41	40	40	40	41	47	52	55	56	55
	Max.-Min.	48 48	48 44	44 40	40 40	40 40	40 38	44 40	48 44	54 48	56 54	56 54	56 50
1946	Mean	49	45	41	40	40	42	45	51	52	55	56	55
	Max.-Min.	52 46	46 44	42 39	40 40	40 40	44 40	48 44	52 46	52 52	56 54	56 56	56 52
1947	Mean	49	-	-	-	42	43	46	50	50	-	54	52
	Max.-Min.	50 48	- -	- -	- -	42 42	43 42	48 43	50 48	50 50	- -	54 54	54 52
1948	Mean	51	48	46	44	-	-	-	-	-	-	-	-
	Max.-Min.	52 50	50 47	47 44	44 44	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	- -	-	37	38	42	47	54	56	56	56	52
	Max.-Min.	- -	- -	- -	38 37	42 36	42 42	50 42	56 50	56 56	58 56	56 56	56 50
1950	Mean	49	47	46	44	43	41	48	49	52	54	54	53
	Max.-Min.	50 48	48 46	46 46	46 44	44 38	44 40	48 48	50 48	55 50	54 54	54 54	56 50
1951	Mean	50	44	41	38	41	41	48	51	52	57	57	52
	Max.-Min.	50 50	44 42	42 40	40 36	42 38	42 40	50 42	54 46	54 48	58 54	58 54	54 50
1952	Mean	49	43	39	37	40	43	50	51	56	57	57	51
	Max.-Min.	50 48	46 42	42 38	40 34	40 40	48 40	50 48	52 50	56 56	58 56	60 52	54 50
1953	Mean	48	42	38	40	40	43	47	48	54	57	58	57
	Max.-Min.	50 44	44 40	38 38	40 38	40 40	48 40	48 46	48 48	56 50	58 56	58 56	60 54
1954	Mean	48	41	39	38	40	42	-	53	55	58	57	51
	Max.-Min.	52 42	42 40	40 39	39 36	40 38	42 40	- -	56 48	58 54	58 56	58 54	52 50
1955	Mean	50	45	39	39	36	37	46	53	59	58	60	52
	Max.-Min.	50 48	48 42	40 36	40 36	40 33	40 33	48 40	56 42	60 56	60 54	60 60	58 50
1956	Mean	49	39	38	37	36	41	47	53	57	60	59	55
	Max.-Min.	54 48	44 33	40 34	40 32	40 32	44 34	50 44	59 48	58 54	60 58	60 56	59 53
1957	Mean	49	42	38	33	36	42	49	55	59	60	59	54
	Max.-Min.	52 44	46 34	44 34	34 32	42 32	46 39	54 46	60 50	60 58	60 60	60 58	56 54
1958	Mean	48	42	38	34	39	43	47	57	58	60	60	55
	Max.-Min.	54 44	44 40	40 36	36 32	44 36	44 40	48 44	60 50	60 52	60 58	60 56	60 50
1959	Mean	48	42	38	38	38	41	50	51	59	60	59	56
	Max.-Min.	50 46	46 38	40 38	40 32	40 36	44 40	54 46	56 46	60 52	60 58	60 56	58 54
1960	Mean	49	41	37	33	35	41	50	51	58	60	56	54
	Max.-Min.	50 46	46 38	40 33	34 32	36 32	48 32	52 48	54 50	58 58	62 58	60 52	56 52
1961	Mean	49	40	36	35	37	43	48	54	60	64	64	55
	Max.-Min.	52 48	48 36	36 36	36 34	38 36	46 40	50 46	58 50	60 60	64 62	64 64	60 50
1962	Mean	46	39	36	34	35	39	48	52	56	58	58	56
	Max.-Min.	50 40	40 38	38 32	36 32	36 32	44 34	50 42	54 48	60 50	62 54	61 52	58 52
1943-62	Mean	49	43	40	38	39	41	47	51	55	57	57	54
	Max.-Min.	54 40	50 33	47 32	46 32	44 32	48 32	54 37	60 40	60 44	64 46	64 47	60 44

50-Lostine River near Lostine (13-3300.)

Location.--Lat 45°26'20", long 117°25'35", in NW¼ sec.34, T.1 S., R.43 E., on left bank 3½ miles south of Lostine and 9 miles upstream from mouth.

Drainage area.--70.9 sq mi.

Water-temperature records available.--Thermograph record October 1957 to September 1958.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	44	37	35	36	38	38	42	45	46	55	58	52
	Max.-Min.	53 39	42 34	37 33	38 34	43 34	46 33	50 37	51 40	54 41	64 44	64 51	62 40

51-Bear Creek near Wallowa(13-3305.)

Location.--Lat 45°32', long 117°33', in NE¼ sec.34, T.1 N., R.42 E., on right bank 30 ft downstream from road bridge, 3 miles southwest of Wallowa, and 4½ miles upstream from mouth.

Drainage area.--68 sq mi, approximately.

Water-temperature records available.--71 spot observations August 1950 to September 1962, of which only 10 were made prior to December 1955.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	38	35	34	35	35	43	43	47	57	60	50
	Max.-Min.	49 38	42 34	40 32	41 32	39 32	36 33	47 40	47 39	55 38	64 44	74 53	55 46
†Adjusted	Mean	45	38	34	32	35	37	44	46	50	57	58	52
	Max.-Min.	57 33	46 32	42 32	41 32	42 32	46 33	51 36	56 36	61 38	69 42	74 47	62 41

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

52-Wallowa River at Wallowa

Location.--Lat 45°35'10", long 117°32'50", in NW¼ sec.11, T.1 N., R.42 E., about 0.5 mile downstream from Bear Creek and 1 mile downstream from Wallowa.

Drainage area.--520 sq mi, approximately.

Water-temperature records available.--Thermograph record August 1957 to March 1958.

Remarks.--Flow slightly regulated by storage in Wallowa Lake. Records furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1957	Mean	-	-	-	-	-	-	-	-	-	-	59	56
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	69 50	64 46
1958	Mean	48	39	38	37	40	41	- -	-	-	-	-	-
	Max.-Min.	57 40	46 32	42 31	43 31	48 36	51 32	- -	- -	- -	- -	- -	- -

53-Wallowa River near Minam

Location.--Lat 45°36'30", long 117°37'00", in sec.31, T.2 N., R.42 E., on right bank 0.5 mile downstream from Rock Creek, 4 miles downstream from Dry Creek, and 5 miles southeast of Minam.

Water-temperature records available.--Thermograph record July to October 1959.

Remarks.--Records furnished by Oregon State Fish Commission. Flow slightly regulated by storage in Wallowa Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	-	-	-	-	-	-	-	-	60	61	55
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	72 48	72 52	66 46
1960	Mean	48	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	54 40	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

54-Joseph Creek near Chico

Location.--Lat 45°47'50", long 117°11'00", in sec.27, T.4 N., R.45 E., on left bank, 0.5 mile below the mouth of Cougar Creek, and about 8 miles downstream from Chico.

Water-temperature records available.--Thermograph record January to December 1959.

Remarks.--Records furnished by Oregon State Fish Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	-	-	34	35	39	42	49	[a]63	67	64	56
	Max.-Min.	- -	- -	- -	40 32	44 32	49 32	54 32	68 36	83 [a]47	84 50	80 48	75 41
1960	Mean	47	34	32	-	-	-	-	-	-	-	-	-
	Max.-Min.	59 34	47 31	32 31	- -	- -	- -	- -	- -	- -	- -	- -	- -

a Computed on basis of available record and correlation with thermograph record for Joseph Creek near Paradise.

GRANDE RONDE RIVER BASIN

55-Joseph Creek near Paradise

Location.--Lat 45°56'00", long 117°10'30", in sec.10, T.5 N., R.45 E., on left bank, 400 ft above the mouth of Rush Creek, and about 2.5 miles southeast of Paradise.

Water-temperature records available.--Thermograph record May to November 1959.

Remarks.--Records furnished by Oregon State Fish Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	-	-	-	-	-	-	51	64	69	63	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	63 43	80 51	81 58	74 56	- -
1960	Mean	49	37	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	56 39	46 32	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

56-Joseph Creek above Cottonwood Creek, near Paradise

Location.--Lat 46°00'30", long 117°02'30", in SE¼ sec.9, T.6 N., R.46 E., on left bank 750 ft upstream from Cottonwood Creek and 9.8 miles northeast of Paradise.

Water-temperature records available.--Thermograph record July to December 1959.

Remarks.--Records furnished by Oregon State Fish Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	-	-	-	-	-	-	-	-	73	69	59
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	88 55	84 58	75 46
1960	Mean	50	36	33	-	-	-	-	-	-	-	-	-
	Max.-Min.	60 40	49 31	40 31	- -	- -	- -	- -	- -	- -	- -	- -	- -

SNAKE RIVER MAIN STEM

57-Snake River near Anatone, Wash. (13-3343.)

Location.--Lat 46°05'55", long 116°58'30", in SE¼NE¼ sec.12, T.7 N., R.46 E., Willamette Base Line and Meridian, 1.5 miles downstream from Grande Ronde River, 7.8 miles east of Anatone, 22 miles south of Clarkston, and at mile 28.4 from Lewiston.

Drainage area.--92,960 sq mi, approximately.

Water-temperature records available.--Thermograph record October 1959 to September 1962.

Remarks.--Flow regulated by many reservoirs above station. Records furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	54	44	38	35	37	42	50	54	62	72	71	66
	Max.-Min.	59 47	48 40	41 36	37 33	38 34	46 34	54 45	60 51	68 57	76 66	77 64	70 64
1961	Mean	[a]57	47	40	38	40	46	52	54	64	73	74	67
	Max.-Min.	[a]64 [a]50	50 42	44 39	39 36	42 38	51 42	56 47	59 48	71 55	78 67	77 72	72 60
1962	Mean	56	46	40	36	37	40	48	54	60	69	72	67
	Max.-Min.	62 50	50 42	45 38	41 32	39 34	45 34	53 44	58 49	65 53	75 62	76 67	71 61
1960-62	Mean	56	46	39	36	38	43	50	54	62	71	72	67
	Max.-Min.	64 47	50 40	45 36	41 32	42 34	51 34	56 44	60 48	71 53	78 62	77 64	72 60

a Computed on basis of available record and correlation with thermograph record for Snake River below Pine Creek at Oxbow, Oreg.

58-Snake River at Clarkston, Wash.

Location.--Lat 46°25', long 117°02', in sec.28, T.11 N., R.46 E., on left or west bank 0.2 mile upstream from Clarkston, 0.5 mile upstream from Clearwater River.

Drainage area.--93,400 sq mi, approximately.

Water-temperature records available.--Thermograph record December 1956 to December 1959.

Remarks.--Regulation from many storage reservoirs upstream and fluctuations during low-water periods from Clearwater River at Lewiston, Idaho, and Snake River at Brownlee Dam (since 1958). Record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1957	Mean	-	-	37	33	35	43	49	52	58	68	68	64
	Max.-Min.	- -	- -	40 34	36 31	39 31	47 39	56 45	58 48	64 53	72 63	72 64	70 59
1958	Mean	55	43	39	37	42	45	50	55	62	71	74	66
	Max.-Min.	64 50	51 38	41 36	41 33	46 38	50 40	54 46	60 48	68 56	77 62	77 70	72 60
1959	Mean	58	47	41	39	39	43	49	52	58	68	69	65
	Max.-Min.	64 52	54 40	43 38	42 34	42 38	46 40	52 46	57 48	62 53	74 59	72 66	70 58
1960	Mean	55	45	40	-	-	-	-	-	-	-	-	-
	Max.-Min.	59 49	51 40	43 38	- -	- -	- -	- -	- -	- -	- -	- -	- -
1957-58	Mean	55	43	38	35	38	44	50	54	60	70	71	65
	Max.-Min.	64 50	51 38	41 34	41 31	46 31	50 39	56 45	60 48	68 53	77 62	77 64	72 59
1959-60	Mean	56	46	40	39	39	43	49	52	58	68	69	65
	Max.-Min.	64 49	54 40	43 38	42 34	42 38	46 40	52 46	57 48	62 53	74 59	72 66	70 58

LOWER COLUMBIA RIVER BASIN

WALLA WALLA RIVER BASIN

59-South Fork Walla Walla River near Milton (14-100.)

Location.--Lat 45°50', long 118°10', in NE¼NE¼ sec.15, T.4 N., R.37 E., on right bank 1 mile downstream from Elbow Creek and 13 miles southeast of Milton.

Drainage area.--63 sq mi, approximately.

Water-temperature records available.--Thermograph record July 1959 to August 1961.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	-	-	-	-	-	-	-	-	55	52	50
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	63 47	60 47	56 46
1960	Mean	46	42	40	38	40	[a]40	42	45	50	54	52	48
	Max.-Min.	48 43	45 37	43 37	41 35	42 34	[a]44 [a]35	47 39	51 41	58 45	63 47	60 45	54 42
1961	Mean	44	40	38	38	40	40	42	45	53	54	54	-
	Max.-Min.	48 41	44 39	41 37	41 34	41 36	43 37	49 39	52 40	62 45	61 47	62 48	- -
1959-61	Mean	45	41	39	38	40	40	42	45	52	54	53	49
	Max.-Min.	48 41	45 37	43 37	41 34	42 34	44 35	49 39	52 40	62 45	63 47	62 45	56 42

a Computed on basis of available record and correlation with thermograph record for Umatilla River above Meacham Creek near Gibbon.

COLUMBIA RIVER MAIN STEM

60-Columbia River at McNary Dam, near Umatilla

Location.--Lat 45°56'00", long 119°17'50", in powerhouse near left bank just upstream from turbines about 2.5 miles east northeast of Umatilla, at mile 292.0.

Drainage area.--214,000 sq mi, approximately.

Water-temperature records available.--Once-daily observations at midnight January 1957 to September 1962, at turbine scroll case at ele vation 267 ft.

Remarks.--Record furnished by Corps of Engineers. Some regulation by Franklin D. Roosevelt Lake and by reservoirs in Kootenai, Flathea Pend Oreille, Spokane, Chelan, Yakima, and Snake River basins. Water temperatures may be affected by use of water as a coolant at Hanford.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1954	Mean	-	-	-	39	40	43	48	53	56	61	64	64
	Max.-Min.	- -	- -	- -	42 34	43 37	45 42	52 44	55 50	58 54	63 57	65 63	65 62
1955	Mean	57	51	43	39	39	40	46	53	56	60	67	65
	Max.-Min.	63 54	53 48	48 40	41 39	40 38	42 37	49 42	55 48	58 53	63 56	69 64	69 60
1956	Mean	58	46	40	38	34	42	48	53	57	65	69	67
	Max.-Min.	61 54	53 39	44 36	39 35	38 32	45 38	50 44	56 49	61 54	69 60	71 64	68 65
1957	Mean	60	50	-	38	36	44	50	54	59	66	69	68
	Max.-Min.	65 53	54 44	- -	41 34	38 34	47 42	53 47	57 52	63 57	68 62	70 67	70 65
1958	Mean	60	52	45	43	45	45	50	56	62	68	72	67
	Max.-Min.	66 56	56 48	48 44	44 41	47 44	49 43	52 48	59 51	66 59	72 63	73 70	70 63
1959	Mean	61	51	44	41	41	43	49	52	57	63	67	65
	Max.-Min.	64 56	56 45	45 43	43 36	42 40	46 42	51 46	55 50	60 55	66 60	68 66	67 62
1960	Mean	58	48	44	38	40	42	47	53	58	65	68	66
	Max.-Min.	61 55	55 43	45 42	41 36	41 38	49 37	51 45	56 51	62 56	67 61	70 64	68 65
1961	Mean	61	52	45	42	43	44	49	54	59	67	71	67
	Max.-Min.	65 58	57 49	49 42	44 41	45 40	48 42	51 47	56 52	63 55	69 61	73 69	70 62
1962	Mean	59	50	44	40	41	41	49	53	58	64	69	67
	Max.-Min.	62 54	54 46	47 41	43 34	42 38	45 38	51 46	55 49	62 55	68 61	70 67	69 66
1954-62	Mean	59	50	44	40	40	43	48	53	58	64	68	66
	Max.-Min.	66 53	57 39	49 36	44 34	47 32	49 37	53 42	59 48	66 53	72 56	73 63	70 60

UMATILLA RIVER BASIN

61-Umatilla River above Meacham Creek, near Gibbon (14-200.)

Location.--Lat 45°43', long 118°20', in SW¼ sec.21, T.3 N., R.36 E., on right bank 0.8 mile downstream from Ryan Creek, 2¼ miles upstream from Meacham Creek, and 2½ miles northeast of Gibbon.

Drainage area.--125 sq mi.

Water-temperature records available.--Thermograph record July 1959 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	-	-	-	-	-	-	-	-	64	62	56
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	75 52	72 55	66 48
1960	Mean	49	41	39	36	39	40	44	46	[a]58	64	62	56
	Max.-Min.	54 43	47 35	42 35	41 32	42 33	47 33	51 39	55 41	[a]70 [a]49	76 52	74 50	65 47
1961	Mean	49	43	38	38	40	42	44	50	[a]62	66	64	54
	Max.-Min.	56 43	49 38	42 35	42 33	42 36	48 38	53 38	63 42	[a]76 [a]49	77 54	75 56	67 45
1962	Mean	48	40	39	36	39	42	43	46	54	62	62	57
	Max.-Min.	55 41	46 35	43 33	43 32	42 33	48 34	51 38	55 39	70 43	74 50	72 53	67 48
1959-62	Mean	49	41	39	37	39	41	44	47	58	64	63	56
	Max.-Min.	56 41	49 35	42 34	42 32	42 33	48 33	53 38	63 39	76 43	77 50	75 50	67 45

a Computed on basis of available record and correlation with thermograph record for South Fork Walla Walla River near Milton.

62-Umatilla River at Pendleton

Location.--Lat 45°40'30", long 118°46'50", in SW¼ sec.2, T.2 N., R.32 E., on left bank at downstream side of S.E. 8th Street bridge at Pendleton, 0.8 mile downstream from Wildhorse Creek, and 3.5 miles upstream from McKay Creek.

Drainage area.--637 sq mi.

Water-temperature records available.--Thermograph record August, September 1962.

Remarks.--Record furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	-	-	-	69	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	85 56	76 52

63-Umatilla River near Umatilla (14-335.)

Location.--Lat 45°54'20", long 119°19'40", in NW¼ sec.21, T.5 N., R.28 E., on left bank 1½ miles downstream from West Division main canal of Umatilla project, 1 3/4 miles southeast of Umatilla, and 2 miles upstream from mouth.

Drainage area.--2,290 sq mi, approximately.

Water-temperature records available.--113 spot observations January 1947 to September 1962.

Remarks.--Some regulation of flow since 1927 by McKay Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	48	42	38	41	47	52	60	69	73	71	68
	Max.-Min.	63 49	54 35	46 38	46 32	45 35	52 43	63 39	63 58	78 60	83 67	82 52	74 62
†Adjusted	Mean	58	46	42	40	41	45	51	60	67	75	74	67
	Max.-Min.	75 42	60 35	53 35	48 32	51 35	58 40	64 39	73 42	79 51	84 54	82 52	77 48

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

WILLOW CREEK BASIN

64-Willow Creek at Heppner (14-345.)

Location.--Lat 45°21', long 119°32', in SE¼ sec.35, T.2 S., R.26 E., on right bank at Heppner, 100 ft upstream from Court Street bridge, 800 ft southeast of Morrow County courthouse, and 0.3 mile downstream from Balm Fork.

Drainage area.--87 sq mi, approximately.

Water-temperature records available.--106 spot observations June 1951 to September 1962.

Remarks.--Generally little or no flow July to September.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	40	39	36	38	42	48	54	64	69	70	59
	Max.-Min.	58 44	47 34	46 32	42 32	41 34	47 38	58 41	62 45	71 54	73 63	78 60	64 48
†Adjusted	Mean	52	44	38	34	40	41	47	57	63	69	68	63
	Max.-Min.	67 40	53 34	47 32	44 32	48 33	50 37	58 38	68 45	76 50	84 50	83 53	76 48

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

JOHN DAY RIVER BASIN

65-Strawberry Creek above Slide Creek, near Prairie City (14-375.)

Location.--Lat 44°20'30", long 118°39'20", in SE¼NW¼ sec.20, T.14 S., R.34 E., on left bank 100 ft upstream from Slide Creek, 8½ miles south of Prairie City, and at mile 9.0.

Drainage area.--7.00 sq mi.

Water-temperature records available.--127 spot observations May 1947 to September 1962.

Remarks.--Some natural regulation of flow by Strawberry Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	37	36	34	35	35	39	42	46	50	51	47
	Max.-Min.	45 38	41 32	41 32	40 32	40 32	38 32	47 35	45 39	49 42	56 46	54 45	52 42
† Adjusted	Mean	43	40	36	34	36	36	40	44	46	50	49	47
	Max.-Min.	49 32	45 32	44 32	42 32	43 32	44 32	48 33	49 33	51 42	56 44	54 45	52 42

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

66-John Day River at Prairie City (14-385.)

Location.--Lat 44°27'15", long 118°43'00", in SE¼NE¼ sec.10, T.13 S., R.33 E., on right bank 600 ft upstream from outlet of Prairie power canal, 0.3 mile downstream from Dixie Creek, 0.8 mile southwest of Prairie City, and at mile 262.

Drainage area.--231 sq mi.

Water-temperature records available.--136 spot observations October 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	41	38	36	40	41	47	51	59	67	67	61
	Max.-Min.	59 43	47 33	43 33	42 32	51 33	50 35	52 40	58 43	69 48	73 57	74 56	71 50
† Adjusted	Mean	50	44	38	35	41	40	48	50	57	65	67	59
	Max.-Min.	65 40	54 33	47 32	44 32	51 33	52 32	57 38	62 39	70 45	78 46	81 55	71 44

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

67-South Fork John Day River near Dayville (14-395.)

Location.--Lat 44°25'40", long 119°32'20", in NE¼ sec.24, T.13 S., R.26 E., on left bank 0.7 mile downstream from Smoky Creek and 3 miles south of Dayville.

Drainage area.--590 sq mi, approximately.

Water-temperature records available.--Thermograph record November 1951 to September 1956.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1952	Mean	-	40	34	34	35	38	48	54	62	68	68	60
	Max.-Min.	- -	45 35	39 32	38 32	39 32	43 33	56 40	67 45	70 54	77 58	76 57	72 52
1953	Mean	50	[a]40	[a]35	[a]38	38	40	44	48	54	66	64	61
	Max.-Min.	60 42	[a]52 [a]35	[a]37 [a]35	43 [a]35	43 34	45 34	53 38	58 41	62 46	76 55	73 56	72 51
1954	Mean	50	45	[a]38	37	40	41	48	56	58	66	63	58
	Max.-Min.	60 43	49 38	44 33	42 34	43 36	46 35	55 40	68 39	72 48	76 54	74 54	68 45
1955	Mean	48	45	38	36	38	41	44	52	62	64	64	58
	Max.-Min.	55 39	50 36	44 33	40 34	42 34	50 34	54 38	62 44	73 48	76 51	74 56	70 48
1956	Mean	51	42	37	36	36	39	46	54	60	68	65	60
	Max.-Min.	58 43	52 33	43 33	39 32	41 32	44 33	53 38	66 43	73 49	80 54	74 55	69 50
1952-56	Mean	50	42	36	36	37	40	46	53	59	66	65	59
	Max.-Min.	60 39	52 33	44 32	43 32	43 32	50 33	56 38	68 39	73 46	80 51	76 54	72 45

a Computed on basis of available record and correlation with thermograph record for Desolation Creek near Dale.

68-John Day River at Picture Gorge, near Dayville (14-405.)

Location.--Lat 44°31'15", long 119°37'30", in SW¼ sec.17, T.12 S., R.26 E., on right bank 0.7 mile upstream from Rock Creek, 5½ miles northwest of Dayville, and at mile 205.1.

Drainage area.--1,680 sq mi, approximately.

Water-temperature records available.--136 spot observations May 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	43	38	35	39	43	46	54	62	72	67	60
	Max.-Min.	57 46	53 39	45 32	45 32	42 33	50 38	49 42	62 45	69 55	83 59	75 60	66 56
†Adjusted	Mean	51	44	39	36	40	41	48	53	63	71	68	61
	Max.-Min.	64 36	53 36	48 32	45 32	49 33	51 36	57 36	63 39	75 53	83 55	79 56	71 51

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

69-Desolation Creek near Dale (14-410.)

Location.--Lat 44°59'20", long 118°55'10", in SW¼ sec.6, T.7 S., R.32 E., on right bank three-quarters of a mile upstream from mouth and 1½ miles east of Dale.

Drainage area.--108 sq mi.

Water-temperature records available.--Thermograph record December 1950 to September 1958.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	Mean	-	-	37	32	34	34	42	46	50	64	60	53
	Max.-Min.	- -	- -	40 34	35 32	36 32	42 32	51 33	57 38	64 39	76 51	73 47	62 42
1952	Mean	43	34	32	32	32	34	40	45	52	62	62	55
	Max.-Min.	54 33	38 32	38 32	33 32	34 32	39 32	49 33	52 39	60 43	73 48	74 50	66 45
1953	Mean	46	35	32	34	34	36	40	43	47	58	62	56
	Max.-Min.	54 38	45 32	33 32	37 32	37 32	44 32	48 33	50 36	53 41	68 46	71 50	65 45
1954	Mean	44	39	34	32	[a]35	[a]36	42	46	50	62	59	[a]52
	Max.-Min.	55 34	44 34	39 32	34 32	[a]37 32	44 [a]32	48 36	54 33	60 41	73 49	70 49	[a]62 39
1955	Mean	42	38	32	32	32	34	38	43	49	60	60	52
	Max.-Min.	51 33	42 33	33 32	33 32	35 32	40 32	48 33	52 35	58 41	72 43	72 48	65 39
1956	Mean	45	34	33	32	32	36	41	46	52	64	[a]61	[a]53
	Max.-Min.	52 37	44 32	36 32	36 32	34 32	41 32	49 33	54 39	65 43	75 49	[a]70 [a]50	[a]64 [a]44
1957	Mean	44	35	33	32	33	36	41	44	53	62	60	55
	Max.-Min.	53 35	43 32	37 32	33 32	35 32	42 33	51 35	55 39	65 44	72 53	68 51	64 47
1958	Mean	45	34	32	33	37	37	41	45	52	63	64	53
	Max.-Min.	59 35	39 32	35 32	37 32	41 34	43 34	49 36	51 38	65 43	76 48	73 53	64 42
1951-58	Mean	44	36	33	32	34	35	41	45	51	62	61	53
	Max.-Min.	59 33	45 32	40 32	37 32	41 32	44 32	51 33	57 33	65 39	76 43	74 47	66 39

a Computed on basis of available record and correlation with thermograph record for South Fork John Day River near Dayville.

70-North Fork John Day River near Dale (14-415.)

Location.--Lat 44°59'55", long 118°56'25", in SE¼SE¼ sec.35, T.6 S., R.31 E., on right bank a quarter of a mile downstream from Desolation Creek, three-quarters of a mile northeast of Dale, and at mile 60.1.

Drainage area.--525 sq mi.

Water-temperature records available.--94 spot observations October 1947 to September 1958.

Remarks.--Flow regulated by Olive Lake and Upper Reservoir on Lake Creek.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	36	33	32	34	38	40	47	51	67	62	56
	Max.-Min.	52 40	40 32	35 32	33 32	40 32	43 34	43 35	54 42	60 44	78 55	68 57	58 52
†Adjusted	Mean	46	37	33	32	35	36	42	47	52	64	65	54
	Max.-Min.	61 34	47 32	41 32	37 32	43 32	46 32	53 34	60 34	67 39	79 44	79 51	68 39

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

71-Camas Creek near Lehman (14-420.)

Location.--Lat 45°10', long 118°44', in SW¼ sec.33, T.4 S., R.33 E., on left bank 2 miles downstream from Bowman Creek, 3½ miles northwest of Lehman, and at mile 25.5.

Drainage area.--61 sq mi, approximately.

Water-temperature records available.--125 spot observations October 1950 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	44	37	34	33	34	37	41	49	62	73	65	54
	Max.-Min.	55 34	46 32	38 32	36 32	38 32	38 36	59 34	65 37	77 52	87 54	77 57	58 48
†Adjusted	Mean	46	37	34	32	35	36	43	50	63	72	69	60
	Max.-Min.	64 33	48 32	42 32	38 32	44 32	47 32	59 34	65 36	80 49	89 49	86 52	76 43

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

72-Camas Creek near Ukiah (14-425.)

Location.--Lat 45°09', long 118°49', in SE¼ sec.3, T.5 S., R.32 E., on right bank 1.2 miles upstream from Cable Creek, 6 miles east of Ukiah, and at mile 19.0.

Drainage area.--121 sq mi.

Water-temperature records available.--150 spot observations February 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	36	34	32	33	38	42	47	59	68	66	54
	Max.-Min.	49 35	45 32	39 32	33 32	36 32	39 32	52 35	54 39	74 50	76 49	70 58	64 41
†Adjusted	Mean	45	37	33	32	34	36	43	49	58	69	66	56
	Max.-Min.	63 32	48 32	42 32	38 32	43 32	47 32	56 33	64 34	76 43	87 45	82 48	72 39

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

73-Middle Fork John Day River at Ritter (14-440.)

Location.--Lat 44°53'20", long 119°08'25", in SW¼NW¼ sec.8, T.8 S., R.30 E., on left bank 0.2 mile south of Ritter, 0.8 mile downstream from Twelvemile Creek, and at mile 14.9.

Drainage area.--515 sq mi.

Water-temperature records available.--135 spot observations May 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	36	34	33	36	39	46	52	61	72	71	62
	Max.-Min.	59 41	47 32	40 32	36 32	42 32	43 34	53 41	65 41	70 50	83 55	78 62	73 52
†Adjusted	Mean	47	38	34	33	36	38	45	51	59	71	71	59
	Max.-Min.	64 35	51 32	43 32	41 32	46 32	48 33	56 35	65 35	74 44	86 49	86 54	74 43

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

74-Fox Creek at gorge, near Fox 1/ (14-445.)

Location.--Lat 44°37'30", long 119°15'10", in SW¼ sec.8, T.11 S., R.29 E., on left bank half a mile upstream from head of gorge, 26 river miles upstream from mouth, and 6 miles southwest of Fox.

Drainage area.--90.2 sq mi.

Water-temperature records available.--83 spot observations May 1947 to September 1958.

Remarks.--Generally little or no flow in August and September and sometimes in July.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	45	37	34	32	34	38	40	55	65	71	67	61
	Max.-Min.	52 37	44 33	37 32	32 32	37 32	48 32	51 32	65 41	75 53	85 59	74 56	70 52
†Adjusted	Mean	48	39	33	32	34	36	45	54	64	71	70	60
	Max.-Min.	65 36	49 33	39 32	36 32	41 32	48 32	56 32	67 41	80 45	87 49	86 54	76 44

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

75-North Fork John Day River at Monument (14-460.)

Location.--Lat 44°48'50", long 119°25'50", in SE¼ sec.2, T.9 S., R.27 E., on right bank just downstream from entrance to canyon, 0.7 mile downstream from Cottonwood Creek, 0.8 mile west of Monument, and at mile 15.3.

Drainage area.--2,520 sq mi, approximately.

Water-temperature records available.--122 spot observations October 1947 to September 1962.

Remarks.--Flow slightly regulated by small reservoirs upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	39	35	33	37	41	46	50	61	72	73	66
	Max.-Min.	62 42	44 33	39 32	36 32	42 33	47 36	49 41	59 43	68 51	80 63	77 68	74 55
†Adjusted	Mean	51	42	35	33	38	40	45	48	59	73	72	62
	Max.-Min.	71 37	54 33	45 32	42 32	47 33	52 35	58 35	64 34	77 43	89 48	90 54	79 45

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

76-John Day River at Service Creek (14-465.)

Location.--Lat 44°47'40", long 120°00"30", in N½ sec.18, T.9 S., R.23 E., on left bank 0.2 mile downstream from bridge on State Highway 207, 0.5 mile downstream from Service Creek, 0.8 mile southwest of town of Service Creek, and at mile 156.7.

Drainage area.--5,090 sq mi, approximately.

Water-temperature records available.--165 spot observations February 1948 to September 1962.

Remarks.--Flow very slightly regulated by several small reservoirs above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	41	35	34	38	41	48	54	66	74	71	65
	Max.-Min.	62 43	48 35	40 32	42 32	44 32	46 36	50 42	62 47	75 56	83 68	76 67	74 58
†Adjusted	Mean	54	44	36	34	39	40	48	55	64	75	72	63
	Max.-Min.	68 43	52 35	45 32	42 32	47 32	50 35	58 40	67 44	77 52	88 57	84 59	76 50

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

77-John Day River at McDonald Ferry (14-480.)

Location.--Lat 45°35'20", long 120°24'30", in NW¼ sec.11, T.1 N., R.19 E., on left bank at McDonald Ferry, 0.8 mile downstream from Rock Creek, 10 miles east of Klondike, and at mile 20.9.

Drainage area.--7,580 sq mi, approximately.

Water-temperature records available.--126 spot observations October 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	44	39	37	40	44	53	60	65	75	75	68
	Max.-Min.	64 48	55 37	43 32	47 32	44 36	48 35	58 48	68 47	78 48	78 72	93 62	78 59
†Adjusted	Mean	56	46	37	34	42	43	53	60	68	75	74	65
	Max.-Min.	73 43	58 37	47 32	48 32	53 34	53 35	64 44	73 47	83 48	91 54	93 58	79 50

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

1/The lower part of this stream is called Cottonwood Creek.

78-Columbia River at Maryhill Ferry, near Rufus

Location.--Lat 45°41'05", long 120°47'30", in sec.3, T.2 N., R.16 E., 3 miles downstream from Rufus, about 7 miles upstream from the Deschutes River, and at mile 210.3.

Drainage area.--237,000 sq mi, approximately (at gaging station at The Dalles).

Water-temperature records available.--Once-daily observations December 1950 to September 1958.

Remarks.--Some regulation by Franklin D. Roosevelt Lake and by reservoirs in Kootenai, Flathead, Pend Oreille, Spokane, Chelan, Yakima, and Snake River basins. Water temperatures may be affected by use of water as a coolant at Hanford.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	Mean	-	-	44	41	42	-	52	56	60	66	69	63
	Max.-Min.	- -	- -	49 40	51 32	46 33	- -	55 48	60 52	66 54	68 64	71 66	67 61
1952	Mean	59	49	43	-	41	45	50	54	53	66	69	65
	Max.-Min.	62 55	55 40	47 37	- -	46 31	50 40	54 47	58 47	65 41	73 60	75 64	69 60
1953	Mean	65	51	45	44	45	46	48	52	56	63	68	73
	Max.-Min.	69 60	60 45	51 40	48 40	48 42	50 43	52 45	56 47	60 54	66 60	73 63	77 66
1954	Mean	62	52	56	41	43	46	52	57	58	61	62	63
	Max.-Min.	72 54	56 49	63 46	48 32	47 40	48 45	56 47	59 55	60 55	64 60	65 60	66 58
1955	Mean	55	49	41	40	40	40	46	54	59	64	67	68
	Max.-Min.	57 52	53 42	46 38	42 38	43 37	42 35	50 42	56 50	62 55	67 58	69 65	70 65
1956	Mean	59	44	37	39	35	45	52	58	61	68	70	63
	Max.-Min.	66 56	55 39	41 34	42 33	42 32	49 43	55 48	62 53	66 58	71 65	72 62	65 59
1957	Mean	58	51	42	36	39	47	54	54	62	67	70	65
	Max.-Min.	61 53	55 46	47 38	40 33	45 33	53 39	58 52	57 50	65 56	70 64	72 67	70 58
1958	Mean	61	49	43	40	46	50	55	60	66	71	75	68
	Max.-Min.	70 52	52 45	50 36	44 34	50 43	52 47	58 52	65 57	73 62	78 65	81 71	73 64
1951-58	Mean	60	49	44	40	41	46	51	56	59	66	69	66
	Max.-Min.	72 52	60 39	63 34	51 32	50 31	53 35	58 42	65 47	73 41	78 58	81 60	77 58

DESCHUTES RIVER BASIN

79-Fall River near Lapine

Location.--Lat 43°47'50", long 121°34'20", in NW¼SE¼ sec.31, T.20 S., R.10 E., at fish hatchery, about 50 feet upstream from U.S. Geological Survey gaging station, and 9 miles northwest of Lapine.

Drainage area.--45.1 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

Water-temperature records available.--Three observations daily (6 a.m., 12 m., and 6 p.m.) May 1945 to December 1946; once-daily thereafter (1 p.m.). Records incomplete or missing October 1947 to December 1948.

Remarks.--Records furnished by Oregon State Game Commission. Diversion point is a quarter of a mile upstream from hatchery.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1945	Mean	-	-	-	-	-	-	-	43	46	48	46	41
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	54 36	60 38	60 42	58 39	52 36
1946	Mean	40	39	38	38	40	45	45	48	48	50	48	45
	Max.-Min.	49 36	44 36	43 34	42 34	46 35	48 37	54 38	56 40	55 40	60 40	58 40	50 39
1947	Mean	41	41	41	41	43	45	48	49	48	50	49	48
	Max.-Min.	44 38	43 38	42 40	42 38	44 42	48 40	52 42	51 43	56 42	52 45	51 46	52 46
1948	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	39	41	43	47	49	51	50	49	47
	Max.-Min.	- -	- -	- -	41 34	43 39	46 41	51 44	56 44	57 49	52 45	51 47	50 44
1950	Mean	43	42	41	40	42	43	45	47	47	48	46	44
	Max.-Min.	47 41	43 41	42 38	42 36	43 38	45 42	48 43	50 42	52 42	50 47	48 44	46 42
1951	Mean	43	42	42	40	41	43	46	47	49	48	46	44
	Max.-Min.	45 40	46 40	43 39	43 36	43 40	45 41	47 44	51 42	52 46	50 46	48 44	45 42
1952	Mean	43	42	41	41	42	44	46	47	48	49	47	46
	Max.-Min.	44 42	44 40	43 38	43 39	44 40	47 41	50 44	52 43	51 44	50 48	49 44	49 44
1953	Mean	45	42	42	43	42	43	45	46	48	50	48	47
	Max.-Min.	47 43	44 40	44 41	44 42	44 40	46 36	48 43	49 43	50 45	53 49	52 45	49 45
1954	Mean	44	43	42	42	43	44	46	48	48	50	48	46
	Max.-Min.	45 43	44 42	43 40	44 40	44 42	47 42	47 40	50 46	51 44	53 48	50 46	48 44
1955	Mean	44	43	42	41	42	43	45	49	50	49	50	48
	Max.-Min.	46 42	44 41	44 39	43 39	44 40	45 41	48 42	55 46	52 46	51 46	51 48	52 45
1956	Mean	44	43	43	42	42	44	46	47	48	49	47	46
	Max.-Min.	45 44	45 40	44 39	44 39	43 39	46 40	48 42	51 42	50 45	50 47	50 45	48 44
1957	Mean	43	42	42	41	43	44	46	47	48	47	46	45
	Max.-Min.	44 41	44 41	44 40	43 38	45 41	46 41	48 44	48 45	49 46	48 46	50 45	46 42
1958	Mean	44	42	42	42	43	43	44	46	47	47	47	45
	Max.-Min.	45 43	44 41	43 40	44 40	44 38	45 42	46 43	48 44	50 45	48 46	48 46	46 43
1959	Mean	44	43	43	42	42	44	44	45	47	47	46	45
	Max.-Min.	45 42	45 41	45 41	44 39	43 40	45 43	47 42	48 43	49 46	48 46	47 45	46 43
1960	Mean	43	42	42	41	42	44	46	48	50	51	48	45
	Max.-Min.	45 42	44 42	43 40	43 39	43 40	46 41	48 44	51 42	52 48	52 48	50 45	48 43
1961	Mean	43	42	42	42	43	44	44	46	50	50	47	44
	Max.-Min.	45 42	44 41	43 40	44 40	44 41	46 42	47 41	50 44	52 46	51 46	50 45	45 43
1962	Mean	44	42	42	41	43	44	48	50	53	53	51	46
	Max.-Min.	46 41	44 40	44 39	44 37	44 40	45 41	52 43	54 44	54 48	54 51	53 46	51 43
1945-62	Mean	43	42	42	41	42	44	46	47	49	49	48	45
	Max.-Min.	49 36	46 36	45 34	44 34	46 35	48 36	54 38	56 36	60 38	60 40	58 39	52 36

80-Deschutes River near Culver (14-765.)

Location.--Lat 44°29'40", long 121°19'30", in NE¼NW¼ sec.32, T.12 S., R.12 E., on right bank 2.5 miles downstream from Squaw Creek, 6.0 miles southwest of Culver, and at mile 120.6. Prior to Oct. 1, 1961, at site 3.9 miles downstream.

Drainage area.--2,705 sq mi.

Water-temperature records available.--Thermograph record September 1952 to September 1957, January 1959 to August 1961, July to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1952	Mean	-	-	-	-	-	-	-	-	-	-	-	56
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	59 53
1953	Mean	53	42	42	44	42	46	51	54	57	60	58	58
	Max.-Min.	55 48	49 39	45 39	45 40	46 39	49 41	56 46	58 51	60 53	63 55	61 55	61 54
1954	Mean	52	47	42	40	44	45	52	57	57	59	58	55
	Max.-Min.	55 48	51 44	46 39	43 38	48 41	49 41	57 46	62 50	61 53	63 55	60 55	59 51
1955	Mean	50	46	40	40	40	44	50	53	56	56	55	54
	Max.-Min.	52 48	49 42	43 39	42 38	42 39	49 38	52 47	57 50	60 52	60 52	59 53	56 51
1956	Mean	50	44	40	40	42	46	52	56	59	60	59	56
	Max.-Min.	52 48	48 39	43 38	41 38	44 39	50 42	57 47	62 52	62 55	64 57	62 56	60 53
1957	Mean	51	44	42	41	42	44	48	56	58	58	58	56
	Max.-Min.	55 45	46 42	44 41	42 40	44 40	45 43	55 45	59 53	60 57	60 56	60 58	59 53
1958	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1959	Mean	-	-	-	-	42	46	52	54	56	56	56	54
	Max.-Min.	- -	- -	- -	- -	46 41	49 43	57 48	58 51	61 53	60 54	60 54	58 51
1960	Mean	52	46	44	42	-	-	-	54	57	57	56	54
	Max.-Min.	55 49	50 43	49 40	47 39	- -	- -	- -	59 51	62 53	60 54	60 52	57 50
1961	Mean	50	45	42	44	46	46	51	54	56	56	-	-
	Max.-Min.	53 47	49 41	44 40	46 39	47 43	51 43	54 47	58 51	60 52	59 52	- -	- -
1962	Mean	-	-	-	-	-	-	-	-	-	-	56	54
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	58 53	55 52
1952-62	Mean	51	45	42	42	43	45	51	55	57	58	57	55
	Max.-Min.	55 45	51 39	49 38	47 38	48 39	51 38	57 45	62 50	62 52	64 52	62 52	61 50

81-South Fork Beaver Creek near Paulina (14-770.)

Location.--Lat 44°08'00", long 119°44'40", in NE¼ sec.5, T.17 S., R.25 E., on right bank 1½ miles downstream from Camp Creek, 2 3/4 miles upstream from confluence with North Fork, and 11 miles east of Paulina.

Drainage area.--95 sq mi, approximately.

Water-temperature records available.--51 spot observations May 1947 to November 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	46	39	34	34	35	39	46	55	54	68	64	60
	Max.-Min.	53 39	40 38	35 33	38 32	41 32	43 35	52 39	62 50	59 49	71 66	66 61	68 52
†Adjusted	Mean	48	37	34	33	34	36	48	54	62	71	70	64
	Max.-Min.	71 34	50 33	42 32	39 32	44 32	48 33	62 36	67 36	73 44	79 58	78 59	73 47

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

82-North Fork Beaver Creek near Paulina (14-775.)

Location.--44°10'00", long 119°44'00", in SW¼ sec.21, T.16 S., R.25 E., on left bank 2 miles upstream from confluence with South Fork and 12 miles east of Paulina.

Drainage area.--64.4 sq mi.

Water-temperature records available.--67 spot observations March 1947 to October 1954.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	40	34	33	35	40	48	56	60	75	70	65
	Max.-Min.	56 43	42 39	34 33	36 32	42 32	47 32	54 38	63 48	68 51	76 72	79 62	72 58
†Adjusted	Mean	49	41	34	33	35	39	49	55	62	74	70	63
	Max.-Min.	59 41	47 38	39 32	37 32	42 32	50 32	62 36	67 38	73 47	84 60	79 58	73 47

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

83-Beaver Creek near Paulina (14-780.)

Location.--Lat 44°09'50", long 119°55'20", in NE¼ sec.26, T.16 S., R.23 E., on right bank three-quarters of a mile downstream from Paulina Creek, 1 3/4 miles downstream from Wolf Creek, 3 miles northeast of Paulina, and at mile 10.0.

Drainage area.--450 sq mi, approximately.

Water-temperature records available.--139 spot observations March 1947 to September 1962.

Remarks.--Flow generally about 1 cfs or less July to September.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	41	39	37	36	39	49	58	65	69	68	64
	Max.-Min.	62 42	52 34	44 33	43 32	40 33	43 35	57 42	68 49	78 53	80 56	78 52	69 52
†Adjusted	Mean	52	42	38	36	37	38	50	58	64	69	68	63
	Max.-Min.	69 38	54 34	47 33	43 32	46 33	50 34	62 40	72 45	79 51	85 50	83 52	77 46

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

84-North Fork Crooked River above Deep Creek (14-785.)

Location.--Lat 44°20', long 120°05', in NE¼ sec.28, T.14 S., R.22 E., on left bank three-quarters of a mile upstream from Deep Creek, 15 miles northwest of Paulina, and 38 miles east of Prineville.

Drainage area.--159 sq mi.

Water-temperature records available.--56 spot observations May 1947 to October 1954.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	41	33	32	32	32	38	44	52	57	69	61	53
	Max.-Min.	49 33	34 32	33 32	33 32	33 32	42 32	46 43	63 43	66 51	78 62	77 46	59 49
†Adjusted	Mean	45	35	32	32	33	36	43	49	58	70	66	56
	Max.-Min.	64 32	46 32	40 32	38 32	41 32	47 32	56 33	65 34	76 43	88 46	83 46	73 39

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

85-North Fork Crooked River below Deep Creek (14-790.)

Location.--Lat 44°19', long 120°05', in SW¼ sec.27, T.14 S., R.22 E., on left bank a quarter of a mile downstream from Deep Creek, 14 miles northwest of Paulina, and 38 miles east of Prineville.

Drainage area.--264 sq mi.

Water-temperature records available.--48 spot observations May 1947 to October 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	40	34	32	33	32	38	45	55	55	71	61	50
	Max.-Min.	51 33	36 32	33 32	35 32	33 32	42 32	50 37	63 48	59 51	79 62	76 44	53 45
†Adjusted	Mean	45	36	33	32	34	35	42	49	58	68	65	54
	Max.-Min.	63 33	47 32	41 32	37 32	42 32	45 32	54 33	63 35	74 44	84 46	81 44	70 38

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

86-Crooked River near Post (14-795.)

Location.--Lat 44°07'00", long 120°15'50", in NW¼NW¼ sec.7, T.17 S., R.21 E., on right bank 1 mile downstream from North Fork, 11½ miles southeast of Post, and at mile 113.0.

Drainage area.--2,160 sq mi, approximately, of which 500 sq mi is probably non-contributing.

Water-temperature records available.--104 spot observations March 1947 to September 1959 and almost daily observations from October 1959 to September 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	39	35	33	35	39	47	55	63	70	69	62
	Max.-Min.	60 37	47 34	42 32	38 32	42 32	49 32	56 39	72 38	76 54	80 55	77 55	70 55
†Adjusted	Mean	48	38	35	33	36	39	46	55	62	70	69	61
	Max.-Min.	66 35	49 33	43 32	39 32	44 32	50 32	59 37	72 38	79 47	87 47	85 52	77 44

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

87-Crooked River above Prineville Reservoir, near Post (14-798.)

Location.--Lat 44°10'40", long 120°35'00", in SW¼ sec.16, T.16 S., R.18 E., on right bank 2.8 miles downstream from Wickiup Creek, 5 miles west of Post, 13 miles southeast of Prineville, and at mile 91.0.

Drainage area.--2,400 sq mi, approximately, of which 500 sq mi is probably noncontributing.

Records available.--17 spot observations November 1960 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	37	32	-	34	41	47	59	61	78	-	57
	Max.-Min.	58 58	41 34	33 32	- -	37 32	42 40	47 47	66 52	61 61	80 77	- -	57 57
†Adjusted	Mean	50	39	33	32	33	40	47	54	62	70	72	60
	Max.-Min.	62 40	47 32	40 32	38 32	40 32	46 32	56 42	69 45	79 48	83 50	82 62	72 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

88-Crooked River above Hoffman Dam, near Prineville (14-805.)

Location.--Lat 44°08'40", long 120°49'40", in NE¼ sec.32, T.16 S., R.16 E., on right bank 0.9 mile upstream from Hoffman diversion dam, 11 miles south of Prineville, and at mile 66.2.

Drainage area.--2,760 sq mi, approximately, of which 500 sq mi is probably noncontributing.

Water-temperature records available.--114 spot observations March 1947 to September 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	38	35	33	38	41	49	54	62	71	66	63
	Max.-Min.	58 44	44 32	47 32	41 32	41 32	44 33	53 41	61 44	81 52	79 56	82 53	74 54
†Adjusted	Mean	51	38	34	33	37	40	47	52	64	68	66	61
	Max.-Min.	68 38	48 32	47 32	41 32	45 32	51 33	59 38	66 38	81 50	84 46	82 50	76 45

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

89-Crooked River near Culver (14-875.)

Location.--Lat 44°33'40", long 121°16'10", in sec.3 (50 ft west of ¼-corner on line between secs.2 and 3), T.12 S., R.12 E., on right bank 1 mile upstream from mouth, 1.2 miles downstream from Cove powerplant, and 4 miles northwest of Culver.

Drainage area.--4,330 sq mi, approximately, of which 500 sq mi is probably noncontributing.

Water-temperature records available.--Thermograph record July 1952 to September 1962.

Remarks.--Occasional diurnal fluctuation caused by powerplant 1.2 miles above station. Water temperatures not noticeably affected by Prineville Reservoir where storage began in October 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1952	Mean	-	-	-	-	-	-	-	-	-	-	58	56
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	59 56	57 56
1953	Mean	55	52	52	-	48	50	52	56	60	60	58	56
	Max.-Min.	56 54	54 51	52 51	52 45	51 44	52 49	55 48	60 50	62 58	63 58	59 56	58 56
1954	Mean	55	53	50	50	48	48	53	58	58	58	57	56
	Max.-Min.	56 53	54 52	52 46	51 49	50 46	52 44	56 50	60 52	60 56	60 56	58 56	57 55
1955	Mean	54	54	52	51	52	52	52	56	56	58	58	55
	Max.-Min.	55 53	54 52	52 51	52 51	52 51	53 51	54 51	60 54	59 55	59 55	59 56	56 53
1956	Mean	53	51	48	46	48	47	51	56	58	58	58	58
	Max.-Min.	53 52	52 50	51 40	49 41	49 41	49 42	55 45	62 52	60 56	60 57	59 56	58 56
1957	Mean	56	-	-	51	50	-	52	58	59	58	58	56
	Max.-Min.	57 54	- -	- -	51 51	53 43	- -	58 49	61 56	61 57	60 57	59 56	57 55
1958	Mean	54	52	52	50	46	48	50	58	60	60	58	56
	Max.-Min.	56 53	53 52	53 49	52 43	49 42	51 43	55 49	62 55	61 59	61 58	60 57	58 55
1959	Mean	55	54	54	52	50	51	53	54	58	58	56	56
	Max.-Min.	56 53	55 53	55 54	54 47	51 49	52 50	55 51	56 53	60 55	59 56	58 56	57 54
1960	Mean	54	53	53	52	52	52	54	56	58	58	58	56
	Max.-Min.	55 53	53 53	53 52	53 52	53 52	54 50	56 50	59 55	59 56	60 56	59 56	57 55
1961	Mean	55	53	52	-	-	54	55	56	58	58	58	56
	Max.-Min.	56 54	54 52	52 51	- -	- -	56 53	57 54	58 56	59 57	59 57	59 56	58 55
1962	Mean	54	52	52	50	49	50	53	56	57	58	58	55
	Max.-Min.	55 52	53 52	52 51	52 48	50 47	53 48	55 51	57 54	59 55	60 57	59 56	57 53
1952-62	Mean	54	53	52	50	49	50	52	56	58	58	58	56
	Max.-Min.	57 52	55 50	55 40	54 41	53 41	56 42	58 45	62 50	62 55	63 55	60 56	58 53

90-Metolius River near Camp Sherman

Location.--Lat 44°31'25", long 121°37'55", in NW¼NW¼ sec.23, T.12 S., R.9 E., at fish hatchery 0.3 mile downstream from Wizard Falls and 4.4 miles north of Camp Sherman.

Water-temperature records available.--Once-daily observations January 1949 to September 1962.

Remarks.--Records furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1949	Mean	-	-	-	48	50	50	52	52	52	52	52	52
	Max.-Min.	- -	- -	- -	49 47	52 49	52 50	52 50	54 50	54 51	53 50	53 51	52 51
1950	Mean	50	50	50	50	50	50	50	50	51	52	52	51
	Max.-Min.	52 50	50 50	50 50	50 49	50 49	50 50	52 50	51 50	52 50	52 52	52 52	52 50
1951	Mean	50	49	49	49	49	50	50	50	51	52	52	51
	Max.-Min.	50 50	50 49	49 49	49 49	49 49	51 49	50 50	50 50	51 51	52 52	52 52	51 50
1952	Mean	50	50	49	49	49	49	51	51	51	52	52	51
	Max.-Min.	50 50	50 50	50 49	50 49	49 49	51 49	51 50	51 51	51 51	52 51	52 51	52 51
1953	Mean	51	50	50	50	50	50	50	51	51	51	51	51
	Max.-Min.	52 50	50 50	50 50	50 50	50 50	50 50	50 50	51 50	51 51	51 51	51 51	51 51
1954	Mean	51	50	50	50	50	50	50	51	51	52	51	51
	Max.-Min.	51 50	50 50	50 50	50 50	50 50	50 50	50 50	52 50	52 50	52 52	51 51	51 51
1955	Mean	51	50	50	50	50	50	50	50	51	52	51	51
	Max.-Min.	51 50	50 50	50 50	50 50	50 50	50 50	50 50	51 50	51 51	52 52	51 51	52 50
1956	Mean	51	50	50	50	50	50	50	51	51	52	52	51
	Max.-Min.	51 50	50 50	50 50	50 50	50 49	50 50	50 50	51 50	51 51	52 52	52 52	51 51
1957	Mean	51	50	50	50	50	50	51	52	52	52	52	52
	Max.-Min.	51 50	50 50	50 50	50 48	50 50	50 50	52 50	52 51	52 52	52 52	52 52	52 51
1958	Mean	51	50	50	50	50	50	51	52	52	52	52	51
	Max.-Min.	52 50	50 50	50 50	50 50	51 50	50 50	52 50	52 52	52 52	52 52	52 52	52 51
1959	Mean	50	50	50	50	50	50	51	51	51	52	52	51
	Max.-Min.	51 50	50 50	50 50	50 50	50 50	50 50	52 51	51 51	52 51	52 51	52 51	52 50
1960	Mean	51	50	49	49	50	50	50	50	52	52	52	52
	Max.-Min.	52 51	51 49	49 49	50 49	50 49	51 49	51 50	51 50	52 51	52 52	52 51	52 51
1961	Mean	51	-	49	49	49	50	50	51	52	52	52	51
	Max.-Min.	52 50	- -	49 49	49 49	49 49	50 49	51 50	51 51	53 51	52 52	52 52	51 50
1962	Mean	51	51	50	50	50	50	51	51	52	52	52	52
	Max.-Min.	51 51	51 50	50 50	50 49	50 50	50 50	51 50	51 51	52 51	52 52	52 52	52 52
1949-62	Mean	51	50	50	50	50	50	50	51	51	52	52	51
	Max.-Min.	52 50	51 49	50 49	50 47	52 49	52 49	52 50	54 50	54 50	53 50	53 51	52 50

91-Metolius River near Grandview (14-915.)

Location.--Lat 44°36'40", long 121°27'10", in NE¼NE¼ sec.19, T.11 S., R.11 E., on right bank 0.7 mile upstream from Street Creek, 7.5 miles northwest of Grandview, and 13 miles northwest of Culver.

Drainage area.--324 sq mi, hydrologic drainage boundary uncertain owing to ground-water exchange.

Water-temperature records available.--Thermograph record July 1952 to September 1962.

Remarks.--Stream is spring fed.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1952	Mean	-	-	-	-	-	-	-	-	-	-	48	46
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	51 45	50 44
1953	Mean	45	42	42	42	42	44	44	46	48	48	48	48
	Max.-Min.	47 43	44 40	43 39	43 39	44 40	46 41	49 42	50 43	51 44	52 46	51 46	50 45
1954	Mean	45	44	42	42	42	43	44	47	48	49	48	46
	Max.-Min.	47 43	46 42	44 41	43 40	44 41	45 41	48 42	52 42	52 45	53 45	52 45	50 44
1955	Mean	44	42	40	40	41	42	43	45	46	-	-	48
	Max.-Min.	47 41	44 40	42 39	43 39	43 39	45 39	47 41	50 42	51 43	- -	- -	51 45
1956	Mean	46	44	40	40	40	42	44	45	47	49	48	48
	Max.-Min.	48 44	47 42	43 39	41 38	42 38	45 39	47 41	50 42	51 44	53 45	52 46	51 45
1957	Mean	46	44	42	41	42	42	44	49	51	51	49	48
	Max.-Min.	48 44	47 42	44 40	42 40	43 39	45 41	49 42	54 45	55 47	56 47	52 46	52 45
1958	Mean	46	42	42	41	42	42	46	50	50	51	51	48
	Max.-Min.	49 43	44 40	42 39	43 39	44 41	45 41	50 43	53 46	55 47	55 48	55 48	51 45
1959	Mean	45	42	44	42	42	43	46	48	48	49	48	46
	Max.-Min.	48 42	45 40	45 42	44 39	44 40	45 41	51 42	52 44	53 45	54 45	53 45	50 43
1960	Mean	44	43	42	40	-	42	45	48	50	50	48	46
	Max.-Min.	47 42	45 41	45 40	42 38	- -	46 38	49 42	53 44	54 47	54 47	52 45	50 43
1961	Mean	45	42	40	42	42	43	44	46	48	-	-	-
	Max.-Min.	47 42	45 41	43 38	43 39	44 40	45 40	48 41	50 42	52 45	- -	- -	- -
1962	Mean	46	42	42	42	42	42	-	46	48	48	48	46
	Max.-Min.	48 43	44 38	44 38	44 38	44 39	46 39	- -	51 43	52 44	51 43	52 45	50 43
1952-62	Mean	45	43	42	41	42	43	44	47	48	49	48	47
	Max.-Min.	49 41	47 38	45 38	44 38	44 38	46 38	51 41	54 42	55 43	56 43	55 45	52 43

92-Deschutes River near Madras (14-925.)

Location.--Lat 44°42'30", long 121°14'10", in NE¼ sec.13, T.10 S., R.12 E., on right bank 1 mile downstream from Pelton dam, 5 miles upstream from Shitike Creek, 7½ miles northwest of Madras, and at mile 101.6.

Drainage area.--7,820 sq mi, approximately.

Water-temperature records available.--Thermograph record March 1952 to November 1957.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1952	Mean	-	-	-	-	-	-	50	53	54	56	54	53
	Max.-Min.	- -	- -	- -	- -	- -	- -	54 46	56 49	58 51	59 53	57 50	55 50
1953	Mean	50	46	46	45	44	48	52	54	55	56	56	55
	Max.-Min.	53 49	50 44	47 43	47 43	49 43	50 46	56 48	57 50	59 53	59 54	58 54	58 52
1954	Mean	52	50	46	46	46	46	52	54	54	56	56	54
	Max.-Min.	53 50	52 48	49 44	47 44	48 46	50 44	55 47	57 49	58 52	59 53	58 53	56 51
1955	Mean	52	50	47	46	47	48	50	54	56	56	56	54
	Max.-Min.	53 49	51 47	49 46	48 45	49 46	51 45	53 48	57 51	58 52	58 53	58 54	58 52
1956	Mean	52	48	46	46	46	46	50	54	56	56	57	55
	Max.-Min.	53 50	52 45	50 44	47 43	48 43	49 44	54 46	59 52	58 53	59 53	59 54	57 53
1957	Mean	52	49	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	55 49	50 48	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1952-57	Mean	52	49	46	46	46	47	51	54	55	56	56	54
	Max.-Min.	55 49	52 44	50 43	48 43	49 43	51 44	56 46	59 49	59 51	59 53	59 50	58 50

93-Warm Springs River at Hehe Mill, near Warm Springs (14-955.)

Location.--Lat 44°58'00", long 121°28'20", in N½ sec.18, T.7 S., R.11 E., on left bank at downstream side of highway bridge, a quarter of a mile east of abandoned Hehe Mill, 10 miles south of Bear Springs ranger station, and 18 miles northwest of Warm Springs.

Drainage area.--108 sq mi.

Water-temperature records available.--Thermograph record June 1950 to September 1954.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	48	53	50	47
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	57 44	59 47	58 45	55 41
1951	Mean	44	40	40	36	36	38	43	46	50	52	50	47
	Max.-Min.	47 40	44 38	42 39	39 33	37 33	43 33	47 39	53 41	57 44	59 46	57 43	52 43
1952	Mean	44	40	36	36	37	40	43	46	50	52	51	49
	Max.-Min.	48 39	43 38	41 32	40 32	41 34	43 36	49 38	53 41	57 44	59 45	57 44	54 45
1953	Mean	45	38	38	38	40	43	45	46	50	54	52	49
	Max.-Min.	49 39	43 34	40 34	41 34	45 37	46 40	53 40	52 42	56 44	59 47	58 46	54 44
1954	Mean	45	42	39	38	40	40	44	48	50	52	50	48
	Max.-Min.	49 41	46 39	42 37	41 32	42 38	44 37	48 40	54 39	57 44	59 45	57 46	54 41
1950-54	Mean	44	40	38	37	38	40	44	46	50	53	51	48
	Max.-Min.	49 39	46 34	42 32	41 32	45 33	46 33	53 38	54 39	57 44	59 45	58 43	55 41

94-Clear Creek near Government Camp (14-975.)

Location.--Lat 45°10'00", long 121°41'05", in SW¼NW¼ sec.4, T.5 S., R.9 E., on right bank at downstream side of bridge on Skyline Road 1.0 mile downstream from Clear Lake outlet and 10 miles southeast of Government Camp.

Drainage area.--9.94 sq mi.

Water-temperature records available.--52 spot observations December 1946 to October 1953.

Remarks.--Some natural regulation of flow by Clear Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	44	41	37	35	34	35	40	48	51	54	47	42
	Max.-Min.	46 41	49 36	42 33	41 32	35 33	36 35	44 37	50 45	57 46	56 52	51 43	44 41
†Adjusted	Mean	44	39	38	37	37	38	42	48	52	53	50	47
	Max.-Min.	53 37	50 32	46 32	45 32	43 32	42 32	48 37	58 42	61 43	63 43	56 43	55 40

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

95-Oak Springs near Maupin

Location.--Lat 45°13'20", long 121°05'00", in sec.17, T.4 S., R.14 E., at fish hatchery 3 miles north of Maupin and 5 miles southeast of Tygh Valley.

Water-temperature records available.--Thrice-daily observations (6 a.m., 12 m., and 6 p.m.) January 1943 to January 1945.

Remarks.--Records furnished by Oregon State Game Commission. Although the hatchery is on the banks of the Deschutes River, water for the hatchery is obtained from hillside springs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	54	54	54	54	54	54	54	54	54
	Max.-Min.	- -	- -	- -	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54
1944	Mean	54	54	54	54	54	54	54	54	54	54	54	54
	Max.-Min.	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54
1945	Mean	54	54	-	54	-	-	-	-	-	-	-	-
	Max.-Min.	54 54	54 54	- -	54 54	- -	- -	- -	- -	- -	- -	- -	- -
1943-45	Mean	54	54	54	54	54	54	54	54	54	54	54	54
	Max.-Min.	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54	54 54

96-White River below Tygh Valley (14-1015.)

Location.--Lat 45°14'30", long 121°05'40", in NE¼NE¼ sec.7, T.4 S., R.14 E., on left bank 200 ft downstream from Pacific Power & Light Co. powerplant at White River Falls, 2 miles upstream from mouth, and 4 miles east of town of Tygh Valley.

Drainage area.--368 sq mi.

Water-temperature records available.--119 spot observations from December 1946 to September 1962.

Remarks.--Diurnal fluctuation in flow caused by powerplant 200 ft upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	42	38	37	39	42	44	49	56	64	60	59
	Max.-Min.	53 46	45 37	43 35	42 32	41 36	48 36	49 36	64 42	67 45	69 57	69 52	67 53
†Adjusted	Mean	50	44	39	38	40	43	46	51	59	61	61	57
	Max.-Min.	61 41	51 37	45 35	43 32	46 36	50 36	53 36	64 42	69 45	72 48	70 51	67 47

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

97-Deschutes River at Moody, near Biggs (14-1030.)

Location.--Lat 45°37'20", long 120°54'05", in SE¼ sec.26, T.2 N., R.15 E., on right bank at Moody, at mile 1.4 (revised), and 4 miles southwest of Biggs.

Drainage area.--10,500 sq mi, approximately.

Water-temperature records available.--Thermograph record November 1954 to September 1958, July to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1955	Mean	-	48	44	44	44	47	52	56	59	62	64	60
	Max.-Min.	- -	51 44	46 41	46 41	48 43	52 42	57 49	62 51	64 53	70 55	69 61	67 54
1956	Mean	53	45	a43	a43	40	46	52	56	60	64	62	58
	Max.-Min.	56 50	53 36	a50 a33	a45 a34	44 35	50 42	56 47	61 52	66 55	70 58	66 56	61 54
1957	Mean	52	46	44	39	44	48	54	59	64	64	62	60
	Max.-Min.	56 47	51 42	46 39	43 34	46 39	52 46	63 50	68 55	69 58	68 60	65 58	65 56
1958	Mean	54	46	44	44	48	48	53	61	64	67	66	60
	Max.-Min.	59 51	52 44	47 42	45 41	49 44	53 44	57 49	66 55	71 59	71 60	69 62	65 55
	Mean												
	Max.-Min.												
1962	Mean	-	-	-	-	-	-	-	-	-	64	64	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	70 59	68 59	64 55
1955-62	Mean	53	46	44	42	44	47	53	58	62	64	64	60
	Max.-Min.	59 47	53 36	50 33	46 34	49 35	53 42	63 47	66 51	71 53	71 55	69 56	67 54

a Computed on basis of available record and correlation with thermograph record for Deschutes River near Madras.

98-Deschutes River at Miller

Location.--Lat 45°38'05", long 120°54'30", in NE¼NW¼ sec.26, T.2 N., R.15 E., on right bank in irrigation ditch about 300 ft from Deschutes River and about 1 mile southwest of Miller.

Water-temperature records available.--Thermograph record for 2 or more months per year during May to October in water years 1949-56.

Remarks.--Records furnished by Bureau of Commercial Fisheries.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1949	Mean	-	-	-	-	-	-	-	-	60	63	63	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	66 54	69 58	69 58	67 55
1950	Mean	-	-	-	-	-	-	-	-	-	-	64	59
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	68 58	66 51
1951	Mean	-	-	-	-	-	-	-	-	63	65	63	59
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	68 59	71 58	68 55	64 54
1952	Mean	-	-	-	-	-	-	-	-	-	-	64	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	70 58	64 55
1953	Mean	-	-	-	-	-	-	-	-	-	65	64	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	69 60	68 57	65 54
1954	Mean	-	-	-	-	-	-	-	-	61	63	62	59
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	65 55	69 57	67 56	64 52
1955	Mean	-	-	-	-	-	-	-	-	-	63	64	59
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	71 56	69 58	66 53
1956	Mean	54	-	-	-	-	-	-	58	60	65	63	59
	Max.-Min.	58 50	- -	- -	- -	- -	- -	- -	63 52	68 55	71 60	68 57	64 55
1949-56	Mean	54	-	-	-	-	-	-	58	61	64	63	59
	Max.-Min.	58 50	- -	- -	- -	- -	- -	- -	63 52	68 54	71 56	70 55	67 51

99-Deschutes River near Miller

Location.--Lat 45°38'00", long 120°54'50", in NW¼NW¼ sec.26, T.2 N., R.15 E., on left bank in power diversion ditch alongside old highway, about 0.2 mile upstream from mouth, and 1.5 miles southwest of Miller.

Water-temperature records available.--Twice-daily observations at 8 a.m. and 5 p.m. July to September 1944, June to September 1945, August, September 1946, and June to September 1947.

Remarks.--Records furnished by Bureau of Commercial Fisheries.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1944	Mean	-	-	-	-	-	-	-	-	-	69	65	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	74 64	70 60	68 54
1945	Mean	-	-	-	-	-	-	-	-	63	67	65	59
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	72 56	74 61	70 59	65 51
1946	Mean	-	-	-	-	-	-	-	-	-	-	64	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	67 58	65 60
1947	Mean	-	-	-	-	-	-	-	-	62	65	64	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	69 57	70 60	70 58	66 54
1944-47	Mean	-	-	-	-	-	-	-	-	62	67	64	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	72 56	74 60	70 58	68 51

COLUMBIA RIVER MAIN STEM

100-Columbia River near The Dalles

Location.--Lat 45°37'10", long 121°07'15", in NW¼ sec.31, T.2 N., R.14 E., at The Dalles Dam east fish ladder 2.6 miles northeast of The Dalles, 3.2 miles upstream from U.S. Geological Survey stream-gaging station, and at mile 191.5.

Drainage area.--237,000 sq mi, approximately (at gaging station at The Dalles).

Water-temperature records available.--Once-daily observations October 1958 to September 1962.

Remarks.--Some regulation of flow by Franklin D. Roosevelt Lake and by reservoirs in Kootenai, Flathead, Pend Oreille, Spokane, Chelan, Yakima, and Snake River basins. Water temperatures may be affected by use of water as a coolant at Hanford.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	60	51	43	40	40	43	49	53	58	64	67	64
	Max.-Min.	64 55	55 44	45 42	44 37	42 39	46 40	53 45	55 51	60 55	68 60	69 65	66 61
1960	Mean	58	48	43	36	40	42	48	54	59	66	68	65
	Max.-Min.	60 55	54 44	45 41	40 33	41 36	49 37	51 46	57 51	63 56	69 62	71 64	67 64
1961	Mean	60	51	43	42	44	45	50	54	60	67	72	66
	Max.-Min.	65 56	55 47	47 41	44 40	45 41	48 42	52 49	57 53	64 55	70 62	73 70	71 62
1962	Mean	57	48	42	40	41	42	50	53	59	65	68	66
	Max.-Min.	62 53	53 45	45 40	43 33	42 37	47 39	52 47	55 50	63 54	70 62	70 66	68 64
1959-62	Mean	59	50	43	40	41	43	49	54	59	66	69	65
	Max.-Min.	65 53	55 44	47 40	44 33	45 36	49 37	53 45	57 50	64 54	70 60	73 64	71 61

101-Fifteenmile Creek near Wrentham (14-1045.)

Location.--Lat 45°30'30", long 121°02'35", in SW¼ sec.3, T.1 S., R.14 E., on left bank 0.1 mile downstream from Dry Creek, 3 miles southwest of Wrentham, and 9½ miles southeast of The Dalles.

Drainage area.--171 sq mi.

Water-temperature records available.--67 spot observations December 1946 to October 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	44	38	37	39	43	47	48	54	61	61	64
	Max.-Min.	60 48	47 41	42 33	45 32	43 36	48 38	52 42	50 45	58 47	65 59	66 58	69 59
†Adjusted	Mean	53	43	39	37	41	43	48	51	57	63	62	58
	Max.-Min.	61 45	51 37	47 33	45 32	48 36	50 38	54 40	58 40	64 47	69 52	68 54	69 51

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

102-Eightmile Creek near Boyd (14-1050.)

Location.--Lat 45°31'10", long 121°06'25", in NW¼NW¼ sec.6, T.1 S., R.14 E., on left bank at upstream side of highway bridge, 2½ miles northwest of Boyd and 7 miles southeast of The Dalles.

Drainage area.--56 sq mi, approximately.

Water-temperature records available.--73 spot observations December 1946 to October 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	43	37	37	37	41	45	48	54	61	61	60
	Max.-Min.	54 48	45 41	45 33	46 32	40 32	46 36	49 41	51 46	60 46	63 60	68 56	68 54
†Adjusted	Mean	52	43	39	37	40	41	47	50	53	59	58	54
	Max.-Min.	61 46	50 37	46 33	46 32	47 32	49 36	53 39	56 41	61 46	67 49	68 51	68 47

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

103-Fivemile Creek near The Dalles (14-1055.)

Location.--Lat 45°32'25", long 121°08'25", in NE¼SW¼ sec.25, T.1 N., R.13 E., on left bank 4½ miles southeast of The Dalles, and 5 miles upstream from mouth.

Drainage area.--32.4 sq mi.

Water-temperature records available.--56 spot observations October 1948 to October 1953.

Remarks.--Some regulation of low flows caused by small reservoirs above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	46	38	38	38	41	45	48	54	60	60	63
	Max.-Min.	55 44	49 44	42 33	44 32	41 37	46 38	49 41	51 45	59 47	64 58	68 53	68 53
†Adjusted	Mean	49	42	39	38	40	41	47	50	56	66	65	57
	Max.-Min.	63 39	50 38	46 33	44 32	47 37	49 38	56 39	61 39	68 45	78 48	77 52	69 45

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

HOOD RIVER BASIN

104-Green Point Creek below North Fork, near Dee (14-1180.)

Location.--Lat 45°35'20", long 121°39'30", in NE¼ sec.11, T.1 N., R.9 E., on left bank three-quarters of a mile upstream from mouth, 1¼ miles downstream from North Fork, and 1½ miles west of Dee.

Drainage area.--20.0 sq mi.

Water-temperature records available.--Thermograph record June 1950 to September 1954.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	46	53	54	52
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	51 43	58 49	57 52	56 47
1951	Mean	48	44	41	38	38	38	42	44	51	55	55	52
	Max.-Min.	50 46	49 40	42 38	41 35	39 35	41 36	44 40	48 41	56 45	58 51	58 51	55 50
1952	Mean	47	40	38	[a]36	38	40	[a]43	46	51	56	56	54
	Max.-Min.	51 41	42 38	40 36	38 34	39 36	42 39	47 40	50 42	54 46	59 50	60 53	57 51
1953	Mean	51	42	38	38	40	40	42	45	48	54	54	54
	Max.-Min.	55 48	48 38	39 36	40 36	41 39	41 38	45 39	48 42	52 46	58 49	58 52	56 51
1954	Mean	[a]49	[a]42	42	38	38	39	41	45	47	52	54	54
	Max.-Min.	51 [a]45	[a]48 42	44 39	40 32	40 34	41 37	43 39	49 39	52 43	56 47	57 51	56 49
1950-54	Mean	49	42	40	38	38	39	42	45	49	54	55	53
	Max.-Min.	55 41	49 38	44 36	41 32	41 34	42 36	47 39	50 39	56 43	59 47	60 51	57 47

a Computed on basis of available record and correlation with thermograph records for Bull Run River at Bull Run.

105-West Fork Hood River near Dee (14-1185.)

Location.--Lat 45°35'55", long 121°38'05", in SE¼ sec.1, T.1 N., R.9 E., on left bank 0.3 mile upstream from Dead Point Creek, 0.5 mil upstream from mouth, and 1 mile northwest of Dee.

Drainage area.--96 sq mi, approximately.

Water-temperature records available.--110 spot observations May 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	43	40	38	38	38	42	46	51	56	53	53
	Max.-Min.	52 44	48 38	44 38	41 33	41 33	41 34	46 41	57 41	60 44	63 52	58 49	64 49
†Adjusted	Mean	48	42	40	38	40	40	43	46	52	57	56	54
	Max.-Min.	55 41	48 36	46 35	45 32	46 32	45 32	51 38	58 40	62 43	64 44	62 49	64 47

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

106-Deadpoint Creek near Dee

Location.--Lat 45°36'10", long 121°38'20", in SE¼NW¼ sec.1, T.1 N., R.9 E., at fish hatchery 0.2 mile upstream from mouth, 1.2 miles northwest of Dee, and 9 miles southwest of Hood River.

Water-temperature records available.--Three observations daily (6 a.m., 12 m., and 6 a.m.) January to August 1943, October 1943 to February 1944, January to August 1946, and once-daily observations (12 m.) September 1946 to January 1948, January 1949 to September 1962.

Remarks.--Records furnished by Oregon State Game Commission. Diversion point is about 300 feet above the hatchery building.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	39	39	40	43	45	47	53	53	-
	Max.-Min.	- -	- -	- -	42 34	40 36	43 38	46 40	49 42	52 45	56 49	56 50	- -
1944	Mean	47	42	40	38	40	-	-	-	-	-	-	-
	Max.-Min.	53 40	46 39	46 36	40 34	42 38	- -	- -	- -	- -	- -	- -	- -
1945	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1946	Mean	-	-	-	40	40	42	44	47	49	52	53	52
	Max.-Min.	- -	- -	- -	44 38	43 38	45 40	48 41	49 42	53 44	55 49	56 50	54 48
1947	Mean	46	40	39	38	41	42	45	50	51	54	55	53
	Max.-Min.	50 40	45 34	45 34	42 32	44 39	44 39	47 42	52 47	54 50	55 52	56 53	54 50
1948	Mean	48	42	40	37	-	-	-	-	-	-	-	-
	Max.-Min.	54 45	46 38	42 38	40 32	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	37	39	44	47	48	50	52	54	52
	Max.-Min.	- -	- -	- -	38 36	40 38	46 42	48 46	48 48	50 48	54 50	54 54	54 50
1950	Mean	45	42	40	35	37	43	44	45	49	52	54	54
	Max.-Min.	50 42	44 40	44 39	40 32	42 34	44 42	44 44	46 44	50 48	54 50	55 54	55 51
1951	Mean	46	45	43	42	42	43	44	45	50	55	55	52
	Max.-Min.	50 44	48 42	45 42	42 38	42 38	44 42	44 44	46 44	54 48	56 54	56 50	52 52
1952	Mean	50	43	40	39	41	42	44	47	49	53	55	54
	Max.-Min.	52 45	45 42	43 38	39 38	43 41	44 41	45 44	50 46	50 48	54 50	56 54	54 54
1953	Mean	53	43	40	42	43	43	45	47	49	54	53	51
	Max.-Min.	56 50	50 36	41 37	44 38	44 42	44 40	45 44	48 45	50 48	55 50	54 52	53 48
1954	Mean	42	38	37	37	41	42	43	46	48	53	52	51
	Max.-Min.	46 38	42 35	40 35	40 33	43 37	44 40	45 40	49 42	51 45	58 50	54 51	53, 49
1955	Mean	45	43	38	39	39	39	42	46	51	53	56	53
	Max.-Min.	49 40	44 38	40 36	44 37	42 37	41 34	46 39	49 43	54 47	59 47	58 54	59 46
1956	Mean	46	39	39	40	38	42	45	45	46	52	53	50
	Max.-Min.	49 43	46 32	41 35	41 37	42 34	44 38	47 43	48 43	50 44	54 49	55 49	51 49
1957	Mean	48	42	40	36	40	44	45	49	53	54	54	53
	Max.-Min.	50 42	45 39	45 36	40 32	46 36	47 39	49 44	51 45	55 49	56 52	57 52	55 50
1958	Mean	46	42	42	41	43	43	45	49	53	57	58	51
	Max.-Min.	53 44	45 40	43 41	44 38	45 41	45 41	47 43	53 46	58 50	58 54	59 55	57 48
1959	Mean	48	40	39	38	38	40	44	46	53	58	58	54
	Max.-Min.	51 40	45 32	41 37	41 31	41 34	42 38	46 42	51 41	58 49	61 54	61 54	60 50
1960	Mean	48	40	39	35	40	41	45	46	51	56	54	53
	Max.-Min.	51 44	47 34	47 36	40 32	44 34	50 31	50 42	49 43	54 48	58 52	56 52	54 50
1961	Mean	48	43	39	41	44	44	46	48	54	56	57	53
	Max.-Min.	53 44	46 40	43 37	45 36	46 41	46 40	47 42	50 46	57 52	57 53	57 55	56 49
1962	Mean	48	40	40	40	41	42	46	46	52	54	55	54
	Max.-Min.	52 43	44 38	42 34	46 33	46 36	46 37	48 44	48 45	56 47	57 52	56 33	55 52
1943-62	Mean	47	41	40	39	40	42	45	47	50	54	55	52
	Max.-Min.	56 38	50 32	47 34	46 31	46 34	50 31	50 39	53 41	58 44	61 47	61 49	60 46

107-Hood River near Hood River (14-1210.)

Location.--Lat 45°42'00", long 121°30'30", in NW¼SE¼ sec.36, T.3 N., R.10 E., on right bank at Powerdale, 0.5 mile upstream from Pacific Power & Light Co. powerplant, and 0.8 mile southeast of town of Hood River.

Drainage area.--329 sq mi.

Water-temperature records available.--130 spot observations May 1947 to September 1962.

Remarks.--Daily discharge regulated by pondage at sawmill at Dee.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	44	41	39	39	41	45	48	52	59	60	56
	Max.-Min.	54 44	48 41	43 36	42 34	42 32	46 37	51 41	59 42	62 46	65 55	68 53	59 51
†Adjusted	Mean	50	44	41	40	41	41	46	49	54	60	61	56
	Max.-Min.	58 42	50 36	47 36	46 32	46 32	46 33	53 41	61 42	67 44	70 46	69 53	65 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

COLUMBIA RIVER MAIN STEM

108-Columbia River at Bonneville Dam.

Location.--Lat 45°38'20", long 121°56'45", in sec.21, T.2 N., R.7 E., in forebay of Dam, 0.7 mile downstream from Eagle Creek, and at mile 145.6.

Water-temperature records available.--Thermograph record January 1948 to September 1960. Once-daily observations October 1960 to September 1962.

Remarks.--Some regulation by Franklin D. Roosevelt Lake and by reservoirs in Kootenai, Flathead, Pend Oreille, Spokane, Chelan, Yakima, and Snake River basins. Records furnished by Corps of Engineers. Water temperatures may be affected by use of water as a coolant at Hanford.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1948	Mean	-	-	-	41	40	44	50	52	55	59	63	63
	Max.-Min.	- -	- -	- -	44 39	44 37	48 43	53 47	55 48	57 53	61 57	64 61	65 59
1949	Mean	57	50	43	36	34	43	49	52	56	61	67	65
	Max.-Min.	59 55	54 47	47 39	38 32	40 32	46 40	51 45	54 49	57 50	65 57	71 65	70 61
1950	Mean	54	50	42	34	35	42	47	52	55	62	68	66
	Max.-Min.	63 49	52 47	49 39	40 32	41 32	44 40	49 44	55 49	57 54	66 58	71 61	69 63
1951	Mean	57	48	43	37	38	41	49	53	57	64	67	65
	Max.-Min.	63 51	52 45	45 41	44 34	41 32	46 38	52 46	55 49	60 54	66 61	70 66	66 62
1952	Mean	58	48	41	36	39	42	50	54	59	65	68	65
	Max.-Min.	62 52	51 45	45 35	38 34	40 37	47 40	54 46	57 52	62 56	67 61	70 66	66 61
1953	Mean	61	48	42	43	44	46	50	55	57	64	68	66
	Max.-Min.	65 57	57 40	44 40	45 40	45 42	48 42	55 47	58 52	60 53	66 60	70 66	68 61
1954	Mean	58	52	46	40	40	44	49	54	56	61	64	63
	Max.-Min.	61 56	56 49	49 43	43 36	44 37	45 42	52 44	56 50	59 54	64 58	66 63	65 60
1955	Mean	56	51	42	39	39	40	46	52	57	61	66	65
	Max.-Min.	60 52	55 46	46 39	41 38	41 39	42 37	47 43	56 49	59 54	64 57	68 64	69 60
1956	Mean	57	45	40	39	34	42	48	53	57	64	68	66
	Max.-Min.	60 53	53 39	43 36	40 35	36 32	46 37	52 46	57 50	60 55	68 55	71 64	68 64
1957	Mean	58	48	42	37	36	44	50	55	60	66	68	67
	Max.-Min.	63 52	52 42	44 40	40 32	36 32	47 40	54 47	58 52	63 58	68 62	69 67	69 65
1958	Mean	59	51	44	41	45	45	50	57	63	69	72	66
	Max.-Min.	65 55	56 46	47 42	43 40	47 43	48 43	52 48	60 52	68 60	74 64	73 70	70 62
1959	Mean	60	50	43	40	41	44	49	53	58	64	67	64
	Max.-Min.	63 55	55 42	45 41	44 38	42 39	45 41	52 46	56 50	60 52	68 60	68 65	66 60
1960	Mean	58	48	43	37	40	41	48	54	59	66	68	65
	Max.-Min.	60 55	55 44	46 41	41 34	41 37	48 36	51 46	58 52	63 57	69 63	70 64	67 64
1961	Mean	60	51	42	41	43	45	50	55	60	67	71	65
	Max.-Min.	66 56	56 46	48 40	42 38	44 41	48 42	52 48	58 52	63 55	70 61	72 69	70 60
1962	Mean	58	48	42	39	40	42	50	53	59	65	69	66
	Max.-Min.	61 52	53 44	44 40	44 34	42 37	46 38	53 46	56 50	63 55	70 62	71 66	68 64
1948-62	Mean	58	49	42	39	39	43	49	54	58	64	68	65
	Max.-Min.	66 49	57 39	49 35	45 32	47 32	48 36	55 43	60 48	68 50	74 55	73 61	70 59

SANDY RIVER BASIN

109-Salmon River near Government Camp (14-1340.)

Location.--Lat 45°16'00", long 121°43'00", in N½ sec.31, T.3 S., R.9 E., on right bank near lower end of Red Top Meadows and 3 miles southeast of Government Camp.

Drainage area.--8.7 sq mi, approximately.

Water-temperature records available.--128 spot observations May 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	44	38	36	36	36	35	38	41	46	49	49	47
	Max.-Min.	51 41	42 33	40 33	39 32	41 33	38 33	39 36	46 36	52 41	54 43	53 45	51 45
†Adjusted	Mean	42	37	36	36	36	36	38	40	45	48	48	45
	Max.-Min.	51 37	42 33	40 33	39 32	41 32	39 32	42 35	47 36	53 38	54 39	53 44	51 40

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

110-Salmon River above Boulder Creek, near Brightwood (14-1355.)

Location.--Lat 45°21'40", long 122°00'40", in SW¼SE¼ sec.25, T.2 S., R.6 E., on left bank 1.1 miles upstream from Boulder Creek, 1.2 miles south of Brightwood, and 2.0 miles upstream from mouth.

Drainage area.--106 sq mi.

Water-temperature records available.--46 spot observations June 1947 to October 1952.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	42	38	36	36	40	45	47	50	58	56	48
	Max.-Min.	53 42	46 39	39 34	40 33	39 33	40 40	46 45	48 44	52 47	62 53	57 56	49 46
†Adjusted	Mean	49	44	40	38	38	40	45	48	50	56	57	54
	Max.-Min.	58 41	55 33	49 32	48 32	45 32	44 32	52 40	59 42	61 42	66 44	64 50	62 46

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

111-Sandy River near Marmot (14-1370.)

Location.--Lat 45°23'20", long 122°07'40", in SE¼ sec.13, T.2 S., R.5 E., on right bank 0.7 mile southwest of Marmot, 0.8 mile upstream from Sandy River Dam of Portland General Electric Co., and 6.5 miles downstream from Salmon River.

Drainage area.--262 sq mi.

Water-temperature records available.--118 spot observations June 1947 to September 1962. Also, thermograph record at Marmot Dam, 0.8 mile downstream March to May 1961, October 1961 to April 1962.

Remarks.--Thermograph record furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	-	-	-	42	44	48	-	-	-	-
	Max.-Min.	- -	- -	- -	- -	- -	47 39	50 39	56 41	- -	- -	- -	- -
1962	Mean	49	42	41	39	41	40	44	-	-	-	-	-
	Max.-Min.	56 41	47 36	44 33	44 33	44 33	48 34	51 40	- -	- -	- -	- -	- -
1961-62	Mean	49	42	41	39	41	41	44	48	-	-	-	-
	Max.-Min.	56 41	47 36	44 33	44 33	44 33	48 34	51 39	56 41	- -	- -	- -	- -

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	42	40	39	39	40	43	46	52	56	56	54
	Max.-Min.	56 44	48 32	42 37	43 33	43 33	44 38	46 40	52 44	61 45	63 53	63 52	58 46
†Adjusted	Mean	49	43	40	39	41	41	44	47	53	57	58	53
	Max.-Min.	56 43	48 32	45 35	44 32	46 33	46 34	50 39	57 40	64 44	66 46	65 52	60 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

112-Bull Run River near Bull Run (old site) (14-1400.)

Location.--Lat 45°27'00", long 122°08'20", in SW¼ sec.25, T.1 S., R.5 E., on left bank three-quarters of a mile upstream from intake of pipeline for water supply of city of Portland and 5 miles east of Bull Run.

Drainage area.--102 sq mi.

Water-temperature records available.--73 spot observations September 1950 to October 1959.

Remarks.--Flow regulated by Bull Run Lake and by Lake Ben Morrow.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	44	40	40	39	41	44	49	54	54	56	55
	Max.-Min.	61 47	47 40	42 36	42 36	44 37	45 38	47 40	53 42	60 44	62 44	64 48	57 52
†Adjusted	Mean	51	43	40	39	40	43	44	48	55	58	58	55
	Max.-Min.	61 43	50 35	47 36	46 32	47 32	48 34	52 38	59 39	66 44	65 44	65 48	62 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

113-Bull Run River at city of Portland headworks, near Bull Run

Location.--Lat 45°27'00", long 122°09'00", in SE¼ sec.26, T.1 S., R.5 E., on left bank in forebay at headworks 1,500 ft below Bull Run Reservoir No. 2 and 4.8 miles downstream from Lake Ben Morrow.

Drainage area.--107 sq mi, at gaging station 1.8 miles downstream.

Water-temperature records available.--Thrice-daily observations at 12 m., 6 p.m., and 12 p.m., March 1932 to September 1962.

Remarks.--Flow regulated by Bull Run Lake and by Lake Ben Morrow and since 1961 by Bull Run Reservoir No. 2. Record furnished by Portland Water Bureau. Undoubtedly the upstream reservoirs can and do affect water temperature at this site and summer-time spill pattern is not the same from year to year.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932	Mean	-	-	-	-	-	39	42	47	55	54	54	53
	Max.-Min.	- -	- -	- -	- -	- -	40 36	47 39	56 43	68 46	66 48	59 51	56 49
1933	Mean	52	46	38	37	36	38	41	42	47	59	53	50
	Max.-Min.	55 48	53 43	44 34	39 36	38 32	40 37	45 38	47 40	53 42	68 48	62 48	53 48
1934	Mean	50	44	41	41	42	45	51	54	59	57	55	53
	Max.-Min.	55 46	47 41	43 38	42 39	43 40	48 42	60 43	63 47	66 53	68 50	60 52	57 48
1935	Mean	50	46	40	37	38	38	41	47	56	55	53	52
	Max.-Min.	54 45	50 42	43 38	39 32	40 36	40 37	46 38	55 42	66 47	68 48	56 48	56 49
1936	Mean	48	42	39	39	35	37	41	49	55	61	51	49
	Max.-Min.	52 41	44 38	42 35	40 35	36 32	40 35	47 35	57 41	66 48	70 52	56 46	52 46
1937	Mean	49	45	42	34	35	38	39	44	52	56	50	50
	Max.-Min.	52 46	49 40	44 39	38 32	37 31	40 36	44 38	50 40	60 46	66 48	56 46	55 46
1938	Mean	51	46	41	38	38	39	42	49	58	54	52	53
	Max.-Min.	54 46	52 42	42 38	40 37	40 36	42 37	48 38	59 42	65 52	59 48	56 49	56 50
1939	Mean	51	43	39	39	38	39	42	49	50	55	48	48
	Max.-Min.	55 48	50 40	42 38	40 37	38 35	42 37	46 39	56 43	60 46	63 48	52 45	52 46
1940	Mean	47	48	45	40	40	43	46	54	55	52	55	57
	Max.-Min.	52 44	52 46	48 41	44 36	42 38	48 41	50 43	64 46	63 48	57 48	58 51	60 54
1941	Mean	54	46	41	40	41	44	49	52	56	58	53	54
	Max.-Min.	57 48	52 42	44 37	41 38	43 40	50 41	56 44	59 46	62 51	68 48	58 50	58 50
1942	Mean	51	47	42	37	39	40	48	50	54	60	54	53
	Max.-Min.	54 49	50 43	46 36	38 34	41 38	46 36	53 44	54 45	66 49	70 51	58 50	56 51
1943	Mean	53	47	42	38	39	41	45	49	54	61	53	54
	Max.-Min.	55 49	52 43	47 40	41 34	41 37	43 39	50 41	56 45	64 48	69 52	59 50	58 50
1944	Mean	54	48	43	40	40	42	45	52	55	56	53	55
	Max.-Min.	58 47	52 44	47 40	42 38	42 40	44 40	49 42	60 46	67 50	66 50	58 49	60 51
1945	Mean	54	50	42	41	42	42	44	49	57	54	54	55
	Max.-Min.	56 52	54 46	47 38	44 39	44 38	44 40	47 41	55 46	68 48	65 50	60 50	60 52
1946	Mean	54	47	41	42	41	42	45	51	55	59	53	52
	Max.-Min.	56 50	54 44	44 38	44 40	42 40	44 41	52 42	59 47	62 50	70 50	60 50	54 50
1947	Mean	51	44	43	39	40	44	47	57	56	57	52	54
	Max.-Min.	54 48	48 42	46 40	40 36	43 38	48 40	56 43	66 50	62 52	69 48	57 48	59 50
1948	Mean	53	46	43	40	38	40	42	47	58	56	52	52
	Max.-Min.	59 49	50 43	45 41	43 37	41 35	43 39	45 40	54 42	68 51	68 46	58 48	55 48
1949	Mean	51	45	39	34	36	40	43	46	55	57	53	53
	Max.-Min.	54 47	50 40	42 35	37 31	39 34	45 38	48 40	54 42	62 46	69 48	70 48	58 50
1950	Mean	49	46	41	35	36	38	40	44	47	57	50	52
	Max.-Min.	58 44	50 44	46 38	39 32	39 31	40 37	44 38	50 40	55 44	66 48	56 46	57 48
1951	Mean	50	43	41	39	38	37	42	47	55	50	55	58
	Max.-Min.	56 46	46 40	43 40	42 33	40 34	40 34	46 38	55 40	66 46	56 45	61 48	64 54
1952	Mean	50	43	39	36	37	38	43	46	53	54	50	54
	Max.-Min.	56 44	46 40	42 36	37 34	38 36	40 37	47 38	55 40	61 48	70 46	55 45	60 48
1953	Mean	55	45	38	40	39	40	42	44	46	52	53	56
	Max.-Min.	64 50	52 35	41 33	42 38	40 38	41 37	46 39	48 40	53 42	59 46	60 50	60 52
1954	Mean	50	46	41	38	37	38	41	47	48	49	53	53
	Max.-Min.	54 46	52 43	44 39	40 34	39 35	44 36	46 38	54 40	58 42	61 43	64 48	57 48
1955	Mean	49	46	41	38	38	37	39	42	44	52	52	51
	Max.-Min.	53 44	48 42	44 37	40 35	40 35	40 35	42 38	46 38	48 40	60 44	60 48	56 48
1956	Mean	49	40	38	37	35	36	40	45	48	48	52	53
	Max.-Min.	53 44	46 35	40 36	39 33	37 32	38 34	45 36	52 38	58 42	58 42	60 40	57 48
1957	Mean	50	42	39	36	36	38	41	48	47	53	55	57
	Max.-Min.	55 42	46 37	42 36	40 32	38 32	41 35	50 36	58 42	55 40	60 48	61 50	61 52
1958	Mean	50	44	40	38	41	41	43	49	50	58	60	-
	Max.-Min.	58 46	48 40	45 38	40 37	44 38	44 38	48 41	55 42	60 45	65 52	66 55	- -
1959	Mean	53	45	43	40	40	41	43	45	53	55	56	55
	Max.-Min.	60 47	50 41	45 41	43 38	42 38	43 39	48 40	53 42	60 48	64 50	64 50	60 50
1960	Mean	48	43	41	35	40	39	42	45	52	57	57	57
	Max.-Min.	54 46	48 38	44 33	40 32	45 35	47 34	46 40	48 42	63 46	64 50	63 54	64 54
1961	Mean	53	45	38	38	40	41	43	46	56	57	57	56
	Max.-Min.	60 47	49 40	41 36	40 37	42 39	42 40	44 42	49 44	59 54	58 54	59 55	60 51
1962	Mean	46	42	39	39	38	36	39	42	44	50	54	58
	Max.-Min.	56 41	44 39	41 35	40 38	38 37	36 35	40 39	43 41	44 44	51 48	55 53	60 56
1932-62	Mean	51	45	41	38	38	40	43	48	53	55	53	54
	Max.-Min.	64 41	54 35	48 33	44 31	45 31	50 34	60 35	66 38	68 40	70 42	70 40	64 46

114-Bull Run River near Bull Run (new site) (14-1400.)

Location.--Lat 45°26'15", long 122°10'40", in NE¼SW¼ sec.34, T.1 S., R.5 E., on left bank 1.8 miles downstream from Bull Run Reservoir No. 2, and 2.7 miles northeast of Bull Run.

Drainage area.--107 sq mi.

Water-temperature records available.--44 spot observations August 1957 to September 1962.

Remarks.--Flow regulated by Bull Run Lake, and Lake Ben Morrow, and by Bull Run Reservoir No. 2, since December 1961. This site differ from the old site (see preceding record) in that the record is obtained below the diversion for city of Portland. The few observations made since regulation by Bull Run Reservoir No. 2 began seem to indicate no large effect on water temperature by that reservoi

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	43	42	40	42	41	43	46	55	64	64	61
	Max.-Min.	55 51	45 40	43 41	41 38	43 41	44 40	44 41	47 46	60 51	71 61	69 62	69 58
†Adjusted	Mean	52	43	42	39	42	42	44	48	55	60	61	58
	Max.-Min.	62 44	50 37	47 34	45 33	46 34	46 34	53 40	62 41	70 43	71 43	70 52	69 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

115-Little Sandy River near Bull Run (14-1415.)

Location.--Lat 45°24'55", long 122°10'20", in NE¼ sec.10, T.2 S., R.5 E., on right bank 0.2 mile upstream from Portland General Electri Co. dam and tunnel from Sandy River and 3.0 miles east of Bull Run.

Drainage area.--22.3 sq mi.

Water-temperature records available.--118 spot observations February 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	41	41	38	38	42	42	46	54	59	59	55
	Max.-Min.	54 38	46 39	43 38	43 33	42 34	48 38	46 34	48 44	62 48	67 53	67 54	57 52
†Adjusted	Mean	49	42	40	39	40	40	43	47	55	61	60	53
	Max.-Min.	61 38	49 35	46 36	45 32	46 32	48 32	52 34	63 39	72 42	74 43	70 51	64 41

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

116-Bull Run River at Bull Run (14-1420.)

Location.--Lat 45°26'00", long 122°14'05", in NE¼ sec.6, T.2 S., R.5 E., on left bank at Bull Run, 450 ft downstream from tailrace of Portland General Electric Co.'s powerplant, 1.5 miles downstream from Little Sandy River, and 1.5 miles above mouth.

Drainage area.--136 sq mi.

Water-temperature records available.--Thermograph record August 1950 to September 1954.

Remarks.--Low and medium flows largely regulated by Portland General Electric Co.'s powerplant but only slight regulation at extreme high flows.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	-	-	60	57
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	65 52	64 51
1951	Mean	50	43	43	40	40	40	45	48	58	59	58	a56
	Max.-Min.	54 45	46 40	44 41	43 35	41 35	43 36	48 41	56 43	63 50	63 52	63 52	a60 a51
1952	Mean	50	42	39	a38	40	40	44	46	53	a60	a61	a58
	Max.-Min.	55 42	45 39	43 36	40 35	42 37	42 39	48 40	53 41	60 47	66 50	a66 a56	a62 a54
1953	Mean	54	42	38	42	41	42	44	46	50	60	60	58
	Max.-Min.	57 49	47 34	41 35	43 39	42 39	44 39	48 41	51 43	55 45	67 49	66 55	63 53
1954	Mean	52	46	44	40	41	42	44	50	51	55	57	56
	Max.-Min.	56 47	51 44	46 43	44 36	42 40	45 39	48 42	58 44	60 47	61 48	61 54	59 52
1950-54	Mean	52	43	41	40	40	41	44	48	53	58	59	57
	Max.-Min.	57 42	51 34	46 35	44 35	42 35	45 36	48 40	58 41	63 45	67 48	66 52	64 51

a Computed on basis of available record and correlation with thermograph record for Green Point Creek below North Fork, near Dee.

117-Sandy River below Bull Run River, near Bull Run (14-1425.)

Location.--Lat 45°27'20", long 122°14'45", in SW¼NW¼ sec.30, T.1 S., R.5 E., on left bank 0.9 mile downstream from Bull Run River and 2.0 miles northwest of Bull Run.

Drainage area.--440 sq mi.

Water-temperature records available.--117 spot observations June 1947 to September 1962.

Remarks.--Flow regulated by Bull Run Lake and Lake Ben Morrow and since December 1961 by Bull Run Reservoir No. 2. Considerable diurnal fluctuation of flow caused by Bull Run powerplant of Portland General Electric Co.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	44	40	38	40	40	44	48	53	61	60	56
	Max.-Min.	56 47	48 40	43 35	43 32	45 34	44 36	49 39	54 44	59 46	68 57	63 54	61 50
†Adjusted	Mean	52	44	41	39	41	43	44	49	56	60	61	55
	Max.-Min.	59 43	51 35	47 34	46 32	47 32	49 33	53 38	60 41	66 46	68 48	67 54	63 47

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

118-Sandy River at Troutdale

Location.--Lat 45°33'05", long 122°23'00", in SW¼ sec.24, T.1 N., R.3 E., 0.5 mile downstream from Highway 30 bridge, 0.7 mile north of Troutdale, and 1.5 miles upstream from mouth.

Water-temperature records available.--Thermograph record April 1952, February to May 1953.

Remarks.--Flow regulated by Bull Run Lake and by Lake Ben Merrow. Considerable diurnal fluctuation of flow caused by Bull Run powerplant of Portland General Electric Co. Record furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1952	Mean	-	-	-	-	-	-	47	-	-	-	-	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	50 43	- -	- -	- -	- -	- -
1953	Mean	-	-	-	-	40	42	45	47	-	-	-	-
	Max.-Min.	- -	- -	- -	- -	44 33	49 34	51 40	55 39	- -	- -	- -	- -

WILLAMETTE RIVER BASIN

119-Middle Fork Willamette River near Oakridge (14-1448.)

Location.--Lat 43°35'35", long 122°27'10", in NE¼ sec.9, T.23 S., R.3 E., on right bank 0.2 mile downstream from Cone Creek, 1.1 miles upstream from Hills Creek Reservoir, 10 miles south of Oakridge, and at mile 241.3.

Drainage area.--258 sq mi, includes those of Gold and Buck Creeks.

Water-temperature records available.--Thermograph record October 1958 to January 1959, September 1959 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	45	44	a42	-	-	-	-	-	-	-	-
	Max.-Min.	- -	50 39	46 40	a44 a34	- -	- -	- -	- -	- -	- -	- -	- -
1960	Mean	49	43	40	38	38	42	44	46	52	58	56	52
	Max.-Min.	53 45	47 40	42 38	40 35	41 36	45 37	49 41	52 43	61 46	65 51	65 48	59 47
1961	Mean	48	44	40	a40	43	42	44	46	54	58	59	53
	Max.-Min.	54 43	49 41	43 39	a43 a36	44 41	46 40	50 40	52 42	63 46	65 50	66 54	62 47
1962	Mean	48	42	40	37	a37	39	43	46	51	56	56	53
	Max.-Min.	55 43	45 37	42 35	42 31	43 32	46 33	49 39	54 41	60 43	65 47	64 48	60 46
1959-62	Mean	48	44	41	39	39	41	44	46	52	57	57	53
	Max.-Min.	55 43	50 37	46 35	44 31	44 32	46 33	50 39	54 41	63 43	65 47	66 48	62 46

a Computed on basis of available record and correlation with thermograph record for Hills Creek above Hills Creek Reservoir, near Oakridge.

120-Hills Creek above Hills Creek Reservoir, near Oakridge (14-1449.)

Location.--Lat 43°40'50", long 122°22'10", in NW¼NW¼ sec.8, T.22 S., R.4 E., on right bank 0.2 mile downstream from Tufti Creek, 0.7 mile upstream from Hills Creek Reservoir, 6.5 miles southeast of Oakridge, and at mile 4.1.

Drainage area.--52.7 sq mi.

Water-temperature records available.--Thermograph record October 1958 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	45	44	42	40	40	44	47	54	60	59	54
	Max.-Min.	- -	50 38	48 42	45 34	42 36	42 38	49 40	54 41	62 48	68 52	66 55	59 47
1960	Mean	48	42	40	37	39	42	44	45	52	62	60	56
	Max.-Min.	51 43	46 40	42 37	40 35	41 35	45 36	47 42	49 43	62 46	69 53	67 53	61 50
1961	Mean	50	44	41	40	42	42	44	47	56	61	60	54
	Max.-Min.	55 46	49 41	43 40	43 37	44 40	45 41	49 41	52 44	65 48	67 54	64 56	60 47
1962	Mean	47	40	40	36	38	40	44	45	50	58	58	56
	Max.-Min.	52 41	43 36	41 36	41 32	41 35	44 35	49 41	49 42	59 44	66 49	63 53	59 50
1959-62	Mean	48	43	41	39	40	41	44	46	53	60	59	55
	Max.-Min.	55 41	50 36	48 36	45 32	44 35	45 35	49 40	54 41	65 44	69 49	67 53	61 47

121-Middle Fork Willamette River above Salt Creek, near Oakridge (14-1455.)

Location.--Lat 43°43'20", long 122°26'15", in NW¼NE¼ sec.27, T.21 S., R.3 E., on right bank 90 ft upstream from highway bridge, 0.3 mile upstream from Salt Creek, 1.1 miles downstream from Hills Creek Dam, 2.3 miles southeast of Oakridge, and at mile 231.4.

Drainage area.--392 sq mi.

Water-temperature records available.--119 spot observations December 1946 to May 1961 and thermograph record for October 1960 to September 1962.

Remarks.--Flow regulated by Hills Creek Reservoir since August 1961. Because there are only 2 years of thermograph record and the regimen was changed by Hills Creek Reservoir about midway in the record, spot-observation data are also shown.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	53	45	42	41	44	44	46	49	59	64	64	63
	Max.-Min.	60 46	52 40	44 39	45 35	46 42	47 42	51 40	58 44	67 51	70 56	70 59	77 51
1962	Mean	56	46	44	42	[a]42	42	44	46	47	48	52	52
	Max.-Min.	70 48	52 40	45 43	43 40	[a]44 [a]40	45 40	48 41	49 44	49 45	51 47	54 48	56 50

a Computed on basis of available record and correlation with thermograph record for Middle Fork Willamette River below North Fork, near Oakridge.

Note.--High temperatures of September and October 1961 resulted from cutting flow to a trickle when gates were closed at Hills Creek Dam to allow reservoir to fill.

Figures for 1961 and 1962 are not combined to give period of record means and ranges, because of the change in regimen.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	44	41	40	41	42	46	49	54	59	61	54
	Max.-Min.	57 46	52 34	45 37	43 36	45 35	47 36	51 42	55 45	63 46	66 54	68 53	57 52
†Adjusted	Mean	51	45	41	40	41	42	46	51	59	61	60	57
	Max.-Min.	60 44	55 34	49 36	48 32	49 32	48 32	56 39	65 40	70 46	70 47	68 53	65 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

122-Salt Creek near Oakridge (14-1460.)

Location.--Lat 43°43'45", long 122°25'35", in SW¼sec.23, T.21 S., R.3 E., on right bank 0.7 mile upstream from mouth and 2 miles southeast of Oakridge.

Drainage area.--113 sq mi.

Water-temperature records available.--33 spot observations December 1946 to September 1951.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	46	44	41	38	37	38	40	44	48	55	54	50
	Max.-Min.	46 46	47 40	44 36	40 36	40 34	43 34	42 39	45 42	50 45	57 53	57 51	51 48
†Adjusted	Mean	46	42	41	40	41	41	44	46	49	55	54	50
	Max.-Min.	53 41	47 40	44 36	42 36	44 34	46 34	49 39	52 41	56 43	61 45	60 47	56 43

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

123-Salmon Creek near Oakridge (14-1465.)

Location.--Lat 43°45'30", long 122°23'00", in SW¼ sec.7, T.21 S., R.4 E., on right bank 0.2 mile upstream from Slide Creek, 4 miles east of Oakridge, and at mile 5.0.

Drainage area.--117 sq mi, at cable 0.2 mile above gage.

Water-temperature records available.--126 spot observations March 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	43	41	39	40	40	44	45	50	54	55	51
	Max.-Min.	50 44	47 35	45 37	42 33	46 34	42 36	49 40	50 41	52 47	63 50	60 52	56 47
†Adjusted	Mean	47	43	41	40	41	41	44	46	49	56	55	51
	Max.-Min.	53 41	48 35	46 37	45 33	46 33	45 33	51 40	55 41	58 41	63 46	61 50	57 44

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

124-Salmon Creek at Oakridge

Location.--Lat 43°44'40", long 122°26'30", in NE¼SW¼ sec.15, T.21 S., R.3 E., at fish hatchery 0.8 mile east of Oakridge and 1 mile upstream from mouth.

Water-temperature records available.--Three observations daily (6 a.m., 12 m., and 6 p.m.) January to July 1943, February 1944 to June 1947, and once-daily observations July 1947 to January 1948, January 1949 to August 1950, June 1951 to September 1962.

Remarks.--Records furnished by Oregon State Game Commission. Diversion point is 2,000 feet upstream from hatchery building.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	- - -	- -	-	37	40	41	44	46	49	53	-	-
	Max.-Min.	- -	- -	- -	42 33	42 36	48 39	50 40	53 42	56 44	58 48	- -	- -
1944	Mean	-	-	-	-	40	41	44	48	51	55	54	51
	Max.-Min.	- -	- -	- -	- -	42 38	46 37	55 40	55 42	58 46	60 50	62 50	60 47
1945	Mean	47	40	40	40	41	41	43	47	51	56	54	51
	Max.-Min.	51 45	42 37	44 37	47 38	44 40	45 39	52 39	53 43	60 45	62 50	63 51	57 46
1946	Mean	46	41	40	40	40	41	44	47	49	55	55	52
	Max.-Min.	51 40	46 40	46 35	42 38	42 37	44 38	52 40	52 42	56 44	61 48	61 48	57 48
1947	Mean	46	42	42	39	42	43	45	51	51	54	55	54
	Max.-Min.	49 42	45 39	46 38	42 33	45 39	47 39	52 41	58 47	58 47	57 51	58 52	58 51
1948	Mean	49	44	41	40	-	-	-	-	-	-	-	-
	Max.-Min.	53 46	46 40	45 39	44 38	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	33	38	42	45	47	54	55	54	53
	Max.-Min.	- -	- -	- -	36 31	46 33	45 41	46 42	52 44	56 50	57 52	56 52	55 50
1950	Mean	45	41	37	33	33	36	44	44	48	54	55	-
	Max.-Min.	52 40	43 40	41 34	36 31	38 31	38 34	47 39	50 42	57 42	58 52	56 54	- -
1951	Mean	-	-	-	-	-	-	-	-	55	58	57	52
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	58 50	60 54	58 52	54 49
1952	Mean	48	44	41	39	41	41	44	47	50	56	56	53
	Max.-Min.	52 45	46 40	46 38	42 36	42 38	44 40	46 43	48 44	52 45	58 50	58 52	56 50
1953	Mean	50	41	40	43	42	42	45	46	51	58	58	55
	Max.-Min.	52 46	48 35	42 36	44 40	44 40	44 38	49 42	50 43	52 48	60 55	60 52	60 50
1954	Mean	48	45	42	40	42	40	45	48	50	56	54	51
	Max.-Min.	51 42	47 42	46 39	42 37	42 40	43 35	48 42	52 42	54 44	58 52	58 51	54 46
1955	Mean	46	44	39	38	39	39	42	46	49	54	57	53
	Max.-Min.	50 40	46 39	42 35	41 36	41 37	42 37	45 40	48 40	52 45	58 48	60 53	58 48
1956	Mean	48	41	41	40	37	41	44	47	50	56	56	53
	Max.-Min.	50 46	46 33	44 37	42 34	42 34	44 37	46 42	51 44	56 45	59 52	58 53	54 49
1957	Mean	47	42	40	37	40	43	46	50	56	58	57	55
	Max.-Min.	50 43	44 38	44 36	40 32	44 34	44 42	51 43	56 46	60 49	60 56	59 54	57 50
1958	Mean	48	41	40	41	43	42	45	50	54	60	60	54
	Max.-Min.	53 44	46 38	44 38	43 38	45 41	44 38	48 42	54 45	60 49	63 54	62 57	58 50
1959	Mean	49	45	44	43	41	43	46	48	55	60	59	54
	Max.-Min.	54 44	50 39	48 42	45 38	44 38	44 42	50 44	54 44	60 50	64 54	61 54	58 48
1960	Mean	49	42	40	38	41	42	44	47	54	60	57	54
	Max.-Min.	51 48	46 40	43 38	42 35	43 36	45 38	48 41	50 44	58 50	62 56	62 52	58 51
1961	Mean	49	43	41	41	43	43	45	49	57	61	60	53
	Max.-Min.	54 46	48 40	44 38	44 36	45 40	44 40	49 42	52 43	61 50	62 56	63 56	57 49
1962	Mean	48	42	41	39	40	41	46	47	54	59	58	55
	Max.-Min.	52 42	45 39	43 34	44 31	42 34	46 35	49 42	51 43	58 47	62 55	61 54	57 52
1943-62	Mean	48	42	41	39	40	41	44	48	52	57	56	53
	Max.-Min.	54 40	50 33	48 34	47 31	46 31	48 34	55 39	58 40	61 42	64 48	63 48	60 46

125-Waldo Lake outlet near Oakridge (14-1470.)

Location.--Lat 43°46'05", long 122°03'10", in SE¼NW¼ sec.7, T.21 S., R.6 E., on left bank of artificial outlet channel of Waldo Lake, 20 miles east of Oakridge, at mile 43.5 on North Fork Middle Fork Willamette River.

Drainage area.--30 sq mi, approximately.

Water-temperature records available.--25 spot observations April 1947 to October 1953 with only the months of October, March, July and August having more than 2 observations.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	45	-	38	34	34	38	34	-	59	64	51
	Max.-Min.	64 46	46 44	- -	38 38	34 34	38 33	39 37	34 34	- -	63 56	65 63	51 51
†Adjusted	Mean	48	38	34	33	35	37	44	49	55	64	64	56
	Max.-Min.	64 34	49 32	43 32	39 32	45 32	48 32	55 34	60 34	67 42	76 47	75 51	68 42

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

126-Middle Fork Willamette River at Westfir Junction

Location.--Lat 43°45'20", long 122°31'30", in SW¼ sec.12, T.21 S., R.2 E., on Barnard Bridge on State Highway No. 58, 0.3 mile upstream from North Fork of Middle Fork Willamette River, 1.0 mile west of Westfir, and at mile 224.7.

Water-temperature records available.--Thermograph record May to September 1950.

Remarks.--Record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	46	48	58	59	55
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	52 41	58 43	65 50	65 52	64 46

127-North Fork of Middle Fork Willamette River near Oakridge (14-1475.)

Location.--Lat 43°45'30", long 122°30'30", in SW¼ sec.7, T.21 S., R.3 E., on left bank 1 mile upstream from mouth and 2.5 miles northwest of Oakridge.

Drainage area.--246 sq mi, at measuring section 0.5 mile downstream.

Water-temperature records available.--128 spot observations February 1947 to September 1962.

Remarks.--Slight natural regulation by Waldo Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	44	42	40	41	41	46	46	54	60	63	58
	Max.-Min.	57 47	49 41	47 36	46 33	45 34	44 36	48 43	51 42	60 50	67 50	69 52	61 53
†Adjusted	Mean	52	44	42	41	42	42	45	49	56	62	63	58
	Max.-Min.	60 42	51 36	48 36	47 32	48 32	47 33	54 40	61 41	68 45	71 47	70 52	67 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

128-Middle Fork Willamette River below North Fork, near Oakridge (14-1480.)

Location.--Lat 43°48'05", long 122°33'35", in SW¼ sec.27, T.20 S., R.2 E., on left bank 0.5 mile downstream from Whitehead Creek, 4.2 miles downstream from North Fork of Middle Fork Willamette River, 7 miles northwest of Oakridge, and at mile 220.2.

Drainage area.--924 sq mi.

Water-temperature records available.--Thermograph record September 1950 to October 1960, June 1961 to September 1962.

Remarks.--Flow regulated since 1961, by Hills Creek Reservoir; slight regulation at times by log ponds above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	Mean	50	44	44	40	40	39	44	-	-	-	-	-
	Max.-Min.	54 45	49 42	44 42	42 35	43 35	44 35	48 40	- -	- -	- -	- -	- -
1952	Mean	-	-	-	-	40	41	44	46	50	60	62	57
	Max.-Min.	- -	- -	- -	- -	43 38	44 38	48 40	52 41	58 44	65 51	67 55	63 52
1953	Mean	52	42	40	42	42	43	46	48	51	60	61	58
	Max.-Min.	57 47	50 35	43 38	44 39	44 40	47 40	52 41	52 43	58 47	64 52	66 55	64 52
1954	Mean	51	48	46	42	42	42	45	50	52	60	59	55
	Max.-Min.	55 46	50 45	47 42	44 38	44 40	45 39	50 41	56 41	59 47	65 52	65 54	62 48
1955	Mean	48	46	40	40	40	40	42	46	50	57	62	57
	Max.-Min.	53 42	48 39	44 36	42 38	42 36	45 36	47 39	52 41	57 43	66 48	67 56	66 50
1956	Mean	50	42	42	40	38	41	44	47	52	62	62	57
	Max.-Min.	54 43	47 35	44 38	43 37	41 35	46 38	50 41	55 43	61 46	68 53	66 57	63 53
1957	Mean	50	a42	40	38	40	44	46	51	58	62	61	60
	Max.-Min.	56 44	a46 a39	44 38	42 35	45 36	46 40	54 42	61 46	65 50	66 56	65 57	65 54
1958	Mean	50	42	42	42	44	44	46	52	56	64	66	a58
	Max.-Min.	58 46	48 38	44 38	44 39	45 42	47 40	53 43	59 44	66 50	72 54	70 61	65 51
1959	Mean	52	46	44	44	42	45	48	50	58	66	64	58
	Max.-Min.	59 45	51 40	48 41	46 36	46 39	47 42	55 43	57 45	66 50	73 56	71 59	66 51
1960	Mean	52	44	42	39	42	44	46	48	56	66	64	60
	Max.-Min.	55 46	49 41	45 39	43 37	44 37	49 38	50 43	56 45	64 50	73 58	71 57	65 54
1961	Mean	a48	-	-	-	-	-	-	-	a60	67	68	58
	Max.-Min.	57 a44	- -	- -	- -	- -	- -	- -	- -	66 a52	73 58	74 61	66 50
1962	Mean	50	44	40	38	40	41	46	47	52	57	57	56
	Max.-Min.	59 45	47 39	43 37	40 32	43 36	46 35	51 43	51 45	58 46	64 50	63 52	60 52
1951-61	Mean	50	44	42	40	41	42	45	49	54	62	62	58
	Max.-Min.	59 42	51 35	48 36	46 35	46 35	49 35	55 39	61 41	66 43	73 48	74 54	66 48

a Computed on basis of available record and correlation with thermograph record for Fall Creek below Winberry Creek near Fall Creek.
Note.--1962 not included in period-of-record figures because of effect of regulation by Hills Creek Reservoir.

129-Middle Fork Willamette River near Dexter (14-1500.)

Location.--Lat 43°56'45", long 122°50'10", near center of sec.5, T.19 S., R.1 W., on right bank 0.6 mile upstream from Lost Creek, 2 miles northwest of Dexter, 2.7 miles downstream from Dexter Dam, and at mile 201.2.

Drainage area.--1,001 sq mi.

Water-temperature records available.--Thermograph record May 1950 to September 1954, September 1955 to September 1962. Record prior to 1955 obtained at site 4 miles upstream and that for October 1950 to September 1954 published as "at Lowell".

Remarks.--Flow regulated since November 1953 by Lookout Point Reservoir and since August 1961 by Hills Creek Reservoir. Record May to September 1950 furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	48	51	62	64	59
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	53 43	60 44	70 54	70 57	69 48
1951	Mean	50	44	44	42	42	42	47	51	60	68	64	60
	Max.-Min.	55 46	48 43	46 42	43 35	43 37	46 35	52 43	57 45	70 52	72 59	69 57	65 56
1952	Mean	52	46	42	39	40	42	46	50	54	64	64	60
	Max.-Min.	58 46	49 43	47 39	41 36	42 37	45 38	50 42	55 46	60 48	69 54	70 59	66 55
1953	Mean	54	42	42	43	42	44	47	49	51	62	64	61
	Max.-Min.	60 48	50 34	44 37	44 40	44 40	47 40	52 43	55 46	57 47	65 54	68 59	65 57
1954	Mean	52	47	46	43	44	44	46	50	53	54	59	62
	Max.-Min.	57 48	50 45	47 44	44 42	45 43	45 41	50 44	52 48	54 52	57 53	62 56	63 61
1955	Mean	-	-	-	-	-	-	-	-	-	-	-	58
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	60 56
1956	Mean	57	50	44	42	40	42	46	50	52	56	58	58
	Max.-Min.	58 55	55 45	45 43	43 41	42 39	46 41	49 44	53 47	57 49	61 54	62 55	61 56
1957	Mean	58	50	44	41	40	44	47	50	54	58	58	60
	Max.-Min.	61 55	55 46	46 43	43 38	43 38	46 42	52 45	53 48	59 51	62 54	62 55	62 57
1958	Mean	59	52	45	42	44	47	49	51	54	60	60	61
	Max.-Min.	61 55	56 47	49 42	43 42	46 43	50 44	53 46	54 48	60 52	64 57	63 57	63 59
1959	Mean	61	53	46	44	44	46	49	51	54	58	58	60
	Max.-Min.	63 58	58 46	48 43	46 43	46 42	49 44	53 46	55 48	59 52	62 53	62 56	62 58
1960	Mean	58	52	46	42	43	46	48	50	54	58	59	62
	Max.-Min.	60 56	57 49	50 45	44 40	45 42	48 43	52 46	53 48	59 51	61 54	61 56	64 59
1961	Mean	60	54	45	43	46	45	49	52	54	56	58	63
	Max.-Min.	64 58	59 47	47 44	44 42	48 43	48 45	53 47	57 48	59 51	58 53	62 54	65 61
1962	Mean	60	51	45	42	43	45	50	50	55	54	56	58
	Max.-Min.	64 56	56 44	47 44	44 40	45 41	50 41	54 46	53 49	57 51	57 51	59 53	59 56
1950-53	Mean	52	44	43	41	41	43	47	50	54	64	64	60
	Max.-Min.	60 46	50 34	47 37	44 35	44 37	47 35	52 42	57 43	70 44	72 54	70 57	69 48
1953-62	Mean	59	51	45	42	43	45	48	51	54	57	58	60
	Max.-Min.	64 55	59 44	50 42	46 38	48 38	50 41	54 44	57 47	60 49	64 51	63 53	65 56

Note.--Storage began in Lookout Point Reservoir in November 1953.

130-Fall Creek below Winberry Creek, near Fall Creek (14-1510.)

Location.--Lat 43°56'40", long 122°46'25", in NW¼SE¼ sec.2, T.19 S., R.1 W., on left bank 10 ft upstream from highway bridge, 1.6 miles downstream from Winberry Creek, 2.3 miles southeast of town of Fall Creek, and at mile 6.1.

Drainage area.--186 sq mi.

Water-temperature records available.--Thermograph record August 1950 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	-	-	68	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	74 62	72 50
1951	Mean	50	44	44	42	42	41	48	53	64	68	66	62
	Max.-Min.	53 46	48 40	45 41	43 34	45 36	44 36	56 42	62 45	72 54	74 60	71 58	66 57
1952	Mean	52	46	44	40	42	42	48	54	58	66	66	62
	Max.-Min.	59 47	49 42	49 41	44 38	44 39	46 40	54 43	63 46	66 50	73 53	74 60	68 57
1953	Mean	55	42	42	46	45	44	47	49	54	66	66	62
	Max.-Min.	61 49	51 36	45 36	48 42	48 41	46 40	53 42	56 44	63 48	72 57	71 58	67 55
1954	Mean	52	47	46	42	42	42	47	56	54	62	62	58
	Max.-Min.	56 45	50 45	48 41	44 39	45 41	46 38	53 42	66 43	63 48	69 53	69 57	65 51
1955	Mean	50	48	42	42	40	42	43	48	56	60	64	58
	Max.-Min.	54 42	49 39	45 37	45 40	43 36	45 38	46 41	54 43	64 47	70 50	70 58	68 52
1956	Mean	51	44	45	42	40	42	48	54	56	68	68	61
	Max.-Min.	55 45	50 34	48 40	45 39	43 36	46 39	54 42	63 47	66 50	77 55	75 59	69 55
1957	Mean	52	44	42	40	42	44	50	55	62	67	66	63
	Max.-Min.	59 46	48 38	46 37	44 35	47 35	47 41	61 44	65 49	70 51	73 59	71 59	69 58
1958	Mean	52	42	44	44	46	44	49	58	62	70	70	62
	Max.-Min.	62 45	49 37	47 38	47 42	48 44	48 40	55 45	67 48	74 54	79 60	75 65	69 54
1959	Mean	54	48	46	45	42	44	50	52	62	70	68	60
	Max.-Min.	61 47	52 41	50 43	48 37	46 39	47 41	60 45	64 47	72 54	78 59	74 62	68 50
1960	Mean	52	44	42	40	44	44	47	50	62	70	66	61
	Max.-Min.	55 44	49 39	46 38	45 35	46 37	50 38	52 43	60 47	70 55	76 62	74 58	67 56
1961	Mean	52	46	42	42	46	46	48	54	64	69	70	58
	Max.-Min.	60 47	51 42	46 39	46 36	48 43	48 43	55 44	62 47	74 56	76 59	75 62	65 49
1962	Mean	50	42	42	41	43	42	49	50	59	67	68	62
	Max.-Min.	56 44	45 36	45 36	46 33	46 35	47 36	56 45	55 47	68 49	75 59	72 62	67 55
1950-62	Mean	52	45	43	42	43	43	48	53	60	67	67	61
	Max.-Min.	62 42	52 34	50 36	48 33	48 35	50 36	61 41	67 43	74 47	79 50	75 57	72 49

131-Middle Fork Willamette River at Jasper (14-1520.)

Location.--Lat 43°59'55", long 122°54'20", in SW¼SW¼ sec.14, T.18 S., R.2 W., on right bank 25 ft downstream from highway bridge at Jasper, 650 feet downstream from Hills Creek, and at mile 195.0.

Drainage area.--1,340 sq mi.

Water-temperature records available.--Thermograph record October 1953 to September 1962. Eleven spot observations of water temperature July to September 1950-53, except no observations in 1952; 21 spot observations July to September 1954-59.

Remarks.--Flow regulated since November 1953 by Lookout Point Reservoir and since August 1961 by Hills Creek Reservoir. Spot observations furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1954	Mean	54	50	47	42	42	43	49	56	55	58	60	61
	Max.-Min.	59 49	53 47	51 43	44 40	45 42	47 40	56 44	62 46	63 50	63 54	65 57	65 57
1955	Mean	56	50	42	42	42	42	46	52	54	59	62	60
	Max.-Min.	61 50	53 46	46 39	44 41	44 38	46 39	50 43	59 46	59 50	66 54	66 58	65 57
1956	Mean	56	46	44	42	40	42	47	52	54	62	62	60
	Max.-Min.	59 48	51 42	47 42	44 37	41 36	45 38	52 43	57 48	62 50	67 55	67 59	64 58
1957	Mean	56	48	43	40	42	46	48	54	57	59	59	60
	Max.-Min.	62 49	50 44	45 41	42 37	47 37	47 44	57 43	59 50	62 52	64 54	63 56	62 57
1958	Mean	58	50	45	43	45	45	50	54	57	62	63	62
	Max.-Min.	61 54	55 43	47 43	44 42	47 43	50 41	56 46	59 49	62 53	69 57	68 58	64 60
1959	Mean	62	54	48	45	42	46	51	52	57	61	60	59
	Max.-Min.	64 59	60 46	51 45	47 42	47 39	48 42	58 46	59 48	63 52	68 55	65 57	62 57
1960	Mean	56	50	44	42	44	46	47	50	56	60	61	62
	Max.-Min.	60 54	56 46	47 41	46 38	47 38	51 40	53 44	55 46	62 52	66 55	66 58	65 59
1961	Mean	60	52	44	43	46	46	50	52	56	57	60	62
	Max.-Min.	65 56	58 46	46 42	46 40	49 45	50 44	55 46	58 49	62 52	62 52	64 55	65 59
1962	Mean	58	46	a43	a42	a43	43	50	51	58	58	59	60
	Max.-Min.	63 48	51 44	a46 a40	a45 a38	a45 a37	49 37	57 44	56 48	62 52	63 53	63 56	63 57
1954-62	Mean	57	50	44	42	43	44	49	53	56	60	61	61
	Max.-Min.	65 48	60 42	51 39	47 37	49 36	51 37	58 43	62 46	63 50	69 52	68 55	65 57

a Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

Water temperature (°F)

Observed		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950-53	Mean	-	-	-	-	-	-	-	-	-	65	65	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	66 63	68 64	63 61
1954-62	Mean	-	-	-	-	-	-	-	-	-	60	60	61
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	63 57	62 59	63 59

132-Coast Fork Willamette River at London (14-1525.)

Location.--Lat 43°38'30", long 123°05'05", in SW¼ sec.20, T.22 S., R.3 W., on left bank 0.6 mile north of London, 11 miles south of Cottage Grove, and at mile 35.9.

Drainage area.--72.1 sq mi.

Water-temperature records available.--Thermograph record May to September 1950, July 1960 to September 1962.

Remarks.--Record May to September 1950 furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	50	56	64	66	61
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	60 42	69 48	73 56	74 58	71 49
1960	Mean	-	-	-	-	-	-	-	-	-	-	62	58
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	71 54	65 51
1961	Mean	52	46	44	44	47	46	48	50	61	65	66	57
	Max.-Min.	60 48	52 42	46 41	46 38	48 46	48 45	52 44	58 46	72 54	74 55	71 59	65 49
1962	Mean	50	44	43	40	42	42	48	50	58	64	63	60
	Max.-Min.	56 45	46 38	46 39	43 37	44 38	44 38	52 44	53 48	67 51	70 58	69 58	65 57
1950-62	Mean	51	45	44	42	44	44	48	50	58	64	64	59
	Max.-Min.	60 45	52 38	46 39	46 37	48 38	48 38	52 44	58 46	72 48	74 55	74 54	71 49

133-Coast Fork Willamette River below Cottage Grove Dam (14-1535.)

Location.--Lat 43°43'15", long 123°02'55", in NE¼ sec.28, T.21 S., R.3 W., on right bank at bridge 0.3 mile downstream from Cottage Grove Dam, 5¼ miles south of Cottage Grove, and at mile 29.4.

Drainage area.--104 sq mi.

Water-temperature records available.--119 spot observations June 1947 to September 1962. Thermograph record June to September 1950 on spillway wall of dam.

Remarks.--Flow regulated since 1942 by Cottage Grove Reservoir. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	51	53	55	61
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	55 49	56 51	58 53	65 55

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	49	45	41	43	45	47	52	54	57	62	64
	Max.-Min.	63 47	51 47	48 44	44 37	47 36	52 36	50 41	56 49	58 49	61 53	74 56	70 57
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

Note.--No attempt made to correlate observed temperatures with a thermograph record; site too close to dam to allow good correlation.

134-Coast Fork Willamette River above Cottage Grove

Location.--Lat 43°00'50", long 123°04'30", in sec.9, T.21 S., R.3 W., 2 miles south of Cottage Grove and at mile 25.

Water-temperature records available.--32 spot observations, July to September only, 1950-59. No observations were made in 1952.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated by Cottage Grove Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	58	60	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	63 55	72 55	66 56
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

135-Row River above Pitcher Creek, near Dorena (14-1545.)

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

Drainage area.--211 sq mi.

Water-temperature records available.--129 spot observations January 1947 to September 1962. Thermograph record June to December 1950.

Remarks.--Occasional fluctuation of flow caused by upstream logponds. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	54	68	69	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	67 46	76 61	77 62	74 50
1951	Mean	52	46	46	-	-	-	-	-	-	-	-	-
	Max.-Min.	57 47	50 42	48 42	- -	- -	- -	- -	- -	- -	- -	- -	- -

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	45	43	40	41	43	45	52	55	66	67	62
	Max.-Min.	57 42	48 42	47 39	46 33	45 36	48 39	50 39	61 46	60 49	76 54	72 63	67 54
†Adjusted	Mean	51	45	43	41	43	43	46	50	58	68	68	63
	Max.-Min.	61 42	52 38	48 38	47 33	49 35	48 35	55 39	66 42	75 45	81 50	78 59	74 51

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

136-Row River near Cottage Grove (14-1555.)

Location.--Lat 43°47'35", long 122°59'25", in NE¼ sec.36, T.20 S., R.3 W., on right bank 1.7 miles upstream from Mosby Creek, 2.1 miles downstream from Dorena Dam, 3.5 miles east of Cottage Grove, and at mile 5.5.

Drainage area.--270 sq mi.

Water-temperature records available.--114 spot observations October 1949 to September 1962. Thermograph record May to December 1950 at Row River County Bridge 1.2 miles upstream.

Remarks.--Flow regulated since October 1949 by Dorena Reservoir. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	48	52	56	57	58
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	52 46	56 49	60 51	61 53	64 54
1951	Mean	58	47	46	-	-	-	-	-	-	-	-	-
	Max.-Min.	64 50	50 44	48 43	- -	- -	- -	- -	- -	- -	- -	- -	- -

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	49	43	41	43	44	48	51	55	60	65	65
	Max.-Min.	66 51	59 44	46 39	48 35	46 40	49 40	53 40	54 49	62 48	69 54	73 58	73 54
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

Note.--No attempt made to correlate observed temperatures with a thermograph record; site too close to reservoir to allow good correlation.

137-Mosby Creek at mouth, near Cottage Grove (14-1565.)

Location.--Lat 43°46'35", long 122°59'55", in N½ sec.1, T.21 S., R.3 W., on left bank 1.0 mile upstream from mouth and 3.5 miles southeast of Cottage Grove.

Drainage area.--95.3 sq mi.

Water-temperature records available.--128 spot observations January 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	46	44	41	44	45	48	55	59	66	65	63
	Max.-Min.	56 45	48 42	51 40	46 33	46 39	51 39	53 42	59 45	66 46	75 55	71 54	67 54
†Adjusted	Mean	53	46	44	42	44	46	49	56	62	67	65	60
	Max.-Min.	66 42	55 38	51 39	50 33	51 34	52 36	60 42	70 44	78 45	79 48	78 54	73 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

138-Row River at Highway 99 Bridge, near Cottage Grove.

Location.--Lat 43°48'45", long 123°02'20", in sec.22, T.20 S., R.3 W., 1 mile northeast of Cottage Grove and at mile 0.7.

Water-temperature records available.--32 spot observations, July to September only, 1950-59. No observations were made in 1952.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated by Dorena Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	59	62	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	61 55	70 55	66 56
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

139-Coast Fork Willamette River at Saginaw Bridge, at Saginaw

Location.--Lat 43°50'00", long 123°02'30", in sec.15, T.20 S., R.3 W., 0.2 mile east of Saginaw and at mile 20.

Water-temperature records available.--28 spot observations, July to September only, 1950-58. No observations were made in 1952.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated by Dorena and Cottage Grove Reservoirs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	63	62	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	68 61	70 55	66 52
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

140-Coast Fork Willamette River near Goshen (14-1575.)

Location.--Lat 43°58'50", long 122°57'55", in NW¼ sec.29, T.18 S., R.2 W., on right bank at downstream side of bridge on State Highway 58, 2.5 miles southeast of Goshen, and at mile 6.4.

Drainage area.--642 sq mi.

Water-temperature records available.--100 spot observations August 1950 to September 1962 and thermograph record from August 1961 to September 1962. Also, State Sanitary Authority obtained 32 spot observations July to September only, 1950-59.

Remarks.--Flow regulated by Cottage Grove and Dorena Reservoirs. Because there is only about 1 year of thermograph record available the spot observation data is published, also. Records for 1950-59 furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	-	-	-	-	-	-	-	-	66	63
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	68 63	67 58
1962	Mean	56	48	46	42	44	44	50	53	62	68	64	65
	Max.-Min.	62 50	51 43	47 44	46 36	46 40	47 40	56 46	56 49	68 55	80 60	68 61	68 62
1961-62	Mean	56	48	46	42	44	44	50	53	62	68	65	64
	Max.-Min.	62 50	51 43	47 44	46 36	46 40	47 40	56 46	56 49	68 55	80 60	68 61	68 58

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	48	44	42	43	44	48	54	55	64	64	63
	Max.-Min.	60 50	52 45	47 42	47 35	47 40	48 40	56 41	59 46	65 44	72 58	75 53	70 60
† Adjusted	Mean	55	47	44	43	45	45	48	55	61	66	63	63
	Max.-Min.	65 47	54 40	52 39	49 35	51 36	50 36	56 41	68 46	74 44	76 50	75 53	72 54

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

Water temperature (°F) by State Sanitary Authority

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	66	64	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	72 63	70 59	66 61
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

141-Willamette River at Springfield (14-1580.)

Location.--Lat 44°02'45", long 123°01'40", in SE¼ sec.34, T.17 S., R.3 W., near center of span on downstream side of highway bridge at Springfield at mile 185.6.

Drainage area.--2,030 sq mi, approximately.

Water-temperature records available.--62 spot observations February 1948 to October 1957. Also, State Sanitary Authority obtained 32 spot observations July to September only, 1950-59.

Remarks.--Flow regulated by Cottage Grove Reservoir, Dorena Reservoir, and Lookout Point Reservoir. Records for 1950-59 furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	45	45	42	41	42	48	53	53	65	61	62
	Max.-Min.	57 51	49 41	46 42	46 39	46 38	46 38	50 45	57 46	62 43	73 60	66 56	69 53
†Adjusted	Mean	55	45	43	42	43	43	46	52	55	63	63	58
	Max.-Min.	64 47	51 37	48 38	48 34	48 34	48 34	54 41	64 44	69 43	73 46	72 55	69 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

Water temperature (°F) by State Sanitary Authority

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	65	65	61
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	69 61	68 59	66 52
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

142-Willamette River at Ferry Street Bridge, at Eugene

Location.--Lat 44°03'30", long 123°05'00", in sec.29, T.17 S., R.3 W., at Eugene, and at mile 182.2.

Water-temperature records available.--33 spot observations, July to September only, 1950-59 (no observations in 1952). Also, hourly observations June to October 1950 at Eugene Water and Electric Board steamplant about 0.5 mile upstream.

Remarks.--Flow regulated by Cottage Grove and Dorena Reservoirs and, since November 1953, by Lookout Point Reservoir. Spot-temperature records furnished by State Sanitary Authority. Hourly temperature records for 1950 furnished by Eugene Water & Electric Board.

Water temperature (°F) by Eugene Water and Electric Board (Hourly readings)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	54	66	68	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	65 47	74 59	74 62	69 55
1951	Mean	55	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	60 48	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	66	65	63
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	72 61	70 59	67 59
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

143-Willamette River at Willamette Sand and Gravel Company, near Eugene

Location.--Lat 44°05'45", long 123°06'20", in sec.18, T.17 S., R.3 W., 4 miles north of Eugene and at mile 178.

Water-temperature records available.--32 spot observations, July to September only, 1950-59. No observations were made in 1952.

Remarks.--Flow regulated by Cottage Grove and Dorena Reservoirs and, since November 1953, by Lookout Point Reservoir. Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	69	68	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	75 65	73 59	71 61
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

144-McKenzie River at outlet of Clear Lake (14-1585.)

Location.--Lat 44°21'40", long 121°59'40", in SE¼ sec.8, T.14 S., R.7 E., on west bank of Clear Lake in narrow channel, 150 ft upstream from outlet, and at mile 89.6.

Drainage area.--92.4 sq mi.

Water-temperature records available.--99 spot observations October 1947 to September 1962.

Remarks.--Flow regulated by natural storage in Clear Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	41	40	38	38	39	41	42	44	48	46	45
	Max.-Min.	47 42	43 39	42 36	40 34	41 35	40 38	43 39	46 39	49 38	53 44	50 43	47 42
†Adjusted	Mean	43	40	40	39	40	40	41	42	45	49	47	45
	Max.-Min.	47 40	43 38	42 36	41 34	42 35	41 36	44 39	48 39	52 38	53 41	51 43	50 41

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

145-McKenzie River near Belknap Springs (14-1587.)

Location.--Lat 44°20'15", long 122°00'20", in SW¼ sec.20, T.14 S., R.7 E., on left bank at outlet of Beaver Marsh, 2 miles upstream from Lower Falls, 10 miles north of town of Belknap Springs, and at mile 87.5.

Drainage area.--146 sq mi.

Water-temperature records available.--40 spot observations October 1957 to September 1962 but none during June.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	44	42	40	40	38	39	41	44	-	46	48	45
	Max.-Min.	44 43	44 41	42 36	42 39	39 38	39 39	42 40	46 42	- -	47 45	49 46	47 43
†Adjusted	Mean	44	42	40	40	40	40	41	42	44	46	47	45
	Max.-Min.	47 41	44 40	42 36	42 38	42 38	42 38	44 40	46 40	48 41	50 42	49 41	48 42

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

146-McKenzie River at McKenzie Bridge (14-1590.)

Location.--Lat 44°10'45", long 122°07'45", on line between NE¼ and NW¼ sec.18, T.16 S., R.6 E., on left bank 1.0 mile upstream from Glen Creek, 1.7 miles east of town of McKenzie Bridge, and at mile 69.9.

Drainage area.--348 sq mi.

Water-temperature records available.--120 spot observations March 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	45	43	41	39	41	40	43	44	47	49	48	46
	Max.-Min.	49 42	47 40	44 34	42 36	42 39	43 35	46 40	46 41	51 44	55 44	51 46	48 40
†Adjusted	Mean	44	43	41	40	40	41	43	44	47	48	48	47
	Max.-Min.	49 39	50 37	46 34	46 35	44 34	43 35	46 39	50 40	53 42	55 41	52 45	51 40

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

147-South Fork McKenzie River above Cougar Reservoir, near Rainbow (14-1592.)

Location.--Lat 44°02'50", long 122°13'00", in T.17 S., R.5 E. (unsurveyed), on right bank 100 ft upstream from Tipsoo Creek, 8 miles south of Rainbow, 9 miles southeast of town of Blue River, and at mile 10.4.

Drainage area.--160 sq mi at cableway 0.2 mile downstream.

Water-temperature records available.--Thermograph record November 1957 to September 1962.

Water-temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	-	40	[a]41	[a]40	41	40	43	48	52	53	52	50
	Max.-Min.	- -	[a]44 [a]38	[a]42 38	[a]41 [a]39	[a]42 [a]38	43 38	47 40	54 42	58 49	59 49	57 48	53 45
1959	Mean	46	44	42	41	40	42	44	46	51	54	52	49
	Max.-Min.	49 42	48 39	45 40	43 37	42 37	43 39	48 40	53 42	58 47	59 48	57 48	53 45
1960	Mean	47	44	42	38	39	40	43	44	50	54	52	49
	Max.-Min.	50 43	47 41	44 39	40 36	41 34	43 35	46 40	49 41	56 45	60 48	57 47	53 45
1961	Mean	46	42	41	41	42	41	42	44	52	53	52	48
	Max.-Min.	50 42	45 39	43 39	43 38	44 39	44 39	46 39	51 40	59 46	58 47	57 49	53 44
1962	Mean	45	42	40	[a]37	[a]38	40	42	45	50	52	50	50
	Max.-Min.	49 42	45 38	42 36	[a]40 [a]33	[a]40 [a]33	44 33	46 41	50 42	56 44	58 47	56 47	53 46
1958-62	Mean	46	42	41	39	40	41	43	45	51	53	52	49
	Max.-Min.	50 42	48 38	45 36	43 33	44 33	44 33	48 39	54 40	59 44	60 47	57 47	53 44

a Computed on basis of available record and correlation with thermograph records for South Fork McKenzie River near Rainbow.

148-South Fork McKenzie River near Rainbow (14-1595.)

Location.--Lat 44°08'10", long 122°14'50", in NE¼ sec.31, T.16 S., R.5 E., on right bank 0.2 mile upstream from Cougar Creek, 2 miles south of Rainbow, 5 miles southeast of town of Blue River, and at mile 3.9.

Drainage area.--208 sq mi.

Water-temperature records available.--Thermograph record July 1955 to September 1962.

Remarks.--Storage in Cougar Reservoir did not begin until September 1963.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1955	Mean	-	-	-	-	-	-	-	-	-	-	54	50
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	62 48	56 45
1956	Mean	48	42	42	41	[a]38	[a]40	42	44	48	56	56	52
	Max.-Min.	50 42	48 36	43 39	43 35	[a]41 35	[a]42 [a]37	45 40	49 42	57 43	63 49	62 51	60 47
1957	Mean	46	42	40	40	40	43	45	48	54	56	56	54
	Max.-Min.	51 42	44 39	43 36	41 36	43 36	45 41	52 42	58 44	62 47	63 50	62 50	60 48
1958	Mean	48	42	42	41	42	42	44	50	54	58	[a]57	[a]54
	Max.-Min.	53 44	46 38	43 39	42 40	44 40	46 39	49 41	59 42	66 49	68 51	[a]66 [a]51	[a]59 [a]47
1959	Mean	49	45	44	42	40	42	45	48	[a]56	[a]60	58	54
	Max.-Min.	55 44	50 40	47 41	44 36	44 38	44 39	51 40	56 42	[a]61 [a]48	[a]67 [a]51	66 53	61 48
1960	Mean	50	45	42	38	42	42	44	46	54	60	57	54
	Max.-Min.	54 44	49 42	45 39	42 36	43 37	45 36	49 42	51 43	62 47	65 53	64 50	60 48
1961	Mean	50	44	42	42	44	42	44	47	57	60	59	56
	Max.-Min.	56 45	49 42	43 39	45 38	45 41	45 41	48 41	54 43	65 49	65 51	65 55	60 47
1962	Mean	48	42	40	38	40	40	43	46	52	58	57	55
	Max.-Min.	55 44	45 38	41 36	42 33	41 34	43 34	47 40	50 43	62 45	64 52	63 52	61 49
1955-62	Mean	48	43	42	40	41	42	44	47	54	58	57	54
	Max.-Min.	56 42	50 36	47 36	45 33	45 34	46 34	52 40	59 42	66 43	68 49	66 48	61 45

a Computed on basis of available record and correlation with thermograph records for South Fork McKenzie River above Cougar Reservoir, near Rainbow and North Santiam River below Boulder Creek, near Detroit.

149-Mann Creek near McKenzie Bridge (14-1600.)

Location.--Lat 44°17'50", long 122°10'20", T.15 S., R.5 E. (unsurveyed), on right bank 600 ft upstream from confluence with Wolf Creek and 8½ miles north of town of McKenzie Bridge.

Drainage area.--5.12 sq mi.

Water-temperature records available.--60 spot observations July 1948 to September 1952.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	40	42	37	34	35	36	38	42	46	52	54	51
	Max.-Min.	45 36	46 40	40 33	36 32	38 32	37 35	39 38	46 38	53 39	56 44	57 49	52 50
†Adjusted	Mean	47	42	39	37	37	39	41	43	48	53	54	51
	Max.-Min.	55 36	53 33	47 32	46 32	43 32	42 32	47 36	53 37	57 39	62 42	60 48	59 45

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek near Detroit.

150-Wolf Creek near McKenzie Bridge (14-1605.)

Location.--Lat 44°17'40", long 122°10'10", T.15 S., R.5 E. (unsurveyed), on left bank 150 ft upstream from confluence with Mann Creek and 8½ miles north of town of McKenzie Bridge.

Drainage area.--2.1 sq mi, approximately.

Water-temperature records available.--75 spot observations July 1948 to September 1952.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	43	38	34	36	36	39	44	47	51	54	50
	Max.-Min.	45 38	46 39	42 32	37 32	38 34	36 35	43 38	54 39	53 43	58 48	56 53	50 49
†Adjusted	Mean	47	42	39	37	37	39	41	43	48	52	53	51
	Max.-Min.	55 38	52 33	47 32	45 32	43 32	42 32	47 36	54 37	57 40	62 42	59 48	58 44

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

151-Blue River above Quentin Creek (14-1610.)

Location.--Lat 44°16'00", long 122°12'00", T.15 S., R.5 E. (unsurveyed), on left bank about 0.9 mile upstream from Quentin Creek, 7 miles north of town of McKenzie Bridge, 11 miles northeast of town of Blue River, and at mile 13.9.

Drainage area.--11.5 sq mi.

Water-temperature records available.--60 spot observations November 1947 to October 1955.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	44	38	40	37	38	39	41	45	54	53	51
	Max.-Min.	52 45	48 41	42 33	41 38	38 35	41 37	41 39	44 40	55 37	58 49	56 51	54 47
†Adjusted	Mean	47	42	38	37	37	38	41	43	47	54	55	52
	Max.-Min.	56 44	54 32	47 32	46 32	43 32	42 32	47 36	54 37	59 37	64 42	61 47	60 45

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

152-Lookout Creek near Blue River (14-1615.)

Location.--Lat 44°12'40", long 122°15'20", in T.15 or 16 S., R.5 E. (unsurveyed), on left bank 0.5 mile upstream from mouth and 6 miles northeast of town of Blue River.

Drainage area.--24.1 sq mi.

Water-temperature records available.--Thermograph record September 1950 to September 1955.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	-	-	-	55
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	60 48
1951	Mean	48	43	43	40	40	38	41	46	52	59	59	56
	Max.-Min.	50 43	46 41	45 41	42 35	41 36	41 33	46 39	51 41	61 45	64 52	63 53	59 52
1952	Mean	50	44	42	38	40	40	42	44	50	58	59	56
	Max.-Min.	54 44	46 41	45 39	41 36	42 36	42 39	45 40	50 41	57 45	62 50	64 53	60 51
1953	Mean	52	42	40	42	42	44	43	44	48	58	59	57
	Max.-Min.	55 48	49 35	42 36	43 40	44 41	46 41	46 41	49 42	54 44	64 50	64 54	61 52
1954	Mean	50	46	42	40	42	40	43	48	48	56	58	54
	Max.-Min.	53 45	48 43	45 40	43 36	42 39	42 38	47 39	55 39	57 45	63 48	63 53	59 47
1955	Mean	47	45	40	38	38	38	40	42	48	52	58	54
	Max.-Min.	50 42	46 39	42 35	41 36	39 35	41 35	44 37	47 39	53 42	61 45	63 54	61 48
1950-55	Mean	49	44	41	40	40	40	42	45	49	57	59	55
	Max.-Min.	55 42	49 35	45 35	43 35	44 35	46 33	47 37	55 39	61 42	64 45	64 53	61 47

153-Blue River near Blue River (14-1620.)

Location.--Lat 44°10'55", long 122°16'45", in NW¼ sec.13, T.16 S., R.4 E., on right bank 2.5 miles downstream from Lookout Creek, 3.3 miles upstream from Quartz Creek, 3.5 miles northeast of town of Blue River, and at mile 5.1.

Drainage area.--75.0 sq mi.

Water-temperature records available.--123 spot observations December 1946 to September 1962. Thermograph record July 1961 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	-	-	-	-	-	-	-	66	68	58
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	72 57	74 62	64 52
1962	Mean	49	41	39	39	40	40	44	46	55	62	64	60
	Max.-Min.	56 44	45 37	40 35	41 36	42 38	43 38	47 42	50 43	65 45	73 54	72 57	68 54
1961-62	Mean	49	41	39	39	40	40	44	46	55	64	66	59
	Max.-Min.	56 44	45 37	40 35	41 36	42 38	43 38	47 42	50 43	65 45	73 54	74 57	68 52

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	43	41	39	39	41	45	46	49	62	64	59
	Max.-Min.	59 45	47 38	46 34	43 33	45 33	45 37	56 41	56 41	52 44	69 50	73 54	66 44
†Adjusted	Mean	50	43	41	40	41	41	44	48	56	64	65	59
	Max.-Min.	61 41	50 36	47 34	46 33	47 33	46 33	56 39	63 40	72 43	76 46	75 54	70 44

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

154-McKenzie River near Vida (14-1625.)

Location.--Lat 44°07'30", long 122°28'10", in NE¼ sec.5, T.17 S., R.3 E., on left bank 1 mile upstream from head of Martin Rapids, 5 miles east of Vida, and at mile 47.7.

Drainage area.--930 sq mi at cableway 0.4 mile downstream.

Water-temperature records available.--123 spot observations March 1947 to September 1962. Thermograph record June 1961 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	-	-	-	-	-	-	-	56	55	50
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	57 -	58 51	58 53	54 48
1962	Mean	46	44	43	40	41	42	44	46	52	54	56	52
	Max.-Min.	49 42	45 43	44 41	42 36	41 39	44 39	48 44	49 45	57 46	59 50	59 52	55 49
1961-62	Mean	46	44	43	40	41	42	44	46	52	55	56	51
	Max.-Min.	49 42	45 43	44 41	42 36	41 39	44 39	48 44	49 45	57 46	59 50	59 52	55 48

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	44	44	39	41	41	44	46	49	53	54	49
	Max.-Min.	58 42	46 41	48 38	44 36	46 38	45 36	47 41	48 43	51 46	60 50	62 46	56 45
†Adjusted	Mean	48	44	43	42	42	43	45	47	51	53	55	49
	Max.-Min.	58 42	49 39	48 38	46 36	47 36	46 36	50 41	56 42	61 46	60 43	62 46	56 43

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

155-Gate Creek at Vida (14-1630.)

Location.--Lat 44°08'45", long 122°34'15", in sec.28, T.16 S., R.2 E., on right bank at Vida, 300 ft downstream from bridge on U.S. Highway 126, and 1,000 ft upstream from mouth.

Drainage area.--47.6 sq mi.

Water-temperature records available.--77 spot observations March 1947 to October 1957. Also, once daily observations (1 p.m.) June to August 1949 and 1950, July, August 1951, and May to August 1952 at fish hatchery, 0.3 mile upstream from mouth.

Remarks.--Hatchery records of water temperature furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1949	Mean	-	-	-	-	-	-	-	-	61	63	65	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	64 57	68 58	70 62	- -
1950	Mean	-	-	-	-	-	-	-	-	62	62	65	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	68 58	66 57	66 62	- -
1951	Mean	-	-	-	-	-	-	-	-	-	61	60	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	64 58	62 54	- -
1952	Mean	-	-	-	-	-	-	-	53	55	61	61	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	60 46	62 48	66 52	66 52	- -
1949-52	Mean	-	-	-	-	-	-	-	53	59	62	63	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	60 46	68 48	68 52	70 52	- -

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	44	44	40	42	41	43	49	54	59	60	58
	Max.-Min.	57 47	49 39	47 39	49 36	47 37	44 36	46 39	55 43	63 44	66 53	64 51	64 51
†Adjusted	Mean	48	44	44	41	42	42	44	49	54	61	62	56
	Max.-Min.	58 40	50 38	50 39	49 35	48 35	47 35	52 39	62 41	68 42	72 44	71 51	66 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

156-McKenzie River below Gate Creek, near Vida

Location.--Lat 44°08'30", long 122°36'25", in SE¼ sec.30, T.16 S., R.2 E., at fish hatchery 1.7 miles west of Vida, 2.1 miles downstream from Gate Creek, and at mile 39.7.

Water-temperature records available.--Once-daily observations at 6 p.m. October 1953 to September 1962.

Remarks.--Records furnished by Oregon State Game Commission. Diversion is from a point 500 feet above Leaburg dam.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1954	Mean	47	46	43	41	42	41	44	48	49	53	52	51
	Max.-Min.	50 44	48 43	46 40	44 38	43 40	44 38	47 42	51 43	52 47	55 50	54 50	53 47
1955	Mean	47	45	41	40	40	41	43	45	48	52	54	51
	Max.-Min.	49 43	47 39	44 38	43 38	42 38	44 38	45 40	47 42	51 45	55 47	57 52	55 47
1956	Mean	47	42	41	41	39	41	43	45	49	53	53	50
	Max.-Min.	50 46	48 35	44 38	43 36	40 34	42 38	45 41	48 43	53 46	55 52	55 50	52 48
1957	Mean	46	42	41	38	41	43	45	49	52	53	53	51
	Max.-Min.	49 43	45 39	44 37	41 33	43 38	45 41	49 42	52 46	55 48	56 52	54 51	54 49
1958	Mean	47	42	42	42	43	41	44	49	52	56	56	51
	Max.-Min.	50 45	48 39	45 39	44 40	44 41	44 39	46 42	52 45	57 49	58 52	58 53	54 47
1959	Mean	47	43	44	43	42	43	45	47	52	56	55	51
	Max.-Min.	50 42	48 38	47 41	45 36	44 38	44 41	48 42	50 43	56 49	59 51	58 51	54 48
1960	Mean	48	43	41	39	41	41	44	45	51	55	54	51
	Max.-Min.	52 43	47 40	44 38	42 36	44 36	44 37	46 41	50 42	54 49	57 52	57 50	56 48
1961	Mean	48	44	41	41	43	42	44	46	52	54	55	49
	Max.-Min.	51 45	48 41	44 38	44 36	45 41	44 40	46 41	49 43	55 49	57 50	57 53	52 46
1962	Mean	46	41	41	39	40	40	43	46	52	55	54	53
	Max.-Min.	48 42	44 37	43 38	43 32	43 34	42 36	45 40	49 43	56 46	58 52	57 52	54 50
1954-62	Mean	47	43	42	40	41	41	44	47	51	54	54	51
	Max.-Min.	52 42	48 35	47 37	45 32	45 34	45 36	49 40	52 42	57 45	59 47	58 50	56 46

157-McKenzie River at Leaburg

Location.--SE¼ sec.9, T.17 S., R.1 E., in canal just above Leaburg powerplant, half a mile below Leaburg, and at mile 38.8.

Water-temperature records available.--Spot observations generally once daily November 1944 to June 1950 and two or three times daily thereafter.

Remarks.--Records furnished by Eugene Water and Electric Board. Records obtained in canal about 4 miles below point of diversion at Leaburg Dam; pond above dam is so small and flow in canal so swift that temperatures are considered representative of river temperatures.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1945	Mean	-	43	42	42	43	43	46	50	54	59	57	53
	Max.-Min.	- -	46 42	46 38	47 39	45 42	46 41	50 42	53 47	58 51	61 56	59 54	56 50
1946	Mean	48	46	43	43	42	44	47	49	52	57	56	52
	Max.-Min.	52 45	48 43	49 38	45 40	44 40	47 43	50 44	52 46	57 49	60 53	58 52	55 50
1947	Mean	47	44	44	40	43	45	47	53	54	57	56	54
	Max.-Min.	50 43	46 42	47 41	44 36	44 40	47 42	51 43	57 48	59 50	60 53	59 52	57 50
1948	Mean	50	45	43	42	41	43	45	48	53	56	56	51
	Max.-Min.	54 47	48 41	46 40	46 38	45 37	46 41	49 41	52 45	59 48	59 52	59 53	55 46
1949	Mean	47	43	41	37	39	43	46	48	53	56	56	53
	Max.-Min.	50 43	46 42	46 36	41 33	43 35	44 41	48 42	52 44	58 47	59 53	59 54	58 50
1950	Mean	46	45	42	38	40	43	45	48	-	-	-	53
	Max.-Min.	51 42	48 42	46 40	42 34	43 35	44 41	46 42	50 43	- -	- -	- -	57 48
1951	Mean	49	46	45	43	42	42	47	49	55	57	56	a52
	Max.-Min.	52 46	50 43	47 42	45 36	45 39	46 36	51 43	54 46	59 49	60 52	58 51	a54 a49
1952	Mean	a46	a43	42	40	42	43	46	48	51	57	57	53
	Max.-Min.	a51 a42	a46 a40	46 40	43 38	45 39	46 41	50 42	54 44	56 47	60 52	60 52	56 50
1953	Mean	49	43	42	44	43	43	47	48	50	57	55	55
	Max.-Min.	52 46	47 38	45 39	47 42	46 40	46 40	50 43	52 43	55 43	60 54	58 51	56 52
1954	Mean	48	46	44	42	43	43	47	50	51	55	54	52
	Max.-Min.	51 45	49 44	47 42	44 39	45 42	46 40	50 43	55 43	57 48	59 51	59 51	56 48
1955	Mean	48	47	43	42	42	42	45	48	50	55	56	53
	Max.-Min.	51 44	48 41	45 39	46 40	44 39	46 40	48 42	52 44	55 45	60 49	60 52	57 50
1956	Mean	49	44	43	42	40	43	45	48	51	56	55	52
	Max.-Min.	52 44	48 37	47 39	46 38	43 36	46 39	49 42	54 44	58 46	60 52	59 50	56 50
1957	Mean	48	44	43	40	42	44	47	51	56	57	56	a54
	Max.-Min.	52 44	47 41	46 39	44 35	46 39	47 42	54 43	58 47	60 49	60 54	58 54	a57 a50
1958	Mean	48	44	43	43	45	44	47	52	55	59	58	a53
	Max.-Min.	54 46	48 40	47 40	46 41	47 43	47 41	51 44	57 46	63 50	62 54	61 54	a59 a51
1959	Mean	a50	46	45	45	44	45	48	50	55	59	a57	53
	Max.-Min.	a54 a45	52 40	49 43	47 38	46 40	47 42	54 45	56 46	62 50	63 53	a61 a53	57 48
1960	Mean	50	45	43	41	44	44	46	49	55	59	57	a53
	Max.-Min.	54 45	50 42	45 41	44 38	46 39	48 39	50 43	54 45	59 51	62 55	61 53	a57 a50
1961	Mean	a49	45	43	43	45	45	46	49	56	58	58	a53
	Max.-Min.	a54 a44	50 42	45 40	46 39	49 42	48 42	51 41	54 45	62 50	62 53	62 54	a58 a48
1962	Mean	48	44	43	41	43	43	47	48	a53	58	56	54
	Max.-Min.	52 44	47 40	46 38	46 34	45 37	48 38	52 43	53 45	a60 a48	60 53	59 53	56 50
1955-62	Mean	48	45	43	42	42	43	46	49	53	57	56	53
	Max.-Min.	54 42	52 37	49 36	47 33	49 35	48 36	54 41	58 43	63 43	63 49	62 50	59 46

a Computed on basis of available record and correlation with thermograph records for North Santiam River below Boulder Creek, near Detroit.

158-Cogswell Creek near Leaburg

Location.--Lat 44°07'10", long 122°38'05", in NE¼SW¼ sec.1, T.17 S., R.1 E., at fish hatchery 0.2 mile upstream from mouth and 2 miles northeast of Leaburg.

Water-temperature records available.--Three observations daily (6 a.m., 12 m., 6 p.m.) January 1943 to December 1945, and once-daily observations from January 1946 to January 1948, January 1949 to December 1959.

Remarks.--Records furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	42	44	44	49	50	52	57	57	57
	Max.-Min.	- -	- -	- -	46 35	47 40	50 40	54 42	58 43	56 48	64 52	62 52	62 54
1944	Mean	53	48	42	42	43	44	46	49	52	57	57	57
	Max.-Min.	57 48	52 43	50 38	46 38	48 39	48 38	50 42	54 45	58 47	66 52	64 52	64 50
1945	Mean	53	45	42	44	45	45	46	51	53	58	59	55
	Max.-Min.	56 50	51 38	48 38	49 39	48 42	48 41	53 42	56 48	60 47	64 52	64 52	62 48
1946	Mean	51	45	43	42	40	43	47	50	53	57	59	54
	Max.-Min.	56 44	52 39	48 39	46 38	43 36	46 40	54 41	53 48	59 50	66 52	62 56	59 48
1947	Mean	47	43	43	37	42	43	47	52	52	57	58	56
	Max.-Min.	52 42	47 40	48 40	42 34	46 38	48 40	52 43	56 48	55 48	60 54	60 56	60 52
1948	Mean	52	47	44	42	-	-	-	-	-	-	-	-
	Max.-Min.	57 50	49 42	46 40	46 36	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	36	37	44	49	52	58	59	59	57
	Max.-Min.	- -	- -	- -	39 34	42 32	46 42	52 44	54 47	61 56	62 56	64 55	60 54
1950	Mean	46	50	43	39	41	43	46	49	53	60	60	56
	Max.-Min.	50 44	52 44	46 40	41 37	44 34	44 41	50 42	54 42	60 50	62 58	64 58	60 50
1951	Mean	52	48	48	45	45	44	50	52	-	-	60	57
	Max.-Min.	56 48	52 44	50 46	48 40	48 41	48 39	54 46	54 46	- -	- -	64 55	61 54
1952	Mean	52	48	45	42	44	44	50	54	57	63	63	59
	Max.-Min.	58 46	50 44	49 42	44 40	46 41	48 42	54 46	60 49	62 52	68 57	68 60	62 56
1953	Mean	54	44	42	46	46	46	50	52	55	64	62	60
	Max.-Min.	58 50	49 36	44 40	48 43	48 44	50 42	56 46	59 48	60 51	66 58	66 58	63 54
1954	Mean	51	48	45	41	44	43	50	52	54	59	57	54
	Max.-Min.	56 47	51 45	48 41	46 38	47 41	45 41	54 44	56 42	58 50	64 52	60 54	58 48
1955	Mean	47	45	40	38	38	38	39	46	53	55	56	51
	Max.-Min.	50 42	48 39	42 38	42 36	42 35	42 35	44 37	52 40	60 43	61 50	60 50	58 44
1956	Mean	47	40	37	38	37	41	47	54	57	60	60	56
	Max.-Min.	50 43	46 33	40 34	41 33	41 33	44 38	56 42	60 50	62 51	63 57	63 56	59 53
1957	Mean	46	41	39	37	41	43	47	51	55	58	56	54
	Max.-Min.	50 41	44 36	45 35	40 33	47 34	46 40	55 43	57 47	60 49	59 57	58 53	57 50
1958	Mean	47	40	41	42	43	43	49	55	56	60	60	53
	Max.-Min.	51 43	43 37	43 37	44 40	46 39	47 38	54 46	58 50	64 51	64 55	62 57	60 48
1959	Mean	48	44	45	45	44	46	50	51	56	60	58	54
	Max.-Min.	52 43	53 40	48 42	48 38	48 42	48 43	54 48	58 46	62 51	65 54	62 54	56 52
1960	Mean	51	44	43	-	-	-	-	-	-	-	-	-
	Max.-Min.	54 45	50 40	46 40	- -	- -	- -	- -	- -	- -	- -	- -	- -
1943-60	Mean	50	45	43	41	42	43	48	51	54	59	59	56
	Max.-Min.	58 41	53 33	50 34	49 33	48 32	50 35	56 37	60 40	64 43	68 50	68 50	64 44

159-McKenzie River near Springfield (14-1640.)

Location.--Lat 44°03'20", long 122°49'45", near line between secs.29 and 32, T.17 S., R.1 W., at Hendricks Bridge, at former U.S. Geological Survey gaging station 1.6 miles southwest of Walterville, 8 miles east of Springfield, and at mile 24.0.

Drainage area.--1,095 sq mi (revised).

Water-temperature records available.--Thermograph record May to December 1950.

Remarks.--Records furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	47	48	56	59	55
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	50 43	54 44	64 52	64 54	64 47
1951	Mean	49	44	44	-	-	-	-	-	-	-	-	-
	Max.-Min.	51 46	48 42	46 42	- -	- -	- -	- -	- -	- -	- -	- -	- -

160-McKenzie River at Hayden Bridge, near Springfield

Location.--Lat 44°04'20", long 122°57'45", in sec.20, T.17 S., R.2 W., 1.3 miles upstream from Mohawk River, 2.5 miles northeast of Springfield, and at mile 14.8.

Water-temperature records available.--33 spot observations, July to September only, 1950-59. No observations were made in 1952.

Remarks.--Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	62	59	56
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	70 57	64 54	57 54
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

161-Mohawk River near Springfield (14-1650.)

Location.--Lat 44°06', long 122°57', in sec.17, T.17 S., R.2 W., on downstream side of bridge near midspan, 4½ miles northeast of Springfield, and at mile 1.6.

Drainage area.--177 sq mi.

Water-temperature records available.--30 spot observations September 1947 to October 1952.

Remarks.--Some regulation of low flows by log ponds.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	47	46	43	43	43	52	55	61	70	69	62
	Max.-Min.	58 55	49 46	46 46	45 38	43 43	45 42	53 52	60 49	61 61	74 67	70 68	64 54
†Adjusted	Mean	55	48	45	44	46	47	53	56	61	69	68	62
	Max.-Min.	67 46	56 44	52 44	49 38	53 43	55 42	61 45	65 45	71 52	79 55	77 58	72 52

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

162-McKenzie River at Old Ferry Crossing, near Springfield

Location.--Lat 44°04'50", long 122°59'30", in sec.24, T.17 S., R.3 W., 2 miles north of Springfield, 1.2 miles downstream from Mohawk River, and at mile 12.5.

Water-temperature records available.--27 spot observations, July to September only, 1951-59. No observations were made in 1952.

Remarks.--Record furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	64	61	57
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	71 58	66 55	59 54
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

163-McKenzie River near Coburg (14-1655.)

Location.--Lat 44°06'45", long 123°02'45", in NE¼NE¼ sec.9, T.17 S., R.3 W., on left bank at downstream side of Armitage Bridge, 2 miles southeast of Coburg, at mile 7.1.

Drainage area.--1,337 sq mi.

Water-temperature records available.--127 spot observations December 1946 to September 1962. Also, State Sanitary Authority obtained 33 spot observations July to September only, 1950-59.

Remarks.--Slight diurnal fluctuation of flow caused by logponds and powerplants upstream. Water supply for city of Eugene is diverted 10 miles upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	47	43	43	43	44	47	52	53	60	59	55
	Max.-Min.	56 47	49 43	45 41	49 36	45 37	47 39	49 43	65 45	57 44	67 47	63 47	60 53
†Adjusted	Mean	50	46	43	43	43	45	48	52	55	61	61	56
	Max.-Min.	57 43	51 40	48 39	49 36	48 35	49 38	54 43	65 44	66 44	68 47	68 47	63 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

Water temperature (°F) by State Sanitary Authority

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	63	61	57
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	69 59	66 55	61 54
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

164-Willamette River at Koon Sand and Gravel Plant, near Junction City

Location.--Lat 44°12'15", long 123°09'50", in sec.3, T.16 S., R.4 W., 2.3 miles southeast of Junction City and at mile 168.

Water-temperature records available.--29 spot observations, July to September only, 1950-58.

Remarks.--Flow regulated by Cottage Grove and Dorena Reservoirs and, since November 1953, by Lookout Point Reservoir. Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	67	65	61
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	73 64	71 59	66 52
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

165-Willamette River at Harrisburg (14-1660.)

Location.--Lat 44°16'05", long 123°10'20", in SW¼NE¼ sec.16, T.15 S., R.4 W., on right bank 10 ft downstream from bridge on U.S. Highway 99 at Harrisburg at mile 161.2.

Drainage area.--3,420 sq mi, approximately.

Water-temperature records available.--126 spot observations December 1946 to September 1962 and thermograph record from July 1961 to September 1962. Also, State Sanitary Authority obtained 33 spot observations July to September only, 1950-59.

Remarks.--Flow regulated since 1942 by Cottage Grove Reservoir, since 1949 by Dorena Reservoir, since 1953 by Lookout Point Reservoir, and since 1961 by Hills Creek Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	-	-	-	-	-	-	-	64	64	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	69 60	66 61	65 59
1962	Mean	56	48	45	42	42	46	50	52	60	64	62	60
	Max.-Min.	61 50	51 45	47 42	46 36	45 39	48 43	53 47	56 48	63 54	68 59	65 58	63 57
1961-62	Mean	56	48	45	42	42	46	50	52	60	64	63	61
	Max.-Min.	61 50	51 45	47 42	46 36	45 39	48 43	53 47	56 48	63 54	69 59	66 58	65 57

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	49	45	42	45	44	48	54	56	66	65	61
	Max.-Min.	60 51	53 44	48 42	46 38	48 41	48 41	49 46	57 50	62 50	69 61	71 59	65 56
†Adjusted	Mean	55	49	45	44	45	45	50	54	60	64	65	61
	Max.-Min.	63 51	55 41	52 39	51 33	52 33	51 34	57 43	65 47	71 50	72 52	71 59	68 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

Water temperature (°F) by State Sanitary Authority

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	68	66	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	73 64	72 59	66 50
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

166-Willamette River at Irish Bend at Norwood Island, near Harrisburg

Location.--Lat 44°22'55", long 123°14'30", in sec.1, T.14 S., R.5 W., 8.5 miles northwest of Harrisburg, 2.7 miles upstream from Long Tom River, and at mile 148.6.

Water-temperature records available.--30 spot observations, July to September only, 1950-58. No observations were made in 1952.

Remarks.--Flow regulated by Cottage Grove and Dorena Reservoirs and, since November 1953 by Lookout Point Reservoir. Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	69	67	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	75 65	72 61	70 61
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

167-Long Tom River near Noti (14-1665.)

Location.--Lat 44°03'00", long 123°25'30", in sec.33, T.17 S., R.6 W., on left bank 0.2 mile upstream from Southern Pacific Railroad bridge, 0.9 mile downstream from Noti Creek, 1.3 miles southeast of Noti, and at mile 37.4.

Drainage area.--89.3 sq mi.

Water-temperature records available.--130 spot observations December 1946 to September 1962.

Remarks.--Slight diurnal fluctuation in flow caused by logpond above Noti.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	45	44	43	44	46	48	55	59	63	63	59
	Max.-Min.	55 47	52 38	50 39	49 33	49 38	51 40	54 40	62 46	62 56	67 56	67 58	67 51
†Adjusted	Mean	53	47	45	44	45	47	48	55	59	64	63	57
	Max.-Min.	61 45	53 38	51 39	50 33	50 35	51 38	55 40	66 46	71 50	72 51	70 56	67 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

168-Coyote Creek near Crow (14-1670.)

Location.--Lat 44°01'19", long 123°15'17", in NE¼ sec.11, T.18 S., R.5 W., on right bank just upstream from Fern Ridge Reservoir, 1.0 mile downstream from Spencer Creek, 5 miles northeast of Crow, and at mile 3.8.

Drainage area.--95.1 sq mi.

Water-temperature records available.--127 spot observations December 1946 to September 1962.

Remarks.--No flow at times during summer months.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	47	44	43	41	44	48	59	61	67	69	59
	Max.-Min.	57 48	56 41	49 40	49 37	50 35	49 37	54 39	67 54	68 52	71 61	75 63	64 53
†Adjusted	Mean	54	47	44	44	44	45	49	59	60	67	67	62
	Max.-Min.	64 44	56 37	52 38	52 34	53 34	52 34	57 39	71 51	73 48	76 52	75 60	71 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

169-Long Tom River near Alvadore (14-1690.)

Location.--Lat 44°07'25", long 123°17'55", in SW¼NE¼ sec.4, T.17 S., R.5 W., on left bank 1,000 ft downstream from Fern Ridge Dam, 1.7 miles west of Alvadore, and at mile 25.5.

Drainage area.--252 sq mi, not including Amazon Creek basin.

Water-temperature records available.--124 spot observations December 1946 to September 1962.

Remarks.--Flow regulated by Fern Ridge Reservoir since 1941.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	47	43	41	43	45	51	57	63	70	70	67
	Max.-Min.	64 48	50 43	46 39	46 35	49 36	52 41	56 39	63 46	71 52	76 62	74 66	73 64
†Adjusted	Mean	58	48	43	43	45	47	52	58	66	69	70	65
	Max.-Min.	68 47	57 36	52 36	53 32	54 32	55 33	61 39	71 46	78 52	78 54	78 63	74 56

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

170-Amazon Creek near Eugene (14-1695.)

Location.--Lat 44°03'40", long 123°11'40", in SE¼ sec.29, T.17 S., R.4 W., on right bank 250 ft upstream from diversion structure, 5 miles west of Eugene, and at mile 12.3.

Drainage area.--21.3 sq mi.

Water-temperature records available.--64 spot observations November 1954 to September 1962.

Remarks.--During summer and fall, natural flow (if any) may be augmented slightly by return flow from irrigation in and below the city of Eugene.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	48	46	41	42	44	49	62	72	80	70	72
	Max.-Min.	64 44	52 45	51 39	44 36	49 35	49 37	59 40	76 48	79 62	85 74	75 59	80 64
†Adjusted	Mean	58	48	45	42	45	47	52	62	73	78	73	69
	Max.-Min.	73 43	60 37	55 38	52 32	55 32	55 33	65 40	82 48	86 55	86 54	83 59	83 54

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

171-Long Tom River at Monroe (14-1700.)

Location.--Lat 44°18'50", long 123°17'45", in NE¼ sec.33, T.14 S., R.5 W., on left bank in canalized river channel at Monroe, 110 ft upstream from bridge on U.S. Highway 99 W., 500 ft downstream from Shafer Creek, and at mile 6.8.

Drainage area.--391 sq mi.

Water-temperature records available.--122 spot observations March 1947 to September 1962. Thermograph record May to September 1950 on U.S. Highway 99W bridge.

Remarks.--Flow regulated by Fern Ridge Reservoir since 1941. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	61	66	74	73	67
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	70 51	75 60	78 70	78 69	74 60

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	50	45	42	43	46	52	60	66	71	73	63
	Max.-Min.	61 48	52 47	48 42	46 34	47 37	51 41	57 47	73 55	74 59	77 54	78 65	68 57
†Adjusted	Mean	57	48	45	43	45	48	53	62	67	70	71	64
	Max.-Min.	68 46	57 35	54 37	53 32	54 32	55 33	63 45	75 53	81 55	81 53	80 63	74 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

172-Long Tom River near Monroe

Location.--Lat 44°22'25", long 123°15'35", in sec.11, T.14 S., R.5 W., 4.5 miles northeast of Monroe and at mile 7.

Water-temperature records available.--30 spot observations, July to September only, 1950-59. No observations were made in 1952 and 1955.

Remarks.--Flow regulated by Fern Ridge Reservoir. Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	78	73	65
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	84 73	81 64	72 52
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

WILLAMETTE RIVER MAIN STEM

173-Willamette River near Corvallis

Location.--Lat 44°32'00", long 123°15'00", in NW¼NW¼ sec.13, T.12 S., R.5 W., at city of Corvallis treatment plant just north of Kiger Island, 2.5 miles southeast of Corvallis, and at mile 134.0.

Water-temperature records available.--Once-daily spot observations reasonably complete for June to September 1957-62; data for October to May of some years are fragmentary with very few observations in those months during water years 1960-62. Also, State Sanitary Authority obtained 35 spot observations, July to September only, 1950-60, at site 0.1 mile upstream.

Remarks.--Flow regulated since 1941 by Fern Ridge Reservoir, since 1942 by Cottage Grove Reservoir, since 1949 by Dorena Reservoir, since 1953 by Lookout Point Reservoir, and since 1961 by Hills Creek Reservoir. Records for 1957-62 furnished by city of Corvallis. Figures for individual months not shown for fragmentary record October to May and period-of-record figures shown for those months may not be representative of the period. Records for 1950-60 furnished by State Sanitary Authority.

Water temperature (°F) by city of Corvallis

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1957	Mean	-	-	-	-	-	-	-	-	65	68	68	65
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	66 62	70 65	70 65	68 64
1958	Mea	-	-	-	-	-	-	-	-	70	71	71	65
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	73 68	76 66	73 67	68 63
1959	Mean	-	-	-	-	-	-	-	-	64	69	68	66
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	67 61	74 64	71 66	67 65
1960	Mean	-	-	-	-	-	-	-	-	63	69	68	65
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	66 61	72 66	71 65	67 64
1961	Mean	-	-	-	-	-	-	-	-	68	68	68	65
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	72 62	72 66	70 64	66 63
1962	Mean	-	-	-	-	-	-	-	-	64	66	65	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	65 60	70 60	67 62	65 63
1957-62	Mean	59	53	47	51	47	49	54	59	66	68	68	65
	Max.-Min.	66 53	56 48	49 45	53 50	50 40	50 47	58 50	66 54	73 60	76 60	73 62	68 63

Water temperature (°F) by State Sanitary Authority

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	72	68	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	77 68	73 61	70 52
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

174-Willamette River at Corvallis Bridge, at Corvallis

Location.--Lat 44°34'45", long 123°15'20", in SE¼ sec.35, T.11 S., R.5 W., at Corvallis and at mile 131.4.

Water-temperature records available.--35 spot observations, July to September only, 1950-60. No observations were made in 1952. Thermograph record August 1948 to December 1950 at approximately the same location.

Remarks.--Spot-observation records furnished by State Sanitary Authority, and thermograph record by U.S. Fish and Wildlife Service. Flow regulated by Fern Ridge, Cottage Grove and Dorena Reservoirs, and, since November 1952, by Lookout Point Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1948	Mean	-	-	-	-	-	-	-	-	-	-	66	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	71 61	70 53
1949	Mean	54	45	41	35	42	47	51	56	62	68	69	63
	Max.-Min.	60 43	49 37	46 35	41 32	47 36	49 44	55 47	62 48	67 53	75 61	74 64	72 59
1950	Mean	51	48	42	36	40	43	48	53	56	67	68	62
	Max.-Min.	62 45	52 43	48 39	40 32	46 32	48 40	52 44	59 45	67 49	74 61	74 62	72 54
1951	Mean	52	45	45	-	-	-	-	-	-	-	-	-
	Max.-Min.	58 45	50 40	47 41	- -	- -	- -	- -	- -	- -	- -	- -	- -
1948-51	Mean	52	46	43	36	41	45	50	54	59	68	68	62
	Max.-Min.	62 43	52 37	48 35	41 32	47 32	49 40	55 44	62 45	67 49	75 61	74 61	72 53

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	71	68	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	79 66	73 61	68 61
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

WILLAMETTE RIVER BASIN

175-Rock Creek near Philomath (14-1705.)

Location.--Lat 44°30'05", long 123°26'20", in NE¼ sec.29, T.12 S., R.6 W., on right bank 250 ft upstream from State Highway 34, 0.2 mile upstream from mouth, and 4½ miles southwest of Philomath.

Drainage area.--14.6 sq mi.

Records available.--42 spot observations March 1947 to October 1952.

Remarks.--Flow regulated by small storage reservoir operated by city of Corvallis.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	46	45	38	42	44	47	50	56	61	63	60
	Max.-Min.	53 48	47 45	45 45	43 33	45 40	46 43	50 44	52 43	62 52	62 61	66 59	63 58
†Adjusted	Mean	53	48	44	42	42	44	46	51	57	61	62	59
	Max.-Min.	63 45	60 37	53 35	52 33	49 34	48 34	53 41	63 43	68 44	72 48	69 55	68 51

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

176-Marys River near Philomath (14-1710.)

Location.--Lat 44°31'35", long 123°20'00", in NE¼SE¼ aec.18, T.12 S., R.5 W., on left bank 50 ft downstream from bridge on Bellfountain Road, 0.6 mile downstream from Newton Creek, 2.0 miles southeast of Philomath, and at mile 9-4.

Drainage area.--159 sq mi (including drainage area of Evergreen Creek above Bellfountain Road, 1.4 miles south of station).

Water-temperature records available.--116 spot observations June 1947 to September 1962.

Remarks.--Slight regulation of flow by small storage reservoir on Rock Creek.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	47	45	41	44	47	49	53	60	66	65	62
	Max.-Min.	52 47	50 43	51 43	47 32	48 37	51 45	56 45	61 44	66 51	70 54	71 53	67 54
†Adjusted	Mean	53	47	44	43	44	46	49	53	60	66	65	61
	Max.-Min.	65 43	54 39	51 40	50 32	51 35	51 37	59 43	70 44	77 45	80 46	77 53	73 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

177-Calapooya River at Holley (14-1720.)

Location.--Lat 44°21'05", long 122°47'10", in SE¼ sec.15, T.14 S., R.1 W., on right bank 200 ft downstream from bridge on State Highway 288, 0.3 mile southwest of Holley, 5.0 miles upstream from Brush Creek, and at mile 45.5.

Drainage area.--105 sq mi.

Water-temperature records available.--110 spot observations July 1947 to September 1962, and thermograph record at practically the same site April 1958 to August 1959.

Remarks.--Slight regulation of low flows by small dam upstream. The thermograph record for April 1958 to August 1959 was furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	-	-	-	-	-	-	45	56	59	68	68	59
	Max.-Min.	- -	- -	- -	- -	- -	- -	53 40	67 44	75 51	80 56	76 60	70 49
1959	Mean	50	45	44	42	40	42	46	48	58	64	63	-
	Max.-Min.	60 41	51 37	49 40	46 33	45 36	46 37	57 40	60 41	69 49	77 53	73 55	- -
1958-59	Mean	50	45	44	42	40	42	46	52	58	66	66	59
	Max.-Min.	60 41	51 37	49 40	46 33	45 36	46 37	57 40	67 41	75 49	80 53	76 55	70 49

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	46	42	40	41	43	46	53	58	68	66	62
	Max.-Min.	59 48	50 39	46 34	48 36	47 33	46 40	50 43	66 44	66 50	78 62	72 59	68 58
†Adjusted	Mean	52	45	43	41	42	45	48	52	61	67	68	62
	Max.-Min.	64 43	52 37	49 34	49 34	49 33	50 36	58 42	68 44	78 47	80 48	79 58	74 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

178-Calapooya River at Albany (14-1735.)

Location.--Lat 44°37'15", long 123°07'40", in NW¼ sec.13, T.11 S., R.4 W., near right bank on downstream side of bridge on Riverside Drive at Albany, 0.6 mile downstream from Oak Creek, and 3.0 miles upstream from mouth.

Drainage area.--372 sq mi.

Water-temperature records available.--99 spot observations December 1946 to September 1962.

Remarks.--Diurnal fluctuation of flow caused by ponds at flour mills near Shedd.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	47	44	39	43	45	50	58	63	69	69	64
	Max.-Min.	63 47	53 43	47 40	44 32	48 37	51 38	53 48	66 52	71 46	74 53	74 61	72 55
†Adjusted	Mean	55	46	43	42	43	47	51	56	63	68	71	63
	Max.-Min.	69 44	54 37	50 38	49 32	50 34	53 37	62 45	74 46	81 46	82 46	83 60	76 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

WILLAMETTE RIVER MAIN STEM

179-Willamette River at Albany (14-1740.)

Location.--Lat 44°38'20", long 123°06'20", in SW¼ sec.6, T.11 S., R.3 W., on right bank 5 ft upstream from bridge on U.S. Highway 20 (Ellsworth Street) in Albany, 0.2 mile downstream from Calapooya River, and at mile 119.3.

Drainage area.--4,840 sq mi, approximately.

Water-temperature records available.--100 spot observations December 1946 to September 1962. Also, State Sanitary Authority obtained 43 spot observations, July to September only, 1950-61.

Remarks.--Flow regulated since 1941 by Fern Ridge Reservoir, since 1942 by Cottage Grove Reservoir, since 1949 by Dorena Reservoir, since 1953 by Lookout Point Reservoir, and since 1961 by Hills Creek Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	47	44	41	44	45	49	58	60	68	66	64
	Max.-Min.	58 54	53 43	48 40	48 32	47 40	50 41	51 47	64 53	64 52	71 63	71 58	70 52
Adjusted	Mean	57	48	45	42	44	45	49	55	63	68	68	62
	Max.-Min.	66 47	56 37	53 39	51 32	52 32	52 32	58 42	68 47	76 52	77 53	76 58	70 52

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

Water temperature (°F) by State Sanitary Authority

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	70	68	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	79 64	72 62	68 59
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

180-Willamette River at Conser Road, near Albany

Location.--Lat 44°41'10", long 123°07'05", in sec.24, T.10 S., R.4 W., 4 miles north of Albany, and at mile 113.4.

Water-temperature records available.--45 spot observations, July to September only, 1950-61.

Remarks.--Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, and Hills Creek Reservoirs. Records furnished by State Sanitary Authority.

Water temperature (°F) by State Sanitary Authority

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	70	68	63
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	77 64	73 63	68 59
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

WILLAMETTE RIVER BASIN

181-North Santiam River at Idanha

Location.--Lat 44°42'05", long 122°04'30", in SE¼ sec.16, T.10 S., R.6 E., on Forest Service bridge at Idanha, 1.0 mile upstream from Boulder Creek, 1.5 miles upstream from U.S. Geological Survey gaging station, 4.4 miles southeast of Detroit, and at mile 72.2.

Water-temperature records available.--Thermograph record May to September 1950.

Remarks.--Records furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	41	43	51	52	50
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	47 38	51 40	57 45	58 47	57 42

182-North Santiam River below Boulder Creek, near Detroit (14-1780.)

Location.--Lat 44°42'25", long 122°06'00", in SE¼NW¼ sec.17, T.10 S., R.6 E., on right bank 0.5 mile downstream from Boulder Creek, 3.0 miles southeast of Detroit, and at mile 70.7.

Drainage area.--216 sq mi.

Water-temperature records available.--Thermograph record April 1951 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	Mean	-	-	-	-	-	-	-	44	50	54	52	49
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	49 40	57 43	59 48	59 46	53 45
1952	Mean	44	40	38	36	38	38	42	44	48	a53	a54	a50
	Max.-Min.	48 40	43 37	40 35	38 33	39 35	43 37	46 40	50 40	54 44	59 48	59 48	54 46
1953	Mean	48	40	38	38	38	38	40	42	48	54	54	52
	Max.-Min.	51 44	45 35	39 35	40 37	39 35	40 36	45 37	48 38	53 42	58 47	59 50	57 48
1954	Mean	46	44	41	38	42	40	42	45	47	52	52	50
	Max.-Min.	49 43	46 41	44 40	41 35	43 40	43 37	46 39	50 39	53 43	58 46	59 49	55 44
1955	Mean	46	42	36	36	36	38	40	42	45	50	52	50
	Max.-Min.	49 41	47 33	38 32	39 35	38 33	43 32	45 38	47 40	51 41	57 44	57 48	56 44
1956	Mean	46	40	a38	a37	36	a38	a41	42	46	54	54	50
	Max.-Min.	48 40	45 34	a42 a36	a39 a34	38 32	a40 a34	a44 a39	48 40	55 41	60 47	59 49	55 47
1957	Mean	46	40	39	36	38	40	a41	a48	52	56	52	50
	Max.-Min.	49 40	43 38	41 37	39 34	40 34	42 38	44 39	55 43	59 47	62 51	57 48	56 46
1958	Mean	46	40	38	39	40	a39	41	48	52	58	57	52
	Max.-Min.	51 41	44 37	40 37	40 38	41 37	41 36	47 38	52 41	61 47	64 49	63 52	58 47
1959	Mean	47	44	42	39	38	40	43	46	52	56	54	50
	Max.-Min.	51 41	48 38	43 39	41 34	41 35	42 37	48 39	54 40	59 46	62 49	60 50	55 44
1960	Mean	46	43	40	37	38	39	40	43	50	54	54	50
	Max.-Min.	48 43	46 41	42 38	39 35	40 33	43 33	45 37	49 39	57 44	61 48	61 49	56 46
1961	Mean	46	42	40	38	39	40	42	44	53	56	56	50
	Max.-Min.	51 42	46 39	41 37	40 35	41 38	44 37	46 38	51 40	60 46	61 50	61 52	57 44
1962	Mean	46	40	38	38	38	a38	42	44	50	55	55	52
	Max.-Min.	50 40	42 36	40 33	40 33	41 34	a44 a34	47 39	50 41	58 44	62 48	60 50	56 48
1951-62	Mean	46	41	39	37	38	39	41	44	49	54	54	50
	Max.-Min.	51 40	48 33	44 32	41 33	43 32	44 32	48 37	55 38	61 41	64 44	63 46	58 44

a Computed on basis of available record and correlation with thermograph records for Breitenbush River above Canyon Creek, near Detroit.

183-Breitenbush River above Canyon Creek, near Detroit (14-1790.)

Location.--Lat 44°45'10", long 122°07'40", in SE¼NE¼ sec.36, T.9 S., R.5 E., on left bank 600 ft upstream from Canyon Creek, 1.5 miles northeast of Detroit, and at mile 2.0.

Drainage area.--106 sq mi.

Water-temperature records available.--Thermograph record December 1950 to July 1961, January to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	Mean	-	-	-	40	38	37	41	44	48	52	52	50
	Max.-Min.	- -	- -	- -	42 35	40 35	40 33	44 38	49 39	54 43	58 47	56 48	54 46
1952	Mean	46	42	38	36	38	39	41	44	48	52	54	50
	Max.-Min.	49 41	42 39	43 36	38 34	39 35	41 38	44 39	49 40	52 44	57 46	58 49	55 47
1953	Mean	47	40	41	42	40	40	42	43	46	51	53	52
	Max.-Min.	51 43	45 35	43 35	45 41	41 38	42 38	44 39	46 41	50 43	55 46	57 50	54 49
1954	Mean	49	48	44	42	42	40	43	46	48	52	51	50
	Max.-Min.	51 47	50 46	47 42	44 39	42 40	41 39	46 39	50 42	53 46	56 47	55 48	53 45
1955	Mean	46	44	38	37	37	38	42	44	44	48	52	50
	Max.-Min.	49 43	45 39	40 35	38 36	38 36	41 36	44 40	46 41	49 41	54 43	55 49	55 45
1956	Mean	45	40	38	38	36	38	40	43	46	52	54	51
	Max.-Min.	47 41	43 37	40 37	39 34	37 33	40 37	43 40	48 41	52 43	58 46	57 50	54 46
1957	Mean	46	40	39	36	38	41	42	46	50	53	54	52
	Max.-Min.	49 42	42 37	42 36	39 34	40 35	43 40	47 40	52 43	55 47	57 49	56 49	56 47
1958	Mean	46	40	39	40	42	42	42	46	50	54	56	54
	Max.-Min.	51 43	44 38	40 38	42 38	43 41	43 40	45 40	51 42	55 47	57 50	58 54	57 51
1959	Mean	52	48	46	44	41	40	44	46	49	52	53	52
	Max.-Min.	54 49	52 44	47 45	46 42	44 38	42 39	47 42	48 44	53 46	54 49	54 52	54 50
1960	Mean	49	44	41	38	39	39	41	42	a50	55	54	52
	Max.-Min.	50 46	46 43	44 38	38 38	40 36	40 35	43 39	45 41	54 a45	57 49	55 51	54 48
1961	Mean	48	43	40	39	40	41	a42	a45	51	a53	a54	a51
	Max.-Min.	50 45	46 41	41 39	39 38	40 39	42 40	a43 a41	48 43	54 47	55 51	a55 a53	a55 a46
1962	Mean	a47	a41	a39	a39	40	40	42	45	50	54	54	53
	Max.-Min.	a51 a41	a43 a37	a41 a34	a41 a34	42 34	43 35	47 40	50 41	56 45	60 48	58 51	56 48
1951-62	Mean	47	43	40	39	39	40	42	44	48	52	53	51
	Max.-Min.	54 41	52 35	47 34	46 34	44 33	43 33	47 38	52 39	56 41	60 43	58 48	57 45

a Computed on basis of available record and correlation with thermograph record for North Santiam River below Boulder Creek, near Detroit.

184-Breitenbush River at mouth, near Detroit

Location.--Lat 44°43'35", long 122°10'30", in NE¼ sec.10, T.10 S., R.5 E., near site of old highway bridge, 0.2 mile upstream from mouth, and 1.2 miles southwest of Detroit.

Water-temperature records available.--Thermograph record May to September 1950.

Remarks.--Record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	42	44	51	53	52
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	47 39	51 41	56 45	57 50	55 48

185-North Santiam River at Niagara (14-1815.)

Location.--Lat 44°45'10", long 122°17'50", in NE¼NE¼ sec.34, T.9 S., R.4 E., on left bank 0.1 mile downstream from Little Sardine Creek, 0.8 mile downstream from Big Cliff Dam, 2.1 miles east of Niagara, and at mile 57.3.

Drainage area.--453 sq mi; 438 sq mi at former site (above Mayflower Creek) 1,600 ft downstream from Detroit Dam.

Water-temperature records available.--Thermograph record May to October 1950, February 1953 to September 1962; 41 spot observations May 1947 to May 1953 at former site about 3.3 miles upstream.

Remarks.--Flow completely regulated since January 1953 by Detroit and Big Cliff Reservoirs. Spot-observation data represent natural flow conditions as does the 1950 thermograph record. Thermograph records for 1953-62 when compared with previous records show effect of Detroit Reservoir on water temperature. Thermograph record for 1950 furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	43	46	54	56	53
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	48 37	54 41	61 48	62 51	61 42
1951	Mean	48	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	52 41	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1952	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												
1953	Mean	-	-	-	-	41	41	42	44	45	49	50	52
	Max.-Min.	- -	- -	- -	- -	42 40	42 40	43 41	44 42	46 44	50 46	52 49	52 50
1954	Mean	50	48	45	-	-	-	-	-	-	48	50	51
	Max.-Min.	52 49	50 47	47 43	- -	- -	- -	- -	- -	- -	51 45	50 49	53 49
1955	Mean	53	50	43	39	38	39	40	44	45	46	50	50
	Max.-Min.	54 53	53 47	47 39	39 38	38 38	40 38	42 39	45 41	48 44	49 45	51 49	51 50
1956	Mean	52	48	43	39	36	38	41	46	46	48	48	50
	Max.-Min.	53 50	52 44	44 41	41 37	37 36	39 37	44 39	50 43	50 43	49 46	49 47	53 48
1957	Mean	54	50	43	38	36	39	41	43	47	48	50	52
	Max.-Min.	54 52	52 46	46 41	41 35	40 35	40 38	44 40	46 42	49 46	51 47	53 48	54 49
1958	Mean	55	50	44	41	41	42	43	48	49	51	50	50
	Max.-Min.	56 54	54 46	46 42	42 41	41 41	42 41	48 42	54 45	55 45	62 45	58 48	56 48
1959	Mean	54	50	44	42	41	42	-	45	-	50	50	50
	Max.-Min.	55 53	54 46	46 44	44 41	42 41	42 41	- -	46 44	- -	56 49	54 49	52 48
1960	Mean	53	49	45	-	40	40	42	44	46	48	50	52
	Max.-Min.	54 51	53 47	47 43	- -	41 40	41 39	43 40	48 43	51 45	50 46	51 49	55 50
1961	Mean	52	50	44	41	42	42	45	48	48	46	50	53
	Max.-Min.	55 49	54 46	46 42	42 41	44 41	43 41	46 42	54 45	53 44	48 45	51 48	54 51
1962	Mean	55	50	42	40	38	39	42	46	49	46	47	50
	Max.-Min.	56 54	54 45	45 41	42 38	39 37	41 37	45 40	48 44	54 45	55 45	49 46	53 48
1953-62	Mean	53	49	44	40	39	40	42	45	47	48	50	51
	Max.-Min.	56 49	54 44	47 39	42 35	44 35	43 37	48 39	54 41	55 43	62 45	58 46	56 48

Note.--The high maximum for July 1958 was caused by spill at Detroit Reservoir. Record for May to October 1950 is not considered in computing means and ranges for period because it was prior to filling of Detroit Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	44	42	40	36	40	42	44	48	56	56	56
	Max.-Min.	53 43	48 43	45 39	44 32	40 34	44 39	43 41	50 42	54 44	59 54	60 55	56 56
†Adjusted	Mean	49	44	41	39	39	41	43	46	51	56	57	55
	Max.-Min.	58 42	56 34	50 33	48 32	46 32	44 32	49 38	56 39	61 42	66 44	64 51	62 47

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit, and represent estimates of temperatures that would have occurred 1951-62 had not Detroit Dam been built.

186-Little North Santiam River near Elkhorn

Location.--Lat 44°49'20", long 122°23'25", in SE¼NW¼ sec.1, T.9 S., R.3 E., 1.9 miles southwest of Elkhorn, 13 miles east northeast of Mehama, and at mile 13.8.

Water-temperature records available.--Thermograph record January to September 1962.

Remarks.--Record furnished by Oregon State Fish Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	38	39	39	42	45	53	62	62	58
	Max.-Min.	- -	- -	- -	43 31	43 33	45 33	48 39	50 40	63 42	74 51	70 54	66 50

187-Little North Santiam River near Mehama (14-1825.)

Location.--Lat 44°47'30", long 122°34'40", in NW¼ sec.16, T.9 S., R.2 E., on left bank 2.0 miles east of Mehama and 2.0 miles upstream from mouth.

Drainage area.--110 sq mi.

Water-temperature records available.--121 spot observations December 1946 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	46	43	40	40	43	46	48	52	63	64	58
	Max.-Min.	56 46	52 40	47 39	45 32	46 35	49 40	52 40	60 42	59 46	76 45	75 52	65 49
†Adjusted	Mean	51	44	43	40	41	42	45	48	57	66	64	57
	Max.-Min.	62 41	52 37	49 39	46 32	47 33	49 34	55 40	64 40	73 43	80 45	75 52	68 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

188-North Santiam River at Mehama (14-1830.)

Location.--Lat 44°47'20", long 122°37'00", in NW¼ sec.18, T.9 S., R.2 E., on right bank 300 ft downstream from highway bridge at Mehama, 0.5 mile downstream from Little North Santiam River, and at mile 38.7.

Drainage area.--665 sq mi.

Water-temperature records available.--43 spot observations December 1946 to December 1952 and 72 spot observations January 1953 to September 1962.

Remarks.--Flow regulated since 1953 by Detroit Reservoir; record has been split, therefore, to show effect of reservoir.

Water temperature (°F)

1947-52		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	44	40	38	38	42	45	46	50	61	62	56
	Max.-Min.	55 47	49 41	43 39	41 33	41 34	44 40	49 43	51 43	53 46	68 54	70 56	56 56
†Adjusted	Mean	53	46	42	40	40	42	45	48	54	61	62	59
	Max.-Min.	64 43	61 34	53 32	51 32	48 32	47 32	53 39	61 40	67 43	73 46	70 54	68 50

1953-62		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	49	44	41	41	43	45	47	49	55	56	52
	Max.-Min.	56 53	54 45	45 44	45 36	45 39	49 38	54 41	52 44	52 44	60 45	60 51	56 47
†Adjusted	Mean	52	47	44	41	41	43	45	47	50	55	54	52
	Max.-Min.	59 46	56 38	51 37	48 36	46 35	49 35	54 40	56 42	59 43	63 45	60 49	58 46

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

Note.--Adjusted figures for both periods are generally representative of water temperatures for 1951-62; those for 1947-52 exclude, and those for 1953-62 include, effect of Detroit Reservoir.

189-North Santiam River near Jefferson (14-1841.)

Location.--Lat 44°42'30", long 122°58'10", in SE¼ sec.7, T.10 S., R.2 W., on left bank 5 ft downstream from Greens Bridge, 2 miles east of Jefferson, 3 miles upstream from confluence with South Santiam River, and at mile 14.6.

Drainage area.--736 sq mi.

Water-temperature records available.--30 spot observations June 1955 to September 1962. No observations during October 1960 to January 1962.

Remarks.--Flow regulated since 1953 by Detroit Reservoir and Big Cliff Reservoir. Salem and Stayton canals divert above station and some pumping diversions above station. Summer flow is less here than at station upstream at Mehama; this plus some return flow from irrigation results in appreciable warming of water between Mehama and Jefferson.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	46	44	40	38	45	50	56	54	66	59	57
	Max.-Min.	54 54	46 46	44 44	40 40	42 35	45 45	50 49	62 50	59 49	67 64	64 50	58 56
†Adjusted	Mean	53	47	43	42	43	45	48	52	57	63	61	57
	Max.-Min.	61 45	53 40	49 38	48 32	49 32	50 34	55 43	62 45	68 48	70 50	68 50	64 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

190-South Santiam River below Cascadia (14-1850.)

Location.--Lat 44°23'35", long 122°30'35", in SE¼ sec.36, T.13 S., R.2 E., on right bank 100 ft downstream from bridge at Cascadia ranger station, 0.5 mile downstream from Mouse Creek, 0.5 mile upstream from Deer Creek, 1.5 miles southwest of Cascadia, and at mile 48.5.

Drainage area.--174 sq mi at gaging cable, 177 sq mi at gage.

Water-temperature records available.--122 spot observations January 1947 to September 1962 and thermograph record for July to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	-	-	63	62	58
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	69 58	68 57	63 54

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	44	41	38	39	41	44	48	52	62	61	59
	Max.-Min.	55 47	48 40	45 35	43 34	43 34	46 36	49 40	58 44	59 46	71 54	64 54	62 51
†Adjusted	Mean	50	44	42	40	42	42	45	48	55	62	62	58
	Max.-Min.	59 42	50 37	48 35	46 33	48 34	47 34	53 40	61 41	69 44	72 47	70 54	66 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

191-Middle Santiam River at mouth, near Foster (14-1865.)

Location.--Lat 44°25'25", long 122°37'25", in NE¼SE¼ sec.24, T.13 S., R.1 E., on right bank 0.7 mile upstream from mouth and 2.7 miles northeast of Foster.

Drainage area.--287 sq mi.

Water-temperature records available.--Thermograph record October 1953 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1954	Mean	50	46	43	40	42	41	44	51	52	62	62	58
	Max.-Min.	55 45	50 44	46 41	43 37	43 40	44 39	48 41	58 42	61 47	67 53	67 57	66 50
1955	Mean	48	46	41	40	40	40	43	46	49	56	64	60
	Max.-Min.	54 42	48 40	43 38	42 38	42 37	44 38	48 40	49 42	54 44	66 47	68 60	70 53
1956	Mean	50	44	42	40	38	42	44	47	54	66	66	62
	Max.-Min.	55 44	49 37	45 39	42 35	40 34	45 39	47 42	54 43	63 47	73 56	74 60	68 55
1957	Mean	51	43	42	38	40	44	46	52	60	65	64	62
	Max.-Min.	60 43	46 40	45 38	43 35	44 36	45 41	54 42	64 47	67 51	69 61	68 58	70 54
1958	Mean	52	42	42	42	44	42	45	56	60	70	70	62
	Max.-Min.	61 46	48 37	44 38	44 40	45 42	45 39	50 43	63 47	73 53	77 59	76 65	71 55
1959	Mean	53	46	46	44	44	44	47	50	58	67	66	57
	Max.-Min.	61 45	51 40	48 43	47 39	46 39	46 41	52 43	59 44	66 49	74 57	72 61	66 49
1960	Mean	50	44	42	38	42	43	45	46	55	66	a66	a60
	Max.-Min.	53 45	49 40	45 39	43 36	45 36	47 37	49 42	52 41	63 48	71 58	a72 a59	a65 a54
1961	Mean	52	44	42	44	44	44	45	49	63	69	70	58
	Max.-Min.	62 46	49 41	44 40	46 38	48 42	46 41	49 41	57 43	73 53	75 60	75 63	66 52
1962	Mean	51	43	42	40	40	40	46	48	58	67	66	62
	Max.-Min.	60 44	46 38	45 38	45 34	42 34	46 34	51 42	54 44	66 48	74 58	71 60	68 54
1954-62	Mean	51	44	42	41	42	42	45	49	57	65	66	60
	Max.-Min.	62 42	51 37	48 38	47 34	48 34	47 34	54 40	64 41	73 44	77 47	76 57	71 49

a Computed on basis of correlation with thermograph records for Fall Creek below Winberry Creek, near Fall Creek and South Fork Coquille River near Powers.

192-Wiley Creek near Foster (14-1870.)

Location.--Lat 44°22'20", long 122°37'20", in NE¼NE¼ sec.12, T.14 S., R.1 E., on right bank 0.4 mile downstream from Little Wiley Creek, 3.5 miles southeast of Foster, and at mile 4.4.

Drainage area.--52.3 sq mi.

Water-temperature records available.--120 spot observations November 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	44	41	41	40	41	46	51	57	66	63	61
	Max.-Min.	59 49	48 38	45 34	48 36	45 34	44 36	48 43	66 44	67 49	74 59	72 53	65 57
†Adjusted	Mean	53	44	41	41	42	44	47	50	58	64	66	60
	Max.-Min.	63 44	52 37	48 34	48 33	48 33	49 35	56 41	66 42	73 46	75 48	75 53	70 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

193-South Santiam River at Waterloo (14-1875.)

Location.--Lat 44°29'55", long 122°49'20", in SW¼NW¼ sec.28, T.12 S., R.1 W., on left bank 600 ft downstream from highway bridge at Waterloo, 2 miles upstream from Hamilton Creek, and at mile 23.3.

Drainage area.--640 sq mi.

Water-temperature records available.--120 spot observations December 1946 to September 1962.

Remarks.--Some diurnal fluctuation in flow caused by numerous logponds above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	44	43	40	41	42	45	52	56	67	67	62
	Max.-Min.	62 48	47 38	47 35	46 35	49 36	45 39	49 42	65 45	62 49	78 58	75 62	69 57
†Adjusted	Mean	52	44	42	40	42	42	46	50	59	68	69	62
	Max.-Min.	64 42	51 36	49 35	47 33	49 34	48 34	56 41	67 41	76 45	81 48	80 59	74 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

194-South Santiam River at Highway 226 Bridge, at Lebanon

Location.--Lat 44°32'15", long 122°53'20", in sec.11, T.12 S., R.2 W., 0.8 mile east of Lebanon, and at mile 18.3.

Water-temperature records available.--34 spot observations, July to September only, 1950-61. No observations were made in 1956 and 1957.

Remarks.--Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	72	69	63
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	81 66	79 61	66 59
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

195-Albany power canal near Lebanon (14-1880.)

Location.--Lat 44°33'10", long 122°54'20", in SW¼ sec.2, T.12 S., R.2 W., on left bank 0.1 mile downstream from spillway and 1 mile north of Lebanon.

Water-temperature records available.--54 spot observations August 1947 to September 1957.

Remarks.--Canal diverts from South Santiam River at Lebanon and discharges into Calapooya River at mouth.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	43	40	39	39	43	50	51	54	66	63	60
	Max.-Min.	56 47	49 39	46 35	42 36	42 37	46 42	58 44	61 45	61 48	74 60	66 59	67 49
†Adjusted	Mean	52	46	44	43	44	44	47	51	58	66	67	61
	Max.-Min.	63 44	52 39	50 35	49 36	50 36	49 36	58 42	65 43	74 46	78 49	77 58	72 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

196-South Santiam River at Sanderson Bridge near Crabtree

Location.--Lat 44°38'10", long 122°55'25", in SE¼SE¼ sec.3, T.11 S., R.2 W., 1.3 miles west of Crabtree, and at mile 7.6.

Water-temperature records available.--34 spot observations, July to September only, 1950-61. No observations were made in 1956 and 1957.

Remarks.--Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	72	69	63
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	79 66	77 63	68 59
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

197 South Santiam River near Crabtree

Location.--Lat 44°39'55", long 122°56'05", in SW¼SE¼ sec.28, T.10 S., R.2 W., 0.7 mile upstream from Crabtree Creek, 2.7 miles northwest of Crabtree, and at mile 5.2.

Water-temperature records available.--Thermograph record August, September 1962.

Remarks.--Records furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	-	-	-	69	66
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	75 62	73 57

198-Roaring River near Lacomb

Location.--Lat 44°37'35", long 122°43'00", in NW¼SW¼ sec.8, T.11 S., R.1 E., at fish hatchery 1.2 miles upstream from mouth, 3 miles northeast of Lacomb, and 8 miles southeast of Scio.

Water-temperature records available.--Thrice-daily observations (6 a.m., 12 m., and 6 p.m.) from January 1943 to February 1947, and once-daily readings from March 1947 to January 1948, January 1949 to September 1962.

Remarks.--Records furnished by Oregon State Game Commission. Diversion point is a quarter of a mile upstream from hatchery building.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	39	41	41	45	46	48	51	51	50
	Max.-Min.	- -	- -	- -	43 32	44 38	46 38	50 41	53 41	53 45	56 47	54 47	53 45
1944	Mean	47	43	40	39	40	41	44	47	49	51	50	49
	Max.-Min.	50 44	48 38	46 36	43 36	45 38	45 37	48 40	52 42	53 44	55 46	54 45	53 44
1945	Mean	46	42	39	41	42	41	43	47	49	52	50	49
	Max.-Min.	48 44	48 37	45 35	46 37	45 36	46 37	50 38	51 44	56 44	56 46	54 46	54 42
1946	Mean	46	43	42	41	40	41	45	51	51	54	53	51
	Max.-Min.	48 39	47 40	45 36	44 38	43 38	44 39	52 40	55 44	57 48	58 49	56 47	54 44
1947	Mean	47	44	44	40	45	46	48	52	52	54	53	52
	Max.-Min.	51 42	48 40	48 38	45 36	49 39	49 41	52 45	55 49	55 50	58 52	55 52	54 49
1948	Mean	50	47	44	42	-	-	-	-	-	-	-	-
	Max.-Min.	53 48	49 40	47 40	45 35	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	38	41	45	48	50	52	53	53	51
	Max.-Min.	- -	- -	- -	41 34	46 38	48 43	50 44	54 45	54 48	57 50	55 50	54 48
1950	Mean	46	47	42	40	43	44	47	49	52	54	54	51
	Max.-Min.	50 42	50 42	48 32	42 36	46 36	47 41	49 42	53 44	54 48	56 52	57 51	55 48
1951	Mean	49	47	47	43	44	43	48	50	53	53	52	51
	Max.-Min.	51 45	49 42	50 43	46 39	47 40	46 40	50 44	54 46	56 49	55 50	56 50	53 49
1952	Mean	49	45	42	41	43	43	48	50	51	55	54	52
	Max.-Min.	52 44	48 42	46 40	45 38	46 40	46 40	50 44	54 46	54 48	59 52	58 52	54 50
1953	Mean	49	43	43	45	44	45	48	48	50	55	53	52
	Max.-Min.	53 46	48 38	50 40	46 42	46 42	48 41	52 44	54 46	53 48	57 52	56 50	54 50
1954	Mean	49	47	45	43	45	44	48	51	50	54	52	51
	Max.-Min.	50 47	48 44	48 42	46 39	47 43	47 42	51 44	55 47	54 46	57 51	55 50	54 49
1955	Mean	48	47	44	43	43	43	45	49	51	52	53	51
	Max.-Min.	51 45	49 41	47 40	48 40	45 40	45 40	48 43	52 44	55 48	57 48	55 50	54 48
1956	Mean	49	45	44	44	41	44	47	50	51	54	54	51
	Max.-Min.	51 46	49 37	47 42	47 40	44 36	46 41	51 44	55 46	55 48	58 52	56 51	54 49
1957	Mean	48	44	43	40	44	46	48	51	53	54	53	52
	Max.-Min.	50 44	48 40	48 40	44 35	48 40	48 43	54 45	54 48	56 50	58 52	55 51	55 50
1958	Mean	48	45	44	44	46	44	47	52	52	56	55	52
	Max.-Min.	52 46	48 41	48 38	47 40	48 42	48 42	51 46	56 48	58 51	59 52	57 52	55 48
1959	Mean	49	47	46	45	44	46	48	49	52	55	53	51
	Max.-Min.	52 45	51 42	50 41	48 38	48 41	48 43	51 45	53 46	56 49	58 51	56 51	54 46
1960	Mean	49	45	44	42	44	45	47	48	53	54	52	51
	Max.-Min.	52 45	50 41	47 41	48 38	48 40	49 41	51 45	52 46	55 50	58 52	56 50	54 48
1961	Mean	49	45	43	44	46	46	48	50	56	56	55	51
	Max.-Min.	52 46	49 42	48 39	48 39	49 43	49 43	52 43	57 47	62 51	60 53	58 51	54 47
1962	Mean	47	43	43	40	42	43	48	48	53	56	54	52
	Max.-Min.	51 43	47 39	46 36	47 33	46 36	47 37	52 44	50 46	58 49	58 51	57 51	54 50
1943-62	Mean	48	45	43	42	43	44	47	49	51	54	53	51
	Max.-Min.	53 39	51 37	50 32	48 32	49 36	49 37	52 38	57 41	62 44	60 46	58 45	55 42

199-Thomas Creek at mouth, near Crabtree

Location.--Lat 44°41'05", long 122°57'45", in NW¼SW¼ sec.20, T.10 S., R.2 W., 0.5 mile upstream from mouth and 4.6 miles northwest of Crabtree.

Water-temperature records available.--Thermograph record August, September 1962.

Remarks.--Record furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	-	-	-	69	66
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	78 61	75 57

200-Santiam River at Jefferson (14-1890.)

Location.--Lat 44°42'55", long 123°00'40", in SE¼ sec.11, T.10 S., R.3 W., on right bank 350 ft upstream from Southern Pacific railroad bridge at Jefferson, 2.0 miles downstream from confluence of North and South Santiam Rivers, and at mile 9.6.

Drainage area.--1,790 sq mi, approximately.

Water-temperature records available.--104 spot observations May 1947 to September 1962. Thermograph record May to October 1950 on U.S. Highway 99 E bridge about 400 ft downstream.

Remarks.--Flow regulated since 1953 by Detroit Reservoir; spot-observation record has been split, therefore, to show effect of reservoir. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	49	52	65	68	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	56 43	64 45	74 56	76 60	74 52
1951	Mean	52	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	56 48	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Water temperature (°F)

1947-52		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	46	43	44	41	40	54	60	55	66	66	61
	Max.-Min.	55 54	49 40	44 42	44 44	42 40	44 37	63 45	65 56	59 49	68 63	68 65	67 55
†Adjusted	Mean	57	50	45	43	43	45	48	52	58	65	67	64
	Max.-Min.	69 47	65 36	57 35	55 35	52 33	50 33	63 41	65 43	72 47	79 50	76 59	74 53

1953-62		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	48	44	44	41	44	48	52	50	62	63	61
	Max.-Min.	57 52	51 46	47 43	48 40	46 36	47 41	51 46	63 42	54 44	74 55	68 60	68 53
†Adjusted	Mean	55	49	45	44	43	44	47	50	55	61	62	59
	Max.-Min.	64 47	61 39	55 37	53 37	50 33	49 33	55 41	63 42	66 44	74 48	70 55	68 51

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

Note.--Adjusted figures for both periods are generally representative of water temperatures for 1951-62; those for 1947-52 exclude, and those for 1953-62 include, effect of Detroit Reservoir.

201-Santiam River at Highway 99 Bridge, near Jefferson

Location.--Lat 44°44'15", long 123°03'05", in sec.4, T.10 S., R.3 W., 2.4 miles northwest of Jefferson and at mile 6.4.

Water-temperature records available.--35 spot observations, July to September only, 1950-61. No observations were made in 1956 and 1957.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated since January 1953 by Detroit Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	68	66	61
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	73 64	72 59	66 57
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

202-Luckiamute River near Hoskins (14-1895.)

Location.--Lat 44°43'10", long 123°30'10", in NE¼ sec.11, T.10 S., R.7 W., on right bank 0.2 mile downstream from Benton County line, 3.5 miles northwest of Hostins, and at mile 43.2.

Drainage area.--34.3 sq mi.

Water-temperature records available.--120 spot observations March 1947 to September 1962.

Remarks.--Logponds upstream cause diurnal fluctuation of flow at times.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	47	43	40	42	44	48	51	57	63	59	58
	Max.-Min.	54 45	56 43	47 37	45 32	46 36	47 38	53 44	54 45	70 52	71 54	66 55	61 55
†Adjusted	Mean	50	46	42	41	44	44	48	51	59	64	61	55
	Max.-Min.	61 40	56 38	48 37	47 32	50 36	49 36	58 43	66 42	75 45	77 45	71 52	66 44

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

203-Luckiamute River at Pedee (14-1900.)

Location.--Lat 44°44'35", long 123°25'25", in SE¼ sec.33, T.9 S., R.6 W., on left bank 0.5 mile downstream from Pedee Creek, 1.0 mile southwest of Pedee, and at mile 29.7.

Drainage area.--115 sq mi.

Water-temperature records available.--119 spot observations March 1947 to September 1962.

Remarks.--Some diurnal fluctuation of low flows caused by logponds above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	46	45	41	43	45	49	53	60	66	66	61
	Max.-Min.	56 46	50 42	47 42	49 33	47 39	48 41	53 45	58 49	71 50	73 59	76 60	68 55
†Adjusted	Mean	50	46	44	41	44	45	49	53	60	65	65	59
	Max.-Min.	60 42	53 40	50 41	49 33	50 37	50 38	57 45	67 46	75 48	76 49	76 56	69 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

204-Luckiamute River near Suver (14-1905.)

Location.--Lat 44°47'00", long 123°14'00", in SW¼SW¼ sec.18, T.9 S., R.4 W., on right bank 10 ft upstream from highway bridge at Helmick State Park, 3.0 miles northwest of Suver, 4.5 miles downstream from Little Luckiamute River, and at mile 13.5.

Drainage area.--240 sq mi.

Water-temperature records available.--113 spot observations April 1947 to September 1962.

Remarks.--Some diurnal fluctuation of low flows caused by millpond above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	46	44	42	43	44	48	54	58	67	66	60
	Max.-Min.	55 50	50 42	49 40	46 33	50 39	47 40	53 44	61 48	68 49	74 61	72 60	64 56
†Adjusted	Mean	51	45	44	43	44	44	48	54	60	67	66	59
	Max.-Min.	61 43	51 38	49 37	48 33	50 36	49 37	56 43	69 47	75 48	78 50	75 58	70 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

WILLAMETTE RIVER MAIN STEM

205-Willamette River at Buena Vista Ferry, at Buena Vista.

Location.--Lat 44°46'15", long 123°08'40", in sec.23, T.9 S., R.4 W., at mile 106.4.

Water-temperature records available.--46 spot observations, July to September only, 1950-61.

Remarks.--Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, Detroit, and Hills Creek Reservoirs. Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	71	69	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	77 66	75 63	68 59
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

206-Willamette River at Independence Bridge, at Independence.

Location.--Lat 44°50'45", long 123°10'55", in sec.28, T.8 S., R.4 W., 0.5 mile southeast of Independence and at mile 96.1.

Water-temperature records available.--78 spot observations, July to September only, 1950-61, with 22 made during the period 1950-55, and 56 during the period 1956-61.

Remarks.--Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, Detroit, and Hills Creek Reservoirs. Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	71	69	63
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	79 64	75 63	68 57
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

207-Rickreall Creek near Dallas (14-1907.)

Location.--Lat 44°54'50", long 123°23'20", in SE¼SW¼ sec.35, T.7 S., R.6 W., on left bank 1.8 miles downstream from Canyon Creek, 3.5 miles west of Dallas, 5.1 miles downstream from Rickreall Creek Dam, and at mile 19.1.

Drainage area.--27.4 sq mi.

Water-temperature records available.--33 spot observations September 1957 to September 1962.

Remarks.--Low flow regulated since June 1960 by Rickreall Creek Reservoir; use summer temperature records with caution because there is not enough information to evaluate effect of reservoir on downstream water temperatures.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	44	46	42	42	44	48	48	61	68	57	64
	Max.-Min.	53 51	46 42	47 44	44 41	45 39	47 40	50 46	48 47	71 48	73 60	59 54	69 59
†Adjusted	Mean	52	45	42	41	42	44	47	51	59	64	64	58
	Max.-Min.	63 42	52 37	49 38	48 34	49 34	49 35	56 41	66 43	75 46	77 46	74 54	69 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

WILLAMETTE RIVER MAIN STEM

208-Willamette River at Salem (14-1910.)

Location.--Lat 44°56'50", long 123°02'30", in SW¼ sec.22, T.7 S., R.3 W., at Center Street Bridge on Oregon Highway 22 in Salem, about 300 ft downstream from U.S. Geological Survey gaging station, and at mile 84.1.

Drainage area.--7,280 sq mi, approximately.

Water-temperature records available.--Once-daily readings at varying times February 1951 to September 1962. Also, 76 spot observations, July to September only, 1950-61, obtained by State Sanitary Authority at Salem railroad bridge 0.2 mile downstream.

Remarks.--Flow regulated since 1941 by Fern Ridge Reservoir, since 1942 by Cottage Grove Reservoir, since 1949 by Dorena Reservoir, since 1953 by Lookout Point and Detroit Reservoirs, and since 1961 by Hills Creek Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1951	Mean	-	-	-	-	44	44	52	56	68	69	69	66
	Max.-Min.	- -	- -	- -	- -	48 36	49 38	54 47	62 49	75 59	71 63	73 62	69 60
1952	Mean	53	48	44	42	44	46	51	56	61	71	70	67
	Max.-Min.	60 47	52 45	48 43	44 41	46 40	49 44	61 46	62 48	69 56	75 61	75 65	75 63
1953	Mean	60	45	42	46	46	47	52	53	58	69	69	66
	Max.-Min.	67 53	51 35	47 37	49 40	48 44	50 45	57 48	60 50	62 54	72 62	73 62	70 60
1954	Mean	57	50	46	43	45	47	51	59	58	66	67	63
	Max.-Min.	62 52	54 47	50 44	47 37	47 44	50 43	54 47	66 52	64 54	69 62	72 62	65 59
1955	Mean	56	50	44	42	44	45	48	54	57	64	69	63
	Max.-Min.	60 52	52 45	45 40	45 41	46 42	47 42	51 46	56 50	62 53	70 57	71 66	71 58
1956	Mean	55	47	42	40	37	46	51	56	53	69	59	55
	Max.-Min.	60 49	52 36	46 35	45 34	44 32	50 42	58 40	64 50	65 -	77 61	65 55	57 52
1957	Mean	47	45	44	44	42	47	49	53	61	69	70	62
	Max.-Min.	54 43	49 42	46 40	45 41	45 33	51 40	55 47	56 48	67 54	73 63	73 66	69 58
1958	Mean	56	48	45	44	47	48	50	62	66	68	68	63
	Max.-Min.	60 52	53 44	49 42	47 42	49 45	53 45	55 46	67 52	70 62	73 65	72 64	68 57
1959	Mean	57	50	47	45	45	48	53	56	63	71	67	61
	Max.-Min.	64 52	b57 43	51 44	48 37	48 41	49 45	58 49	65 50	68 58	78 67	73 60	65 56
1960	Mean	56	48	44	41	45	46	50	54	63	70	67	62
	Max.-Min.	58 53	52 43	46 40	46 38	47 42	52 40	58 b47	59 51	70 59	75 64	72 60	65 60
1961	Mean	57	49	44	43	47	47	51	55	62	66	68	62
	Max.-Min.	62 52	52 45	46 42	47 38	50 45	50 45	54 48	60 51	71 55	74 56	72 65	65 59
1962	Mean	56	46	44	43	44	45	51	52	61	67	67	63
	Max.-Min.	60 50	49 43	46 40	46 35	46 40	48 40	54 48	55 50	66 55	72 64	71 63	66 58
1951-62	Mean	55	48	44	43	44	46	51	56	61	68	68	63
	Max.-Min.	67 43	57 35	51 35	49 34	50 32	53 38	61 40	67 48	75 53	78 56	75 55	75 52

b Corrected.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	71	70	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	77 66	75 63	68 57
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

209-Mill Creek at penitentiary annex, near Salem (14-1915.)

Location.--Lat 44°52'55", long 122°58'35", in NE¼NE¼ sec.18, T.8 S., R.2 W., on left bank at bridge on Turner Road at State penitentiary annex, 3.0 miles downstream from Battle Creek, 5 miles southeast of Salem, and 7 miles upstream from mouth.

Drainage area.--104 sq mi.

Water-temperature records available.--65 spot observations September 1947 to October 1956.

Remarks.--Diurnal fluctuations of flow caused by changes at headgates and small powerplants above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	55	49	43	41	40	44	48	56	57	65	67	62
	Max.-Min.	56 54	52 47	49 40	47 33	46 36	49 40	55 42	58 50	59 53	70 58	71 61	69 52
†Adjusted	Mean	56	48	43	41	43	45	49	54	61	67	68	60
	Max.-Min.	66 46	56 38	51 37	50 32	51 32	52 33	60 42	68 44	75 48	77 52	76 60	70 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

210-Mill Creek at Salem (14-1920.)

Location.--Lat 44°56'05", long 123°01'00", in NE¼ sec.26, T.7 S., R.3 W., on left bank at State Street Bridge in Salem, 220 ft downstream from 19th Street power diversion, and at mile 2.1.

Drainage area.--110 sq mi.

Water-temperature records available.--107 spot observations September 1947 to September 1962.

Remarks.--Diurnal fluctuation in flow caused by powerplant above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	55	49	43	41	41	46	48	55	59	66	65	60
	Max.-Min.	58 49	54 42	46 39	47 38	47 36	49 40	54 42	64 47	67 52	75 56	71 59	68 49
†Adjusted	Mean	54	47	44	42	43	46	49	54	62	65	64	58
	Max.-Min.	65 45	54 38	50 38	49 33	49 33	52 35	58 42	69 45	78 49	77 48	74 55	69 47

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

WILLAMETTE RIVER MAIN STEM

211-Willamette River at Manbrin Gardens, near Salem

Location.--Lat 44°59'10", long 123°02'10", in sec.3, T.7 S., R.3 W., 3 miles north of Salem, 0.5 mile upstream from Keizer Rapids, and at mile 81.1.

Water-temperature records available.--57 spot observations, July to September only, 1950-52, 1956-60 with 12 made during the period 1950-52, and 45 during the period 1956-60.

Remarks.--Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, and Detroit Reservoirs. Records furnished by State Sanitary Authority.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	-	-	-	-	73	72	66
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	79 68	79 64	72 59
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

212-Willamette River at Wheatland Ferry, near Amity

Location.--Lat 45°05'25", long 123°02'40", in sec.34, T.5 S., R.3 W., 8 miles east of Amity and at mile 71.9.

Water-temperature records available.--120 spot observations were made 1950-62. Of these, 78 were made in the period July to September during the years 1950-61. No readings were made October to June of the water years 1950-57.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, Detroit, and Hills Creek Reservoirs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	49	45	-	-	49	52	62	66	72	71	65
	Max.-Min.	63 50	54 46	48 43	- -	- -	54 46	54 48	68 59	72 59	79 68	77 64	70 57
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

213-South Yamhill River near Willamina (14-1925.)

Location.--Lat 45°02'50", long 123°30'10", in sec.14, T.6 S., R.7 W., on left bank 2.3 miles southwest of Willamina, 3.2 miles upstream from Willamina Creek, and at mile 45.5.

Drainage area.--133 sq mi.

Water-temperature records available.--115 spot observations January 1947 to September 1962.

Remarks.--Occasional slight regulation of low flow by millpond upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	45	44	41	43	44	47	52	61	66	67	62
	Max.-Min.	60 45	51 39	49 40	46 32	46 39	47 41	51 43	62 48	71 51	72 62	73 59	67 56
†Adjusted	Mean	51	45	44	42	44	44	48	52	61	68	68	61
	Max.-Min.	63 41	53 37	50 39	48 32	51 35	50 36	58 42	69 43	79 47	81 48	79 58	73 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

214-Willamina Creek near Willamina (14-1930.)

Location.--Lat 45°08'35", long 123°29'35", near ¼ corner secs.12 and 13, T.5 S., R.7 W., on left bank 4.5 miles north of Willamina and at mile 6.2.

Drainage area.--64.7 sq mi.

Water-temperature records available.--120 spot observations February 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	46	43	41	43	44	47	51	56	60	62	58
	Max.-Min.	57 44	54 42	46 36	44 33	46 39	47 40	52 42	59 47	64 46	68 53	67 55	63 48
†Adjusted	Mean	51	45	43	42	44	45	48	51	58	62	63	58
	Max.-Min.	60 42	54 37	49 36	48 32	50 34	50 35	56 42	63 44	71 46	71 48	71 55	66 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

215-Willamina Creek above Tindle Creek, near Willamina

Location.--Lat 45°06'45", long 123°29'35", in lot 39 near ¼ corner sec.25, T.5 S., R.7 W., 0.5 mile upstream from Tindle Creek, 2.5 miles north northwest of Willamina, and at mile 4.0.

Drainage area.--64.7 sq mi, at gaging station about 4 miles upstream.

Water-temperature records available.--Thermograph record January to September 1962.

Remarks.--Record furnished by Oregon State Fish Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	41	43	44	49	48	54	60	60	57
	Max.-Min.	- -	- -	- -	48 32	48 35	51 37	56 43	57 42	64 45	68 50	66 55	63 52

216-Mill Creek near Willamina (14-1933.)

Location.--Lat 44°58'15", long 123°26'55", in NE¼NW¼ sec.17, T.7 S., R.6 W., on left bank 0.2 mile upstream from highway bridge, 0.7 mile downstream from South Branch, 7.5 miles south of Willamina, and at mile 11.5.

Drainage area.--27.4 sq mi.

Water-temperature records available.--30 spot observations July 1958 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	45	44	43	46	43	50	55	56	66	55	59
	Max.-Min.	52 45	49 42	46 41	45 41	46 46	44 42	54 46	55 55	59 52	76 56	55 54	59 59
†Adjusted	Mean	50	46	44	43	44	44	48	51	58	65	63	58
	Max.-Min.	60 42	52 40	49 40	48 37	49 37	48 37	56 43	65 44	73 47	76 49	72 54	68 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

217-Mill Creek at mouth, near Willamina

Location.--Lat 45°05'05", long 123°26'20", in NE¼NE¼ sec.5, T.6 S., R.6 W., on left bank 0.4 mile upstream from mouth, 2.2 miles east of Willamina, and 2.3 miles southwest of Sheridan.

Water-temperature records available.--Thermograph record August, September 1962.

Remarks.--Record furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	-	-	-	65	63
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	76 55	78 52

218-South Yamhill River near Whiteson (14-1940.)

Location.--Lat 45°10'08", long 123°12'25", in NW¼ sec.5, T.5 S., R.4 W., near left bank on downstream side of Whiteson Bridge on U.S. Highway 99 W., 1.3 miles northwest of Whiteson, 1.4 miles downstream from Salt Creek, and at mile 16.7.

Drainage area.--502 sq mi.

Water-temperature records available.--109 spot observations June 1947 to September 1962. No observations were made November 1958 to December 1959.

Remarks.--Slight regulation of low flows by logpond upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	47	45	42	43	45	48	54	62	70	68	64
	Max.-Min.	62 48	52 41	48 40	47 38	51 35	47 42	54 42	62 48	72 52	76 65	76 58	69 59
†Adjusted	Mean	53	47	44	43	45	46	50	54	61	69	70	63
	Max.-Min.	64 42	55 37	52 38	50 33	52 34	52 35	59 42	69 44	77 47	81 51	80 58	74 52

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

219-North Yamhill River near Fairdale (14-1943.)

Location.--Lat 45°21'55", long 123°22'40", in SW¼ sec.25, T.2 S., R.6 W., on right bank 0.4 mile downstream from small tributary, 1.3 miles upstream from Kutch Creek, 2.1 miles west of Fairdale, 9.5 miles west of Yamhill, and at mile 28.4.

Drainage area.--9.03 sq mi.

Water-temperature records available.--24 spot observations October 1958 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	44	43	44	-	44	45	46	52	58	54	-
	Max.-Min.	55 49	46 41	47 39	47 41	- -	44 43	46 44	46 46	52 52	59 57	54 54	- -
†Adjusted	Mean	50	45	44	43	44	44	46	49	53	57	58	55
	Max.-Min.	56 44	50 40	48 39	48 37	48 37	48 37	51 42	57 43	61 46	63 48	62 53	60 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

220-Haskins Creek near McMinnville (14-1950.)

Location.--Lat 45°18'50", long 123°21'55", in NE¼ sec.13, T.3 S., R.6 W., on left bank 300 ft upstream from high-water line of McMinnville water-supply reservoir, 150 ft downstream from Idlewild Creek, and 11 miles northwest of McMinnville.

Drainage area.--6.48 sq mi.

Water-temperature records available.--37 spot observations January 1947 to September 1951.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	45	42	40	38	46	43	46	51	52	56	55
	Max.-Min.	49 48	48 42	44 40	42 39	42 33	52 40	45 40	48 45	57 48	52 51	59 54	57 54
†Adjusted	Mean	52	46	42	41	41	42	45	48	53	59	60	57
	Max.-Min.	61 44	59 35	52 34	50 34	48 33	52 33	52 39	59 41	64 44	70 46	67 53	66 49

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

221-Haskins Creek below reservoir, near McMinnville (14-1960.)

Location.--Lat 45°18'40", long 123°20'55", in NE¼ sec.18, T.3 S., R.5 W., on right bank 800 ft downstream from dam of McMinnville water-supply reservoir, 11 miles northwest of McMinnville, and at mile 5.0.

Drainage area.--6.90 sq mi.

Water-temperature records available.--83 spot observations October 1951 to September 1962.

Remarks.--Flow regulated by Haskins Creek Reservoir. During winter months reservoir is empty except when inflow exceeds capacity of outlet tunnel, and normally the reservoir is filled in the spring and not drawn down appreciably until the fall.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	48	43	40	43	43	48	54	58	67	63	59
	Max.-Min.	55 47	53 43	47 40	46 32	46 39	45 40	56 46	61 48	65 52	73 59	71 56	61 57
†Adjusted	Mean	50	47	43	42	43	43	47	53	61	65	63	58
	Max.-Min.	60 42	54 40	49 38	49 32	50 33	48 32	56 42	65 46	73 50	74 50	71 55	67 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

222-North Yamhill River near Pike (14-1965.)

Location.--Lat 45°22'15", long 123°17'10", in NE¼ sec.27, T.2 S., R.5 W., on left bank 1.3 miles west of Pike, 2.3 miles downstream from Haskins Creek, 5.2 miles northwest of Yamhill, and at mile 22.8.

Drainage area.--47.8 sq mi.

Water-temperature records available.--36 spot observations January 1947 to December 1951.

Remarks.--Occasional diurnal fluctuations in flow caused by small dams upstream; no seasonal regulation.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	45	43	39	43	42	44	54	56	63	56	59
	Max.-Min.	49 48	46 44	45 40	42 37	46 41	44 41	50 40	56 53	61 53	63 63	57 56	64 55
†Adjusted	Mean	55	48	44	42	42	44	47	50	56	62	64	61
	Max.-Min.	65 45	62 36	55 35	53 35	50 33	49 33	55 40	62 42	69 45	75 48	72 56	70 51

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit

223-North Yamhill River at Pike (14-1970.)

Location.--Lat 45°22'10", long 123°15'15", in NW¼ sec.25, T.2 S., R.5 W., on right bank 500 ft downstream from Turner Creek, 0.5 mile southeast of Pike, 4.0 miles northwest of Yamhill, and at mile 20.5.

Drainage area.--66.8 sq mi.

Water-temperature records available.--116 spot observations October 1948 to September 1962.

Remarks.--Seasonal regulation by Haskins Creek Reservoir; occasional diurnal fluctuation in flow caused by Haskins Creek Dam (since 1951) and smaller dams upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	45	43	41	42	43	48	51	57	66	64	60
	Max.-Min.	58 49	51 37	46 38	49 32	48 36	46 40	54 43	58 47	59 53	73 61	72 59	67 56
†Adjusted	Mean	51	45	42	42	44	44	48	52	59	66	65	58
	Max.-Min.	63 41	53 35	49 36	50 32	51 33	50 32	58 42	68 44	76 45	79 46	76 55	70 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

WILLAMETTE RIVER MAIN STEM

224-Willamette River at Newberg Bridge, at Newberg

Location.--Lat 45°17'05", long 122°57'40", in sec.29, T.3 S., R.2 W., 1 mile south of Newberg and at mile 50.0.

Water-temperature records available.--158 spot observations were made 1950-62. Of these, 98 were made in the period July to September 1950-61. No observations were made October to June during the water years 1950-56.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, Detroit and Hills Creek Reservoirs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	48	44	43	-	49	53	62	66	71	71	65
	Max.-Min.	63 50	54 45	48 41	50 34	- -	55 45	55 48	68 59	72 60	79 63	75 64	72 57
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

225-Willamette River at Wilsonville (14-1980.)

Location.--Lat 45°17'31", long 122°46'05", in SE¼ sec.23, T.3 S., R.1 W., on upstream side of pier of bridge on U.S. Highway 99 at Wilsonville, 1.3 miles downstream from Corral Creek, 2.8 miles upstream from Molalla River, and at mile 38.5.

Drainage area.--8,400 sq mi, approximately.

Water-temperature records available.--53 spot observations December 1948 to September 1962. Only five observations were made in the period from August 1957 to September 1962, and there were other periods ranging from 6 to 8 months when no observations were made.

Remarks.--Flow regulated by Fern Ridge and Cottage Grove Reservoirs, since 1949 by Dorena Reservoir, since 1953 by Lookout Point and Detroit Reservoirs, and since 1961 by Hills Creek Reservoir.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	47	44	42	43	46	50	56	64	67	65	63
	Max.-Min.	57 49	53 43	48 40	48 32	46 41	50 43	55 44	68 45	67 61	73 61	67 63	64 62
†Adjusted	Mean	52	48	45	43	45	47	51	55	62	68	69	62
	Max.-Min.	67 47	56 37	52 38	51 32	52 32	53 35	60 44	68 45	75 51	77 52	77 61	71 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

WILLAMETTE RIVER BASIN

226-Molalla River near Wilhoit

Location.--Lat 44°58'20", long 122°28'40", in NE¼SE¼ sec.7, T.7 S., R.3 E., 1.4 miles upstream from Bear Creek, 7 miles southeast of Wilhoit, and at mile 35.5.

Drainage area.--97.0 sq mi, at gaging station about 3 miles downstream.

Water-temperature records available.--Thermograph record January to September 1962.

Remarks.--Record furnished by Oregon State Fish Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	38	40	40	44	44	53	60	60	56
	Max.-Min.	- -	- -	- -	45 31	44 31	46 33	51 39	50 39	63 43	73 50	70 52	65 50

227-Molalla River above Pine Creek, near Wilhoit (14-1985.)

Location.--Lat 45°00'40", long 122°29'05", in SE¼SE¼ sec.30, T.6 S., R.3 E., on left bank 0.3 mile upstream from Pine Creek, 5 miles southeast of Wilhoit, and at mile 32.3.

Drainage area.--97.0 sq mi.

Water-temperature records available.--131 spot observations June 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	43	42	41	40	41	44	49	52	61	59	53
	Max.-Min.	55 41	50 33	45 35	46 36	45 35	46 37	46 41	58 44	61 45	70 51	64 54	59 46
†Adjusted	Mean	50	44	41	40	42	42	45	49	55	61	58	53
	Max.-Min.	59 41	51 33	47 34	47 34	48 34	47 35	53 39	61 41	68 43	71 46	66 51	62 45

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

228-Molalla River near Molalla (14-1990.)

Location.--Lat 45°07'08", long 122°32'03", in SW¼ sec.23, T.5 S., R.2 E., on right bank 1.7 miles downstream from Little Cedar Creek, 2.8 miles southeast of Molalla, and at mile 22.3.

Drainage area.--201 sq mi.

Water-temperature records available.--39 spot observations June 1947 to October 1951.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	44	42	37	39	44	46	46	54	64	65	57
	Max.-Min.	56 43	46 41	46 36	42 33	41 35	44 43	46 46	46 46	63 48	69 59	70 60	58 56
†Adjusted	Mean	52	44	41	40	42	43	49	53	58	69	68	60
	Max.-Min.	66 41	53 38	48 36	45 33	49 35	52 40	58 41	64 41	72 47	82 51	80 55	72 47

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale

229-Molalla River near Canby (14-2000.)

Location.--Lat 45°14'40", long 122°41'33", in NW¼ sec.9, T.4 S., R.1 E., on right bank 0.3 mile downstream from Goods Bridge on Marquam-Canby road, 1.3 miles south of Canby, 2.3 miles downstream from Milk Creek, and at mile 5.7.

Drainage area.--323 sq mi.

Water-temperature records available.--99 spot observations June 1947 to September 1959.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	44	43	42	42	44	48	54	56	66	70	59
	Max.-Min.	57 46	50 38	46 38	46 33	46 37	47 40	57 41	67 48	63 47	72 51	79 63	66 46
†Adjusted	Mean	53	44	43	42	43	44	48	53	60	68	70	62
	Max.-Min.	66 43	52 36	50 38	50 33	50 34	50 34	59 41	71 43	79 45	82 47	81 59	70 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

230-Pudding River near Mount Angel (14-2010.)

Location.--Lat 45°03'47", long 122°49'45", in SE¼ sec.8, T.6 S., R.1 W., on left bank on downstream side of Cline Bridge, 1.5 miles west of Mount Angel, 3.5 miles upstream from Little Pudding River, and at mile 40.4.

Drainage area.--204 sq mi.

Water-temperature records available.--107 spot observations August 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	45	44	40	43	44	48	52	56	68	67	58
	Max.-Min.	61 44	52 34	47 40	45 34	48 38	48 40	52 43	67 45	60 49	75 58	73 61	66 53
†Adjusted	Mean	53	46	42	42	44	45	48	52	59	66	67	60
	Max.-Min.	64 42	54 34	50 36	50 32	52 33	52 33	58 42	67 43	75 46	78 47	77 57	72 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

231-Butte Creek at Monitor (14-2015.)

Location.--Lat 45°06'06", long 122°44'42", in SE¼SE¼ sec.25, T.5 S., R.1 W., on left downstream abutment of highway bridge in Monitor, and at mile 5.9.

Drainage area.--57.4 sq mi.

Water-temperature records available.--46 spot observations August 1947 to October 1952.

Remarks.--Some diurnal fluctuation in flow caused by mills at Scotts Mills.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	44	44	41	40	42	47	46	56	67	64	60
	Max.-Min.	60 42	48 41	46 42	49 35	45 34	44 37	50 44	46 45	58 53	77 62	73 50	62 58
†Adjusted	Mean	53	45	43	42	44	45	50	53	59	68	67	60
	Max.-Min.	66 42	53 41	49 42	49 35	50 34	52 37	59 43	64 43	71 48	80 52	79 50	72 48

† Adjusted figures based on correlation with thermograph record for Desolation Creek near Dale.

232-Pudding River at Aurora (14-2020.)

Location.--Lat 45°14'00", long 122°44'56", in SE¼ sec.12, T.4 S., R.1 W., on upstream side of bridge on U.S. Highway 99E at Aurora, 1.0 mile upstream from Mill Creek, and at mile 8.1.

Drainage area.--479 sq mi.

Water-temperature records available.--106 spot observations June 1947 to September 1962.

Remarks.--Slight regulation of flow at times in summer by mills on tributaries.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	55	46	44	39	43	45	50	54	62	71	69	63
	Max.-Min.	62 47	53 40	47 42	44 34	46 36	49 40	56 43	70 45	69 57	78 59	78 64	70 51
†Adjusted	Mean	53	46	45	43	44	45	50	55	63	69	69	61
	Max.-Min.	65 43	54 37	52 38	51 32	51 32	52 32	60 43	70 45	80 50	81 51	79 60	72 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

233-Tualatin River at Gaston (14-2025.)

Location.--Lat 45°26'11", long 123°10'07", in SE¼SW¼ sec.34, T.1 S., R.4 W., on right bank 1.5 miles west of Gaston, and at mile 62.3.

Drainage area.--51.0 sq mi, at measuring section at Gaston.

Water-temperature records available.--78 spot observations July 1947 to October 1956.

Remarks.--Slight diurnal fluctuation in flow caused by log ponds upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	45	47	40	41	43	48	51	57	62	63	58
	Max.-Min.	54 42	50 39	48 46	46 32	43 39	46 39	59 43	58 46	60 53	69 55	70 58	61 56
†Adjusted	Mean	52	47	45	43	45	45	50	54	59	67	64	60
	Max.-Min.	62 42	54 39	51 40	49 32	51 34	50 35	59 43	70 46	76 47	80 49	74 55	71 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

234-Scoggin Creek near Gaston (14-2030.)

Location.--Lat 45°27'32", long 123°09'16", on line between secs.26 and 27, T.1 S., R.4 W., on left bank 100 ft upstream from bridge on State Highway 47 (Tualatin Valley Highway), 1.7 miles upstream from mouth, and 1.7 miles northwest of Gaston.

Drainage area.--43.3 sq mi.

Water-temperature records available.--125 spot observations May 1947 to September 1962.

Remarks.--Some diurnal fluctuation of flow caused by logponds above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	45	45	41	41	43	50	55	58	64	65	59
	Max.-Min.	55 44	52 34	46 39	46 32	44 36	50 39	65 43	65 46	64 53	69 58	69 61	65 53
†Adjusted	Mean	52	46	43	41	43	43	49	54	59	65	63	59
	Max.-Min.	62 43	53 34	50 36	49 32	50 32	50 33	65 43	67 45	73 47	77 49	72 55	69 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

235-Tualatin River near Dilley (14-2035.)

Location.--Lat 45°28'30", long 123°07'23", in NE¼NW¼ sec.24, T.1 S., R.4 W., on left bank 5 ft upstream from highway bridge, 1.0 mile south of Dilley, 1.2 miles downstream from Scoggin Creek, and at mile 58.8.

Drainage area.--133 sq mi.

Water-temperature records available.--119 spot observations July 1947 to September 1962.

Remarks.--Diurnal fluctuation in flow caused by dam below Gaston.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	45	45	39	41	44	50	53	59	65	64	60
	Max.-Min.	63 42	50 41	48 38	47 32	47 34	46 39	58 43	64 46	63 53	71 61	69 57	66 53
†Adjusted	Mean	52	47	43	41	44	44	51	55	59	67	64	60
	Max.-Min.	63 42	54 38	50 37	48 32	51 34	50 34	60 43	70 46	75 46	79 49	74 55	71 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

236-Gales Creek near Forest Grove (14-2045.)

Location.--Lat 45°33'20", long 123°11'10", in E½ sec.21, T.1 N., R.4 W., on upstream side of bridge 2.5 miles southeast of village of Gales Creek, 4.5 miles northwest of Forest Grove, and at mile 8.7.

Drainage area.--67.2 sq mi.

Water-temperature records available.--85 spot observations July 1947 to October 1956.

Remarks.--Some diurnal fluctuation at low flow caused by log ponds upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	45	46	41	42	44	49	54	57	68	66	64
	Max.-Min.	56 44	52 34	47 44	47 35	44 40	46 40	54 45	68 45	62 52	79 62	73 58	71 58
†Adjusted	Mean	52	46	44	43	45	45	49	55	59	67	65	61
	Max.-Min.	63 43	53 34	50 40	49 35	51 36	50 36	58 44	70 45	74 47	79 50	75 57	72 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

237-East Fork Dairy Creek at Mountaindale (14-2055.)

Location.--Lat 45°38'05", long 123°02'35", in NE¼NW¼ sec.27, T.2 N., R.3 W., on left bank at dam site 0.7 mile northwest of village of Mountaindale, and at mile 8.5.

Drainage area.--43.0 sq mi, including two small streams on left bank which enter creek below station.

Water-temperature records available.--38 spot observations May 1947 to January 1952.

Remarks.--Diurnal fluctuation of low flows caused by log pond upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	42	42	36	38	43	48	51	54	58	62	57
	Max.-Min.	58 48	44 41	46 38	36 36	42 35	47 40	48 48	58 47	58 51	62 53	62 62	61 53
†Adjusted	Mean	55	49	44	43	43	44	47	50	57	63	64	61
	Max.-Min.	66 44	63 37	55 35	53 35	50 34	49 34	55 41	63 43	68 46	75 49	72 57	70 52

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

238-McKay Creek below East Fork, near North Plains

Location.--Lat 45°39'00", long 122°54'35", in NE¼NE¼ sec.24, T.2 N., R.3 W., 0.5 mile downstream from East Fork, about 2 miles upstream from former U.S. Geological Survey gaging station, 3.6 miles north of North Plains, and at about mile 14.6.

Drainage area.--27.6 sq mi, at former gaging station 2 miles downstream.

Water-temperature records available.--Thermograph record January to September 1962.

Remarks.--Record furnished by Oregon State Fish Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	39	40	42	47	48	52	56	56	54
	Max.-Min.	- -	- -	- -	46 33	45 32	50 34	56 41	53 43	61 46	65 49	62 51	60 50

239-McKay Creek near North Plains (14-2060.)

Location.--Lat 45°37'32", long 122°58'25", in SE¼ sec.30, T.2 N., R.2 W., on downstream end of left timber bent of bridge on Shady Brook Road 1.8 miles upstream from Jackson Creek, 2.3 miles northeast of North Plains, and at mile 12.6.

Drainage area.--27.6 sq mi.

Water-temperature records available.--76 spot observations September 1948 to October 1956.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	44	44	40	39	44	51	51	57	62	62	59
	Max.-Min.	56 43	50 41	47 40	48 33	44 32	48 41	57 45	54 48	62 53	69 57	68 56	65 53
†Adjusted	Mean	53	47	45	42	44	45	50	53	59	64	63	60
	Max.-Min.	64 43	61 35	55 35	52 33	51 32	50 35	58 44	66 46	71 48	80 50	71 56	69 51

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

240-Tualatin River at Farmington (14-2065.)

Location.--Lat 45°27'00", long 122°56'58", in SE¼ sec.29, T.1 S., R.2 W., on upstream side of highway bridge on State Highway 208 (Farmington Road) at Farmington, 5.3 miles southeast of Hillsboro, and at mile 33.3.

Drainage area.--568 sq mi.

Water-temperature records available.--88 spot observations May 1947 to August 1958.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	48	44	40	44	45	51	52	59	68	68	63
	Max.-Min.	64 44	52 43	49 39	48 32	50 39	48 41	59 46	65 46	64 52	80 59	74 64	67 60
†Adjusted	Mean	54	48	45	43	46	47	51	55	62	70	68	62
	Max.-Min.	66 44	55 37	52 38	50 32	53 33	53 35	61 45	71 46	79 48	83 51	79 59	74 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

241-Oswego Canal near Oswego (14-2070.)

Location.--Lat 45°23'20", long 122°43'15", in NW¼ sec.20, T.2 S., R.1 E., on left bank 0.5 mile downstream from point of diversion on Tualatin River, 1 mile upstream from Oswego Lake, and 3.5 miles southwest of Oswego.

Water-temperature records available.--109 spot observations May 1947 to September 1962.

Remarks.--Flow regulated by gates at intake to canal and by flashboards on crest of diversion dam about 3 miles below intake of canal. Stage also affected at times by operation of dam regulating stage of Oswego Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	47	44	40	45	47	50	54	61	69	68	65
	Max.-Min.	60 49	52 41	48 41	47 33	53 35	57 40	56 46	64 48	67 53	76 63	75 62	67 62
†Adjusted	Mean	54	48	45	43	47	47	51	56	62	69	68	64
	Max.-Min.	64 45	55 37	52 38	50 32	54 34	57 34	60 45	69 48	76 51	78 53	76 60	73 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

242-Tualatin River at West Linn (14-2075.)

Location.--Lat 45°21'03", long 122°40'30", in SW¼ sec.34, T.2 S., R.1 E., on left bank 300 ft upstream from bridge on State Highway 212, 0.4 mile west of West Linn city limits, and 1.8 miles upstream from mouth.

Drainage area.--710 sq mi.

Water-temperature records available.--121 spot observations July 1947 to September 1962.

Remarks.--Some regulation of low flows by flashboards on crest of diversion dam for Oswego Canal.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	55	47	43	37	43	46	51	53	62	72	69	65
	Max.-Min.	59 52	52 42	47 38	46 33	53 34	49 41	60 46	58 49	67 53	80 64	76 63	74 58
†Adjusted	Mean	55	47	44	42	46	46	52	56	64	70	69	65
	Max.-Min.	67 45	55 38	51 38	50 32	53 34	52 35	61 46	72 47	81 50	83 51	80 60	76 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

WILLAMETTE RIVER MAIN STEM

243-Willamette River at Marina Mart, near Oregon City

Location.--Lat 45°20'25", long 122°38'15", in sec.2, T.3 S., R.1 E., 2 miles southwest of Oregon City, 0.5 mile downstream from Tualatin River, and at mile 27.8.

Water-temperature records available.--211 spot observations were made 1950-62. Of these, 169 were made during June and September 1950-61. Only two readings were made during the period October to May in water years 1950-56.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, Detroit, and Hills Creek Reservoirs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	49	44	38	-	49	53	61	66	71	72	66
	Max.-Min.	63 50	54 46	46 41	41 36	- -	54 45	55 50	70 57	73 55	79 56	77 64	73 54
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

244-Willamette River at Sportcraft, at Oregon City

Location.--Lat 45°21'55", long 122°36'05", in sec.30, T.2 S., R.2 E., just upstream from Abernathy Creek and at mile 25.6.

Water-temperature records available.--219 spot observations were made from 1950-62. Of these, 165 were made during the months June to September 1950-61. Only 6 observations were made October to May during water years 1950-56.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, Detroit, and Hills Creek Reservoirs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	49	44	44	-	48	54	61	66	71	71	66
	Max.-Min.	63 50	54 45	46 41	50 36	- -	52 45	59 49	68 57	73 55	79 59	79 64	72 54
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

245-Clackamas River at Big Bottom (14-2080.)

Location.--Lat 45°01'00", long 121°55'00" in NW¼SE¼ sec.26, T.6 S., R.7 E., on right bank at lower end of Big Bottom, 0.3 mile downstream from Pot Creek, 0.5 mile upstream from site of proposed dam, 28 miles southeast of Estacada, and at mile 65.3.

Drainage area.--136 sq mi at cableway 2,000 ft downstream.

Water-temperature records available.--90 spot observations March 1951 to September 1962. No observations were made December 1958 to July 1959, March 1961 to April 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	45	40	40	38	39	40	42	43	48	50	50	47
	Max.-Min.	48 43	43 36	41 38	40 35	40 38	42 38	45 39	45 40	52 43	55 44	53 45	50 45
†Adjusted	Mean	44	41	39	38	40	40	43	44	48	52	51	48
	Max.-Min.	50 40	44 36	43 36	42 33	43 35	43 35	47 39	51 39	55 41	57 43	55 45	53 42

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

246-Oak Grove Fork near Government Camp (14-2087.)

Location.--Lat 45°06'50", long 121°48'50", in NE¼ sec.27, T.5 S., R.8 E., on right bank 0.1 mile upstream from Anvil Creek, 0.3 mile downstream from Timothy Lake, 14 miles south of Government Camp, and at mile 15.5.

Drainage area.--53.0 sq mi.

Water-temperature records available.--30 spot observations June 1956 to September 1962. Only one observation was made during the period February 1961 to September 1962.

Remarks.--Flow regulated by Timothy Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	44	41	37	35	38	-	43	44	45	44	45	45
	Max.-Min.	47 42	45 37	38 36	35 35	38 38	- -	44 42	46 41	46 44	47 43	48 42	45 45
†Adjusted	Mean	[illegible]	42	37	36	39	41	42	43	44	44	45	45
	Max.-Min.	49 40	47 36	41 33	40 33	42 35	43 36	45 39	48 39	49 39	50 39	49 42	49 41

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

247-Oak Grove Fork above powerplant intake (14-2090.)

Location.--Lat 45°04'20", long 121°57'00", on line between secs.3 and 4, T.6 S., R.7 E., on right bank 0.2 mile upstream from Spring Creek, 0.7 mile upstream from Kink Creek, 1.1 miles upstream from Portland General Electric Company diversion dam, 24 miles southeast of Estacada, and at mile 6.1.

Drainage area.--126 sq mi, includes that of Spring Creek.

Water-temperature records available.--97 spot observations March 1951 to September 1962. Only one observation was made from February 1961 to September 1962.

Remarks.--Flow regulated by Timothy Lake beginning in 1956; record has been split, therefore, to show effect of reservoir.

Water temperature (°F)

March 1951 - May 1956		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	45	42	40	38	39	40	42	42	46	49	47	46
	Max.-Min.	46 44	44 40	40 39	40 36	40 38	40 40	43 40	44 40	48 44	50 48	50 45	48 44
†Adjusted	Mean	44	42	39	38	39	40	42	43	48	49	48	46
	Max.-Min.	49 40	48 36	44 35	43 35	43 35	42 35	46 39	49 39	53 42	54 42	52 44	51 42

June 1956-September 1962		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	40	37	38	39	42	42	44	47	48	46	46
	Max.-Min.	45 42	43 37	37 37	40 35	40 37	42 41	43 42	44 42	48 46	48 47	49 44	46 45
†Adjusted	Mean	43	42	39	38	39	40	42	42	45	47	47	45
	Max.-Min.	48 40	47 37	43 35	43 35	42 35	42 36	45 39	47 39	50 40	52 42	50 44	49 42

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

Note.--Adjusted figures for both periods are generally representative of water temperatures for 1951-62; those for 1951-56 exclude, and those for 1956-62 include, effect of Timothy Lake.

248-Clackamas River above Three Lynx Creek (14-2095.)

Location.--Lat 45°07'30", long 122°04'20", in NE¼ sec.21, T.5 S., R.6 E., on right bank 500 ft upstream from Three Lynx Creek, 1,300 ft downstream from powerplant, 17 miles southeast of Estacada, and at mile 47.8.

Drainage area.--479 sq mi.

Water-temperature records available.--71 spot observations February 1951 to September 1962. A total of only five observations were made from January 1959 to September 1962.

Remarks.--Minor regulation since 1956 by Timothy Lake. Considerable diurnal fluctuation in flow during periods of low flow.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	46	40	40	38	39	39	43	46	50	52	52	49
	Max.-Min.	52 43	45 35	41 37	39 36	40 38	42 34	46 40	50 41	56 44	56 48	55 48	52 46
†Adjusted	Mean	47	42	40	39	41	41	43	45	50	54	53	50
	Max.-Min.	52 41	47 35	43 37	43 33	45 35	44 34	48 39	53 40	58 43	60 45	58 48	56 44

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

249-Clackamas River at Cazadero Dam

Location.--Lat 45°15'08", long 122°17'52", in SW¼NE¼ sec.3, T.4 S., R.4 E., 1 mile upstream from Faraday Lake, 3 miles southeast of Estacada, and at mile 27.8.

Drainage area.--657 sq mi, at former gaging station "near Cazadero".

Water-temperature records available.--Once daily readings at about 8 a.m. from November 1957 to September 1962.

Remarks.--Large diurnal fluctuations and some regulation since 1958 by North Fork Dam. Minor regulation since 1956 by Timothy Lake. Records furnished by Portland General Electric Company.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	-	42	41	40	41	-	44	49	56	59	58	53
	Max.-Min.	- -	45 41	45 39	42 38	42 40	- -	49 39	54 45	63 51	63 51	60 55	60 48
1959	Mean	49	44	42	-	-	42	44	47	54	58	58	54
	Max.-Min.	53 47	49 39	48 40	- -	- -	42 41	46 42	54 44	61 50	61 50	60 57	57 50
1960	Mean	50	43	41	36	41	40	44	46	54	59	58	54
	Max.-Min.	51 47	47 39	43 38	40 35	42 37	44 35	45 42	49 44	57 48	61 56	62 54	56 52
1961	Mean	51	44	39	40	43	42	44	47	55	59	-	54
	Max.-Min.	53 48	48 40	41 37	43 37	45 40	45 40	47 43	50 44	59 50	62 56	- -	57 50
1962	Mean	49	42	40	38	40	39	44	45	52	57	58	55
	Max.-Min.	52 44	44 39	43 36	43 33	42 34	43 34	46 42	48 42	56 47	60 54	60 55	57 53
1958-62	Mean	50	43	41	38	41	41	44	47	54	58	58	54
	Max.-Min.	53 44	49 39	48 36	43 33	45 34	45 34	49 39	54 42	63 47	63 53	62 54	60 48

250-Clackamas River at Estacada (14-2100.)

Location.--Lat 45°18'00", long 122°21'10", in NE¼ sec.19, T.3 S., R.4 E., on left bank 0.2 mile downstream from River Mill Dam, 1.5 miles northwest of Estacada, and at mile 23.1.

Drainage area.--671 sq mi.

Water-temperature records available.--58 spot observations December 1947 to September 1962. Only three observations were made from December 1947 to January 1951, and only six, from August 1956 to September 1962.

Remarks.--Large diurnal fluctuations and some regulation caused by powerplants at River Mill Dam and, since 1958, by North Fork Dam. Minor regulation since 1956 by Timothy Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	42	41	38	41	40	43	46	51	57	58	53
	Max.-Min.	52 44	44 40	43 40	39 38	44 38	43 36	45 41	48 44	57 45	61 50	64 55	59 45
†Adjusted	Mean	48	42	40	39	41	41	44	48	54	61	60	55
	Max.-Min.	57 41	48 37	45 37	44 34	46 35	46 35	51 40	60 41	67 45	70 46	69 53	65 45

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

251-Johnson Creek at Sycamore (14-2115.)

Location.--Lat 45°28'40", long 122°30'24", in lot 2, SW¼ sec.13, T.1 S., R.2 E., on right bank 0.3 mile southwest of Sycamore station and 2.5 miles east of city limits of Portland.

Drainage area.--28.2 sq mi.

Water-temperature records available.--122 spot observations August 1947 to September 1962.

Remarks.--Slight diurnal fluctuation of low flows caused by recreational ponds upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	45	44	38	42	43	53	53	61	67	65	61
	Max.-Min.	64 44	54 33	49 36	44 32	47 35	51 38	57 48	63 46	68 54	77 57	69 61	64 53
†Adjusted	Mean	53	46	43	42	42	45	51	54	62	66	66	59
	Max.-Min.	64 41	55 33	51 36	50 32	51 32	51 32	60 44	68 44	76 49	77 50	75 59	69 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

WILLAMETTE RIVER MAIN STEM

252-Willamette River at Steel Bridge, at Portland

Location.--Lat 45°31'40", long 122°40'05", in sec.34, T.1 N., R.1 E., and at mile 12.1.

Water-temperature records available.--219 spot observations were made 1950-62. Of these, 164 observations were made during the period June to September 1950-61, and the remaining 45 were scattered from October to May during water years 1954-62.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, Detroit, and Hills Creek Reservoirs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	49	43	44	-	48	53	61	66	70	71	65
	Max.-Min.	63 50	55 45	46 41	50 36	- -	50 45	59 48	70 57	72 55	79 59	77 64	70 56
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

253-Willamette River at S.P. & S. Railroad Bridge, at Portland

Location.--Lat 44°34'40", long 122°44'45", in sec.12, T.1 N., R.1 W., and at mile 7.0.

Water-temperature records available.--233 spot observations were made 1953-62. Of these, 174 were made during the period June to September 1953-61. Of the 59 observations made during October to May only 6 were made prior to water year 1957.

Remarks.--Records furnished by State Sanitary Authority. Flow regulated by Fern Ridge, Cottage Grove, Dorena, Lookout Point, Detroit, and Hills Creek Reservoirs.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	49	44	44	-	48	53	61	65	71	72	66
	Max.-Min.	63 50	55 45	46 41	50 36	- -	52 45	57 48	70 57	70 55	79 56	77 64	72 55
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

CLATSKANIE RIVER BASIN

254-Clatskanie River near Clatskanie (14-2470.)

Location.--Lat 46°02'55", long 123°07'05", in sec.36, T.7 N., R.4 W., on left bank 2 miles downstream from Carcus Creek and 5.5 miles southeast of Clatskanie.

Drainage area.--53.0 sq mi.

Water-temperature records available.--Thermograph record May 1950 to September 1954.

Remarks.--Occasional slight regulation by log ponds.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	60	64	65	59
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	61 50	71 53	75 56	73 54	66 50
1951	Mean	50	46	45	44	43	a40	a43	54	60	63	61	58
	Max.-Min.	53 47	51 42	47 43	45 38	47 38	a43 a38	a54 a39	64 48	70 52	70 54	67 53	64 51
1952	Mean	51	44	42	38	40	43	50	55	58	62	62	58
	Max.-Min.	58 41	48 39	48 36	43 35	43 37	48 39	56 42	65 46	65 51	72 54	71 54	65 51
1953	Mean	52	42	40	44	44	46	48	52	54	62	61	57
	Max.-Min.	59 46	49 33	44 35	48 39	48 40	50 40	56 42	60 46	63 49	69 55	67 56	64 49
1954	Mean	50	48	46	42	42	42	48	54	55	59	59	56
	Max.-Min.	56 44	52 42	49 42	46 36	46 40	46 38	54 43	62 43	62 50	66 52	67 53	62 49
1950-54	Mean	51	45	43	42	42	43	47	54	57	62	62	58
	Max.-Min.	59 41	52 33	49 35	48 35	48 37	50 38	56 39	65 46	71 49	75 52	73 53	66 49

a Computed on basis of available record and correlation with thermograph record for Big Creek near Knappa.

GNAT CREEK BASIN

255-Gnat Creek near Wauna

Location.--Lat 46°10'10", long 123°29'10", in NE¼NE¼ sec.24, T.8 N., R.7 W., at fish hatchery on Highway 30, 4 miles west of Wauna, and about 20 miles east of Astoria.

Water-temperature records available.--Once-daily observation at 1 p.m. November 1959 to September 1962.

Remarks.--Records furnished by Oregon State Game Commission. Diversion from Gnat Creek is about a quarter of a mile above hatchery building.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	42	43	40	43	43	46	48	52	55	55	52
	Max.-Min.	- -	47 38	46 40	45 38	46 37	48 38	50 42	50 46	56 50	59 52	58 53	56 50
1961	Mean	50	45	42	44	45	44	46	49	54	56	58	55
	Max.-Min.	53 44	50 40	46 40	46 38	48 43	47 41	50 42	56 46	58 50	61 52	59 56	59 51
1962	Mean	45	42	43	41	43	41	47	47	52	53	54	52
	Max.-Min.	54 43	47 38	46 36	46 34	45 35	45 37	50 45	49 45	56 48	55 50	55 52	53 50
1960-62	Mean	48	43	43	42	44	43	46	48	53	55	56	53
	Max.-Min.	54 43	50 38	46 36	46 34	48 35	48 37	50 42	56 45	58 48	61 50	59 52	59 50

BIG CREEK BASIN

256-Big Creek near Knappa (14-2485.)

Location.--Lat 46°09'00", long 123°35'00", in NW¼ sec.29, T.8 N., R.7 W., on left bank 0.3 mile downstream from fish hatchery and 2.5 miles south of Knappa.

Drainage area.--31.9 sq mi.

Water-temperature records available.--Thermograph record May 1950 to June 1955.

Remarks.--Small diurnal fluctuation at times caused by fish hatchery above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	53	55	55	52
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	a54 a47	57 50	58 52	59 52	56 48
1951	Mean	48	a46	45	43	42	40	44	50	54	58	58	56
	Max.-Min.	50 46	a49 a43	46 43	45 38	45 38	44 37	48 41	55 44	61 49	61 52	62 52	59 52
1952	Mean	52	46	42	40	42	42	46	50	a52	a55	55	54
	Max.-Min.	56 46	49 42	46 38	43 37	42 40	44 41	48 42	55 44	a56 a48	a60 a50	60 51	58 48
1953	Mean	52	46	46	47	44	46	48	50	52	58	58	57
	Max.-Min.	55 50	50 39	48 39	48 44	47 42	47 42	51 43	55 47	55 49	61 54	61 56	60 52
1954	Mean	52	48	46	43	44	44	46	50	50	54	56	a51
	Max.-Min.	56 48	53 47	48 44	46 39	45 42	46 42	49 43	55 43	54 48	57 51	58 52	a57 a47
1955	Mean	a50	50	44	44	44	44	44	49	52	-	-	-
	Max.-Min.	a54 a46	52 44	47 42	45 42	47 42	46 40	48 42	52 46	58 47	- -	- -	- -
1950-55	Mean	51	47	45	43	43	43	46	50	52	56	56	54
	Max.-Min.	56 46	53 39	48 38	48 37	47 38	47 37	51 41	55 43	61 47	61 50	62 51	60 47

a Computed on basis of available record and correlation with thermograph records for Clatskanie River near Clatskanie and North Fork Klaskanine River near Olney.

YOUNGS RIVER BASIN

257-Youngs River near Astoria (14-2515.)

Location.--Lat 46°04'02", long 123°47'20", in NW¼ sec.27, T.7 N., R.9 W., on left bank 50 ft upstream from crest of Youngs River Falls, 2.7 miles southwest of Olney, and 9 miles south of Astoria.

Drainage area.--40.1 sq mi.

Water-temperature records available.--90 spot observations February 1947 to October 1958.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	45	45	44	41	43	47	55	55	61	59	58
	Max.-Min.	58 43	48 43	49 38	47 38	48 32	45 37	57 43	62 49	57 51	70 56	69 49	65 55
†Adjusted	Mean	51	46	44	43	45	45	48	52	55	61	61	56
	Max.-Min.	60 42	52 37	50 38	49 34	51 32	50 35	57 43	64 44	67 44	70 47	69 49	65 47

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

258-North Fork Klaskanine River near Olney (14-2520.)

Location.--Lat 46°04'10", long 123°41'50", in NE¼ sec.29, T.7 N., R.8 W., on right bank half a mile downstream from Barth Falls, 2 miles upstream from North Fork of North Fork, and 4 miles southeast of Olney.

Drainage area.--14.0 sq mi.

Water-temperature records available.--Thermograph record May 1950 to September 1955.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1950	Mean	-	-	-	-	-	-	-	-	55	57	58	55
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	a56 a46	59 50	61 54	64 54	62 47
1951	Mean	50	46	46	42	43	42	47	49	56	58	58	56
	Max.-Min.	53 45	50 41	48 44	45 41	47 36	46 35	52 42	56 44	64 51	63 53	62 51	60 51
1952	Mean	52	46	42	40	42	43	47	50	52	58	59	57
	Max.-Min.	57 43	48 40	46 37	43 37	44 39	47 40	52 42	58 42	57 46	65 51	65 53	64 51
1953	Mean	53	44	a45	a46	44	45	48	50	52	57	58	57
	Max.-Min.	59 48	50 34	a48 a34	a48 a41	48 41	49 40	53 42	58 46	56 48	61 53	63 55	61 51
1954	Mean	52	48	46	44	44	44	48	53	52	56	56	55
	Max.-Min.	56 46	52 44	48 43	47 39	47 41	48 40	53 43	60 43	57 48	59 51	59 54	58 49
1955	Mean	50	48	44	44	43	42	45	50	56	56	58	56
	Max.-Min.	55 44	52 42	47 42	46 41	46 39	48 37	50 41	56 45	65 49	61 51	63 54	66 49
1950-55	Mean	51	46	45	43	43	43	47	50	54	57	58	56
	Max.-Min.	59 43	52 34	48 34	48 37	48 36	49 35	53 41	60 42	65 46	65 51	65 51	66 47

a Computed on basis of available record and correlation with thermograph record for Big Creek near Knappa.

NEHALEM RIVER BASIN

259-Nehalem River near Foss (14-3010.)

Location.--Lat 45°42'15", long 123°45'15", in NW¼ sec.35, T.3 N., R.9 W., on right bank 0.2 mile upstream from Cook Creek and 2.2 miles northeast of Foss.

Drainage area.--667 sq mi.

Water-temperature records available.--118 spot observations February 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	44	45	42	44	43	48	55	61	68	68	65
	Max.-Min.	66 46	48 37	54 39	46 35	47 38	46 40	55 44	62 50	70 51	76 59	75 62	68 61
†Adjusted	Mean	53	45	44	44	44	44	48	55	61	66	67	62
	Max.-Min.	66 44	52 36	54 37	50 35	50 34	49 34	57 43	69 47	76 48	78 48	77 58	73 51

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

WILSON RIVER BASIN

260-Wilson River near Tillamook (14-3015.)

Location.--Lat 45°28'35", long 123°43'20", in SE¼SE¼ sec.13, T.1 S., R.9 W., on right bank 1.0 mile upstream from Little North Fork and 6.0 miles east of Tillamook.

Drainage area.--161 sq mi.

Water-temperature records available.--123 spot observations January 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	46	44	42	43	44	48	55	58	67	65	60
	Max.-Min.	57 43	51 41	52 40	46 37	48 36	49 41	55 42	62 48	63 51	73 59	70 62	70 56
†Adjusted	Mean	53	46	44	44	44	45	49	54	58	64	65	61
	Max.-Min.	63 43	53 38	52 39	50 36	50 35	50 36	57 42	68 46	74 45	76 47	75 56	72 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

261-Trask River near Tillamook (14-3025.)

Location.--Lat 45°26'25", long 123°43'00", in NW¼NW¼ sec.31, T.1 S., R.8 W., on right bank 0.6 mile upstream from Gold Creek and 6.2 miles east of Tillamook.

Drainage area.--145 sq mi.

Water-temperature records available.--Thermograph record May to September 1962. 77 spot observations January 1947 to July 1958, and 8 spot observations September 1961 to September 1962. No observations were made September 1956 to August 1957, and November 1957 to April 1958.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	50	58	64	62	58
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	53 48	63 51	70 57	66 56	63 55

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	46	44	41	44	44	47	55	56	64	65	61
	Max.-Min.	57 49	51 40	48 41	44 34	46 40	46 42	55 43	63 49	62 48	76 58	73 61	69 54
†Adjusted	Mean	54	47	45	43	45	45	48	53	59	64	64	61
	Max.-Min.	62 45	54 39	51 39	50 34	51 35	50 35	57 42	63 44	69 47	76 50	73 58	69 52

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

NESTUCCA RIVER BASIN

262-Cedar Creek near Hebo

Location.--Lat 45°12'50", long 123°50'50", in NW¼NW¼ sec.24, T.4 S., R.10 W., at fish hatchery 1.2 miles southeast of Hebo on Highway 22.

Water-temperature records available.--Three observations of water temperature daily (6 a.m., 12 m., and 6 p.m.), February 1943 to February 1946; once-daily readings (1 p.m.) thereafter. Records incomplete or missing February 1948 to February 1949.

Remarks.--Records furnished by Oregon State Game Commission. The diversion point is 600 feet upstream from the hatchery building.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	-	44	44	49	50	51	54	54	54
	Max.-Min.	- -	- -	- -	- -	49 40	50 38	54 42	57 44	58 41	59 48	59 48	60 48
1944	Mean	51	47	44	44	44	45	48	50	51	54	54	54
	Max.-Min.	57 44	51 41	50 40	47 40	47 40	51 40	56 43	55 45	55 47	59 48	60 48	59 49
1945	Mean	51	47	43	45	46	45	48	50	52	54	53	52
	Max.-Min.	54 48	52 41	49 37	49 40	49 40	48 41	55 42	55 46	58 46	58 47	58 47	57 44
1946	Mean	50	47	46	44	44	45	48	51	52	54	55	52
	Max.-Min.	56 41	50 42	50 39	47 40	47 41	47 43	51 44	55 48	56 49	57 51	57 52	58 48
1947	Mean	49	47	46	41	46	49	49	53	53	55	56	54
	Max.-Min.	53 46	49 43	50 40	47 38	49 40	53 44	56 45	57 50	56 51	58 51	58 53	57 50
1948	Mean	51	47	46	44	-	-	-	-	-	-	-	-
	Max.-Min.	56 48	50 43	48 43	47 40	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	-	-	48	50	51	55	56	55	55
	Max.-Min.	- -	- -	- -	- -	- -	49 44	53 46	54 46	58 51	62 54	59 54	59 53
1950	Mean	48	48	45	41	44	45	47	49	52	55	55	53
	Max.-Min.	53 42	50 46	48 41	45 37	47 38	47 43	49 45	52 46	56 48	57 52	59 53	56 48
1951	Mean	50	47	47	44	45	44	49	50	53	53	54	52
	Max.-Min.	53 46	50 44	49 44	46 38	48 42	48 39	52 46	53 46	60 49	56 50	56 50	55 50
1952	Mean	50	45	43	42	43	44	48	50	51	55	55	53
	Max.-Min.	54 46	48 42	46 37	45 39	46 40	48 41	52 46	54 47	54 46	58 52	59 52	56 50
1953	Mean	51	43	43	46	45	45	47	49	49	53	54	54
	Max.-Min.	54 48	48 35	48 38	47 43	47 42	49 43	51 44	53 46	52 46	55 52	57 51	56 51
1954	Mean	50	48	46	43	45	45	48	50	50	52	52	52
	Max.-Min.	53 47	50 45	48 44	47 38	46 44	48 42	53 45	53 46	53 48	54 50	54 51	54 48
1955	Mean	50	48	44	44	43	44	45	49	51	51	53	52
	Max.-Min.	52 47	52 41	46 40	47 41	48 41	47 40	49 43	54 43	57 48	54 49	56 50	56 49
1956	Mean	49	45	44	44	42	44	48	50	51	54	54	52
	Max.-Min.	51 46	50 36	47 41	47 38	44 38	48 40	53 44	56 47	54 48	58 50	56 51	55 50
1957	Mean	49	45	43	40	43	46	47	50	51	53	53	54
	Max.-Min.	52 44	48 41	46 36	44 34	47 39	48 42	54 44	52 47	54 48	55 51	55 52	57 52
1958	Mean	50	45	45	45	46	45	47	50	52	55	56	54
	Max.-Min.	54 47	50 42	48 42	48 43	48 44	49 42	51 44	53 47	56 50	58 52	58 53	58 49
1959	Mean	51	47	46	45	44	46	48	48	50	53	52	51
	Max.-Min.	56 46	53 41	50 44	46 38	48 42	48 44	50 44	52 46	52 48	57 50	54 50	53 48
1960	Mean	50	46	44	42	44	45	47	47	50	52	52	52
	Max.-Min.	52 47	50 40	48 40	47 38	46 40	49 40	50 45	50 45	52 48	54 50	56 50	54 50
1961	Mean	50	46	44	45	47	46	46	48	51	53	54	51
	Max.-Min.	52 46	49 44	49 41	48 40	48 44	48 43	50 42	52 46	54 48	57 50	56 52	54 48
1962	Mean	49	44	44	43	44	43	48	48	50	52	53	52
	Max.-Min.	57 46	47 40	47 38	46 36	47 39	47 38	51 45	50 46	54 48	54 49	54 51	54 51
1943-62	Mean	50	46	45	43	44	45	48	50	51	54	54	53
	Max.-Min.	57 41	53 35	50 36	49 34	49 38	53 38	56 42	57 43	60 41	62 47	60 47	60 44

263-Siletz River at Siletz (14-3055.)

Location.--Lat 44°42'55", long 123°53'10", in NW¼SW¼ sec.11, T.10 S., R.10 W., on right bank, 1.5 miles east of Siletz and 1.8 miles downstream from Baker Creek.

Drainage area.--202 sq mi.

Water-temperature records available.--120 spot observations March 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	47	46	42	43	45	47	53	59	64	66	61
	Max.-Min.	55 49	51 44	49 41	47 35	46 39	47 43	50 45	63 43	67 55	71 59	73 59	65 53
†Adjusted	Mean	53	47	46	43	44	46	48	53	58	65	67	60
	Max.-Min.	63 45	53 41	50 41	48 35	50 37	50 39	57 44	67 43	73 47	76 49	76 58	70 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

YAQUINA RIVER BASIN

264-Mill Creek near Toledo (14-3060.36.)

Location.--Lat 44°34'25", long 123°54'30", near center of sec.33, T.11 S., R.10 W., on left bank 175 ft downstream from diversion dam, 200 ft downstream from small tributary, and 3.6 miles southeast of Toledo.

Drainage area.--4.08 sq mi.

Water-temperature records available.--27 spot observations November 1959 to September 1962.

Remarks.--Occasional fluctuation of flow caused by city of Toledo diversion dam 175 ft upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	49	44	44	46	47	50	51	54	-	57	55
	Max.-Min.	51 51	51 46	46 41	45 44	46 45	49 46	52 49	53 49	56 53	- -	59 55	61 51
†Adjusted	Mean	52	48	47	46	47	47	51	52	54	59	59	56
	Max.-Min.	59 46	54 42	52 41	51 39	52 39	51 39	57 46	61 46	63 46	66 48	65 54	62 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

265-North Fork Alsea River at Trout Hatchery near Alsea.

Location.--Lat 44°25'30", long 123°34'10", in NE¼SW¼ sec.20, T.13 S., R.7 W., at fish hatchery, 0.8 mile upstream form Waldport Highway, and 3.2 miles northeast of Alsea.

Water-temperature records available.--Three observations a day (6 a.m., 12 m., and 6 p.m.) January 1943 to December 1946, and one observation a day (about 1 p.m.) thereafter. Records incomplete or missing for November and December 1946 and February to December 1948.

Remarks.--Records furnished by Oregon State Game Commission. Water intake for fish hatchery 0.2 mile upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	42	45	44	48	50	54	59	58	57
	Max.-Min.	- -	- -	- -	48 36	48 41	50 40	54 42	60 45	63 48	66 53	64 53	63 52
1944	Mean	52	46	42	42	44	44	47	50	54	60	58	57
	Max.-Min.	59 46	50 41	50 39	46 40	47 40	51 40	52 42	57 46	61 48	67 52	64 53	65 52
1945	Mean	53	45	42	43	46	45	47	50	54	59	59	55
	Max.-Min.	56 50	53 39	48 36	48 38	50 42	49 41	54 43	57 47	64 49	65 53	64 54	62 49
1946	Mean	51	48	48	46	46	46	48	53	55	59	60	56
	Max.-Min.	57 45	53 42	50 40	51 42	48 43	49 44	55 44	58 46	62 50	66 53	64 54	61 50
1947	Mean	50	-	-	41	46	47	50	54	55	58	59	57
	Max.-Min.	54 44	- -	- -	46 37	49 42	50 43	55 47	58 51	58 52	60 56	61 55	60 52
1948	Mean	52	48	46	45	-	-	-	-	-	-	-	-
	Max.-Min.	57 50	50 43	49 42	49 38	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	37	41	45	49	51	55	57	57	56
	Max.-Min.	- -	- -	- -	42 33	48 36	47 43	51 43	55 46	59 51	62 55	60 55	61 54
1950	Mean	48	47	44	41	41	44	47	49	54	59	60	57
	Max.-Min.	54 43	50 44	47 41	45 36	45 34	47 42	49 45	53 44	61 50	62 57	64 57	63 51
1951	Mean	51	47	48	44	44	42	48	51	58	59	59	56
	Max.-Min.	56 47	50 41	50 44	47 38	48 40	45 35	50 45	55 45	63 50	62 54	62 56	61 52
1952	Mean	52	47	43	41	42	44	48	52	55	61	62	59
	Max.-Min.	58 48	49 43	47 40	45 36	46 37	48 41	51 45	58 46	59 50	65 54	67 58	63 56
1953	Mean	55	44	43	46	45	45	47	49	51	59	59	57
	Max.-Min.	61 50	50 36	46 38	49 42	48 43	48 41	51 41	54 46	55 47	62 56	63 55	62 53
1954	Mean	51	48	46	43	45	43	47	52	53	58	58	55
	Max.-Min.	55 47	51 42	50 42	47 38	48 43	46 42	52 44	57 46	59 50	60 54	61 54	58 50
1955	Mean	50	48	43	42	42	42	44	50	55	56	59	56
	Max.-Min.	54 46	51 40	47 39	46 39	46 38	46 40	48 42	54 46	61 48	62 52	62 56	66 50
1956	Mean	50	45	44	43	40	43	47	52	54	60	60	56
	Max.-Min.	52 42	50 35	47 40	46 36	42 35	45 40	50 43	57 47	62 50	66 54	64 58	60 53
1957	Mean	50	44	42	39	44	46	48	52	56	59	58	58
	Max.-Min.	54 46	48 38	48 37	43 33	48 40	49 44	54 45	57 48	59 53	62 54	61 56	62 55
1958	Mean	51	43	45	45	48	45	48	54	57	63	62	57
	Max.-Min.	58 48	48 40	49 43	49 41	50 46	48 41	51 44	58 49	65 51	68 56	65 58	62 50
1959	Mean	52	47	46	45	43	45	48	50	55	61	60	54
	Max.-Min.	58 46	51 40	50 42	48 38	46 40	47 42	51 44	55 46	60 50	66 54	63 55	58 50
1960	Mean	50	45	44	42	44	45	48	49	56	60	59	56
	Max.-Min.	54 46	48 38	47 40	47 36	47 38	49 39	52 44	53 46	59 50	63 56	64 54	59 53
1961	Mean	50	46	43	44	46	46	48	50	58	61	61	57
	Max.-Min.	54 47	50 42	47 40	48 37	48 44	48 43	52 44	56 47	65 52	66 56	65 57	64 52
1962	Mean	51	44	44	42	44	44	47	47	52	57	57	55
	Max.-Min.	57 46	49 40	48 37	49 32	47 37	47 41	51 44	52 46	58 48	64 53	60 54	57 53
1943-62	Mean	51	46	44	43	44	44	48	51	55	59	59	56
	Max.-Min.	61 42	53 35	50 36	51 32	50 34	51 35	55 41	60 44	65 47	68 52	67 53	66 49

266-North Fork Alsea River at Alsea (14-3061.)

Location.--Lat 44°22'45", long 123°35'40", in SE¼ sec.1, T.14 S., R.8 W., on left bank at Alsea, 0.2 mile upstream from bridge on Lobster Valley Road, and 0.7 mile upstream from confluence with South Fork.

Drainage area.--63.0 sq mi.

Water-temperature records available.--Thermograph record March 1958 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	-	-	-	-	-	-	50	58	62	68	68	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	56 46	64 49	74 56	76 59	75 61	70 52
1959	Mean	55	50	49	48	47	48	51	53	a59	a65	63	a59
	Max.-Min.	64 46	54 43	52 46	51 42	50 39	51 45	58 46	a63 a48	a69 a52	a74 a57	a72 a56	a66 a52
1960	Mean	a53	47	a46	a44	46	47	50	51	58	a65	62	60
	Max.-Min.	a59 a46	a52 a40	a50 a41	a49 a41	49 39	54 40	54 46	58 48	65 53	a73 a55	70 56	66 52
1961	Mean	54	49	46	46	48	48	50	52	61	66	a67	a59
	Max.-Min.	60 47	53 45	50 43	50 41	50 46	52 46	56 46	61 48	72 53	75 57	a74 a61	a67 a47
1962	Mean	a54	a46	a46	42	46	45	50	50	58	64	64	61
	Max.-Min.	a64 a46	a50 a38	a50 a41	47 34	49 38	51 40	56 46	57 46	67 49	73 54	71 58	69 54
1958-62	Mean	54	48	47	45	47	47	50	53	60	66	65	60
	Max.-Min.	64 46	54 38	52 41	51 34	50 38	54 40	58 46	64 46	74 49	76 54	75 56	70 47

a Computed on basis of available record and correlation with thermograph records for South Fork Alsea River near Alsea and Drift Creek near Salado.

267-South Fork Alsea River near Alsea (14-3062.)

Location.--Lat 44°21'55", long 123°35'55", in NE¼SE¼ sec.12, T.14 S., R.8 W., on left bank 0.8 mile upstream from confluence with North Fork and 1.1 miles south of Alsea.

Drainage area.--49.5 sq mi.

Water-temperature records available.--Thermograph record April 1958 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	-	-	-	-	-	-	-	56	61	68	67	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	62 50	74 56	76 59	73 61	69 50
1959	Mean	52	48	47	47	46	a46	a49	53	58	64	62	56
	Max.-Min.	61 43	54 40	51 42	a49 a38	48 40	a49 a42	a57 a43	62 47	68 51	73 56	71 55	64 50
1960	Mean	52	44	44	a41	44	45	47	50	58	64	62	58
	Max.-Min.	58 43	51 36	48 37	a47 a38	48 37	50 36	52 43	57 46	65 51	72 55	70 55	65 50
1961	Mean	52	46	44	44	46	46	48	52	61	65	66	58
	Max.-Min.	58 45	50 40	48 39	48 40	49 43	50 44	54 43	60 47	71 53	73 56	73 60	66 45
1962	Mean	52	43	44	42	44	44	50	50	59	64	63	60
	Max.-Min.	62 43	48 34	48 37	49 34	47 37	50 38	56 45	56 47	67 49	73 54	71 56	68 53
1958-62	Mean	52	45	45	44	45	45	48	52	59	65	64	58
	Max.-Min.	62 43	54 34	51 37	49 34	49 37	50 36	57 43	62 46	74 49	76 54	73 55	69 45

a Computed on basis of available record and correlation with thermograph records for North Fork Alsea River at Alsea.

268-Fall Creek near Alsea (14-3063.)

Location.--Lat 44°23'50", long 123°44'50", in S½NE¼ sec.35, T.13 S., R.9 W., on left bank 2.0 miles upstream from mouth and 8.0 miles west of Alsea.

Drainage area.--29.4 sq mi at measuring section 1.9 miles downstream.

Water-temperature records available.--Thermograph record August 1958 to September 1959.

Remarks.--Occasional fluctuations at low flows caused by fish hatchery 0.2 mile upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	-	-	-	-	-	-	-	-	-	-	63	58
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	67 58	64 50
1959	Mean	52	49	48	46	45	46	49	50	55	60	59	a56
	Max.-Min.	59 45	53 42	51 44	49 41	49 36	49 42	56 44	59 46	63 50	66 54	65 54	a62 a51
1958-59	Mean	52	49	48	46	45	46	49	50	55	60	61	57
	Max.-Min.	59 45	53 42	51 44	49 41	49 36	49 42	56 44	59 46	63 50	66 54	67 54	64 50

a Computed on basis of correlation with thermograph record for Drift Creek near Salado.

269-Five Rivers near Fisher (14-3064.)

Location.--Lat 44°20'15", long 123°49'35", in W½ sec.19, T.14 S., R.9 W., on left bank at downstream side of highway bridge, 500 ft downstream from Lobster Creek, 3.2 miles north of Fisher, and 12 miles west of Alsea.

Drainage area.--114 sq mi.

Water-temperature records available.--Thermograph record October 1958 to September 1959.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	a55	49	48	48	a46	47	50	54	57	a63	64	a60
	Max.-Min.	a60 a49	a53 44	50 43	50 42	48 a39	48 45	55 47	57 50	63 54	72 56	70 59	a67 a55

a Computed on basis of available record and correlation with thermograph record for Fall Creek near Alsea.

270-Alsea River near Tidewater (14-3065.)

Location.--Lat 44°23'10", long 123°49'50", in NW¼NW¼ sec.6, T.14 S., R.9 W., on right bank 1.0 mile downstream from Grass Creek, 2.3 miles upstream from Scott Creek, and 3.8 miles southeast of Tidewater.

Drainage area.--334 sq mi.

Water-temperature records available.--115 spot observations March 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	49	47	42	45	47	49	53	60	63	67	63
	Max.-Min.	57 50	52 46	50 43	48 34	47 39	49 46	52 47	61 43	71 50	68 54	75 56	68 58
†Adjusted	Mean	55	48	45	43	45	46	49	53	61	67	68	62
	Max.-Min.	66 45	55 38	52 39	51 33	52 33	51 33	58 42	68 43	78 47	79 49	78 56	73 51

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

271-Drift Creek near Salado (14-3066.)

Location.--Lat 44°30'50", long 123°50'50", in NE¼ sec.24, T.12 S., R.10 W., on right bank 0.3 mile downstream from Cape Horn Creek, 4.1 miles southwest of Salado, and 8.5 miles southeast of Toledo.

Drainage area.--20.6 sq mi.

Water-temperature records available.--Thermograph record October 1958 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	-	48	46	46	44	46	48	50	54	60	59	55
	Max.-Min.	- -	52 42	50 44	48 40	48 41	48 43	56 43	58 46	63 50	68 53	66 54	62 50
1960	Mean	52	46	46	43	46	46	48	49	54	60	60	58
	Max.-Min.	54 47	50 41	48 43	47 40	48 39	52 38	53 44	54 46	62 49	70 52	69 54	66 49
1961	Mean	52	47	44	46	48	48	48	52	59	63	64	58
	Max.-Min.	57 46	51 43	47 42	49 39	49 46	50 45	55 44	59 47	70 52	74 53	72 57	68 49
1962	Mean	52	45	46	a43	a44	45	49	50	56	61	61	58
	Max.-Min.	60 46	49 39	48 40	a47 34	a46 a39	50 40	56 44	55 45	65 49	72 52	70 53	67 52
1959-62	Mean	52	46	46	44	46	46	48	50	56	61	61	57
	Max.-Min.	60 46	52 39	50 40	49 34	49 39	52 38	56 43	59 45	70 49	74 52	72 53	68 49

a Computed on basis of available record and correlation with thermograph record for Needle Branch near Salado.

272-Needle Branch near Salado (14-3067.)

Location.--Lat 44°30'35", long 123°51'20", in SW¼ sec.24, T.12 S., R.10 W., on right bank 500 ft upstream from mouth, 4.6 miles southwest of Salado, and 8.5 miles southeast of Toledo.

Drainage area.--0.32 sq mi.

Water-temperature records available.--Thermograph record October 1958 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	52	48	48	46	46	46	48	48	50	54	54	54
	Max.-Min.	57 47	54 43	49 46	48 41	48 42	48 44	51 45	51 46	54 48	58 51	58 52	56 51
1960	Mean	51	47	46	44	46	46	48	49	52	55	56	55
	Max.-Min.	53 47	51 41	48 43	48 41	48 40	50 37	51 46	52 48	55 49	58 51	59 53	58 51
1961	Mean	52	48	45	46	48	47	46	49	54	57	58	56
	Max.-Min.	56 47	51 45	48 42	49 41	49 46	48 43	50 42	52 46	58 50	60 52	61 56	61 51
1962	Mean	51	46	47	43	44	45	48	48	50	54	a56	55
	Max.-Min.	55 47	48 41	50 43	46 39	46 39	48 40	51 46	50 46	54 47	57 49	a58 a52	56 52
1959-62	Mean	52	47	46	45	46	46	48	48	52	55	56	55
	Max.-Min.	57 47	54 41	50 42	49 39	49 39	50 37	51 42	52 46	58 47	60 49	61 52	61 51

a Computed on basis of available record and correlation with thermograph record for Drift Creek near Salado.

273-Flynn Creek near Salado (14-3068.)

Location.--Lat 44°32'20", long 123°51'05", in SW¼ sec.12, T.12 S., R.10 W., on right bank 1,000 ft upstream from mouth, 3.4 miles west of Salado, and 6.9 miles southeast of Toledo.

Drainage area.--0.84 sq mi.

Water-temperature records available.--Thermograph record September 1958 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	52	48	48	47	46	48	48	49	52	55	54	52
	Max.-Min.	54 46	52 45	50 46	49 42	49 44	49 45	50 45	52 47	55 49	58 52	58 52	54 49
1960	Mean	50	48	48	46	47	47	48	50	52	54	54	53
	Max.-Min.	52 48	50 42	50 44	48 43	48 42	50 39	51 46	51 47	54 50	57 50	59 51	58 48
1961	Mean	50	48	46	47	48	48	47	48	51	54	58	56
	Max.-Min.	53 46	51 45	48 43	49 42	49 47	49 45	50 43	52 46	55 47	59 50	62 52	62 49
1962	Mean	51	46	46	44	46	47	49	48	51	54	55	55
	Max.-Min.	56 46	49 41	49 42	47 41	48 43	49 44	51 46	50 46	55 47	59 49	58 51	57 52
1959-62	Mean	51	48	47	46	47	48	48	49	52	54	55	54
	Max.-Min.	56 46	52 41	50 42	49 41	49 42	50 39	51 43	52 46	55 47	59 49	62 51	62 48

274-Deer Creek near Salado (14-3068.10.)

Location.--Lat 44°32'05", long 123°52'35", in SW¼ sec.11, T.12 S., R.10 W., on right bank 1,000 ft upstream from mouth, 4.6 miles west of Salado, and 6.5 miles southeast of Toledo.

Drainage area.--1.20 sq mi.

Water-temperature records available.--Thermograph record September 1958 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1959	Mean	53	48	48	46	46	48	49	48	50	54	54	52
	Max.-Min.	57 48	52 44	50 46	49 42	48 45	50 45	54 46	53 46	53 48	58 51	57 52	54 48
1960	Mean	50	46	46	43	46	46	48	48	52	54	55	53
	Max.-Min.	50 46	49 41	47 44	47 41	48 42	47 40	52 45	50 47	56 49	58 50	58 51	58 47
1961	Mean	50	48	46	48	48	48	48	48	54	54	56	52
	Max.-Min.	54 46	51 45	48 43	49 43	49 46	50 46	51 44	52 47	60 48	60 48	61 52	58 46
1962	Mean	50	47	46	44	46	46	48	48	52	54	a55	a54
	Max.-Min.	55 46	49 41	48 41	48 38	48 41	50 41	55 44	51 45	57 47	60 49	a57 a51	a57 a51
1959-62	Mean	51	47	46	45	46	47	48	48	52	54	55	53
	Max.-Min.	57 46	52 41	50 41	49 38	49 41	50 40	55 44	53 45	60 47	60 48	61 51	58 46

a Computed on basis of available record and correlation with thermograph record for Flynn Creek near Salado.

SIUSLAW RIVER BASIN

275-Lake Creek at Triangle Lake (14-3075.)

Location.--Lat 44°09'40", long 123°34'10", in SW¼ sec.20, T.16 S., R.7 W., on right bank 500 ft downstream from outlet of Triangle Lake and 3 miles southwest of Blachly.

Drainage area.--52.5 sq mi.

Water-temperature records available.--65 spot observations June 1947 to September 1955.

Remarks.--Flow regulated by natural storage in Triangle Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	50	46	43	40	44	50	56	61	70	69	69
	Max.-Min.	64 54	51 48	49 42	45 38	45 36	47 41	54 45	63 45	67 52	76 62	75 63	76 65
†Adjusted	Mean	57	51	42	41	41	42	53	56	65	70	72	69
	Max.-Min.	68 48	64 38	53 34	51 32	48 32	47 32	61 45	68 45	76 52	82 58	78 63	77 60

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

UMPQUA RIVER BASIN

276-South Umpqua River above Jackson Creek, near Tiller.

Location.--Lat 42°58'10", long 122°52'45", in SW¼NW¼ sec.18, T.30 S., R.1 W., 0.1 mile upstream from Jackson Creek, 0.2 mile downstream from Deadman Creek, 4.5 miles northeast of Tiller, and at mile 81.0.

Water-temperature records available.--Thermograph record December 1960 to April 1962.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	41	39	43	43	44	48	60	71	72	60
	Max.-Min.	- -	- -	45 36	44 32	46 38	46 39	48 39	56 41	65 50	81 61	78 65	72 51
1962	Mean	50	43	42	40	44	42	47	-	-	-	-	-
	Max.-Min.	58 43	48 36	45 35	46 33	46 35	47 37	53 42	- -	- -	- -	- -	- -
1961-62	Mean	50	43	42	40	44	42	46	48	60	71	72	60
	Max.-Min.	58 43	48 36	45 35	46 32	46 35	47 37	53 39	56 41	65 50	81 61	78 65	72 51

277-Jackson Creek near Tiller (14-3077.)

Location.--Lat 42°57'15", long 122°49'40", in SW¼NE¼ sec.21, T.30 S., R.1 W., on right bank 0.5 mile upstream from Chapman Creek, 0.8 mile downstream from Beaver Creek, and 6.5 miles northeast of Tiller.

Drainage area.--152 sq mi, includes that of Chapman Creek.

Water-temperature records available.--43 spot observations November 1955 to September 1962. No observations were made January 1959 to March 1960. Thermograph record December 1960 to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	40	38	44	44	44	49	62	66	69	56
	Max.-Min.	- -	- -	45 35	42 31	46 40	47 42	47 40	56 42	68 54	76 54	77 62	66 48
1962	Mean	50	41	40	38	40	41	45	47	58	66	66	62
	Max.-Min.	56 43	47 34	43 34	44 32	43 32	47 36	50 40	53 43	68 46	78 56	74 58	70 52
1961-62	Mean	50	41	40	38	42	42	44	48	60	66	68	59
	Max.-Min.	56 43	47 34	45 34	44 31	46 32	47 36	50 40	56 42	68 46	78 54	77 58	70 48

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	45	39	40	38	40	43	50	54	70	69	60
	Max.-Min.	57 43	54 39	44 36	40 40	42 36	44 36	46 38	51 49	63 44	74 61	76 60	66 55
†Adjusted	Mean	50	44	38	39	40	40	45	50	56	67	68	58
	Max.-Min.	62 40	54 37	45 34	45 32	46 32	45 32	56 38	67 41	74 42	81 47	80 58	69 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

278-South Umpqua River at Tiller (14-3080.)

Location.--Lat 42°55'50", long 122°56'50", in NE¼ sec.33, T.30 S., R.2 W., on right bank 0.2 mile upstream from bridge on State Highway 42 at Tiller, 0.3 mile upstream from Elk Creek, and at mile 75.6.

Drainage area.--449 sq mi.

Water-temperature records available.--99 spot observations June 1947 to September 1962. Thermograph record December 1960 to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	42	40	44	44	44	48	60	68	70	59
	Max.-Min.	- -	- -	46 34	47 31	48 40	49 40	54 36	59 42	71 47	82 56	80 60	70 44
1962	Mean	48	42	42	38	42	42	46	50	60	68	68	64
	Max.-Min.	60 41	50 34	46 34	48 32	46 36	52 36	56 37	58 42	71 45	81 56	78 58	74 53
1961-62	Mean	48	42	42	39	43	43	45	49	60	68	69	62
	Max.-Min.	60 41	50 34	46 34	48 31	48 36	52 36	56 36	59 42	71 45	82 56	80 58	74 44

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	44	40	40	38	41	44	50	56	66	69	64
	Max.-Min.	61 44	46 41	43 36	45 34	42 36	43 36	49 38	57 42	64 49	73 59	76 62	67 59
† Adjusted	Mean	50	44	39	40	40	40	45	51	58	66	68	62
	Max.-Min.	62 41	51 36	46 35	47 33	46 32	45 32	55 38	68 42	76 44	79 46	79 58	74 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

279-Elk Creek near Drew (14-3085.)

Location.--Lat 42°53'25", long 122°55'00", in SW¼ sec.11, T.31 S., R.2 W., on right bank 100 ft downstream from Dixon Creek, 0.2 mile upstream from Drew Creek, 1.3 miles northwest of Drew, and 3.3 miles southeast of Tiller.

Drainage area.--54.4 sq mi.

Water-temperature records available.--52 spot observations September 1954 to September 1962. Thermograph record December 1960 to April 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	42	38	42	44	49	54	66	73	75	62
	Max.-Min.	- -	- -	46 33	45 31	47 37	52 40	59 40	67 44	83 53	87 56	85 68	74 50
1962	Mean	54	42	42	38	42	42	52	-	-	-	-	-
	Max.-Min.	63 42	51 32	46 34	46 32	48 34	51 36	61 43	- -	- -	- -	- -	- -
1961-62	Mean	54	42	42	38	42	43	50	54	66	73	75	62
	Max.-Min.	63 42	51 32	46 33	46 31	48 34	52 36	61 40	67 44	83 53	87 56	85 68	74 50

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	46	39	41	38	40	45	57	60	70	71	63
	Max.-Min.	54 47	56 37	42 38	43 39	44 34	49 36	50 38	60 55	67 54	80 60	75 65	67 60
†Adjusted	Mean	53	45	39	40	40	40	47	58	62	69	70	62
	Max.-Min.	65 41	56 34	47 33	48 32	48 32	49 32	58 38	72 49	78 49	81 50	79 60	72 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

280-Days Creek at Days Creek (14-3087.)

Location.--Lat 42°58'55", long 123°08'55", in NE¼ sec.10, T.30 S., R.4 W., on downstream side of highway bridge 20 ft upstream from Wood Creek, 1.0 mile northeast of town of Days Creek, and 1.3 miles upstream from mouth. Records include flow of Wood Creek.

Drainage area.--55.3 sq mi, includes that of Wood Creek.

Water-temperature records available.--37 spot observations September 1955 to September 1962. No observations were made May to October 1958, and January 1959 to March 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	52	41	43	46	43	54	54	65	69	68	55
	Max.-Min.	57 47	62 43	48 36	45 42	46 46	46 36	56 51	56 51	67 62	78 61	71 65	55 55
† Adjusted	Mean	55	47	41	42	45	45	52	55	63	68	68	59
	Max.-Min.	66 44	62 37	49 35	50 33	52 34	51 34	62 46	70 46	79 49	79 49	78 59	70 47

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

281-Cow Creek near Azalea (14-3090.)

Location.--Lat 42°49'30", long 123°10'40", in N½ sec.4, T.32 S., R.4 W., on right bank 0.8 mile upstream from Whitehorse Creek, 4.5 miles northeast of Azalea, and at mile 58.5.

Drainage area.--78.0 sq mi.

Water-temperature records available.--51 spot observations August 1955 to September 1962. Only one observation was made January 1959 to March 1960. Thermograph record January 1961 to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	-	38	44	44	47	54	65	70	70	60
	Max.-Min.	- -	- -	- -	44 31	49 39	50 39	55 39	65 44	80 54	81 57	78 64	71 51
1962	Mean	52	42	42	37	40	42	50	54	64	69	68	61
	Max.-Min.	60 43	51 33	47 33	45 31	46 34	48 34	60 41	65 47	77 50	79 58	75 60	68 49
1961-62	Mean	52	42	42	38	42	43	48	54	64	70	69	60
	Max.-Min.	60 43	51 33	47 33	45 31	49 34	50 34	60 39	65 44	80 50	81 57	78 60	71 49

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	47	39	40	42	39	44	54	64	71	70	62
	Max.-Min.	54 47	50 36	41 38	40 39	47 37	43 36	47 40	65 46	69 59	77 60	75 65	67 53
†Adjusted	Mean	52	46	39	38	42	42	47	54	60	68	70	61
	Max.-Min.	64 42	54 36	46 35	45 32	48 33	47 33	57 40	72 45	78 45	81 47	82 60	73 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

282-West Fork Cow Creek near Glendale (14-3095.)

Location.--Lat 42°48'10", long 123°37'10", in NW¼SW¼ sec.11, T.32 S., R.8 W., on left bank 1.5 miles upstream from mouth and 11 miles northwest of Glendale.

Drainage area.--86.0 sq mi.

Water-temperature records available.--37 spot observations October 1955 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	44	39	-	40	41	46	52	58	68	69	58
	Max.-Min.	52 46	53 40	42 36	- -	43 38	47 36	49 40	55 48	66 49	72 60	75 64	64 55
† Adjusted	Mean	53	44	39	40	41	41	47	54	57	66	68	59
	Max.-Min.	65 41	53 35	48 34	47 32	48 32	47 32	58 40	70 44	73 44	77 45	78 58	70 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

283-Cow Creek near Riddle (14-3100.)

Location.--Lat 42°55'25", long 123°25'40", in NE¼ sec.32, T.30 S., R.6 W., on left bank 1,500 ft upstream from Council Creek, 3.8 miles southwest of Riddle, and at mile 6.7.

Drainage area.--456 sq mi.

Water-temperature records available.--48 spot observations September 1954 to September 1962. Thermograph record December 1960 to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	42	42	46	46	50	54	69	76	74	62
	Max.-Min.	- -	- -	48 38	48 33	49 43	51 43	57 43	68 40	82 56	85 63	80 66	70 55
1962	Mean	54	44	42	38	44	44	52	57	69	76	73	66
	Max.-Min.	63 44	49 37	48 37	45 31	48 38	51 39	59 48	66 51	77 57	85 67	80 68	73 60
1961-62	Mean	54	44	42	40	45	45	51	56	69	76	74	64
	Max.-Min.	63 44	49 37	48 37	48 31	49 38	51 39	59 43	68 40	82 56	85 63	80 66	73 55

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	51	43	42	42	42	51	56	61	73	70	64
	Max.-Min.	53 41	56 49	48 36	46 36	45 39	45 39	56 48	62 52	67 54	80 61	79 65	70 60
†Adjusted	Mean	56	47	43	40	43	43	50	55	63	72	71	64
	Max.-Min.	68 41	56 37	51 36	48 32	50 32	49 32	61 42	72 44	80 48	85 51	81 61	76 52

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

284-South Myrtle Creek near Myrtle Creek (14-3107.)

Location.--Lat 43°01'55", long 123°11'30", in SE¼ sec.20, T.29 S., R.4 W., on left bank 0.6 mile downstream from School Hollow, 5.5 miles east of town of Myrtle Creek, and at mile 7.2.

Drainage area.--43.9 sq mi.

Water-temperature records available.--42 spot observations September 1955 to September 1962. No observations made January 1959 to March 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	49	43	43	42	43	49	56	62	76	66	64
	Max.-Min.	59 48	56 41	49 35	44 42	45 39	46 41	49 48	65 48	64 59	79 75	69 63	68 57
†Adjusted	Mean	52	46	43	42	44	44	48	55	61	70	71	63
	Max.-Min.	65 42	56 38	50 35	49 34	50 35	49 35	58 43	71 45	78 46	83 49	82 60	75 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

285-North Myrtle Creek near Myrtle Creek (14-3110.)

Location.--Lat 43°02'30", long 123°15'30", in SW¼ sec.14, T.29 S., R.5 W., on right bank 0.1 mile downstream from Bilger Creek, 1.5 miles northeast of town of Myrtle Creek, and at mile 2.0.

Drainage area.--54.2 sq mi.

Water-temperature records available.--44 spot observations September 1955 to September 1962. No observations made January 1959 to March 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	49	44	44	44	42	52	60	60	71	66	63
	Max.-Min.	57 46	56 43	49 36	45 43	48 38	44 39	59 47	66 53	62 59	77 64	69 63	68 56
†Adjusted	Mean	53	46	43	42	43	43	50	56	60	69	70	63
	Max.-Min.	66 43	56 38	50 36	49 34	50 34	49 34	60 44	73 47	78 47	83 49	82 60	76 51

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

286-Myrtle Creek at Myrtle Creek

Location.--Lat 43°01'25", long 123°17'10", in SE¼NE¼ sec.28, T.29 S., R.5 W., 0.2 mile downstream from forks and 0.4 mile upstream from mouth.

Water-temperature records available.--Thermograph record December 1960 to May 1961, August 1961, and October 1961 to April 1962.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	43	42	46	46	50	56	-	-	70	-
	Max.-Min.	- -	- -	48 39	48 33	50 40	51 42	61 43	66 47	- -	- -	85 53	- -
1962	Mean	53	43	44	40	43	44	53	-	-	-	-	-
	Max.-Min.	56 51	49 36	47 34	47 32	49 35	50 38	62 45	- -	- -	- -	- -	- -
1961-62	Mean	53	43	44	41	44	45	52	56	-	-	70	-
	Max.-Min.	56 51	49 36	48 34	48 32	50 35	51 38	62 43	66 47	- -	- -	85 53	- -

287-Olalla Creek near Tenmile (14-3112.)

Location.--Lat 43°02'20", long 123°32'35", in NW¼ sec.21, T.29 S., R.7 W., on left bank 0.5 mile downstream from Berry Creek, 4.4 miles south of Tenmile, and at mile 11.7.

Drainage area.--60.5 sq mi.

Water-temperature records available.--33 spot observations October 1956 to September 1962. Thermograph record January 1961 to April 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	-	42	46	48	49	55	66	70	72	61
	Max.-Min.	- -	- -	- -	47 36	50 43	52 45	59 42	69 47	80 52	84 59	80 63	72 50
1962	Mean	52	44	44	40	44	45	52	-	-	-	-	-
	Max.-Min.	62 43	51 35	48 37	48 32	49 36	50 40	58 47	- -	- -	- -	- -	- -
1961-62	Mean	52	44	44	41	45	46	50	55	66	70	72	61
	Max.-Min.	62 43	51 35	48 37	48 32	50 36	52 40	59 42	69 47	80 52	84 59	80 63	72 50

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	55	41	42	42	43	46	51	58	66	71	70	66
	Max.-Min.	61 46	42 40	48 37	46 40	46 39	46 46	56 48	71 50	67 65	79 64	76 64	69 61
†Adjusted	Mean	56	45	42	41	44	44	51	57	64	70	71	66
	Max.-Min.	68 44	54 35	50 34	49 32	52 33	51 33	62 44	74 47	81 49	83 49	81 60	78 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

288-Lookingglass Creek at Brockway (14-3115.)

Location.--Lat 43°07'05", long 123°26'15", in SW¼ sec.20, T.28 S., R.6 W., on right bank 0.4 mile northeast of Brockway and 0.8 mile upstream from mouth.

Drainage area.--158 sq mi.

Water-temperature records available.--34 spot observations October 1955 to September 1962; none in August and September because there is no flow in these months.

Remarks.--Many diversions by pumping for irrigation above station; no flow in August and September and much of July.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	46	44	46	38	43	55	59	72	76	No	Flow
	Max.-Min.	59 48	55 43	47 38	55 40	38 37	48 36	59 50	67 48	78 64	78 72	No	Flow
† Adjusted	Mean	57	49	44	42	47	47	55	58	70	75	No	Flow
	Max.-Min.	71 44	58 37	53 37	55 32	56 34	55 34	67 47	77 46	90 53	90 52	No	Flow

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

289-South Umpqua River at Winston

Location.--Lat 43°07'00", long 123°25'10", in NW¼SW¼ sec.21, T.28 S., R.6 W., 0.3 mile upstream from U. S. Highway 99 Bridge, 0.4 mile downstream from Lookingglass Creek, and at mile 24.9.

Drainage area.--1,670 sq mi, at gaging station "near Brockway" about 3.8 miles downstream.

Water-temperature records available.--Thermograph record December 1960 to September 1962.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	42	44	46	46	50	56	68	75	74	65
	Max.-Min.	- -	- -	48 38	55 34	56 42	54 40	63 39	72 46	86 54	94 61	88 62	80 51
1962	Mean	56	44	44	40	45	46	52	56	68	75	73	68
	Max.-Min.	72 44	50 32	50 34	52 32	54 32	57 36	64 42	69 48	84 54	91 60	88 61	82 56
1961-62	Mean	56	44	43	42	46	46	51	56	68	75	74	66
	Max.-Min.	72 44	50 32	50 34	55 32	56 32	57 36	64 39	72 46	86 54	94 60	88 61	82 51

290-South Umpqua River near Brockway (14-3120.)

Location.--Lat 43°08'00", long 123°23'50", in SW¼ sec.15, T.28 S., R.6 W., on downstream side of right pier of Winston Bridge on U. S. Highway 99, 2½ miles northeast of Brockway, 4 miles downstream from Lookingglass Creek, and at mile 21.1.

Drainage area.--1,670 sq mi.

Water-temperature records available.--81 spot observations June 1947 to September 1962. No observations were made October 1950 to September 1951, and only two observations from December 1957 to March 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	48	45	40	39	44	48	55	62	72	73	67
	Max.-Min.	68 50	52 45	53 37	42 33	43 35	46 40	59 42	68 47	69 51	79 63	77 69	73 62
† Adjusted	Mean	57	48	41	40	44	46	53	58	66	71	73	65
	Max.-Min.	70 46	57 40	53 36	47 32	51 34	52 36	64 42	76 47	86 50	87 50	85 62	79 52

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

291-Deer Creek near Roseburg (14-3122.)

Location.--Lat 43°13'05", long 123°17'15", in SE¼ sec.16, T.27 S., R.5 W., on left bank 200 ft upstream from Shick Creek, 2.8 miles east of Roseburg, and 3 miles upstream from mouth.

Drainage area.--54.3 sq mi.

Water-temperature records available.--61 spot observations September 1955 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	45	46	43	46	46	55	60	65	69	69	60
	Max.-Min.	59 51	52 42	48 44	47 37	48 44	52 41	64 45	68 53	72 60	74 62	76 64	69 54
† Adjusted	Mean	53	46	45	43	46	46	54	58	66	68	68	61
	Max.-Min.	64 43	53 39	51 41	49 36	52 38	52 38	64 45	73 50	81 52	81 51	78 58	73 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

292-Lake Creek at Diamond Lake, near Fort Klamath (14-3125.)

Location.--Lat 43°11'10", long 122°09'50", in SW¼ sec.30, T.27 S., R.6 E., on right bank 260 ft downstream from outlet of Diamond Lake and 35 miles north of Fort Klamath.

Drainage area.--54.9 sq mi.

Water-temperature records available.--36 spot observations September 1947 to September 1953.

Remarks.--Flow regulated by gates and fish racks at lake outlet.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	39	36	34	33	35	34	52	53	68	67	62
	Max.-Min.	52 47	41 37	36 36	35 32	33 32	39 33	34 33	54 50	61 48	72 65	72 64	64 59
† Adjusted	Mean	55	47	35	32	32	33	39	50	53	65	67	63
	Max.-Min.	69 44	65 32	50 32	44 32	39 32	37 32	50 33	65 40	73 44	80 48	77 57	75 52

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

293-Lake Creek near Diamond Lake

Location.--Lat 43°11'20", long 122°09'50", in SW¼ sec.30, T.27 S., R.6 E., at fish hatchery 0.2 mile downstream from Diamond Lake and 1.5 miles northwest of Diamond Lake Resort.

Water-temperature records available.--Once-daily observation June to September 1957, May to August 1958 and 1959, May to July 1960 and 1961, May and June 1962.

Remarks.--Records furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1957	Mean	-	-	-	-	-	-	-	-	63	68	66	67
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	67 59	69 64	68 64	69 62
1958	Mean	-	-	-	-	-	-	-	52	61	70	73	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	62 36	66 54	74 62	74 72	- -
1959	Mean	-	-	-	-	-	-	-	52	63	71	72	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	60 44	67 59	76 65	74 70	- -
1960	Mean	-	-	-	-	-	-	-	45	62	70	-	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	52 39	67 53	74 64	- -	- -
1961	Mean	-	-	-	-	-	-	-	48	61	73	-	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	56 42	66 54	75 68	- -	- -
1962	Mean	-	-	-	-	-	-	-	48	61	-	-	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	53 44	70 52	- -	- -	- -
1957-62	Mean	-	-	-	-	-	-	-	49	62	70	70	67
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	62 36	70 52	76 62	74 64	69 62

294-Lemolo No. 1 power canal near Toketee Falls (14-3129.)

Location.--Lat 43°19'20", long 122°11'30", in NW¼NW¼ sec.11, T.26 S., R.5 E., on left bank 1,600 ft below axis of Lemolo No. 1 diversion dam and 13 miles east of Toketee Falls.

Water-temperature records available.--33 spot observations January 1956 to September 1962. Only one observation was made August 1958 to March 1960.

Remarks.--Flow in canal regulated at Lemolo No. 1 diversion dam upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	43	39	38	-	38	40	52	48	54	50	54
	Max.-Min.	47 38	50 38	41 37	39 37	- -	42 35	41 39	52 52	49 46	63 48	50 50	58 47
† Adjusted	Mean	45	41	38	38	38	38	40	42	47	52	53	52
	Max.-Min.	54 38	52 32	46 32	46 32	44 32	42 32	46 35	52 36	56 39	63 41	59 47	59 45

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

295-North Umpqua River below Lemolo Lake, near Toketee Falls (14-3135.)

Location.--Lat 43°19'20", long 122°11'40", in NW¼NW¼ sec.11, T.26 S., R.5 E., on right bank 1,900 ft downstream from Lemolo Lake, 13 miles east of town of Toketee Falls, and at mile 92.9.

Drainage area.--170 sq mi.

Water-temperature records available.--37 spot observations August 1947 to July 1954, prior to regulation by Lemolo Lake; 39 spot observations made August 1954 to September 1962.

Remarks.--Flow regulated since 1954 by Lemolo Lake; also slightly regulated by Diamond Lake. Record split to show effect of Lemolo Lake on water temperatures.

Water temperature (°F)

8/1947-7/1954		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	39	38	-	37	41	-	43	46	46	46	43
	Max.-Min.	45 37	39 39	39 36	- -	37 37	42 38	- -	45 42	53 40	48 42	47 45	45 41
†Adjusted	Mean	43	40	39	38	38	40	41	43	44	46	46	44
	Max.-Min.	47 37	46 35	43 34	42 34	41 34	42 35	45 39	48 40	53 40	51 41	49 42	48 41

8/1954-9/1962		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	42	44	38	36	38	40	-	50	55	53	51
	Max.-Min.	46 38	46 38	49 38	39 36	38 35	42 35	40 39	- -	60 45	62 50	57 49	54 47
†Adjusted	Mean	45	43	40	39	38	39	41	43	48	52	53	49
	Max.-Min.	51 38	52 35	49 34	46 34	43 32	42 32	46 37	51 38	60 41	62 43	58 48	56 44

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.
Note.--Adjusted figures for both periods are generally representative of water temperatures for 1951-62.

296-North Umpqua River above Clearwater River, near Toketee Falls (14-3140.)

Location.--Lat 43°17'10", long 122°24'00", in NE¼ sec.25, T.26 S., R.3 E., on right bank 1.0 mile upstream from Toketee Lake, 2.0 miles upstream from Clearwater River, 2.5 miles east of town of Toketee Falls, and at mile 77.4.

Drainage area.--258 sq mi.

Water-temperature records available.--39 spot observations October 1948 to October 1954.

Remarks.--Flow slightly regulated by Diamond Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	44	39	37	37	39	41	42	43	44	49	48	46
	Max.-Min.	46 41	42 36	39 35	39 34	39 38	42 39	42 41	44 41	47 41	53 44	50 46	47 44
†Adjusted	Mean	44	41	37	36	38	40	42	43	45	49	49	46
	Max.-Min.	50 39	48 34	43 32	42 32	42 33	43 34	46 38	50 39	52 39	55 41	53 45	50 41

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

297-Clearwater No. 1 power canal near Toketee Falls (14-3144.)

Location.--Lat 43°15'00", long 122°17'50", in NW¼ sec.1, T.27 S., R.4 E., at station 35+00 on Pacific Power & Light Co.'s Clearwater No. 1 power canal, and 7 miles east of town of Toketee Falls.

Water-temperature records available.--51 spot observations June 1953 to September 1962.

Remarks.--Regulation by diversion dam on Clearwater River 3,500 ft above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	43	40	37	34	38	41	44	49	50	44	48
	Max.-Min.	46 40	50 41	41 38	40 35	34 34	41 34	44 40	55 38	53 43	60 44	47 41	56 44
†Adjusted	Mean	43	43	38	37	37	38	40	43	48	47	46	46
	Max.-Min.	51 36	52 34	45 32	44 32	42 32	41 32	46 36	55 38	57 40	60 39	52 40	56 40

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

298-Clearwater River above Trap Creek, near Toketee Falls (14-3145.)

Location.--Lat 43°14'40", long 122°17'10", in SW¼ sec.1, T.27 S., R.4 E., on right bank 900 ft downstream from Clearwater No. 1 diversion dam, 0.4 mile upstream from Trap Creek, and 8.7 miles east of town of Toketee Falls.

Drainage area.--41.6 sq mi.

Water-temperature records available.--89 spot observations September 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	42	39	37	37	39	39	43	45	50	47	46
	Max.-Min.	49 39	54 36	42 35	40 34	39 34	41 34	41 38	52 38	51 40	61 44	49 44	56 42
†Adjusted	Mean	44	42	38	37	37	39	39	42	45	49	48	46
	Max.-Min.	50 39	54 35	44 33	43 33	42 32	41 32	43 36	52 38	52 40	61 41	52 44	56 41

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

299-Clearwater River at mouth, near Toketee Falls (14-3150.)

Location.--Lat 43°15'50", long 122°25'00", in SW¼ sec.36, T.26 S., R.3 E., on left bank a quarter of a mile upstream from mouth and 2¼ miles southeast of Toketee Falls.

Drainage area.--76.6 sq mi.

Water-temperature records available.--44 spot observations October 1947 to October 1954.

Remarks.--Regulation by Clearwater No. 1 powerplant of Pacific Power & Light Co.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	37	38	38	39	39	39	43	44	47	45	43
	Max.-Min.	43 40	37 37	40 34	41 33	40 37	41 37	39 39	45 41	46 41	49 45	46 44	45 42
†Adjusted	Mean	43	41	39	39	39	39	40	42	44	46	45	44
	Max.-Min.	47 40	46 36	43 34	43 33	42 35	41 35	43 38	47 40	49 40	51 41	48 42	48 40

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

300-Fish Creek power canal at Big Camas ranger station, near Toketee Falls (14-3159.)

Location.--Lat 43°14'10", long 122°26'40", in SE¼ sec.10, T.27 S., R.3 E., on left bank a quarter of a mile downstream from Diamond Lake-Roseburg road bridge, one mile east of Big Camas ranger station, and 1.8 miles downstream from diversion on Fish Creek.

Water-temperature records available.--53 spot observations July 1952 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	44	37	38	36	36	38	41	42	47	53	52	51
	Max.-Min.	51 38	42 32	38 38	39 33	39 32	40 35	44 37	45 37	53 41	64 45	58 48	57 45
†Adjusted	Mean	45	40	37	36	36	38	40	42	47	51	52	50
	Max.-Min.	54 38	50 32	44 32	43 32	41 32	41 32	45 36	51 37	56 39	64 40	58 46	58 43

† Adjusted figures based on correlation with thermograph record for Breitenbush River at mouth, near Foster.

301-Fish Creek at Big Camas ranger station, near Toketee Falls (14-3160.)

Location.--Lat 43°13'50", long 122°26'45", in SE¼ sec.10, T.27 S., R.3 E., on right bank 0.3 mile upstream from Camas Creek, 0.7 mile east of Big Camas ranger station, 3.2 miles south of town of Toketee Falls, and 5 miles upstream from mouth.

Drainage area.--68.8 sq mi.

Water-temperature records available.--91 spot observations September 1947 to September 1962.

Remarks.--Flow regulated by diversion dam two miles upstream. Regulation began June 18, 1952.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	45	38	37	36	36	37	40	43	46	55	54	52
	Max.-Min.	51 38	43 32	40 34	39 32	39 32	39 34	44 38	56 38	53 41	64 47	63 47	66 44
†Adjusted	Mean	46	41	37	35	36	37	39	42	47	54	57	51
	Max.-Min.	57 38	54 32	46 32	43 32	42 32	41 32	46 35	56 36	60 38	67 41	64 47	66 42

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

302-North Umpqua River above Copeland Creek, near Toketee Falls (14-3165.)

Location.--Lat 43°17'45", long 122°32'10", in NW¼ sec.24, T.26 S., R.2 E., on right bank 0.6 mile upstream from Copeland Creek, 4.7 miles west of town of Toketee Falls, and at mile 67.2.

Drainage area.--475 sq mi.

Water-temperature records available.--75 spot observations September 1949 to September 1962. No observations were made January to October 1959. Thermograph record May to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service. Considerable fluctuation caused by powerplants upstream; flow slightly regulated by Diamond Lake and since 1954 by Lemolo Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	46	52	55	54	52
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	49 43	56 45	58 53	57 51	55 48

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	40	42	39	39	41	42	47	48	55	53	51
	Max.-Min.	59 43	44 36	47 36	41 36	41 36	43 36	45 40	56 43	53 44	67 47	59 49	57 46
†Adjusted	Mean	48	43	40	38	39	40	43	45	50	54	54	52
	Max.-Min.	59 42	53 34	47 33	46 33	45 33	43 33	48 38	56 39	59 42	67 44	61 48	59 45

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

303-Copeland Creek at mouth, near Toketee Falls

Location.--Lat 43°17'25", long 122°32'30", in SE¼ sec.23, T.26 S., R.2 E., on left bank 0.2 mile upstream from mouth and 4.8 miles west of Toketee Falls.

Water-temperature records available.--Thermograph record May to September 1962.

Remarks.--Record furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	46	54	62	62	56
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	53 42	65 44	71 53	68 55	62 50

304-Steamboat Creek near Glide (14-3167.)

Location.--Lat 43°21'00", long 122°43'40", in N½ sec.32, T.25½ S., R.1 E., on right bank in Canton Creek Forest Service Park, 200 ft downstream from Canton Creek, 0.5 mile upstream from mouth, and 19 miles northeast of Glide.

Drainage area.--227 sq mi.

Water-temperature records available.--44 spot observations September 1955 to September 1962. Thermograph record May to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	49	58	67	65	60
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	55 45	70 46	76 59	74 58	67 53

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	42	43	37	36	41	44	55	60	69	63	57
	Max.-Min.	56 44	46 37	49 36	40 35	36 36	44 36	47 42	64 46	66 54	71 67	69 59	66 52
†Adjusted	Mean	50	43	41	37	39	41	42	50	61	67	65	59
	Max.-Min.	62 39	51 35	49 36	44 32	46 32	46 32	52 36	67 41	79 46	80 46	77 55	71 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

305-Rock Creek near Glide (14-3176.)

Location.--Lat 43°20'35", long 122°59'30", in NE¼NE¼ sec.1, T.26 S., R.3 W., on right bank 1.0 mile upstream from mouth and 6 miles northeast of Glide.

Drainage area.--97.4 sq mi.

Water-temperature records available.--42 spot observations September 1955 to September 1962. No observations were made January 1959 to March 1960. Thermograph record May and June 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	50	59	-	-	-
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	56 46	68 50	- -	- -	- -

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	43	46	40	43	41	46	56	59	64	66	59
	Max.-Min.	59 57	50 34	52 40	43 36	43 43	46 36	49 42	61 52	66 55	69 59	71 61	62 56
†Adjusted	Mean	52	46	43	40	42	43	46	52	61	64	65	60
	Max.-Min.	61 43	53 34	52 37	47 32	49 33	48 33	55 40	64 42	72 50	73 50	72 58	68 51

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

306-Rock Creek at mouth, near Glide

Location.--Lat 43°20'10", long 123°00'05", in NE¼SW¼ sec.1, T.26 S., R.3 W., 0.2 mile upstream from mouth and 5 miles northeast of Glide.

Water-temperature records available.--Three observations a day (6 a.m., 12 m., and 6 p.m.) January 1943 to December 1946 and once-daily observations from January 1947 to January 1948, January 1949 to September 1962.

Remarks.--Records furnished by Oregon State Game Commission. Diversion point is about a quarter of a mile above hatchery building.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	38	37	39	44	46	49	56	55	53
	Max.-Min.	- -	- -	- -	42 31	42 34	44 35	50 40	55 42	57 44	63 52	60 51	57 50
1944	Mean	46	38	33	37	41	42	46	51	55	61	60	58
	Max.-Min.	53 39	44 34	38 31	44 31	46 39	46 38	51 43	58 46	60 50	68 56	65 57	63 54
1945	Mean	54	45	42	40	43	43	45	51	54	61	62	57
	Max.-Min.	56 51	52 40	47 37	48 36	47 40	46 40	51 40	56 48	59 47	67 52	66 59	63 51
1946	Mean	52	45	43	41	40	42	46	52	56	62	63	59
	Max.-Min.	57 47	51 39	47 36	45 36	44 37	45 40	52 40	58 44	63 50	68 56	67 59	63 53
1947	Mean	51	44	45	40	45	48	51	56	58	62	63	60
	Max.-Min.	55 48	48 40	49 40	45 34	48 40	50 44	55 42	62 52	61 55	65 59	67 58	65 56
1948	Mean	55	47	41	37	-	-	-	-	-	-	-	-
	Max.-Min.	61 52	53 43	47 36	40 32	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	35	38	43	47	53	60	62	62	59
	Max.-Min.	- -	- -	- -	38 32	44 34	45 40	50 43	59 46	64 52	66 57	64 59	62 54
1950	Mean	50	47	43	38	41	42	45	48	55	63	64	60
	Max.-Min.	55 45	50 44	48 42	42 36	44 34	45 40	48 44	54 42	62 49	65 60	66 60	64 53
1951	Mean	53	46	47	44	43	42	49	52	59	63	62	59
	Max.-Min.	56 48	52 40	50 44	46 35	48 40	45 37	52 45	56 46	64 54	65 59	64 59	61 56
1952	Mean	52	47	43	40	42	42	47	52	58	64	65	60
	Max.-Min.	58 48	50 42	48 40	44 36	45 39	46 39	50 45	58 47	60 52	67 58	68 61	64 57
1953	Mean	54	45	43	45	43	42	45	48	52	63	63	59
	Max.-Min.	58 50	50 37	46 40	47 42	46 40	44 40	50 41	52 45	56 48	65 57	65 58	62 56
1954	Mean	51	48	44	41	43	43	48	55	55	63	61	57
	Max.-Min.	54 47	50 44	46 41	43 37	45 42	46 40	52 44	60 46	61 50	68 58	65 59	61 51
1955	Mean	50	47	41	41	40	41	43	48	56	60	63	58
	Max.-Min.	54 44	49 44	44 38	44 39	43 37	44 38	46 41	52 43	60 48	65 54	66 60	64 53
1956	Mean	52	43	43	42	39	42	46	51	57	64	63	59
	Max.-Min.	54 45	49 35	46 39	45 37	42 34	44 38	49 43	57 46	62 51	68 57	68 61	62 56
1957	Mean	52	44	42	39	42	45	49	55	62	65	64	61
	Max.-Min.	56 46	48 39	48 38	42 33	46 36	48 40	57 45	61 50	66 55	67 62	66 60	64 57
1958	Mean	52	45	44	44	46	43	47	57	61	68	67	60
	Max.-Min.	60 48	48 41	47 40	46 41	48 44	46 40	51 44	63 50	70 54	72 60	70 65	65 56
1959	Mean	54	48	46	44	43	44	49	52	60	66	64	59
	Max.-Min.	59 50	54 42	50 41	47 38	46 38	46 42	54 46	57 46	67 54	70 60	67 60	63 53
1960	Mean	53	45	42	40	43	45	47	50	60	66	64	59
	Max.-Min.	56 46	49 42	45 39	45 35	46 38	50 39	51 44	56 45	64 56	71 62	68 59	63 55
1961	Mean	53	46	43	42	45	45	47	51	62	66	67	59
	Max.-Min.	57 50	54 43	47 39	46 36	48 43	47 42	51 44	56 44	68 57	69 60	69 64	63 54
1962	Mean	52	45	44	41	43	42	49	50	59	64	64	60
	Max.-Min.	57 47	50 39	47 38	46 33	45 35	46 36	52 44	54 47	65 51	70 60	67 60	62 56
1943-62	Mean	52	45	43	40	42	43	47	51	57	63	63	59
	Max.-Min.	61 39	54 34	50 31	48 31	48 34	50 35	57 40	63 42	70 44	72 52	70 51	65 50

307-Little River at Peel (14-3180.)

Location.--Lat 43°15'10", long 123°01'30", in NW¼ sec.2, T.27 S., R.3 W., on left bank 0.6 mile southeast of Peel, 0.8 mile downstrea from Cavitt Creek, and at mile 6.6.

Drainage area.--177 sq mi.

Water-temperature records available.--47 spot observations September 1954 to September 1962. Thermograph record May to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1962	Mean	-	-	-	-	-	-	-	50	60	68	66	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	59 43	71 50	77 58	73 59	69 5

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	44	44	41	42	45	44	57	56	65	65	58
	Max.-Min.	56 44	56 36	50 40	44 38	42 42	54 39	48 40	60 54	63 53	70 57	72 57	62 56
†Adjusted	Mean	51	44	41	40	42	42	46	51	61	66	66	60
	Max.-Min.	63 41	56 35	50 36	47 32	49 32	54 32	55 39	66 42	75 48	77 48	75 57	70 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

308-North Umpqua River above Sutherlin Creek, at Winchester

Location.--Lat 43°17'00", long 123°21'20", in SW¼NE¼ sec.25, T.26 S., R.6 W., at U. S. Highway 99 crossing in Winchester, 2 miles upstream from Sutherlin Creek, 5 miles upstream from U. S. Geological Survey gaging station at Browns Bridge, and at mile 7.0.

Drainage area.--1,306 sq mi, at railroad bridge in Winchester, site of former U. S. Geological Survey gaging station.

Water-temperature records available.--Thermograph record December 1960 to September 1962.

Remarks.--Thermograph record furnished by Roseburg-Oregon Water Corporation. Regulation by Pacific Power & Light powerplant about 900 ft upstream. Slight regulation by Lemolo Lake and Diamond Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1961	Mean	-	-	40	38	44	42	47	52	62	68	68	58
	Max.-Min.	- -	- -	44 34	44 32	47 40	48 40	52 42	59 45	70 54	74 60	72 62	65 5
1962	Mean	50	40	40	36	40	40	47	50	60	66	65	60
	Max.-Min.	55 42	44 35	44 34	43 32	43 32	45 33	53 42	56 44	66 50	74 60	70 59	66 5
1961-62	Mean	50	40	40	37	42	41	47	51	61	67	66	59
	Max.-Min.	55 42	44 35	44 34	44 32	47 32	48 33	53 42	59 44	70 50	74 60	72 59	66 5

309-Sutherlin Creek at Sutherlin (14-3192.)

Location.--Lat 43°23'20", long 123°18'10", in SW¼ sec.16, T.25 S., R.5 W., on right bank at downstream side of Waite Street bridge in Sutherlin and 1½ miles upstream from Cooper Creek.

Drainage area.--16.4 sq mi.

Water-temperature records available.--44 spot observations December 1955 to June 1962. Creek dry July to September and part of October most years.

Remarks.--Adjusted figures not shown because correlation is poor and there is no flow during the critical warm months.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	44	45	45	44	48	57	58	71	-	-	-
	Max.-Min.	- -	51 37	47 44	50 35	49 34	52 44	67 52	65 53	77 59	- -	- -	- -
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

310-North Umpqua River at Winchester (14-3195.)

Location.--Lat 43°16'20", long 123°24'40", in NW¼NE¼ sec.33, T.26 S., R.6 W., on right bank at Browns Bridge, 3 miles west of Winchester, and at mile 1.8.

Drainage area.--1,344 sq mi.

Water-temperature records available.--57 spot observations December 1954 to September 1962.

Remarks.--Diurnal fluctuation of flow caused by upstream powerplants.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	42	45	42	44	48	49	53	64	70	69	62
	Max.-Min.	57 50	46 39	49 44	45 37	48 38	49 46	51 47	57 49	67 60	74 64	74 65	65 60
†Adjusted	Mean	53	45	43	42	45	46	50	53	63	68	69	62
	Max.-Min.	63 43	53 37	50 38	48 33	52 35	52 36	59 44	67 44	78 50	79 51	78 60	71 51

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

311-Calapooya Creek at Hinkle

Location.--Lat 43°26'35", long 123°05'10", in SW¼NW¼ sec.32, T.24 S., R.3 W., 0.3 mile upstream from Jeffers Creek, 0.4 mile upstream from Hinkle, and 0.4 mile downstream from Filler Creek.

Water-temperature records available.--Thermograph record January 1961 to April 1962.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	-	42	45	46	49	54	60	67	68	58
	Max.-Min.	- -	- -	- -	47 35	48 40	51 43	54 42	62 47	74 52	79 54	76 58	68 47
1962	Mean	50	44	44	38	42	44	51	-	-	-	-	-
	Max.-Min.	61 43	49 33	47 39	45 32	46 36	48 38	56 47	- -	- -	- -	- -	- -
1961-62	Mean	50	44	44	40	44	45	50	54	60	67	68	58
	Max.-Min.	61 43	49 33	47 39	47 32	48 36	51 38	56 42	62 47	74 52	79 54	76 58	68 47

312-Calapooya Creek near Oakland (14-3207.)

Location.--Lat 43°24'10", long 123°21'45", in NW¼ sec.13, T.25 S., R.6 W., on downstream side of highway bridge, 0.5 mile downstream from Williams Creek, 2.5 miles northwest of Sutherlin, 3.5 miles southwest of Oakland, and at mile 10.4.

Drainage area.--210 sq mi.

Water-temperature records available.--62 spot observations September 1955 to September 1962. Thermograph record May to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	54	66	74	70	66
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	60 46	74 53	85 68	78 62	74 58

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	45	47	44	44	48	52	57	64	75	69	66
	Max.-Min.	61 54	50 38	50 45	48 39	48 34	54 43	54 50	62 52	68 58	82 68	75 65	71 61
†Adjusted	Mean	56	47	45	42	44	47	52	57	66	73	69	65
	Max.-Min.	68 45	56 37	52 39	50 32	52 33	55 35	63 45	74 47	84 51	86 52	80 59	77 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

313-Umpqua River near Elkton (14-3210.)

Location.--Lat 43°35'10", long 123°33'30", in NW¼ sec.8, T.23 S., R.7 W., on right bank 3.5 miles south of Elkton, 8 miles upstream from Elk Creek, and at mile 56.8.

Drainage area.--3,683 sq mi.

Water-temperature records available.--148 spot observations June 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	47	44	42	43	45	50	58	61	70	69	64
	Max.-Min.	61 47	57 37	50 36	47 34	48 36	51 41	55 39	66 49	72 48	80 59	74 63	72 56
†Adjusted	Mean	55	46	44	42	46	46	51	58	65	70	71	65
	Max.-Min.	67 44	57 36	51 36	50 32	53 34	52 35	61 39	73 47	81 48	82 51	81 62	76 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

314-Umpqua River below Mehl Creek, near Elkton

Location.--Lat 43°35'20", long 123°36'05", in NW¼NW¼ sec.12, T.23 S., R.8 W., 0.9 mile downstream from Mehl Creek, 2.6 miles downstream from U. S. Geological Survey gaging station, 3.8 miles south southwest of Elkton, and at mile 54.2.

Drainage area.--3,683 sq mi, at gaging station 2.6 miles upstream.

Water-temperature records available.--Thermograph record May to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	56	68	73	72	67
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	61 50	76 59	80 67	76 66	74 62

315-Elk Creek near Drain (14-3220.)

Location.--Lat 43°38'30", long 123°17'50", in NE¼SW¼ sec.21, T.22 S., R.5 W., on right bank at downstream side of highway bridge, 1,000 ft downstream from Yoncalla Creek, 1.7 miles southeast of Drain, and at mile 26.5.

Drainage area.--104 sq mi.

Water-temperature records available.--64 spot observations December 1955 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	45	47	44	46	49	52	56	64	68	67	61
	Max.-Min.	59 49	49 42	52 43	49 39	49 43	54 44	56 49	60 50	70 60	76 62	72 63	63 60
†Adjusted	Mean	55	48	45	44	45	48	52	57	64	66	67	63
	Max.-Min.	63 45	55 39	52 40	51 35	52 35	54 38	60 46	68 49	75 52	76 52	73 60	69 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

TENMILE CREEK BASIN

316-Tenmile Creek near Lakeside (14-3232.)

Location.--Lat 43°34'40", long 124°11'30", near center of sec.13, T.23 S., R.13 W., near left bank on downstream side of highway bridge, 200 ft upstream from Eel Creek, 0.8 mile upstream from Saunders Creek, and 1 mile west of Lakeside.

Drainage area.--About 87 sq mi at measuring section 1.2 miles downstream.

Water-temperature records available.--51 spot observations July 1957 to September 1962.

Remarks.--Flow regulated by natural storage in Tenmile Lake and other lakes tributary to Eel and Saunders Creeks.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	57	52	48	48	48	48	56	60	66	67	64	63
	Max.-Min.	61 55	54 49	51 46	50 47	50 45	50 45	56 55	62 58	68 62	70 62	68 59	67 58
† Adjusted	Mean	59	53	47	44	47	47	55	59	65	66	64	60
	Max.-Min.	66 50	59 44	54 42	51 35	54 37	53 37	63 49	69 51	74 54	73 54	70 58	67 53

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

COOS RIVER BASIN

317-Daniels Creek near Eastside (14-3240.)

Location.--Lat 43°20'45", long 124°05'25", near center sec.2, T.26 S., R.12 W., on left bank at downstream side of highway bridge, 0.1 mile downstream from Morgan Creek and 5½ miles southeast of Eastside.

Drainage area.--14.5 sq mi.

Water-temperature records available.--32 spot observations July 1950 to September 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	-	47	49	43	44	50	52	49	58	61	58
	Max.-Min.	53 49	- -	49 45	51 47	43 43	44 44	55 47	55 50	49 49	63 55	62 59	60 55
†Adjusted	Mean	53	50	47	47	47	48	50	53	55	58	59	57
	Max.-Min.	60 48	58 42	53 41	54 42	52 41	51 41	55 46	61 48	63 48	66 50	64 54	63 51

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

318-West Fork Millicoma River near Allegany (14-3245.)

Location.--Lat 43°28'35", long 124°03'20", in SW¼NW¼ sec.19, T.24 S., R.11 W., on left bank at highway bridge, 40 ft upstream from Daggett Creek, 3.8 miles north of Allegany, and at mile 6.6.

Drainage area.--46.5 sq mi.

Water-temperature records available.--83 spot observations October 1954 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	55	46	44	47	46	45	51	56	60	68	66	64
	Max.-Min.	60 47	53 43	50 40	49 45	49 41	48 40	63 45	60 50	65 54	74 64	69 61	66 61
†Adjusted	Mean	55	47	44	43	45	45	51	55	62	66	65	60
	Max.-Min.	63 44	55 37	52 39	51 33	52 34	51 34	63 45	67 47	73 51	74 52	71 58	68 51

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

319-West Fork Millicoma River at Devils Elbow, near Allegany

Location.--Lat 43°26'10", long 124°03'10", in NW¼ sec.6, T.25 S., R.11 W., 1.4 miles northwest of Allegany and at mile 2.3.

Water-temperature records available.--Thermograph record August, September 1962.

Remarks.--Record furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	-	-	-	-	-	-	-	-	-	-	66	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	78 55	73 55

COQUILLE RIVER BASIN

320-South Fork Coquille River above Panther Creek, near Illahe (14-3246.)

Location.--Lat 42°45'30", long 123°59'10", in SE¼ sec.28, T.32 S., R.11 W., on left bank 0.7 mile upstream from Panther Creek and 10 miles northeast of Illahe.

Drainage area.--31.2 sq mi.

Water-temperature records available.--55 spot observations October 1956 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	42	41	41	42	43	47	52	61	64	64	58
	Max.-Min.	58 46	46 36	51 33	43 40	47 36	44 42	50 44	59 47	71 55	72 58	65 63	59 58
†Adjusted	Mean	50	43	39	36	40	41	47	51	61	63	64	58
	Max.-Min.	60 39	52 32	51 32	47 32	49 32	48 32	56 39	64 41	72 49	72 48	71 57	66 49

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

321-South Fork Coquille River near Illahe (14-3247.)

Location.--Lat 42°43'30", long 124°00'40", in NW¼ sec.16, T.33 S., R.11 W., on left bank 1.5 miles downstream from Lockhart Creek and 7 miles north of Illahe.

Drainage area.--40.6 sq mi at measuring section 1.2 miles upstream from gage.

Water-temperature records available.--55 spot observations October 1956 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	42	41	41	43	44	47	51	61	66	61	58
	Max.-Min.	55 47	47 37	51 35	42 40	47 36	44 42	50 44	59 47	68 58	78 59	62 60	60 55
†Adjusted	Mean	49	44	41	38	42	42	46	51	61	64	62	58
	Max.-Min.	60 38	52 32	51 32	46 32	50 32	49 32	56 39	65 41	75 47	78 47	71 53	68 47

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

322-Rock Creek near Illahe (14-3248.)

Location.--Lat 42°42'50", long 124°02'55", in NW¼ sec.19, T.33 S., R.11 W., on right bank three-quarters of a mile upstream from mouth and 6 miles north of Illahe.

Drainage area.--13.0 sq mi.

Water-temperature records available.--Thermograph record November 1956 to October 1958.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1957	Mean	-	44	40	38	42	43	a46	a50	58	62	61	60
	Max.-Min.	- -	47 39	44 36	42 34	44 38	46 40	a57 41	60 a42	67 51	68 56	66 57	64 5
1958	Mean	51	45	44	44	44	43	45	56	62	68	66	60
	Max.-Min.	57 46	49 41	45 41	45 42	47 42	46 39	53 42	64 47	72 55	74 58	72 62	66 5
1959	Mean	54	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	58 46	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	-
1957-59	Mean	52	44	42	41	43	43	46	53	60	65	64	60
	Max.-Min.	58 46	49 39	45 36	45 34	47 38	46 39	57 41	64 42	72 51	74 56	72 57	66 5

a Computed on basis of available record and correlation with thermograph record for Middle Santiam River at mouth, near Foster.

323-South Fork Coquille River near Powers (14-3249.)

Location.--Lat 42°47'05", long 124°02'25", in SW¼SW¼ sec.18, T.32 S., R.11 W., on right bank 0.8 mile upstream from Hall Creek and 7 miles southeast of Powers.

Drainage area.--93.2 sq mi.

Water-temperature records available.--Thermograph record August 1957 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1957	Mean	-	-	-	-	-	-	-	-	-	-	65	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	70 60	68 5
1958	Mean	51	46	45	44	46	46	48	58	64	70	70	62
	Max.-Min.	59 46	48 41	47 43	46 42	49 44	48 43	53 45	66 51	73 59	76 63	76 65	67 5
1959	Mean	55	48	48	46	44	45	50	54	62	a67	a66	60
	Max.-Min.	62 47	54 42	51 44	49 40	46 40	46 42	56 46	64 48	71 53	a73 a60	a72 a60	67 5
1960	Mean	54	44	42	40	44	44	48	50	62	67	66	62
	Max.-Min.	58 45	49 41	44 37	45 35	47 37	49 39	52 44	59 47	68 54	73 60	73 59	65 5
1961	Mean	54	46	44	44	46	46	50	54	66	68	68	60
	Max.-Min.	61 49	53 43	46 40	47 38	49 44	48 44	53 47	61 49	73 61	75 63	73 63	67 5
1962	Mean	53	45	44	42	44	a43	a50	52	62	68	66	64
	Max.-Min.	58 45	49 39	47 41	46 35	45 37	a47 a39	a55 a46	58 46	69 54	74 62	72 61	68 5
1957-62	Mean	53	46	45	43	45	45	49	54	63	68	67	62
	Max.-Min.	62 45	54 39	51 37	49 35	49 37	49 39	56 44	66 46	73 53	76 60	76 60	68 5

a Computed on basis of available record and correlation with thermograph record for Middle Santiam River at mouth, near Foster.

323a-South Fork Coquille River at Powers (14-3250.)

Location.--Lat 42°53'30", long 124°04'10", in SE¼ sec.12, T.31 S., R.12 W., on left bank 0.7 mile downstream from highway bridge at Powers and 0.8 mile upstream from Woodward Creek.

Drainage area.--169 sq mi.

Water-temperature records available.--109 spot observations September 1948 to September 1962.

Remarks.--This station is not shown on the map (Plate 1) because it was overlooked until the map had been prepared.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	46	45	44	45	46	48	57	58	72	70	65
	Max.-Min.	62 48	49 42	57 37	48 34	48 39	49 42	56 40	64 53	67 49	84 62	76 64	70 57
†Adjusted	Mean	56	47	45	43	45	45	50	56	64	70	70	64
	Max.-Min.	66 44	56 35	57 35	52 32	53 32	52 32	60 40	70 45	78 49	84 53	79 62	74 54

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

324-Ferry Creek and Geiger Creek near Bandon

Location.--Lat 43°07'00", long 124°23'00", in NE¼SE¼ sec.29, T.28 S., R.14 W., at fish hatchery, 1.5 miles east of Bandon at confluence of Ferry and Geiger Creeks.

Records available.--Three observations a day (6 a.m., 12 m., and 6 p.m.) of water temperature February 1943 to December 1946, and once-daily readings (1 p.m.) thereafter. Records fragmentary in water years 1943-45 and missing for February to December 1948.

Remarks.--Records furnished by Oregon State Game Commission. Water for hatchery is diverted from 300 feet up each fork. Both creeks have identical temperatures according to State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	-	-	48	51	51	53	54	55	-
	Max.-Min.	- -	- -	- -	- -	- -	52 44	54 48	55 48	56 51	56 52	57 52	- -
1944	Mean	-	-	-	-	-	46	49	51	-	-	-	-
	Max.-Min.	- -	- -	- -	- -	- -	51 42	52 46	54 48	- -	- -	- -	- -
1945	Mean	-	-	-	-	-	46	50	52	52	51	52	50
	Max.-Min.	- -	- -	- -	- -	- -	50 43	54 45	55 49	54 50	54 49	54 49	54 46
1946	Mean	47	47	46	45	46	48	50	53	53	55	55	53
	Max.-Min.	51 43	50 43	51 40	49 41	51 43	51 45	53 47	55 49	55 50	57 53	57 53	56 48
1947	Mean	50	47	47	44	48	49	51	52	54	55	55	53
	Max.-Min.	55 44	51 43	52 42	50 39	51 46	51 46	53 48	55 50	56 52	56 53	57 52	55 51
1948	Mean	54	50	47	45	-	-	-	-	-	-	-	-
	Max.-Min.	57 51	54 44	49 44	52 42	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	40	45	48	50	52	54	55	56	54
	Max.-Min.	- -	- -	- -	43 36	49 40	51 47	52 47	55 49	56 52	57 53	58 53	58 52
1950	Mean	49	49	-	43	44	46	47	47	50	54	55	53
	Max.-Min.	53 45	53 47	- -	49 37	47 38	48 42	50 45	50 45	54 48	56 53	56 54	55 51
1951	Mean	52	49	49	45	45	44	47	52	54	54	55	52
	Max.-Min.	54 49	51 46	51 46	48 39	50 41	47 40	48 44	54 48	56 51	56 52	57 53	54 50
1952	Mean	50	47	43	42	44	45	47	50	52	54	54	53
	Max.-Min.	54 47	50 41	47 40	47 38	48 41	48 41	48 46	53 46	54 48	56 53	55 53	56 51
1953	Mean	50	43	44	47	45	45	48	50	52	55	55	55
	Max.-Min.	53 48	48 38	49 41	50 43	49 42	48 42	53 44	51 47	54 50	57 53	57 53	57 53
1954	Mean	50	48	46	44	47	47	49	50	51	55	54	53
	Max.-Min.	54 47	52 46	50 42	49 41	48 45	50 45	51 45	53 46	54 49	58 51	55 53	55 53
1955	Mean	51	51	46	45	45	46	49	53	55	57	58	55
	Max.-Min.	54 46	53 46	49 43	48 42	48 42	50 43	50 46	56 50	58 52	59 55	59 55	58 52
1956	Mean	52	49	49	48	45	47	50	52	54	57	57	55
	Max.-Min.	55 50	52 42	54 43	52 42	47 41	50 42	52 47	55 50	58 51	59 54	59 56	57 50
1957	Mean	53	48	45	43	47	49	51	53	57	60	60	58
	Max.-Min.	56 50	53 42	51 42	48 38	52 42	52 47	54 50	54 52	60 54	61 58	61 58	62 54
1958	Mean	54	48	47	48	51	48	51	55	58	60	62	58
	Max.-Min.	57 50	52 44	52 44	52 44	54 48	50 46	54 48	56 52	60 56	62 57	64 60	61 53
1959	Mean	54	51	50	50	47	49	51	53	56	59	58	56
	Max.-Min.	58 50	56 44	54 47	52 43	50 43	50 47	54 49	56 51	59 54	61 58	62 57	60 53
1960	Mean	55	48	47	45	47	49	51	52	58	58	59	57
	Max.-Min.	58 48	52 44	52 41	51 40	52 42	52 42	54 48	54 50	58 56	60 55	60 56	58 55
1961	Mean	53	50	47	47	50	50	50	53	56	58	59	57
	Max.-Min.	56 50	54 44	51 40	51 41	52 46	52 47	54 46	55 52	60 53	60 56	60 58	60 54
1962	Mean	52	48	47	44	47	48	51	52	55	57	57	55
	Max.-Min.	56 49	52 42	50 41	50 37	50 41	50 43	54 49	54 50	58 52	59 55	60 55	56 53
1943-62	Mean	52	48	47	45	46	47	50	52	54	56	56	55
	Max.-Min.	58 43	56 38	54 40	52 36	54 38	52 40	54 44	56 45	60 48	62 49	64 49	62 46

BRUSH CREEK BASIN

325-Brush Creek near Port Orford

Location.--Lat 42°41'05", long 124°25'20", in SE¼ sec.25, T.33 S., R.15 W., at fish hatchery 0.5 mile east of Humbug Mountain and 5.6 miles southeast of Port Orford.

Water-temperature records available.--Three observations a day (6 a.m., 12 m., and 6 p.m.) of water temperature January 1943 to October 1945, and once-daily readings (1 p.m.) from March 1947 to January 1948. Record incomplete for July 1945.

Remarks.--Records furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	47	47	46	48	51	54	57	57	57
	Max.-Min.	- -	- -	- -	51 40	49 44	48 41	51 46	59 45	60 48	63 51	62 53	63 50
1944	Mean	53	51	48	48	47	47	48	52	54	57	57	55
	Max.-Min.	56 51	53 46	53 43	51 43	52 42	51 44	51 45	58 48	60 49	62 51	63 52	60 49
1945	Mean	52	49	48	48	44	47	48	50	55	-	57	54
	Max.-Min.	55 47	53 43	53 44	53 43	52 43	50 43	53 43	53 46	63 48	- -	64 53	61 50
1946	Mean	52	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	54 46	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1947	Mean	-	-	-	-	-	49	52	59	59	60	62	62
	Max.-Min.	- -	- -	- -	- -	- -	51 47	58 48	64 54	64 56	63 57	64 60	64 60
1948	Mean	55	51	49	48	-	-	-	-	-	-	-	-
	Max.-Min.	60 54	53 48	52 47	52 44	- -	- -	- -	- -	- -	- -	- -	- -
1943-48	Mean	53	50	48	48	46	47	49	53	56	58	58	57
	Max.-Min.	60 46	53 43	53 43	53 40	52 42	51 41	58 43	64 45	64 48	63 51	64 52	64 49

326-Rogue River above Bybee Creek (14-3275.)

Location.--Lat 42°56'05", long 122°25'15", in NE¼ sec.26, T.30 S., R.3 E., on left bank 700 ft upstream from Bybee Creek, 2.3 miles northeast of village of Union Creek, and at mile 189.7.

Drainage area.--156 sq mi.

Water-temperature records available.--32 spot observations April 1947 to September 1952.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	41	38	35	37	36	36	40	41	48	51	49	44
	Max.-Min.	44 38	39 38	37 33	37 37	37 34	38 35	41 39	45 39	50 47	53 50	49 49	47 41
†Adjusted	Mean	45	41	38	37	37	38	40	42	46	50	51	46
	Max.-Min.	52 38	50 33	45 32	44 32	42 32	41 32	45 36	50 37	54 39	58 41	56 46	52 40

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

327-Rogue River at Farewell Bend

Location.--Lat 42°55'00", long 122°26'15", in NW¼SW¼ sec.35, T.30 S., R.3 E., 0.4 mile north of the town of Union Creek, 1.0 mile downstream from Castle Creek, and at mile 188.0.

Water-temperature records available.--Thermograph record July to October 1960.

Remarks.--Record furnished by the U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	-	-	-	-	-	-	-	-	54	50	48
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	58 49	55 44	52 44
1961	Mean	42	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	48 38	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

328-Rogue River above Prospect (14-3280.)

Location.--Lat 42°46'30", long 122°29'55", in NE¼ sec.19, T.32 S., R.3 E., on left bank 1.5 miles upstream from Pacific Power & Light Co. diversion dam, 1.8 miles northwest of Prospect, and at mile 173.5.

Drainage area.--312 sq mi.

Water-temperature records available.--75 spot observations April 1947 to September 1962. Only one observation was made from November 1948 to October 1950, and none from January 1959 to March 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	41	36	36	36	37	38	44	51	56	52	49
	Max.-Min.	46 40	48 37	39 33	39 33	40 33	39 35	42 36	46 40	59 46	60 53	58 46	54 46
†Adjusted	Mean	44	41	36	36	37	38	40	43	49	54	53	49
	Max.-Min.	53 36	53 32	45 32	45 32	43 32	42 33	46 35	54 37	59 39	64 42	59 46	56 41

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

329-Rogue River at Prospect

Location.--Lat 42°45'35", long 122°30'00", in SE¼NE¼ sec.30, T.32 S., R.3 E., at mouth of Schoolma'am Creek, 0.2 mile upstream from Pacific Power & Light Co. diversion dam, 0.7 mile northwest of Prospect, 1.0 mile downstream from U. S. Geological Survey gaging station, and at mile 172.5.

Drainage area.--312 sq mi, at U. S. Geological Survey gaging station 1.0 mile upstream.

Water-temperature records available.--Thermograph record November 1959 to October 1960.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	40	38	36	37	39	41	44	50	56	52	49
	Max.-Min.	- -	42 37	40 35	39 33	39 33	42 33	45 36	49 38	57 45	60 52	57 46	54 44
1961	Mean	44	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	48 39	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

330-South Fork power canal near Prospect (14-3315.)

Location.--Lat 42°42'50", long 122°24'20", in E½ of sec.12, T.33 S., R.3 E., one mile below head gate at diversion dam on South Fork of Rogue River and 5 miles southeast of Prospect.

Water-temperature records available.--77 spot observations October 1947 to September 1962. No observations were made December 1957 to October 1958, and January 1959 to March 1960.

Remarks.--Flow controlled by gates at diversion dam which is located one mile above gage.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	40	37	38	37	38	39	43	49	50	50	45
	Max.-Min.	44 38	44 37	40 32	40 37	38 35	39 33	41 38	54 40	60 42	54 47	58 46	48 43
†Adjusted	Mean	42	40	37	37	37	38	40	42	47	50	48	46
	Max.-Min.	49 36	48 32	43 32	44 33	42 32	41 32	45 37	54 37	60 40	57 41	58 43	52 40

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

331-South Fork Rogue River near Prospect (14-3320.)

Location.--Lat 42°42'25", long 122°23'20", in NE¼ sec.18, T.33 S., R.4 E., on right bank 500 ft downstream from diversion dam and intake of South Fork power canal, 0.1 mile downstream from Imnaha Creek, 6 miles southeast of Prospect, and at mile 10.3.

Drainage area.--83.8 sq mi.

Water-temperature records available.--66 spot observations October 1950 to September 1962. Only one reading was made from December 1957 to October 1958, and none from January 1959 to March 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	39	36	37	36	38	39	42	50	51	51	46
	Max.-Min.	44 41	44 37	39 32	38 36	38 35	39 36	40 37	52 39	60 44	53 49	59 45	50 43
† Adjusted	Mean	43	40	37	36	37	38	40	42	48	50	49	46
	Max.-Min.	49 37	48 33	44 32	43 32	42 32	41 32	44 36	52 37	60 41	58 42	59 45	51 40

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

332-Middle Fork power canal near Prospect (14-3325.)

Location.--Lat 42°44', long 122°24', in NE¼ sec.1, T.33 S., R.3 E., on left bank 1,000 ft downstream from headgate at diversion dam and 4½ miles southeast of Prospect.

Water-temperature records available.--34 spot observations October 1947 to April 1955.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	42	39	38	39	40	40	-	49	51	45	46
	Max.-Min.	44 39	44 39	40 38	39 37	40 38	41 39	42 38	- -	52 46	52 48	45 45	49 43
†Adjusted	Mean	44	42	40	39	39	40	41	43	46	50	49	47
	Max.-Min.	50 39	50 36	46 35	45 35	43 34	42 34	46 38	50 39	53 41	56 42	53 45	53 43

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

333-Middle Fork Rogue River near Prospect (14-3330.)

Location.--Lat 42°44'05", long 122°24'05", in NE¼NE¼ sec.1, T.33 S., R.3 E., on right bank 850 ft downstream from diversion dam and intake of Middle Fork power canal and 4.5 miles southeast of Prospect.

Drainage area.--56.5 sq mi.

Water-temperature records available.--51 spot observations August 1947 to September 1955.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	41	39	39	39	40	41	43	49	51	50	47
	Max.-Min.	48 39	44 39	40 38	40 38	40 38	44 39	42 38	46 39	52 46	53 48	54 45	49 43
† Adjusted	Mean	43	43	40	39	39	40	41	43	47	50	49	47
	Max.-Min.	50 38	50 35	46 34	45 34	43 33	42 33	46 38	50 39	54 40	57 42	54 44	52 42

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

334-Red Blanket Creek near Prospect (14-3335.)

Location.--Lat 42°26'40", long 122°25'35", in NW¼NE¼ sec.23, T.32 S., R.3 E., on right bank 1.8 miles downstream from Lick Creek and 3.7 miles northeast of Prospect.

Drainage area.--45.5 sq mi.

Water-temperature records available.--94 spot observations October 1947 to September 1962. No observations were made from January 1959 to March 1960.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	41	37	38	38	38	40	44	49	53	53	48
	Max.-Min.	46 38	46 38	39 33	40 35	39 36	41 35	43 38	48 42	55 45	57 47	62 45	53 41
†Adjusted	Mean	44	41	38	38	38	38	42	43	48	52	53	49
	Max.-Min.	52 38	51 33	45 32	45 32	43 32	41 32	47 37	52 38	56 40	61 42	62 45	55 41

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

335-Red Blanket power canal near Prospect (14-3340.)

Location.--Lat 42°45', long 122°27', in SE¼ sec.27, T.32 S., R.3 E., on right bank 600 ft downstream from headgate and diversion dam and 2 miles east of Prospect.

Water-temperature records available.--40 spot observations October 1947 to July 1954.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	43	42	37	37	39	38	43	45	49	51	53	49
	Max.-Min.	45 40	45 38	39 36	39 35	39 38	39 38	44 42	48 42	52 47	54 47	53 53	54 45
†Adjusted	Mean	45	41	38	37	38	39	43	45	48	52	53	50
	Max.-Min.	53 39	51 33	45 32	44 32	44 32	43 32	48 39	52 40	56 41	61 43	59 48	56 43

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

336-Main power canal below all feeders, near Prospect (14-3345.)

Location.--Lat 42°45', long 122°28', in SW¼ sec.28, T.32 S., R.3 E., on left bank 0.8 mile downstream from outlet of Red Blanket power canal, 1 mile east of Prospect, and 1.6 miles upstream from diversion dam on Rogue River.

Water-temperature records available.--33 spot observations June 1947 to March 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	42	41	38	38	38	39	44	46	47	51	53	48
	Max.-Min.	45 38	44 38	40 37	38 38	39 38	41 38	47 41	48 43	51 42	54 47	54 52	49 47
†Adjusted	Mean	44	41	40	39	39	40	42	44	47	50	50	48
	Max.-Min.	50 38	49 35	47 35	46 35	44 34	43 34	47 39	51 40	54 42	56 42	54 45	53 43

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

337-Rogue River below South Fork Rogue River, near Prospect (14-3350.)

Location.--Lat 42°42'00", long 122°35'40", in SW¼NW¼ sec.16, T.33 S., R.2 E., on left bank 130 ft upstream from highway bridge, 0.5 mile downstream from Cascade Gorge, 3.1 miles downstream from South Fork Rogue River, 6.6 miles southwest of Prospect, and at mile 164.0.

Drainage area.--650 sq mi.

Water-temperature records available.--89 spot observations October 1947 to September 1962. No observations were made February to October 1958, and January 1959 to March 1960. Thermograph record October 1959 to September 1962.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service. Considerable diurnal fluctuation of flow caused by powerplant 5.5 miles above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	46	40	38	38	40	41	43	46	52	54	52	50
	Max.-Min.	49 41	44 38	40 36	41 34	42 35	45 36	48 39	51 41	57 48	58 51	58 47	54 45
1961	Mean	46	42	40	39	42	42	44	46	53	56	54	49
	Max.-Min.	50 42	46 38	42 36	43 35	44 38	47 38	48 40	51 43	60 45	59 51	58 50	54 44
1962	Mean	46	40	40	38	40	41	44	45	51	54	52	50
	Max.-Min.	49 38	43 33	42 35	42 35	42 36	45 37	48 39	51 40	57 44	58 49	56 48	55 46
1960-62	Mean	46	41	39	38	41	41	44	46	52	55	53	50
	Max.-Min.	50 38	46 33	42 35	43 34	44 35	47 36	48 39	51 40	60 44	59 49	58 47	55 44

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	42	38	39	39	39	42	44	52	53	53	48
	Max.-Min.	54 43	46 37	40 35	40 35	41 35	40 37	43 39	47 41	60 45	58 49	56 49	51 46
†Adjusted	Mean	45	41	37	39	41	40	44	45	49	53	52	50
	Max.-Min.	54 39	51 33	44 32	46 33	46 35	46 33	49 39	53 40	60 42	62 44	57 46	56 43

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

338-South Fork Big Butte Creek at Butte Falls

Location.--Lat 42°32'15", long 122°33'10", in SW¼ sec.11, T.35 S., R.2 E., at fish hatchery 0.8 mile southeast of Butte Falls.

Water-temperature records available.--Three observations a day (6 a.m., 12 m., and 6 p.m.) January 1943 to January 1946, once-daily readings thereafter. Records incomplete or missing for September 1943, September to December 1944, August to October 1945, February to April and September 1946, January 1948 to February 1949, and April, May 1949.

Remarks.--Records furnished by Oregon State Game Commission. Point of diversion is about 1,500 ft upstream from hatchery building.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1943	Mean	-	-	-	38	39	41	45	48	49	53	50	-
	Max.-Min.	- -	- -	- -	42 33	43 35	45 37	51 40	55 40	54 42	56 45	56 40	- -
1944	Mean	43	39	36	35	36	38	40	44	44	47	47	-
	Max.-Min.	48 36	45 34	42 33	38 33	41 33	44 33	47 34	52 39	52 39	52 39	52 39	- -
1945	Mean	-	-	-	40	40	41	45	49	52	55	-	-
	Max.-Min.	- -	- -	- -	43 36	43 37	47 38	53 38	55 46	59 46	60 47	- -	- -
1946	Mean	-	43	41	39	-	-	-	53	53	55	53	-
	Max.-Min.	- -	49 40	46 35	44 35	- -	- -	- -	55 48	58 50	57 50	57 51	- -
1947	Mean	45	42	41	38	41	43	47	52	52	55	54	51
	Max.-Min.	47 41	44 40	46 37	40 34	44 38	48 40	50 41	56 48	57 48	57 51	56 50	54 47
1948	Mean	47	44	41	-	-	-	-	-	-	-	-	-
	Max.-Min.	50 46	47 38	44 38	- -	- -	- -	- -	- -	- -	- -	- -	- -
1949	Mean	-	-	-	-	-	39	-	-	54	55	54	50
	Max.-Min.	- -	- -	- -	- -	- -	41 36	- -	- -	56 50	57 52	57 52	54 47
1950	Mean	45	43	39	37	39	41	45	48	52	54	53	49
	Max.-Min.	49 42	45 42	43 37	41 33	42 34	46 39	48 42	53 41	56 46	56 50	55 50	53 45
1951	Mean	47	44	42	40	40	41	47	50	53	54	52	49
	Max.-Min.	49 43	48 41	45 39	42 35	43 38	44 38	50 43	54 44	56 51	57 52	54 47	53 46
1952	Mean	46	43	39	38	39	41	46	50	52	57	55	52
	Max.-Min.	48 43	46 39	43 36	41 35	41 37	44 37	49 41	55 46	56 49	59 53	58 52	54 49
1953	Mean	48	42	39	41	41	42	45	48	52	56	53	51
	Max.-Min.	51 45	45 36	42 37	43 38	44 38	45 38	51 42	52 44	55 49	59 53	56 48	53 47
1954	Mean	47	46	42	39	40	42	48	52	52	55	52	49
	Max.-Min.	50 44	48 42	44 39	41 37	43 39	44 40	51 43	55 46	57 47	57 50	55 49	52 46
1955	Mean	46	43	40	39	39	41	43	48	54	54	54	50
	Max.-Min.	51 42	45 38	43 36	41 36	40 37	43 38	46 40	54 44	60 48	58 47	58 51	57 46
1956	Mean	47	42	41	40	39	42	47	51	53	56	54	50
	Max.-Min.	49 44	46 38	43 36	43 36	41 36	46 38	51 42	56 46	57 48	58 52	60 52	52 48
1957	Mean	46	42	40	38	41	43	45	50	55	56	54	51
	Max.-Min.	50 39	45 38	44 37	41 34	44 39	45 40	45 45	58 45	58 50	59 53	60 50	54 46
1958	Mean	46	41	39	39	42	42	46	53	55	57	56	51
	Max.-Min.	48 44	44 38	42 37	41 37	46 38	46 40	49 41	57 48	60 51	59 54	60 53	54 47
1959	Mean	47	44	42	41	40	43	48	51	56	57	55	51
	Max.-Min.	51 44	49 38	46 39	44 35	44 37	45 41	51 46	55 46	60 53	60 54	58 50	55 47
1960	Mean	47	41	39	40	41	44	46	49	57	58	54	53
	Max.-Min.	51 43	45 39	41 36	44 36	44 39	48 40	50 43	54 45	59 51	60 52	58 49	57 48
1961	Mean	47	43	40	40	43	43	47	51	58	57	57	51
	Max.-Min.	53 44	48 38	45 37	44 36	46 40	48 40	50 42	57 46	63 52	60 53	60 53	56 47
1962	Mean	47	41	40	38	40	42	48	49	56	57	56	53
	Max.-Min.	50 42	44 38	44 36	43 33	42 37	46 37	51 46	52 46	60 48	59 54	60 51	57 48
1943-62	Mean	46	43	40	39	40	42	46	50	53	55	54	51
	Max.-Min.	53 36	49 34	46 33	44 33	46 33	48 33	53 34	58 39	63 39	60 39	60 39	57 45

339-Big Butte Creek at McLeod

Location.--Lat 42°38'50", long 122°41'10", in SW¼NE¼ sec.3, T.34 S., R.1 E., 0.4 mile upstream from highway bridge, 1.0 mile upstream from mouth, and 1.0 mile south of McLeod.

Drainage area.--246 sq mi, at former U. S. Geological Survey gaging station 0.4 mile downstream.

Water-temperature records available.--Thermograph record October 1959 to October 1960.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	50	43	40	42	a44	48	50	53	a61	66	61	58
	Max.-Min.	56 41	48 38	44 36	47 36	a47 a36	55 39	57 43	65 45	a70 54	73 58	69 54	64 52
1961	Mean	50	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	58 45	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1960-61	Mean	50	43	40	42	a44	48	50	53	a61	66	61	58
	Max.-Min.	58 41	48 38	44 36	47 36	a47 a36	55 39	57 43	65 45	a70 54	73 58	69 54	64 52

a Computed on basis of correlation with water temperature record for Rogue River below South Fork Rogue River near Prospect.

ROGUE RIVER BASIN

340-Big Butte Creek near McLeod (14-3375.)

Location.--Lat 42°39'05", long 122°41'25", in SW¼ sec.34 T.33 S., R.1 E., on right bank 50 ft downstream from highway bridge, 0.6 mile upstream from mouth, and 0.6 mile south of McLeod.

Drainage area.--246 sq mi.

Water-temperature records available.--69 spot observations April 1947 to October 1957.

Remarks.--Slight regulation of flow by fish hatchery 600 ft above station.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	45	39	41	39	42	46	51	57	59	62	54
	Max.-Min.	51 47	47 42	43 34	45 35	42 36	44 39	53 41	57 45	60 55	62 54	63 60	57 49
†Adjusted	Mean	50	45	41	41	43	45	48	51	55	60	59	55
	Max.-Min.	57 42	51 36	47 34	48 32	49 32	49 34	54 41	61 44	65 46	67 48	65 53	62 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

341-Rogue River at Casey State Park, at McLeod

Location.--Lat 42°39'30", long 122°42'15", in SW¼NE¼ sec.33, T.33 S., R.1 E., at Casey State Park 0.6 mile downstream from Big Butte Creek, 0.9 mile west southwest of McLeod, and at mile 154.2.

Water-temperature records available.--Thermograph record April to November 1960.

Remarks.--Some diurnal fluctuation of flow caused by powerplant near Prospect. Record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	-	-	-	-	-	42	47	54	60	54	50
	Max.-Min.	- -	- -	- -	- -	- -	- -	52 33	60 38	68 43	73 49	68 42	63 38
1961	Mean	46	40	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	56 34	52 34	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

342-Elk Creek near Trail (14-3380.)

Location.--Lat 42°39'50", long 122°44'50", in SW¼ sec.30, T.33 S., R.1 E., on right bank 0.4 mile upstream from mouth and 3.3 miles northeast of Trail.

Drainage area.--133 sq mi.

Water-temperature records available.--103 spot observations November 1946 to September 1962. No readings were made from January 1959 to March 1960. Thermograph record October 1959 to October 1960.

Remarks.--Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	56	42	36	37	40	44	48	53	66	74	71	66
	Max.-Min.	64 43	53 34	43 31	45 31	46 32	53 34	60 41	65 44	80 53	87 64	86 56	77 53
1961	Mean	55	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	70 46	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1960-61	Mean	56	42	36	37	40	44	48	53	66	74	71	66
	Max.-Min.	70 43	53 34	43 31	45 31	46 32	53 34	60 41	65 44	80 53	87 64	86 56	77 53

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	53	46	40	41	38	41	45	53	62	66	73	68
	Max.-Min.	57 51	56 41	46 37	45 32	43 33	44 38	56 41	64 45	66 58	74 58	79 64	73 60
† Adjusted	Mean	53	44	39	39	40	42	46	54	59	67	70	63
	Max.-Min.	65 42	56 35	46 35	46 32	47 32	48 33	56 40	71 44	78 44	82 44	82 59	76 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

343-Rogue River at Lewis Creek, near Trail

Location.--Lat 42°39'00", long 122°47'20", in NE¼NW¼ sec.2, T.34 S., R.1 W., at mouth of Lewis Creek, 1.1 miles upstream from Trail Creek, 1.1 miles east of Trail, and at mile 149.6.

Drainage area.--1,110 sq mi, approximately, at former U.S. Geological Survey gaging station 1½ miles downstream from Trail Creek.

Water-temperature records available.--Thermograph record October 1959 to October 1960.

Remarks.--Some regulation of flow by powerplant below Prospect. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	49	42	38	38	40	42	46	48	55	58	56	53
	Max.-Min.	53 42	47 37	42 35	43 34	44 34	47 35	52 41	55 42	62 49	65 53	63 48	59 46
1961	Mean	47	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	54 42	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1960-61	Mean	48	42	38	38	40	42	46	48	55	58	56	53
	Max.-Min.	54 42	47 37	42 35	43 34	44 34	47 35	52 41	55 42	62 49	65 53	63 48	59 46

344-Rogue River at Dodge Bridge, near Eagle Point (14-3390.)

Location.--Lat 42°31'30", long 122°50'30", in SE¼ sec.17, T.35 S., R.1 W., on right bank 50 ft upstream from Dodge Bridge, 0.6 mile downstream from Reese Creek, 4.3 miles northwest of Eagle Point, and at mile 138.6.

Drainage area.--1,215 sq mi.

Water-temperature records available.--85 spot observations June 1947 to September 1962.

Remarks.--Some diurnal fluctuation of flow caused by powerplant 30 miles upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	45	38	38	41	42	45	47	54	61	60	53
	Max.-Min.	54 43	49 39	39 36	42 34	46 36	47 39	49 42	50 44	62 51	64 58	65 55	57 49
†Adjusted	Mean	46	43	38	39	42	43	46	50	56	60	61	53
	Max.-Min.	56 38	49 37	43 35	44 33	47 35	47 36	54 42	63 44	69 45	70 45	69 53	63 43

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

345-Little Butte Creek at Eagle Point

Location.--Lat 42°28'15", long 122°48'05", in SW¼NE¼ sec.3, T.36 S., R.1 W., in Eagle Point, 2.0 miles upstream from Antelope Creek, and 4.7 miles upstream from mouth.

Drainage area.--293 sq mi, at former U.S. Geological Survey gaging station about 0.7 mile downstream.

Water-temperature records available.--Thermograph record November 1959 to October 1960.

Remarks.--Flow partly regulated by Fish Lake. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water-temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	42	38	39	42	44	49	54	68	72	69	64
	Max.-Min.	- -	46 37	43 35	46 32	46 35	53 36	59 41	67 45	81 54	82 63	81 58	73 55
1961	Mean	52	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	64 44	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

346-Rogue River at Bybee Bridge, near Eagle Point.

Location.--Lat 42°26'25", long 122°53'25", in SE¼NW¼ sec.13, T.36 S., R.2 W., at Table Rock Road crossing, 1.1 mile downstream from Little Butte Creek, 5.0 miles west southwest of Eagle Point, and at mile 131.0.

Water-temperature records available.--Thermograph record November 1959 to October 1960.

Remarks.--Some diurnal fluctuation caused by powerplant below Prospect. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	41	38	38	42	45	48	52	58	65	62	57
	Max.-Min.	- -	45 36	42 34	45 32	46 36	51 37	56 42	60 44	67 52	72 58	69 53	64 50
1961	Mean	50	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	58 45	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

347-Emigrant Creek below Walker Creek, near Ashland (14-3505.)

Location.--Lat 42°11'40", long 122°39'00", in NE¼SW¼ sec.12, T.39 S., R.1 E., on right bank 200 ft downstream from Walker Creek and 3 miles east of Ashland.

Drainage area.--110 sq mi.

Water-temperature records available.--51 spot observations May 1947 to November 1951.

Remarks.--Natural flow of stream is affected by storage at Emigrant Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	57	46	41	38	40	44	52	63	66	69	69	67
	Max.-Min.	59 55	50 39	46 35	43 32	44 38	49 37	59 46	72 49	74 54	73 65	71 68	73 60
Adjusted	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.												

Note.--Not sufficient basis for correlation as most observations were made prior to all thermograph records.

348-Bear Creek at Medford (14-3575.)

Location.--Lat 42°19'40", long 122°52'10", in NW¼ sec.30, T.37 S., R.1 W., on left bank 40 ft upstream from Main Street Bridge in Medford.

Drainage area.--289 sq mi.

Water-temperature records available.--28 spot observations December 1947 to November 1951. 15 spot observations May 1958 to September 1962. No observations were made September 1958 to December 1961.

Remarks.--Flow partly regulated since 1924 by Emigrant Lake.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	56	47	44	37	43	49	47	63	69	70	69	61
	Max.-Min.	57 56	50 43	48 38	42 32	47 38	53 45	47 46	74 55	77 62	85 54	73 67	64 56
†Adjusted	Mean	52	45	42	40	43	43	46	51	63	68	69	60
	Max.-Min.	64 42	53 37	48 37	47 32	50 34	53 34	56 41	74 47	82 48	85 47	80 59	73 47

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

349-Rogue River at Raygold (Gold Ray), near Central Point (14-3590.)

Location.--Lat 42°26'15", long 122°59'10", in SW¼ sec.18, T.36 S., R.2 W., on right bank at Raygold, 0.2 mile downstream from Gold Ray Dam, 1.3 miles downstream from Bear Creek, 5.6 miles northwest of Central Point, and at mile 125.3.

Drainage area.--2,053 sq mi.

Water-temperature records available.--Thermograph record January 1958 to September 1962.

Remarks.--Diurnal fluctuation caused by powerplant 0.2 mile above station. Thermograph record furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1958	Mean	-	-	-	40	42	43	48	53	57	64	64	56
	Max.-Min.	- -	- -	- -	43 37	45 40	48 37	54 42	58 45	67 49	70 55	68 58	64 49
1959	Mean	50	44	42	41	40	44	49	52	60	66	63	56
	Max.-Min.	56 43	52 36	47 38	45 35	46 35	48 41	56 45	61 45	70 53	73 59	69 54	64 49
1960	Mean	50	41	38	38	41	44	48	51	60	67	63	58
	Max.-Min.	55 42	46 37	41 34	43 32	45 36	50 37	55 43	59 44	68 53	73 60	70 54	65 52
1961	Mean	50	43	40	39	43	44	48	51	60	65	64	56
	Max.-Min.	58 45	50 40	44 35	46 32	47 39	51 40	54 42	58 45	69 51	71 57	71 56	64 49
1962	Mean	49	41	40	38	41	42	49	50	58	64	62	58
	Max.-Min.	56 40	46 35	45 33	43 32	44 33	50 35	55 44	55 45	66 48	71 57	68 56	65 -
1958-62	Mean	50	42	40	39	41	43	48	51	59	65	63	57
	Max.-Min.	58 40	52 35	47 33	46 32	47 33	51 35	56 42	61 45	70 48	73 55	71 54	65 49

350-Evans Creek near Bybee Springs

Location.--Lat 42°35'05", long 123°01'25", in center of S½ sec.26, T.34 S., R.3 W., 0.8 mile downstream from Ramsey Canyon, 1.0 mile upstream from Maple Gulch, 1.3 miles upstream from Bybee Springs, and at mile 16.5.

Drainage area.--116 sq mi, at former U.S. Geological Survey gaging station 1 mile upstream from Bybee Springs.

Water-temperature records available.--Thermograph record October 1959 to October 1960.

Remarks.--Record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	53	40	[a]36	[a]36	36	44	48	54	66	71	66	62
	Max.-Min.	62 41	48 34	[a]42 [a]32	[a]42 [a]32	43 31	54 34	58 41	67 46	76 55	81 60	76 56	71 54
1961	Mean	52	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	62 45	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1960-61	Mean	52	40	[a]36	[a]36	36	44	48	54	66	71	66	62
	Max.-Min.	62 41	48 34	[a]42 [a]32	[a]42 [a]32	43 31	54 34	58 41	67 46	76 55	81 60	76 56	71 54

a Computed on basis of available record and thermograph record for Evans Creek near Rogue River.

351-Evans Creek near Rogue River

Location.--Lat 42°27'15", long 123°10'10", on line between sec's.9 and 10, T.36 S., R.4 W., 1.2 miles north of Rogue River and 1.5 miles upstream from mouth.

Water-temperature records available.--Thermograph record October 1959 to October 1960.

Remarks.--Record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	57	44	38	39	43	47	52	58	69	73	68	62
	Max.-Min.	64 45	52 37	44 33	46 32	47 36	57 38	60 45	69 50	79 60	83 62	82 54	71 52
1961	Mean	54	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	63 47	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1960-61	Mean	56	44	38	39	43	47	52	58	69	73	68	62
	Max.-Min.	64 45	52 37	44 33	46 32	47 36	57 38	60 45	69 50	79 60	83 62	82 54	71 52

352-Rogue River at Grants Pass (14-3615.)

Location.--Lat 42°25'50", long 123°19'00", in NW¼ sec.20, T.36 S., R.5 W., on right bank at city of Grants Pass filter plant, 0.6 mile upstream from bridge on U.S. Highway 99 at Grants Pass, and at mile 101.5.

Drainage area.--2,459 sq mi.

Water-temperature records available.--81 spot observations June 1947 to September 1962. Once-daily observations (about noon) January 1953 to September 1958. Thermograph record July to October 1960.

Remarks.--Large diurnal fluctuation of flow at times caused by Savage Rapids Dam and by powerplant at Raygold. The spot observation data are shown as well as the combined daily-observation and thermograph record to show how the records compare. Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1953	Mean	-	-	-	43	42	44	48	50	55	64	64	62
	Max.-Min.	- -	- -	- -	45 39	45 39	45 39	55 44	53 45	58 50	66 58	69 59	65 55
1954	Mean	50	45	42	41	42	44	49	55	58	67	64	59
	Max.-Min.	55 47	47 42	45 40	43 38	44 41	46 41	53 46	60 48	64 54	70 63	68 60	64 56
1955	Mean	50	45	40	39	41	44	47	55	59	66	67	61
	Max.-Min.	55 42	48 38	44 38	41 37	44 38	47 41	49 45	58 52	63 54	71 59	73 62	70 55
1956	Mean	54	44	42	42	39	42	48	54	56	67	66	59
	Max.-Min.	57 52	51 37	45 38	44 38	41 36	45 39	54 44	58 51	63 52	71 60	68 63	65 55
1957	Mean	50	42	41	39	43	46	49	57	65	70	68	66
	Max.-Min.	56 44	44 39	46 36	42 35	47 38	48 45	56 47	62 55	69 61	72 66	72 64	72 56
1958	Mean	50	42	41	43	45	45	49	57	62	71	72	60
	Max.-Min.	56 48	48 38	44 38	45 39	49 43	48 43	52 45	59 53	69 56	72 69	73 68	67 54
1959	Mean												
	Max.-Min.												
1960	Mean	-	-	-	-	-	-	-	-	-	71	68	62
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	79 66	76 58	71 55
1961	Mean	52	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	63 45	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1953-61	Mean	51	44	41	41	42	44	48	55	59	68	67	61
	Max.-Min.	63 42	51 37	46 36	45 35	49 36	48 39	56 44	62 45	69 50	79 58	76 58	72 54

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	49	43	39	41	41	44	46	52	60	68	65	57
	Max.-Min.	54 43	46 38	42 37	44 38	47 37	46 40	48 43	58 46	64 57	73 65	68 61	59 54
†Adjusted	Mean	49	44	41	41	43	44	47	52	60	66	66	58
	Max.-Min.	60 41	51 37	47 37	47 34	49 35	49 36	56 42	66 43	76 47	78 48	76 57	69 47

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

353-Applegate River at Copper

Location.--Lat 42°01'20", long 123°09'15", in NE¼ sec.10, T.41 S., R.4 W., 0.2 mile downstream from Brush Creek, 0.2 mile upstream from Manzanita Creek, 0.6 mile southwest of Copper, and at mile 50.0.

Water-temperature records available.--Thermograph record October 1959 to September 1962.

Remarks.--Record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	52	40	36	38	40	42	44	46	56	64	64	59
	Max.-Min.	59 41	51 34	41 31	44 31	44 32	48 34	52 37	55 40	66 46	75 53	77 51	70 48
1961	Mean	52	a43	39	38	42	42	44	46	56	64	67	58
	Max.-Min.	64 44	a53 a38	44 34	45 32	45 38	48 37	50 37	54 40	67 46	72 53	77 58	70 45
1962	Mean	50	40	39	36	a40	42	44	47	55	62	62	60
	Max.-Min.	62 39	48 32	43 32	43 31	a43 a32	47 36	52 38	56 41	67 43	75 51	71 55	70 -
1960-62	Mean	51	41	38	37	41	42	44	46	56	63	64	59
	Max.-Min.	64 39	53 32	44 31	45 31	45 32	48 34	52 37	56 40	67 43	75 51	77 51	70 45

a Computed on basis of available record and thermograph record for Rogue River at Robertson Bridge.

354-Applegate River near Copper (14-3620.)

Location.--Lat 42°03'30", long 123°06'50", in SE¼ sec.25, T.40 S., R.4 W., on right bank 0.2 mile downstream from French Gulch, 1.6 miles downstream from Squaw Creek, 2.6 miles northeast of Copper, and at mile 46.2.

Drainage area.--223 sq mi.

Water-temperature records available.--94 spot observations June 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	54	42	39	39	39	42	45	46	57	66	64	56
	Max.-Min.	63 46	48 37	46 35	44 32	43 32	45 39	48 42	55 36	68 49	75 56	68 59	64 48
†Adjusted	Mean	51	42	37	37	39	42	43	49	54	63	62	57
	Max.-Min.	63 42	49 34	46 33	44 32	46 32	48 34	53 38	65 36	71 40	76 43	73 52	69 45

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

355-Applegate River near Ruch

Location.--Lat 42°14'20", long 123°19'35", in SW¼NE¼ sec.29, T.38 S., R.3 W., 1.0 mile downstream from Forest Creek, 1.8 miles west of Ruch, 3.6 miles upstream from U.S. Geological Survey gaging station "near Applegate", and at mile 30.5.

Water-temperature records available.--Thermograph record April to October 1960.

Remarks.--Record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	-	-	-	-	-	44	47	60	71	68	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	58 34	60 37	76 44	86 54	87 51	80 48
1961	Mean	56	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	70 42	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

356-Applegate River near Applegate (14-3660.)

Location.--Lat 42°14'30", long 123°08'20", in NE¼ sec.26, T.38 S., R.4 W., on left bank 0.9 mile downstream from Keeler Creek, 1.8 miles southeast of Applegate, and at mile 26.8.

Drainage area.--483 sq mi.

Water-temperature records available.--102 spot observations June 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	55	44	40	40	41	44	47	54	61	70	69	63
	Max.-Min.	59 50	50 41	47 36	44 32	48 33	46 42	51 43	62 39	69 52	75 65	74 60	67 51
†Adjusted	Mean	53	44	40	40	42	44	46	53	59	68	68	62
	Max.-Min.	65 43	52 37	47 36	47 32	49 33	50 35	56 41	70 39	76 45	81 48	79 57	74 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

357-West Fork Williams Creek near Williams (14-3670.)

Location.--Lat 42°11'00", long 123°20'20", in NW¼ sec.18, T.39 S., R.5 W., on left bank three-quarters of a mile upstream from Lone Creek and 5½ miles southwest of Williams.

Drainage area.--13.0 sq mi.

Water-temperature records available.--25 spot observations June 1947 to September 1951 (irrigation seasons only).

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	-	-	-	-	-	41	47	44	56	58	58	56
	Max.-Min.	- -	- -	- -	- -	- -	41 40	48 46	46 43	66 53	60 56	63 55	59 54
†Adjusted	Mean	-	-	-	-	-	43	49	52	58	63	65	58
	Max.-Min.	- -	- -	- -	- -	- -	48 32	57 42	65 43	72 47	76 48	73 55	68 48

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

358-Powell Creek near Williams (14-3685.)

Location.--Lat 42°16'00", long 123°17'40", near center of sec.16, T.38 S., R.5 W., on left bank 0.1 mile upstream from Blodgett ditch intake and 2 miles northwest of Williams.

Drainage area.--8.17 sq mi.

Water-temperature records available.--79 spot observations June 1947 to October 1958.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	44	42	43	40	42	46	52	57	62	62	55
	Max.-Min.	57 48	51 42	44 39	46 39	46 34	44 40	49 42	64 43	65 52	66 59	73 56	59 52
†Adjusted	Mean	50	43	41	41	43	44	49	53	58	66	66	57
	Max.-Min.	62 41	51 36	47 37	48 34	49 34	49 35	58 42	69 43	75 45	79 48	76 56	69 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

359-Applegate River near Wilderville (14-3695.)

Location.--Lat 42°21'10", long 123°24'10", in NE¼SW¼ sec.15, T.37 S., R.6 W., on left bank 900 ft downstream from Jackson Creek, 3.8 miles southeast of Wilderville, and at mile 7.5.

Drainage area.--698 sq mi.

Water-temperature records available.--50 spot observations September 1947 to September 1955.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	57	47	40	43	41	43	49	56	61	70	72	64
	Max.-Min.	61 52	55 40	43 38	45 39	44 37	47 39	50 47	58 52	69 55	77 63	77 68	67 60
†Adjusted	Mean	55	47	42	42	44	46	50	55	63	73	72	66
	Max.-Min.	70 44	56 38	49 37	49 33	52 34	52 35	61 43	74 45	84 47	89 50	86 60	80 52

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

360-Slate Creek at Wonder (14-3700.)

Location.--Lat 42°21'40", long 123°31'10", in SW¼ sec.10, T.37 S., R.7 W., on left bank 0.6 mile upstream from Elliot Creek and 0.7 mile east of Wonder.

Drainage area.--31.4 sq mi.

Water-temperature records available.--81 spot observations April 1947 to October 1957.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	45	47	42	42	44	48	55	60	67	66	60
	Max.-Min.	56 48	53 36	48 44	46 38	44 40	48 40	54 44	64 52	69 54	75 61	71 62	64 55
†Adjusted	Mean	53	45	43	42	43	44	49	54	59	67	67	62
	Max.-Min.	64 43	53 36	49 39	48 35	49 35	49 36	58 44	70 46	75 45	80 47	78 58	73 50

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

361-Applegate River at mouth, near Wilderville

Location.--Lat 42°25'00", long 123°26'55", in NE¼ sec.30, T.36 S., R.6 W., 1.5 miles upstream from mouth, 2.5 miles northeast of Wilderville, and 6.0 miles downstream from former U. S. Geological Survey gaging station "near Wilderville".

Water-temperature records available.--Thermograph record October 1959 to October 1960.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	60	48	42	43	a46	a48	52	56	68	73	73	69
	Max.-Min.	67 49	61 42	47 37	50 36	a50 a38	a54 a41	60 45	66 49	80 57	84 66	79 68	73 65
1961	Mean	62	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	69 56	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1960-61	Mean	61	48	42	43	a46	a48	52	56	68	73	73	69
	Max.-Min.	69 49	61 42	47 37	50 36	a50 a38	a54 a41	60 45	66 49	80 57	84 66	79 68	73 65

a Computed on basis of available record and correlation with thermograph record for Applegate River near Copper.

362-Rogue River near Merlin

Location.--Lat 42°29'50", long 123°29'15", in SE¼ sec.26, T.35 S., R.7 W., at Robertson Bridge, 3.0 miles upstream from Jumpoff Joe Creek, 3.7 miles west southwest of Merlin, and at mile 86.0.

Water-temperature records available.--Thermograph record October 1959 to September 1962.

Remarks.--Record furnished by U. S. Fish and Wildlife Service. Large diurnal fluctuation of flow at times caused by Savage Rapids Dam and by powerplant at Raygold.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	55	43	38	40	44	48	50	55	66	74	70	64
	Max.-Min.	60 45	48 38	42 34	46 33	47 41	54 43	58 46	64 48	74 58	80 66	78 61	69 58
1961	Mean	54	47	42	42	46	47	52	56	68	a71	72	62
	Max.-Min.	64 48	54 43	47 37	49 34	49 44	54 43	59 45	65 50	76 55	a77 a62	77 67	70 56
1962	Mean	54	45	42	39	43	45	53	56	64	70	68	63
	Max.-Min.	63 a43	49 39	47 37	45 33	47 36	52 37	59 48	62 49	70 54	84 61	73 60	70 53
1960-62	Mean	54	45	41	40	44	47	52	56	66	72	70	63
	Max.-Min.	64 43	54 38	47 34	49 33	49 36	54 37	59 45	65 48	76 54	84 61	78 60	70 53

a Computed on basis of available record and correlation with thermograph records for Applegate River near Copper.

363-Rogue River near Galice

Location.--Lat 42°38'55", long 123°35'00", in NE¼ sec.1, T.34 S., R.8 W., at Grave Creek bridge at mouth of Grave Creek, 5.5 miles north of Galice, and at mile 68.0.

Water-temperature records available.--Thermograph record January to October 1960.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service. Large diurnal fluctuation of flow at times caused by Savage Rapids Dam and by powerplant at Raygold.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	-	-	40	42	46	50	54	a66	a71	71	66
	Max.-Min.	- -	- -	- -	48 35	47 39	52 38	55 46	63 48	a78 a54	a82 a63	78 62	70 60
1961	Mean	56	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	65 50	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

a Computed on basis of available record and correlation with thermograph record for Applegate River near Copper.

364-Grave Creek at Pease Bridge, near Placer (14-3715.)

Location.--Lat 42°38'30", long 123°12'40", in SE¼ sec.6, T.34 S., R.4 W., on right bank 0.5 mile downstream from Pease Bridge, 0.6 mile upstream from Boulder Creek, 5.4 miles east of Placer, and at mile 26.9.

Drainage area.--22.1 sq mi at measuring section 0.5 mile upstream.

Water-temperature records available.--104 spot observations October 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	46	41	38	39	40	44	49	60	62	67	57
	Max.-Min.	55 44	51 43	46 39	43 32	44 33	42 36	49 39	56 40	66 50	70 56	76 59	70 47
†Adjusted	Mean	51	44	41	40	40	40	45	52	58	67	68	59
	Max.-Min.	63 41	51 36	48 37	47 32	47 32	46 32	55 39	69 40	76 43	80 46	79 58	71 46

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

365-Rogue River at Marial

Location.--Lat 42°42'55", long 123°52'55", in NW¼SE¼ sec.9, T.33 S., R.10 W., at mouth of Mule Creek, 0.4 mile northeast of Marial, and at mile 48.5.

Water-temperature records available.--Thermograph record May to October 1960.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	-	-	-	-	-	-	52	65	74	70	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	62 46	74 56	85 66	84 58	72 55
1961	Mean	55	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	68 50	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

366-Rogue River near Agness (14-3723.)

Location.--Lat 42°34'50", long 124°03'30", in NE¼NW¼ sec.6, T.35 S., R.11 W., on left bank 0.7 mile upstream from Shasta Costa Creek, 1.5 miles north of Agness, 2.4 miles upstream from Illinois River, and at mile 29.7.

Drainage area.--3,939 sq mi.

Water-temperature records available.--Thermograph record October 1960 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	a56	49	a44	44	48	47	52	58	a72	a75	74	64
	Max.-Min.	a64 53	55 45	a47 a40	48 39	50 47	51 46	57 49	64 53	a78 a67	79 a71	79 70	71 57
1962	Mean	54	44	44	40	44	45	54	56	66	72	72	68
	Max.-Min.	60 47	48 39	47 39	45 34	46 39	50 40	57 50	62 51	72 56	80 66	76 66	74 61
1961-62	Mean	55	46	44	42	46	46	53	57	69	74	73	66
	Max.-Min.	60 47	55 39	47 39	48 34	50 39	51 40	57 49	64 51	78 56	80 66	79 66	74 57

a Computed on basis of available record and correlation with thermograph record for South Fork Coquille River near Powers.

367-Rogue River at Agness

Location.--Lat 42°33'10", long 124°03'40", in NW¼ sec.18, T.35 S., R.11 W., 0.2 mile upstream from Illinois River, 0.4 mile southeast of Agness, and at mile 27.5.

Drainage area.--3,939 sq mi, at U. S. Geological Survey gaging station about 2.2 miles upstream.

Water-temperature records available.--Thermograph record October 1959 to November 1960.

Remarks.--Thermograph record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	56	46	40	42	46	49	52	56	67	74	72	66
	Max.-Min.	60 49	49 42	46 37	48 35	50 43	56 42	57 48	64 49	74 61	80 68	79 63	70 60
1961	Mean	55	a48	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	65 50	a56 a45	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1960-61	Mean	56	47	40	42	46	49	52	56	67	74	72	66
	Max.-Min.	65 49	56 42	46 37	48 35	50 43	56 42	57 48	64 49	74 61	80 68	79 63	70 60

a Computed on basis of available record and correlation with thermograph record for Illinois River at Pomeroy Dam.

368-East Fork Illinois River near Takilma (14-3725.)

Location.--Lat 42°00'40", long 123°37'30", in SE¼ sec.10, T.41 S., R.8 W., on right bank 500 ft upstream from highway bridge, 0.3 mile upstream from Long Gulch, 3 miles south of Takilma, and at mile 14.2.

Drainage area.--43.4 sq mi.

Water-temperature records available.--82 spot observations September 1950 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	48	42	43	40	38	42	44	45	56	62	62	58
	Max.-Min.	52 43	49 37	46 41	43 38	42 35	44 39	46 42	49 40	61 43	69 57	66 60	63 52
†Adjusted	Mean	49	42	41	40	41	42	43	46	56	61	62	59
	Max.-Min.	59 41	54 36	46 37	45 34	46 34	46 35	51 39	59 39	70 43	72 45	71 54	68 48

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

369-Althouse Creek near Holland (14-3735.)

Location.--Lat 42°06'00", long 123°31'30", in SE¼ sec.9, T.40 S., R.7 W., on right bank 0.5 mile upstream from Tarter Gulch, 2 miles southeast of Holland, and at mile 7.7.

Drainage area.--24.3 sq mi.

Water-temperature records available.--52 spot observations June 1947 to September 1953.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	45	41	39	39	40	45	48	54	62	63	58
	Max.-Min.	51 49	45 43	45 36	43 32	42 36	41 38	49 42	52 45	63 46	70 56	67 58	65 53
†Adjusted	Mean	53	47	42	41	41	42	45	49	55	61	62	59
	Max.-Min.	64 44	61 35	53 33	51 32	48 32	47 32	53 39	61 41	67 44	73 47	70 55	68 50

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

370-Grayback Creek near Holland (14-3745.)

Location.--Lat 42°08'30", long 123°27'20", in NW¼ sec.31, T.39 S., R.6 W., on right bank 400 ft upstream from bridge on State Highway 46, 600 ft upstream from mouth, and 4½ miles northeast of Holland.

Drainage area.--24.1 sq mi.

Water-temperature records available.--37 spot observations January 1947 to September 1951.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	46	44	41	39	39	40	46	49	52	57	63	55
	Max.-Min.	46 46	48 41	46 38	43 36	42 35	42 38	51 41	55 43	54 48	58 54	63 63	57 54
†Adjusted	Mean	53	48	44	42	42	44	46	49	55	60	62	59
	Max.-Min.	63 45	60 37	53 35	52 35	49 34	48 34	53 41	60 42	66 45	71 48	68 55	67 51

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

371-Sucker Creek near Holland (14-3750.)

Location.--Lat 42°09'00", long 123°27'50", in NE¼ sec.25, T.39 S., R.7 W., on right bank 1.3 miles downstream from Grayback Creek, 4 miles northeast of Holland, and at mile 10.2.

Drainage area.--76.2 sq mi.

Water-temperature records available.--113 spot observations April 1947 to September 1962.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	47	42	40	39	40	40	44	46	53	60	61	57
	Max.-Min.	51 42	48 35	46 34	43 36	47 34	43 38	49 37	54 42	62 44	67 53	66 53	64 53
†Adjusted	Mean	48	42	40	40	41	41	44	47	54	60	61	56
	Max.-Min.	57 41	48 35	46 34	45 34	47 34	46 35	51 37	59 40	67 43	69 44	69 53	65 47

† Adjusted figures based on correlation with thermograph record for Middle Santiam River at mouth, near Foster.

372-West Fork Illinois River below Rock Creek, near O'Brien (14-3755.)

Location.--Lat 42°02'20", long 123°44'50", in SW¼SE¼ sec.34, T.40 S., R.9 W., on left bank 900 ft downstream from Rock Creek, 3 miles southwest of O'Brien, and at mile 12.7.

Drainage area.--42.4 sq mi.

Water-temperature records available.--44 spot observations October 1954 to September 1962.

Remarks.--Occasional diurnal fluctuation in flow caused by logpond upstream.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	51	42	43	39	43	45	46	51	65	69	70	64
	Max.-Min.	60 43	42 41	45 41	42 37	47 37	47 43	51 40	60 38	72 57	77 61	74 62	69 58
†Adjusted	Mean	52	48	44	42	43	44	46	54	62	69	69	63
	Max.-Min.	65 40	64 33	57 33	55 33	53 32	50 32	55 38	69 38	76 49	84 53	78 59	74 51

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

373-West Fork Illinois River near O'Brien (14-3765.)

Location.--Lat 42°03'50", long 123°43'00", in NW¼ sec.25, T.40 S., R.9 W., on left bank 500 ft upstream from bridge on U. S. Highway 199, half a mile southwest of O'Brien, and at mile 9.7.

Drainage area.--49.7 sq mi.

Water-temperature records available.--45 spot observations July 1947 to March 1955. Only one observation was made from August 1947 to August 1949.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	58	47	46	42	44	43	49	58	61	68	70	62
	Max.-Min.	65 51	52 42	48 43	44 39	44 44	48 41	54 47	59 57	68 52	78 62	73 68	65 60
†Adjusted	Mean	54	46	43	43	43	43	47	55	60	68	68	64
	Max.-Min.	67 42	63 32	56 32	56 33	52 32	49 32	57 40	68 42	75 47	83 50	78 58	75 52

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

374-Illinois River above Kerby

Location.--Lat 42°11'00", long 123°39'15", on line between secs.9 and 16, T.39 S., R.8 W., at mouth of George Creek, 0.4 mile upstream from Holton Creek, 0.7 mile south southwest of Kerby, 1.2 miles north northwest of Cave Junction, 2.0 miles downstream from Pomeroy Dam, and at mile 54.5.

Water-temperature records available.--Thermograph record November 1959 to November 1960.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	48	43	43	44	48	50	55	64	70	69	66
	Max.-Min.	- -	50 45	47 38	48 37	48 41	55 42	59 45	64 48	72 56	77 60	76 62	72 59
1961	Mean	58	50	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	66 52	58 47	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1960-61	Mean	58	49	43	43	44	48	50	55	64	70	69	66
	Max.-Min.	66 52	58 45	47 38	48 37	48 41	55 42	59 45	64 48	72 56	77 60	76 62	72 59

375-Illinois River at Kerby (14-3770.)

Location.--Lat 42°11'50", long 123°39'30", in NW¼ sec.9, T.39 S., R.8 W., on upstream side of Finch Bridge, 0.5 mile west of Kerby, and at mile 53.4.

Drainage area.--364 sq mi.

Water-temperature records available.--72 spot observations September 1950 to September 1961. No observations were made October 1958 to September 1959.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	57	48	44	42	44	44	51	53	61	73	70	67
	Max.-Min.	65 49	53 43	47 40	45 40	48 40	47 40	55 46	61 41	72 50	77 71	74 68	73 57
†Adjusted	Mean	58	51	44	44	46	46	52	54	60	69	70	67
	Max.-Min.	70 46	68 37	57 33	57 35	55 35	52 33	61 44	69 41	74 46	83 52	80 61	78 56

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

376-Deer Creek near Dryden (14-3775.)

Location.--Lat 42°15'50", long 123°27'00", near center of sec.18, T.38 S., R.6 W., on left bank 500 ft downstream from confluence of North and South Forks, 5 miles east of Dryden, and at mile 14.

Drainage area.--22.0 sq mi.

Water-temperature records available.--66 spot observations October 1947 to October 1956.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	52	46	43	41	41	42	45	49	55	58	63	59
	Max.-Min.	55 48	50 42	48 37	44 38	44 38	44 40	47 42	52 46	60 50	62 54	68 59	61 58
†Adjusted	Mean	54	45	43	43	44	44	47	50	55	61	62	60
	Max.-Min.	65 45	64 37	53 33	53 35	52 34	49 33	55 41	62 42	65 45	73 47	70 55	69 51

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

377-Illinois River above Rancherie Creek, near Selma

Location.--Lat 42°16'50", long 123°46'30", in SW¼SW¼ sec.33, T.37 S., R.9 W., 0.1 mile downstream from Fall Creek, 0.2 mile upstream from Rancherie Creek, 8.3 miles west northwest of Selma, and at mile 39.3.

Water-temperature records available.--Thermograph record October 1959 to November 1960.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	58	47	42	44	42	42	50	55	66	75	71	66
	Max.-Min.	63 50	54 43	46 38	48 37	49 37	48 36	56 40	62 48	74 55	83 68	79 63	71 60
1961	Mean	57	49	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	65 51	55 47	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
1960-61	Mean	58	48	42	44	42	42	50	55	66	75	71	66
	Max.-Min.	65 50	55 43	46 38	48 37	49 37	48 36	56 40	62 48	74 55	83 68	79 63	71 60

378-Illinois River near Selma (14-3780.)

Location.--Lat 42°22'45", long 123°48'40", in SW¼ sec.6, T.37 S., R.9 W., on right bank 200 ft upstream from Panther Creek, 0.3 mile downstream from Briggs Creek, 12 miles northwest of Selma, and at mile 32.

Drainage area.--665 sq mi, includes that of Panther Creek.

Water-temperature records available.--Thermograph record for September 1961 to September 1962 and 33 spot observations September 1956 to September 1962. From January 1958 to April 1960 only three observations were made.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1961	Mean	-	-	-	-	-	-	-	-	-	-	-	64
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	71 56
1962	Mean	56	49	48	a44	-	-	a53	54	64	70	70	66
	Max.-Min.	61 51	53 44	49 44	a48 a40	- -	- -	a56 a50	61 50	71 55	76 64	73 66	72 61
1961-62	Mean	56	49	48	a44	-	-	a53	54	64	70	70	65
	Max.-Min.	61 51	53 44	49 44	a48 a40	- -	- -	a56 a50	61 50	71 55	76 64	73 66	72 56

a Computed on basis of available record and correlation with thermograph record for Rogue River near Agness.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Observed	Mean	50	45	45	43	43	43	53	45	64	74	72	67
	Max.-Min.	56 40	45 45	49 42	47 36	47 40	47 39	53 53	49 41	70 59	76 73	74 68	70 63
† Adjusted	Mean	55	49	46	44	44	46	51	53	60	68	68	64
	Max.-Min.	67 40	65 35	59 35	57 35	53 33	51 33	60 44	68 41	75 48	83 51	77 59	75 53

† Adjusted figures based on correlation with thermograph record for Breitenbush River above Canyon Creek, near Detroit.

379-Illinois River near Agness

Location.--Lat 42°31'45", long 124°03'00", in SE¼ sec.19, T.35 S., R.11 W., 0.6 mile upstream from Fox Creek, 0.7 mile downstream from U. S. Geological Survey gaging station, 2.1 miles southeast of Agness, and 2.4 miles upstream from mouth.

Drainage area.--988 sq mi, at U. S. Geological Survey cable section 1.4 miles downstream.

Water-temperature records available.--Thermograph record November 1959 to October 1960.

Remarks.--Record furnished by U. S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	48	44	45	46	48	50	53	67	72	68	64
	Max.-Min.	- -	52 44	50 40	50 37	50 40	54 40	55 46	64 46	74 61	78 66	76 60	68 58
1961	Mean	54	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	65 50	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

380-Rogue River near Gold Beach

Location.--Lat 42°30'15", long 124°17'25", in SE¼NW¼ sec.31, T.35 S., R.13 W., just upstream from Lobster Creek, 2.0 miles upstream from Libby Creek, 8.8 miles northeast of Gold Beach, and at mile 11.2.

Water-temperature records available.--Thermograph record March to October 1960.

Remarks.--Thermograph record furnished by U.S. Fish and Wildlife Service.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1960	Mean	-	-	-	-	-	44	43	50	65	72	70	64
	Max.-Min.	- -	- -	- -	- -	- -	49 36	47 39	61 44	72 59	78 68	76 62	68 62
1961	Mean	55	-	-	-	-	-	-	-	-	-	-	-
	Max.-Min.	62 51	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

CHETCO RIVER BASIN

381-Chetco River near Brookings

Location.--Lat 42°03'55", long 124°13'15", in SW¼SW¼ sec.35, T.40 S., R.13 W., 0.1 mile upstream from Jack Creek, 3.0 miles east of Brookings, and at mile 4.4.

Water-temperature records available.--Thermograph record August, September 1962.

Remarks.--Record furnished by Oregon State Game Commission.

Water temperature (°F)

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1962	Mean	--	-	-	-	-	-	-	-	-	-	66	63
	Max.-Min.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	73 62	69 58