UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STREAMFLOW STATISTICS AND DRAINAGE-BASIN CHARACTERISTICS
FOR THE SOUTHWESTERN AND EASTERN REGIONS, WASHINGTON
Volume I. Southwestern Washington

By J. R. Williams and H. E. Pearson

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METRIC (SI) CONVERSION FACTORS

<u>Multiply</u>	<u>By</u>	<u>To obtain</u>
inches (in.)	25.4	millimeters (mm)
feet (ft)	0.3048	meters (m)
miles (mi)	1.609	kilometers (km)
square miles (mi ²)	2.590	square kilometers (km ²)
cubic feet per second (ft ³ /s)	0.02832	cubic meters per second (m ³ /s)
	28.32	liters per second (L/s)

Temperature

To convert degree Fahrenheit (°F) to degree Celsius (°C):
 $^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32)$

National Geodetic Vertical Datum of 1929 (NGVD of 1929): A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "mean sea level." NGVD of 1929 is referred to as sea level in this report.

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ABSTRACT

This report presents streamflow data and drainage-basin characteristics for 168 sites in southwestern Washington—the area draining to the Pacific Ocean from Cape Flattery to the mouth of the Columbia River and draining to the lower Columbia River from its mouth upstream through the Little White Salmon River basin. All gaging stations with 5 or more years of record (through 1979) are included. The data include monthly and annual mean discharges and their statistics, low-flow and high-flow analyses, flow duration, and flood frequency.

INTRODUCTION

This report presents a summary of historic streamflow records for specific areas of the State. Volumes I and II cover southwestern and eastern Washington.

Because there are 494 specific sites in these two areas at which 5 years or more of data have been collected, even a summary of the data would make a bulky report. Therefore, the report has been divided into two volumes. Volume I, containing data for 168 sites in southwestern Washington, includes the area draining to the Pacific Ocean from Cape Flattery to the mouth of the Columbia River, as well as the drainage of the lower Columbia River from its mouth upstream through the Little White Salmon River basin (see fig. 1). Volume II, containing data for 326 sites in eastern Washington includes all drainage area in the State east of the Cascade Mountains and as far downstream on the Columbia River as the White Salmon River basin.

This report was prepared as part of a cooperative program with the State of Washington Department of Ecology, under the general supervision of Charles R. Collier, former District Chief.

A similar report (U.S. Geological Survey Open-File Report 84-144A and B) presents streamflow data for the remainder of the State—Puget Sound and the Strait of Juan de Fuca drainages.

FIGURE 1.--Map showing areas in Washington State for which open-file reports containing streamflow statistics and drainage-basin characteristics are available. Shaded area is covered in this report.

PART A

General Explanation of Data

When the U.S. Geological Survey (USGS) operates a recording gaging station on a stream, it publishes daily mean discharges in its annual State Water-Data Reports. Although these daily discharges are not repeated in this report, they are the basis for most of the data in this report. The summary tables of monthly and annual mean discharges, as well as the tables of highest and lowest mean flows, were obtained from the daily mean figures at each site.

Annual instantaneous peak flows are also included in this report. These values were obtained at regular recording gaging stations and also at some special sites and partial-record stations where these data are the only data available. The annual peak-flow data were used to compute estimates of the magnitude and frequency of floods on the streams.

This report also contains drainage-basin and climatic characteristics for each site, either obtained from U.S. Weather Bureau data or computed from standard USGS topographic quadrangle maps. A more detailed explanation of the methods used to compute the various characteristics is given in the next section of this report.

Most of the water resources data collected by the U.S. Geological Survey is stored in several computer files maintained at the central computer facilities in Reston, Virginia. As a part of the Survey's program of releasing water data to the public, a large-scale computerized system for WATER data STORAGE and RETRIEVAL (WATSTORE-1975) has been developed. Much of the data presented in this report was retrieved from four WATSTORE computer files—the station header file, the daily values file, the peak flow file, and the streamflow and basin characteristics file. The station header file was used to list the gaging-station name and standard USGS downstream order number for each site, along with the location by county and latitude and longitude, as shown in table 1. The other three files were used to make retrievals from which the streamflow-summary tables, peak-flow tables, and basin-characteristics tables were made.

Only data for gaging stations having 5 or more years of record are included in this report. For those stations having 5 to 9 years of record, only listings of the monthly and annual mean flows and annual peak flows are presented. For stations with 10 or more years of record, additional statistics are presented.

The data for sites with less than 5 years of continuous record can be obtained by consulting either the annual USGS State Water-Data Reports or Washington State Department of Conservation Water-Supply Bulletin No. 23 (1964), or by contacting the USGS office in Tacoma.

The first column of table 2 (the table of basin characteristics) lists the gaging station numbers, which follow the standard U.S. Geological Survey method for numbering surface-water stations that has been used since 1950. Each station has an 8-digit number, such as 12043100, which includes a 2-digit part number ("12") plus a 6-digit downstream order number ("043100"). All gaging-station numbers for streams draining directly into the Pacific Ocean begin with the part number "12"; those for streams draining into the lower Columbia River begin with the part number "14." The downstream order numbers increase in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. No distinction is made between station numbers for recording gaging stations and partial-record stations.

For other supplemental information about a site, such as the period of record, a narrative-type location, or notes concerning diversion and regulation, the user is referred to the annual USGS State Water-Data Reports for the years when that station was in operation.

Table 1 lists the page on which the data for each of the 133 sites can be found. The gaging stations are ordered by station number—the standard downstream order number used by the Geological Survey (an explanation of the numbering system was previously given in the description of table 2).

The gaging-station name is the name used in the header file. It agrees with the name under which the data have been published most recently by the USGS.

Following the station name, a county code and the latitude and longitude are given for each site. The county codes are those used by the Geological Survey's WATSTORE programs as defined by Federal Information Processing Standards (FIPS) and are the ones used by all Federal agencies. The codes for the counties or parts of counties in southwestern Washington as defined in this report are as follows:

Clallam	009	Klickitat	039	Skamania	059
Clark	011	Lewis	041	Thurston	067
Cowlitz	015	Mason	045	Wahkiakum	069
Grays Harbor	027	Pacific	049	Yakima	077
Jefferson	031				

Table 1 also lists a map-site number for each station for which data are included in this report. Station locations and site numbers are plotted on plate 1, in the pocket at the end of the report. The numbers increase in the same order that the sites are presented in the report, that is, beginning with site number 1 on the White Salmon River on the lower Columbia River and ending with site number 168 near the northwest corner of the Olympic Peninsula.

The users of the statistical data found in this report should be aware of the possibility of significant regulation or diversion of the flows at the sites. For stations with two or more levels of regulation, separate tabulations and statistical summaries are given for each homogeneous segment of the record. It should be remembered that statistics of regulated record segments include both natural hydrological fluctuations and the manmade operating policies at the regulating structure. Because the operating policies are subject to changes in our society and our economic needs (the price of hydropower, especially), the streamflow statistics of regulated records, although descriptive of the part, may be unrepresentative of the future. Regulated records should, therefore, be carefully considered when using monthly and annual mean flows, high and low mean flows, and annual peak flows. One can determine the years of record that were regulated at all sites in this report by observing which years of annual peak flows are coded with an R.

Drainage Basin and Climatic Characteristics

There are times when analytical studies require the use of various streamflow and drainage basin characteristics. As a part of the WATSTORE system, the Geological Survey has created a computer file in which about 200 characteristics for any particular site may be stored, including some physical characteristics for the specific sites themselves, but also include characteristics for the drainage basin above the sites. These characteristics were computed in accordance with the National Handbook of Recommended Methods for Water-Data Acquisition.

Many streamflow characteristics in the file are computed from statistical analyses of the gaging station records. These are shown in the summary tables presented in part B of this report. Eleven basin characteristics were selected for retrieval for each site and are presented in table 2. A brief description of each of the 11 characteristics is given below.

AREA - The total drainage area above the stream-gaging site, in square miles, including non-contributing area.

SLOPE - The main channel slope, in feet per mile. It was computed by first extending the main stream upstream to the basin divide and then locating on the stream a point that was 10 percent of the distance from the gage to the divide and another point on the stream that was 85 percent of the distance from the gage to the divide. The slope between those points was then computed by dividing the difference in elevation between the points by the distance between the points.

LENGTH - The stream length, in miles, measured along the channel from the gage to the basin divide.

ELEVATION - The mean basin elevation, in feet above mean sea level. It was computed from topographic maps by using a grid-sampling method. A grid size was selected that had between 20 and 80 points inside the drainage-area boundary. The elevation of each grid point was then determined, and the mean of the points was considered to be the mean basin elevation.

STORAGE - The percentage of the contributing drainage area that is made up of lakes, ponds, and swamps, as measured by the grid-sampling method.

LAKE AREA - The area of lakes and ponds, as a percentage of contributing drainage area, measured by the grid-sampling method. It differs from STORAGE only in that it does not include swamp area.

FOREST - The area covered by trees, as a percentage of the contributing drainage area. It is measured by the grid-sampling method and is based on the color code and map symbols on standard U.S. Geological Survey topographic maps.

PRECIP. - The mean annual precipitation in the basin, in inches, taken from U.S. Weather Bureau series, "Climates of the States—Washington." Grid-sampling method is used with an isohyetal map.

I 24,2 - The precipitation intensity within the basin. It is the 24-hour rainfall, in inches, that can be expected on the average once every 2 years. It is estimated from U.S. Weather Bureau Technical Paper 40.

SNOFALL - The mean annual snowfall for the basin, in inches, taken from U.S. Weather Bureau series, "Climates of the States—Washington."

JANMIN - The mean minimum January temperature for the basin, in degrees Fahrenheit, taken from U.S. Weather Bureau series, "Climates of the States—Washington."

Monthly and Annual Mean Discharges

The monthly and annual mean discharge tables (part B of this report) are based on data from the daily-values file in the WATSTORE system and are listed on a water-year basis. A water year begins on October 1st of a year and ends on September 30th of the next year—for example, the 1979 water year began on October 1, 1978, and ended on September 30, 1979.

Monthly and annual mean discharges are listed for each station for its period of record. (These, together with annual peak flows, are the only data presented for stations with 5 to 9 years of record.) The values are arithmetic means of individual daily mean discharges.

For stations having 10 or more years of monthly mean discharge data, results of additional statistical analyses are given. The statistics, computed from the monthly and annual mean discharges, are the mean, maximum, minimum, standard deviation, coefficient of skewness, coefficient of variation, percentage of the average discharge, and the statistics of the logarithms of these flows. Note that due to the method of rounding off the numbers, the sum of the monthly percentage of the average discharges does not always equal the 100.0 shown under the "Annual" column.

Also listed are monthly and annual mean discharge exceedence probabilities based on log-Pearson Type III analyses. The magnitudes of the monthly and annual mean discharges for each year are assumed to be independent random variables that follow the log-Pearson Type III probability distribution; that is, the logarithms of the discharges follow a Pearson Type III distribution. This distribution defines the probability that any single monthly mean flow will exceed a specified discharge. For example, a monthly mean flow with a probability of 0.04 would be expected to be exceeded 4 times in 100 years on the average, and the chance of its being exceeded in any one year is 4 percent. This should not be construed to indicate that a monthly mean flow of that magnitude would occur on a regular basis. It is quite possible that the given flow could be exceeded several times within a few years, and then not be exceeded again for many years.

Highest Mean Flows and Annual Peak Flows

The highest mean flow table (Part B) lists the highest n-day mean flow for nine selected periods of n-consecutive days for each year of record that has no missing values. These values are listed only for those stations that have 10 years or more of record. Statistics computed from these flows are also shown. These statistics are the mean, maximum, minimum, standard deviation, skewness, standard error of skewness, serial correlation coefficient, coefficient of variation, and the statistics of the logarithms of the flows.

The date and magnitude of annual peak flows are listed. When a peak is considered to be affected significantly by upstream regulation, it is coded with an R. Uncoded peaks may be assumed to be natural flow or not significantly affected by regulation. The user of these data should be aware that some stations have had varying degrees of regulation with time, such as construction of several dams upstream from a station. In such cases, the user would probably want to investigate the effect of changes in regulation on an individual station basis.

For some stations, 10 years or more of record have been gathered both before and after significant regulation on the stream. In those cases, the statistics have been computed using the unregulated or natural flow first, and then using the regulated years only. A comparison of the two sets of statistics gives a good measure of the effect of regulation. The years of the historical data that were used in each statistical computation are shown in parentheses; the user must be aware of the possibility of significant regulation during those years.

For some stations, annual peaks were obtained for several years after the station was discontinued as a recording streamflow station. Therefore, the statistics for the high mean flow and low mean flow were based on a different span of years than were those of the annual peak flow statistics. The total span of years for the annual peak flow statistics is shown in parentheses, but only those years for which daily flows are available were used for computing the high and low flow statistics.

For all stations with 10 or more years of data, flow exceedence probabilities based on log-Pearson Type III analyses are listed both for the highest mean flows for the various consecutive days and for the annual peak flows. This listing states the probability that in any year the flow will equal or exceed a specified discharge. For example, a flow with an exceedence probability of 0.04 would be expected to be exceeded 4 times in 100 years on the average. However, this should not be construed to indicate that flows of those magnitudes would occur on a regular basis.

Because the term "recurrence interval" is a more familiar term to many people than "exceedence probability", it is appropriate to explain their relationship. An annual peak flow with an exceedence probability of 0.10 is expected to occur or be exceeded 10 times in 100 years on the average, or it can be said to have a 10-percent chance of being equaled or exceeded in any year on the average. This same peak flow can be said to have a recurrence interval of 10 years since it can be expected to occur once in 10 years on the average. It should be noted, however, that recurrence intervals cannot be thought of as indicating that floods occur on a regular schedule and cannot be used to predict the timing of floods. This is avoided by stating that the flow for a flood with a 10-year recurrence interval has, instead, an exceedence probability of 0.10. A table of exceedence probabilities and their corresponding recurrence intervals follows.

Exceedence probability	Recurrence interval (years)
0.99	1.01
.95	1.05
.90	1.11
.80	1.25
.50	2
.20	5
.10	10
.05	20
.04	25
.02	50
.01	100

For the annual peak-flow data, two sets of values are given for both the statistics and the exceedence probabilities— "Systematic Record" and "WRC Estimate." Both sets of values were computed by using the "log-Pearson Type III" distribution method, as recommended by the Water Resources Council (1976). The two sets of values may differ because the mean of the logarithms of discharges and the skew coefficient used in the computations may differ depending on the length of record available. The skew coefficient used for the "Systematic Record" set of values was computed directly from the peak-flow data for that station. The skew coefficient used in the "WRC Estimate" set of values has been determined by the Water Resources Council by using a generalized skew coefficient for the area and certain guidelines for its application.

The skew coefficient for a station with a short-term record is greatly affected by extremely high or low values. The effect can be overcome somewhat by using the skew-coefficient-weighting formula specified in the WRC guidelines. That formula gives more weight to the generalized skew coefficient when the station record is short-term and more weight to the calculated station skew coefficient when the record is long. For stations having less than 25 years of record, the generalized skew coefficient is used, and for stations having more than 75 years of record, the systematic-record skew coefficient is used; a weighted value is used between these limits.

At some sites, one or more peak discharges are known to be the highest in a period that is longer than the period of gaging-station record. At such sites, the "WRC Estimate" takes this into account by making an historic adjustment. The mean of the logarithms after the adjustment differs from that used in the "Systematic Record" computation. The "WRC Estimate" of flood frequency, with its appropriate generalized skew coefficients and adjustments for outliers and historic peaks, is the one that should be adopted. The "Systematic Record" flood-frequency values are an intermediate step and diagnostic check of the "WRC Estimate" and show what would have resulted had not a generalized skew been used or adjustments been made.

The user is reminded that the flood frequency discharges listed in this report for each station are the results of statistical analyses of the data collected at that station for the specified period of record and under the hydrologic condition of that time, and that the discharges necessarily will change as more records become available in the future and as hydrologic conditions change. There is no substitute for the personal judgment of an experienced hydrologist in analyzing flood-frequency data.

Lowest Mean Flows and Flow-Duration Data

The source of the lowest mean flow and flow-duration data is the daily mean discharge published for each gaging station. For most streams, minimum discharges usually occur during the period July-October. Because that period straddles the end of a water year (September 30), the lowest-mean-flow table is based on a climatic year, beginning April 1 and ending the following March 31.

For all gaging stations with 10 or more complete years of record, a lowest-mean-flow table is presented that lists the lowest n-day mean flow for nine selected periods of n-consecutive days for each year of record. Also included are the mean, maximum, minimum, standard deviation, skewness, standard error of skewness, serial correlation coefficient, coefficient of variation, and the statistics of the logarithms of the flows.

The probability of an n-day mean flow being equal to, or less than, a specified discharge was computed by using a log-Pearson Type III analysis. The probabilities and corresponding discharges are given in the "Lowest mean flow non-exceedence probabilities" table for each station. The n-day low mean discharge corresponding to a probability of 0.10 has a 10-percent chance of occurring in any given year and would occur on the average, over a long period of time, 10 times in 100 years. Such a mean discharge has a recurrence interval of 10 years. For example, the 7-day low mean flow corresponding to a probability of 0.10 for White Salmon River below Cascades Creek near Trout Lake is 64.6 ft³/s. On an average of once in 10 years, the low mean flow for 7 consecutive days will be equal to or less than 64.6 ft³/s. The recurrence interval should not be construed to indicate that flows of that magnitude would occur on a regular basis. The relationship between recurrence intervals and probabilities has been explained in the "Highest Mean Flows and Annual Peak Flows" section of this report.

Also included are the annual flow-duration data for all stations having 10 or more years of daily record. These data help indicate the availability of streamflow and are useful for investigating problems of water supply, power development, waste disposal, and administration of water rights. The flow-duration data list discharges that were equaled or exceeded for specified percentages of time for each station for its period of record. (Monthly flow-duration tables can also be useful, as they show a chronological sequence of flows, but they are beyond the scope of this report.)

There are many natural factors that influence the low-flow characteristics of streams, including precipitation within the basin, geographical position, elevation, and geology. A discussion of the influence of these factors on streams in southwestern Washington region can be found in Nassar (1973).

TABLE 1.--Numerical listing of stations

STATION NUMBER	STATION NAME	COUNTY	LAT- ITUDE	LONG- ITUDE	MAP SITE NUMBER	PAGE NUMBER
14121300	WHITE SALMON R BLW CASCADES CR NR TROUT L. WASH.	059	46 06 06	121 36 14	1	26
14121400	WHITE SALMON R AB TR LK CR NR TROUT LK. WASH.	039	46 01 50	121 31 50	2	29
14121500	TROUT LAKE CREEK NR TROUT LAKE. WASH.	039	46 00 20	121 32 20	3	31
14122000	WHITE SALMON RIVER NEAR TROUT LAKE. WASH.	039	45 59 30	121 29 30	4	34
14122500	WHITE SALMON R AT SPLASH DAM NR TROUT LK. WASH.	039	45 57 00	121 28 20	5	37
14122800	PHELPS C NR B-Z CORNER. WASH.	039	45 53 01	121 31 13	6	37
14122900	WHITE SALMON RIVER AT B-Z CORNER. WASH.	039	45 51 45	121 30 15	7	37
14123000	WHITE SALMON RIVER AT HUSUM. WASH.	039	45 47 50	121 29 00	8	38
14123500	WHITE SALMON R NR UNDERWOOD. WASH.	059	45 45 10	121 31 35	9	41
14124000	LITTLE WHITE SALMON R NR WILLARD. WASH.	059	45 48 00	121 38 30	10	46
14124500	LITTLE WHITE SALMON RIVER AT WILLARD. WASH.	059	45 46 50	121 37 30	11	47
14125000	LTL WHITE SALMON R ABV LAPHAM CR WILLARD. WASH.	059	45 46 00	121 37 40	12	50
14125200	ROCK CREEK NEAR WILLARD. WASH.	059	45 45 10	121 38 50	13	53
14125500	LITTLE WHITE SALMON RIVER NEAR COOK. WASH.	059	45 43 25	121 37 58	14	54
14126300	COLUMBIA RIVER TRIBUTARY AT HOME VALLEY. WASH.	059	45 42 50	121 46 40	15	57
14127000	WIND R AB TROUT CREEK NR CARSON. WASH.	059	45 48 31	121 54 27	16	58
14127200	LAYOUT CR NR CARSON. WASH.	059	45 49 01	122 02 50	17	61
14128000	PANTHER CREEK NEAR CARSON. WASH.	059	45 48 00	121 52 00	18	61
14128500	WIND RIVER NEAR CARSON. WASH.	059	45 43 37	121 47 37	19	62
14143200	CANYON CREEK NEAR WASHOUGAL. WASH.	059	45 35 45	122 11 30	20	67
14143500	WASHOUGAL RIVER NEAR WASHOUGAL. WASH.	011	45 37 30	122 16 55	21	68
14144000	LITTLE WASHOUGAL RIVER NEAR WASHOUGAL. WASH.	011	45 36 51	122 21 26	22	71
14144550	SHANGHAI CREEK NEAR HOCKINSON. WASH.	011	45 42 05	122 26 25	23	71
14144600	GROENEVELD CREEK NEAR CAMAS. WASH.	059	45 35 05	122 27 30	24	72
14211900	BURNTBIDGE CREEK AT VANCOUVER. WASH.	011	45 39 10	122 39 20	25	72
14212000	SALMON CREEK NEAR BATTLE GROUND. WASH.	011	45 46 26	122 26 40	26	73
14213200	LEWIS RIVER NEAR TROUT LAKE. WASH.	059	46 09 55	121 52 10	27	76
14213500	BIG CREEK BELOW SKOOKUM MDW NR TROUT LK. WASH.	059	46 05 36	121 51 50	28	79
14214000	HUSH CREEK AB MEADOW CREEK NR TROUT LAKE. WASH.	059	46 02 30	121 50 30	29	82
14214500	MEADOW CR BLW LONE BUTTE MDW NR TROUT LK. WASH.	059	46 02 50	121 51 20	30	85
14215000	HUSH CREEK ABOVE FALLS NEAR COUGAR. WASH.	059	46 03 12	121 54 40	31	88
14215500	CURLY CREEK NEAR COUGAR. WASH.	059	46 02 22	121 54 38	32	91
14216000	LEWIS RIVER AB MUDDY RIVER NR COUGAR. WASH.	059	46 03 38	121 59 00	33	94
14216500	MUDDY RIVER BLW CLEAR CREEK NEAR COUGAR. WASH.	059	46 06 50	122 00 24	34	97
14216800	PINE CREEK NEAR COUGAR. WASH.	059	46 05 30	122 02 27	35	100
14217500	SWIFT CREEK NEAR COUGAR. WASH.	059	46 03 50	122 11 30	36	103
14218000	LEWIS RIVER NEAR COUGAR. WASH.	059	46 03 30	122 12 40	37	106
14218300	DOG CREEK AT COUGAR. WASH.	015	46 02 40	122 18 30	38	109
14219000	CANYON CREEK NEAR AMBOY. WASH.	011	45 56 30	122 19 15	39	110
14219500	LEWIS RIVER NEAR AMBOY. WASH.	011	45 57 50	122 23 00	40	113

TABLE 1.--Continued

STATION NUMBER	STATION NAME	COUNTY	LAT- I- TUDE	LONG- I- TUOE	MAP SITE NUMBER	PAGE NUMBER
14219800	SPEELYAI CREEK NEAR COUGAR, WASH.	015	46 00 28	122 20 46	41	116
14220500	LEWIS RIVER AT ARIEL, WASH.	015	45 57 07	122 33 46	42	119
14221500	CEDAR CREEK NEAR ARIEL, WASH.	011	45 55 54	122 31 40	43	124
14222500	EAST FORK LEWIS RIVER NEAR HEISSON, WASH.	011	45 50 13	122 27 54	44	127
14222700	EAST FK LEWIS R TRIB NR WOODLAND, WASH.	015	45 51 29	122 42 15	45	133
14222930	FOSSIL CREEK NR COUGAR, WASH.	015	46 08 22	122 20 30	46	133
14222970	SPRING CREEK NEAR COUGAR, WASH.	015	46 06 37	122 21 23	47	133
14222980	KALAMA RIVER BELOW FALLS NEAR COUGAR, WASH.	015	46 06 25	122 21 33	48	133
14223000	KALAMA RIVER NEAR KALAMA, WASH.	015	46 01 02	122 43 52	49	134
14223500	KALAMA RIVER BELOW ITALIAN CR NEAR KALAMA, WASH.	015	46 02 10	122 51 20	50	137
14223800	COLUMBIA RIVER TRIBUTARY AT CARROLLS, WASH.	015	46 04 20	122 51 40	51	140
14224000	OHANAPECOSH RIVER NEAR LEWIS, WASH.	041	46 40 30	121 35 10	52	140
14224500	CLEAR FK COWLITZ RIVER NR PACKWOOD, WASH.	041	46 40 50	121 34 30	53	141
14225500	LAKE CREEK NEAR PACKWOOD, WASH.	041	46 35 47	121 34 08	54	144
14226000	LAKE CREEK AT MOUTH, NEAR PACKWOOD, WASH.	041	46 37 48	121 38 12	55	150
14226500	COWLITZ RIVER AT PACKWOOD, WASH.	041	46 36 47	121 40 41	56	154
14226800	SKATE CREEK TRIBUTARY NEAR PACKWOOD, WASH.	041	46 42 10	121 48 30	57	160
14226900	SKATE CREEK TRIB NO.2 NEAR PACKWOOD, WASH.	041	46 40 30	121 45 10	58	160
14230000	JOHNSON CREEK NEAR PACKWOOD, WASH.	041	46 34 30	121 42 00	59	161
14231100	MILLER C AT RANDLE, WASH.	041	46 32 10	121 57 20	60	164
14231700	CHAMBERS CR NR PACKWOOD, WASH.	041	46 24 55	121 32 45	61	164
14232000	NIGGERHEAD CREEK NEAR RANDLE, WASH.	041	46 25 45	121 50 00	62	164
14232500	CISPUS RIVER NEAR RANDLE, WASH.	041	46 26 30	121 51 46	63	165
14233200	QUARTZ CREEK NR KOSMOS, WASH.	059	46 21 50	122 03 15	64	170
14233400	COWLITZ RIVER NR RANDLE, WASH.	041	46 28 13	122 05 51	65	171
14233500	COWLITZ RIVER NEAR KOSMOS, WASH.	041	46 28 50	122 16 35	66	174
14235000	COWLITZ RIVER AT MOSSYROCK, WASH.	041	46 33 01	122 29 31	67	177
14235300	TILTON RIVER NEAR MINERAL, WASH.	041	46 39 40	122 11 55	68	180
14235500	WEST FORK TILTON RIVER NEAR MORTON, WASH.	041	46 36 40	122 14 36	69	181
14236200	TILTON R ABV BEAR CANYON CR NR CINEBAR, WASH.	041	46 35 44	122 27 30	70	184
14236400	CINNABAR CHEEK NEAR CINEBAR, WASH.	041	46 36 20	122 30 30	71	187
14236500	TILTON RIVER NEAR CINEBAR, WASH.	041	46 35 40	122 27 30	72	188
14237000	KLICKITAT CREEK AT MOSSYROCK, WASH.	041	46 31 15	122 28 07	73	191
14237500	WINSTON CREEK NEAR SILVER LAKE, WASH.	041	46 28 57	122 31 13	74	194
14238000	COWLITZ RIVER BELOW MAYFIELD DAM, WASH.	041	46 30 38	122 36 54	75	197
14239000	SALMON CREEK NEAR TOLEDO, WASH.	041	46 24 50	122 49 15	76	203
14239100	NORTH FORK LACAMAS CREEK NEAR ETHEL, WASH.	041	46 33 05	122 43 05	77	206
14239700	OLEQUA CHEEK TRIBUTARY NEAR WINLOCK, WASH.	041	46 27 50	122 57 25	78	206
14240450	ELK CR NR SPIRIT LAKE, WASH.	015	46 16 51	122 20 25	79	206
14241200	COLDSPRING CREEK NEAR COUGAR, WASH.	015	46 10 38	122 17 25	80	207

TABLE 1.--Continued

STATION NUMBER	STATION NAME	COUNTY	LAT- I- TUDE	LONG- I- TUDE	MAP SITE NUMBER	PAGE NUMBER
14241500	SOUTH FORK TOUTLE RIVER AT TOUTLE, WASH.	015	46 19 20	122 41 45	81	207
14242500	TOUTLE RIVER NEAR SILVER LAKE, WASH.	015	46 20 11	122 43 27	82	210
14242600	TOUTLE R TRIBUTARY NR CASTLE ROCK, WASH.	015	46 19 25	122 51 30	83	215
14243000	COWLITZ R AT CASTLE ROCK, WASH.	015	46 16 30	122 54 48	84	216
14243500	DELAHETER CREEK NEAR CASTLE ROCK, WASH.	015	46 15 49	122 57 58	85	225
14245000	COWEMAN RIVER NEAR KELSO, WASH.	015	46 08 57	122 53 45	86	228
14246000	ABERNATHY CR NR LONGVIEW, WASH.	015	46 12 10	123 09 15	87	231
14246500	MILL CR NR CATHLAMET, WASH.	015	46 11 40	123 11 25	88	231
14247500	ELOCHOMAN RIVER NEAR CATHLAMET, WASH.	069	46 13 17	123 20 20	89	232
14248100	RISK CREEK NEAR SKAMOKAWA, WASH.	069	46 15 05	123 23 50	90	235
14248200	JIM CROW CREEK NEAR GRAYS RIVER, WASH.	069	46 16 37	123 33 37	91	236
14249000	GRAYS RIVER ABV SOUTH FK NR GRAYS RIVER, WASH.	049	46 23 36	123 28 39	92	239
14249500	GRAYS R BLW SOUTH FK NR GRAYS RIVER, WASH.	049	46 23 30	123 28 35	93	242
14250500	WEST FORK GRAYS RIVER NEAR GRAYS RIVER, WASH.	049	46 23 07	123 33 30	94	243
12009500	BEAR BRANCH NEAR NASELLE, WASH.	049	46 19 48	123 54 37	95	246
12010000	NASELLE RIVER NEAR NASELLE, WASH.	049	46 22 27	123 44 32	96	249
12010500	SALMON CREEK NEAR NASELLE, WASH.	049	46 21 20	123 45 00	97	255
12010600	LANE CREEK NEAR NASELLE, WASH.	049	46 22 20	123 47 00	98	258
12010700	SOUTH FORK NASELLE RIVER NEAR NASELLE, WASH.	049	46 20 39	123 48 23	99	259
12010800	SOUTH NEMAH RIVER NEAR NASELLE, WASH.	049	46 26 27	123 51 38	100	262
12011000	NORTH NEMAH RIVER NEAR SOUTH BEND, WASH.	049	46 29 30	123 50 00	101	263
12011100	NORTH NEMAH R TRIBUTARY NR SOUTH BEND, WASH.	049	46 30 45	123 46 30	102	266
12011200	WILLIAMS CREEK NEAR SOUTH BEND, WASH.	049	46 31 49	123 51 39	103	267
12011500	WILLAPA RIVER AT LEBAM, WASH.	049	46 33 50	123 33 50	104	270
12012000	FORK CREEK NEAR LEBAM, WASH.	049	46 33 19	123 35 00	105	273
12012200	GREEN CREEK NEAR LEBAM, WASH.	049	46 35 15	123 35 30	106	276
12013500	WILLAPA RIVER NEAR WILLAPA, WASH.	049	46 39 00	123 39 10	107	277
12014500	SOUTH FORK WILLAPA RIVER NEAR RAYMOND, WASH.	049	46 37 42	123 42 12	108	280
12015100	CLEARWATER CREEK NEAR RAYMOND, WASH.	049	46 44 59	123 45 59	109	283
12015500	NORTH RIVER NEAR BROOKLYN, WASH.	049	46 46 55	123 28 50	110	286
12016700	JOE CREEK NEAR COSMOPOLIS, WASH.	027	46 50 19	123 43 05	111	289
12017000	NORTH RIVER NEAR RAYMOND, WASH.	027	46 48 27	123 50 58	112	290
12019600	WATER MILL CREEK NEAR PE ELL, WASH.	041	46 33 49	123 18 31	113	295
12020000	CHEHALIS RIVER NEAR DOTY, WASH.	041	46 37 03	123 16 35	114	296
12020500	ELK CREEK NEAR DOTY, WASH.	041	46 37 42	123 19 50	115	300
12020900	SOUTH FORK CHEHALIS RIVER NEAR ROISTFORT, WASH.	041	46 31 38	123 06 58	116	302
12021000	SOUTH FORK CHEHALIS R AT ROISTFORT, WASH.	041	46 32 45	123 07 55	117	305
12024000	SOUTH FORK NEWAUKUM RIVER NEAR ONALASKA, WASH.	041	46 34 34	122 40 58	118	308
12024500	NORTH FORK NEWAUKUM RIVER NEAR FOREST, WASH.	041	46 39 20	122 46 40	119	311
12025000	NEWAUKUM RIVER NR CHEHALIS, WASH.	041	46 37 13	122 56 38	120	312

TABLE 1.--Continued

STATION NUMBER	STATION NAME	COUNTY	LAT- ITUDE	LONG- ITUDE	MAP SITE NUMBER	PAGE NUMBER
12025300	SALZER CREEK NEAR CENTRALIA, WASH.	041	46 41 30	122 54 25	121	316
12025700	SKOOKUMCHUCK RIVER NEAR VAIL, WASH.	067	46 46 22	122 35 34	122	317
12026000	SKOOKUMCHUCK RIVER NEAR CENTRALIA, WASH.	067	46 47 15	122 42 45	123	320
12026150	SKOOKUMCHUCK R BLW BLOY RN CR N CENTRALIA, WASH.	067	46 47 25	122 44 03	124	324
12026300	SKOOKUMCHUCK R TRIBUTARY NEAR BUCODA, WASH.	067	46 47 40	122 53 45	125	327
12026400	SKOOKUMCHUCK RIVER NEAR BUCODA, WASH.	067	46 46 20	122 55 23	126	328
12027000	LINCOLN CREEK NEAR ROCHESTER, WASH.	027	46 44 10	123 10 40	127	331
12027500	CHEHALIS RIVER NEAR GRAND MOUND, WASH.	067	46 46 34	123 02 04	128	332
12029000	BLACK RIVER AT LITTLE ROCK, WASH.	067	46 54 10	123 01 20	129	338
12030000	ROCK CREEK AT CEDARVILLE, WASH.	027	46 52 05	123 18 25	130	339
12030900	PORTER CREEK AT PORTER, WASH.	027	46 57 00	123 17 30	131	342
12031000	CHEHALIS RIVER AT PORTER, WASH.	027	46 56 17	123 18 45	132	343
12031890	EAST FORK WILDCAT CREEK AT MCCLEARY, WASH.	027	47 03 51	123 15 57	133	346
12032500	CLOQUALLUM RIVER AT ELMA, WASH.	027	47 00 17	123 23 11	134	347
12033000	CHEHALIS RIVER AT SOUTH ELMA, WASH.	027	46 49 00	123 24 40	135	350
12034200	EAST FORK SATSOP RIVER NEAR ELMA, WASH.	045	47 07 40	123 25 00	136	351
12034700	WEST FORK SATSOP RIV TRIBUTARY NR MATLOCK, WASH.	027	47 18 50	123 35 25	137	354
12035000	SATSOP RIVER NEAR SATSOP, WASH.	027	47 00 07	123 29 37	138	355
12035400	WYNOOCHEE RIVER NEAR GRISDALE, WASH.	027	47 23 05	123 36 20	139	361
12035450	BIG CREEK NEAR GRISDALE, WASH.	027	47 22 28	123 38 08	140	362
12035500	WYNOOCHEE RIVER AT OXBOW, NR ABERDEEN, WASH.	027	47 20 00	123 39 00	141	363
12036000	WYNOOCHEE RIVER ABV SAVE CR NR ABERDEEN, WASH.	027	47 18 00	123 39 05	142	366
12036500	WYNOOCHEE RIVER NEAR MONTESANO, WASH.	027	47 10 45	123 37 30	143	371
12036650	ANDERSON CREEK NEAR MONTESANO, WASH.	027	47 07 02	123 39 17	144	371
12037400	WYNOOCHEE RIV ABV BLACK CR NR MONTESANO, WASH.	027	47 00 42	123 39 35	145	372
12037500	WYNOOCHEE RIV BLW BLACK CR NR MONTESANO, WASH.	027	47 00 35	123 39 00	146	375
12038750	GIBSON CREEK NEAR QUINAULT, WASH.	027	47 28 30	123 41 50	147	376
12039000	HUMPTULIPS RIVER NEAR HUMPTULIPS, WASH.	027	47 13 42	123 56 23	148	377
12039050	BIG CREEK NEAR HOQUIAM, WASH.	027	47 08 40	123 53 10	149	381
12039100	BIG CREEK TRIBUTARY NEAR HOQUIAM, WASH.	027	47 08 55	123 53 10	150	381
12039220	MOCLIPS RIVER AT MOCLIPS, WASH.	027	47 14 32	124 11 27	151	382
12039300	NORTH FORK QUINAULT R NEAR AMANOA PARK, WASH.	031	47 35 46	123 37 23	152	383
12039400	HIGLEY CREEK NEAR AMANOA PARK, WASH.	027	47 20 55	123 53 45	153	386
12039500	QUINAULT RIVER AT QUINAULT LAKE, WASH.	027	47 27 28	123 53 17	154	387
12039520	RAFT RIVER BLW RAINY CR NEAR QUEETS, WASH.	027	47 27 17	124 18 58	155	393
12040000	CLEARWATER RIVER NR CLEARWATER, WASH.	031	47 35 00	124 17 40	156	394
12040500	QUEETS RIVER NEAR CLEARWATER, WASH.	031	47 32 20	124 18 50	157	397
12041000	HOM RIVER NEAR FORKS, WASH.	031	47 48 25	124 15 00	158	401
12041200	HOM RIVER AT U.S. HIGHWAY 101 NEAR FORKS, WASH.	031	47 48 25	124 14 59	159	405
12041500	SOLEDUCK RIVER NEAR FAIRHOLM, WASH.	009	48 02 40	123 57 28	160	408
12041600	SOLEDUCK RIVER TRIBUTARY NEAR FAIRHOLM, WASH.	009	48 02 45	123 57 35	161	413
12042000	SOLEDUCK R NEAR BEAVER, WASH.	009	48 04 00	124 05 50	162	413
12042700	MAY CREEK NEAR FORKS, WASH.	009	47 52 55	124 21 00	163	414
12042900	GRADER CREEK NEAR FORKS, WASH.	009	47 55 40	124 24 25	164	415
12042920	SITCUM RIVER TRIBUTARY NEAR FORKS, WASH.	009	47 57 19	124 12 11	165	415
12043000	CALAWAH R NR FORKS, WASH.	009	47 57 37	124 23 30	166	415
12043080	EAST FORK DICKEY RIVER NEAR LA PUSH, WASH.	009	47 59 10	124 32 45	167	416
12043100	DICKEY R NR LA PUSH, WASH.	009	47 57 55	124 32 50	168	417

TABLE 2.--Drainage-basin and climatic characteristics at sites

STATION NUMBER	AREA (SQ-MI)	SLOPE (FT/MI)	LENGTH (MI)	ELEV (FT)	STORAGE (%)	LAKEAREA (%)	FOREST (%)	PRECIP (IN)	I24+2 (IN)	SNOFALL (IN)	JANMIN (FAHR)
12009500	11.70	58	8.5	545	0.00	--	96.0	87.0	4.0	--	30.0
12010000	54.80	42	20.5	910	0.00	0.00	77.0	109.0	4.0	15	30.0
12010500	16.40	43	15.5	480	0.00	0.00	93.0	99.0	4.0	15	31.0
12010600	2.15	435	3.7	750	0.00	0.00	90.0	110.0	4.0	9	31.0
12010700	17.90	28	5.8	385	0.00	--	99.0	92.0	4.0	--	30.0
12010800	1.99	564	2.3	555	0.00	--	100.0	105.0	4.5	--	30.0
12011000	18.00	52	8.0	689	0.00	0.00	97.0	110.0	4.0	8	31.0
12011100	0.46	107	1.1	250	0.00	0.00	95.0	120.0	4.0	6	33.0
12011200	9.43	101	7.5	740	0.00	--	97.0	100.0	4.0	--	30.0
12011500	41.40	95	11.6	754	0.00	0.00	79.0	84.0	4.0	40	30.0
12012000	20.40	113	9.3	1110	0.00	--	92.0	100.0	4.0	--	30.0
12012200	1.79	117	2.5	340	0.00	0.00	85.0	79.0	4.0	18	30.0
12013500	130.00	16	27.3	641	0.00	0.00	84.0	87.0	4.0	30	30.0

(continued)

TABLE 2.--Continued

STATION NUMBER	AREA (SQ-MI)	SLOPE (FT/MI)	LENGTH (MI)	ELEV (FT)	STORAGE (%)	LAKEAREA (%)	FOREST (%)	PRECIP (IN)	I24+2 (IN)	SNOFALL (IN)	JANMIN (FAHR)
12014500	27.80	45	12.4	585	0.00	0.00	88.0	100.0	4.0	8	30.0
12015100	3.98	206	3.1	665	0.00	--	100.0	90.0	3.5	--	30.0
12015500	29.80	38	10.1	660	0.00	0.00	99.0	72.0	4.0	7	30.0
12016700	2.05	213	2.0	460	0.00	0.00	95.0	102.0	4.0	3	31.0
12017000	219.00	5	57.5	250	0.00	0.00	93.0	84.0	3.5	6	30.0
12019600	1.98	85	2.6	680	0.00	0.00	95.0	76.0	4.0	45	32.0
12020000	113.00	44	26.0	1000	0.00	0.00	90.0	91.0	4.0	55	32.0
12020500	46.70	17	13.4	810	0.00	0.00	95.0	80.0	4.0	30	30.0
12020900	44.90	31	20.5	925	0.00	--	88.0	80.0	3.0	--	30.0
12021000	48.00	29	2.4	830	0.00	0.00	82.0	80.0	3.5	40	32.0
12024000	42.40	118	14.9	1280	2.00	2.00	91.0	69.0	3.0	15	29.0
12024500	31.50	83	13.4	1220	0.00	--	91.0	62.0	3.0	--	30.0
12025000	155.00	35	33.6	900	1.00	1.00	90.0	57.0	3.0	9	30.0
12025300	12.60	32	7.6	430	0.00	--	90.0	45.0	2.5	--	30.0
12025700	40.00	123	11.2	1620	0.00	--	95.0	65.0	3.0	--	30.0
12026000	61.70	90	18.1	1700	0.00	0.00	89.0	68.0	3.0	20	29.0
12026150	65.90	--	--	--	--	--	--	64.0	--	--	30.0
12026300	0.58	217	1.2	420	0.00	--	95.0	46.0	3.0	--	33.0
12026400	112.00	--	--	--	--	--	--	61.0	--	--	--
12027000	19.30	--	--	--	--	--	--	52.0	--	--	--
12027500	895.00	13	67.9	800	3.00	3.00	80.0	63.0	3.0	25	32.0
12029000	63.70	--	--	--	--	--	--	53.0	--	--	--
12030000	24.80	68	10.0	525	0.00	0.00	98.0	62.0	3.0	5	31.0
12030900	35.30	--	--	--	--	--	--	64.0	--	--	31.0
12031000	1294.00	8	9.4	700	0.11	0.11	78.0	60.0	3.0	20	32.0
12031890	4.45	--	--	--	--	--	--	--	--	--	--

TABLE 2.--Continued

STATION NUMBER	AREA (SQ-MI)	SLOPE (FT/MI)	LENGTH (MI)	ELEV (FT)	STORAGE (%)	LAKEAREA (%)	FOREST (%)	PRECIP (IN)	I24+2 (IN)	SNOWFALL (IN)	JANMIN (FAHR)
12032500	64.90	21	19.8	410	0.62	0.62	89.0	72.0	3.5	10	32.0
12033000	1417.00	--	--	--	--	--	--	97.0	--	--	30.0
12034200	65.90	13	14.4	650	0.76	0.76	99.0	98.0	4.0	65	30.0
12034700	0.33	1720	1.1	1600	0.00	0.00	90.0	135.0	5.5	75	28.0
12035000	299.00	14	28.0	500	0.24	0.24	93.0	128.0	5.0	80	29.0
12035400	41.30	127	14.4	2300	1.00	--	95.0	195.0	7.5	--	27.0
12035450	9.57	--	--	--	--	--	--	--	--	--	--
12035500	70.70	64	22.7	2000	4.00	4.00	89.0	201.0	5.5	110	27.0
12036000	74.10	58	25.3	1950	4.00	4.00	86.0	199.0	5.5	105	27.0
12036500	112.00	--	--	--	--	--	--	155.0	--	--	28.0
12036650	2.72	--	--	--	--	--	--	--	--	--	--
12037400	155.00	17	60.8	1710	3.00	--	90.0	150.0	5.5	--	28.0
12037500	180.00	--	--	--	--	--	--	148.0	--	--	28.0
12038750	1.16	1556	1.9	2450	0.00	--	100.0	180.0	8.0	--	28.0
12039000	130.00	23	36.0	1000	1.00	1.00	97.0	155.0	5.5	25	28.0
12039050	0.56	147	0.9	310	0.00	0.00	95.0	110.0	4.5	15	31.0
12039100	0.15	127	0.9	290	0.00	0.00	90.0	110.0	4.5	15	31.0
12039220	35.00	--	--	--	--	--	--	120.0	--	--	31.0
12039300	74.10	238	12.6	3410	3.00	8.00	98.0	200.0	8.0	--	24.0
12039400	0.77	1140	1.9	1080	0.00	0.00	95.0	135.0	6.0	9	28.0
12039500	264.00	64	36.5	2700	2.08	5.49	92.0	186.0	6.5	140	26.0
12039520	76.00	--	--	--	--	--	--	130.0	--	--	28.0
12040000	140.00	30	34.9	1500	0.00	0.00	98.0	136.0	6.5	65	28.0
12040500	445.00	31	48.7	1700	0.00	0.00	89.0	152.0	6.5	140	28.0
12041000	208.00	91	34.4	3000	0.10	0.10	79.0	167.0	6.0	400	26.0
12041200	253.00	66	44.8	2440	0.17	--	85.0	160.0	6.0	--	27.0

TABLE 2.--Continued

STATION NUMBER	AREA (SQ-MI)	SLOPE (FT/MI)	LENGTH (MI)	ELEV (FT)	STORAGE (%)	LAKEAREA (%)	FOREST (%)	PRECIP (IN)	12+2 (IN)	SNOWFALL (IN)	JANMIN (FAHR)
12041500	83.80	147	16.9	2900	0.48	0.48	82.0	99.0	5.0	160	27.0
12041600	0.42	1250	1.1	1840	0.00	0.00	95.0	98.0	4.0	49	29.0
12042000	116.00	--	--	--	--	--	--	110.0	--	--	30.0
12042700	2.03	272	2.4	650	0.00	0.00	95.0	120.0	6.0	15	32.0
12042900	1.67	149	2.6	530	0.00	0.00	95.0	110.0	6.0	15	32.0
12042920	0.42	--	--	--	--	--	--	--	--	--	--
12043000	129.00	--	--	--	--	--	--	110.0	--	--	32.0
12043080	39.80	--	--	645	--	--	99.0	103.0	--	--	--
12043100	86.30	12	17.6	440	1.20	1.20	100.0	95.0	6.0	--	32.0
14121300	32.40	428	10.3	5190	0.00	0.00	77.0	106.0	2.8	300	22.0
14121400	64.90	262	16.8	4740	0.00	--	83.0	97.0	4.5	--	22.0
14121500	69.30	123	14.6	3450	0.50	0.58	92.0	82.0	3.2	200	23.0
14122000	185.00	195	21.7	3940	0.20	--	84.0	82.0	4.2	--	21.0
14122500	240.00	--	--	--	--	--	--	--	--	--	--
14122800	1.88	771	2.8	2380	0.00	--	92.0	58.0	3.2	--	22.0
14122900	269.00	--	--	--	--	--	--	--	--	--	--
14123000	294.00	101	39.5	3380	2.00	2.00	88.0	71.0	2.9	155	23.0
14123500	386.00	93	45.2	3220	0.26	0.26	86.0	66.0	2.9	130	23.0
14124000	39.20	--	--	--	--	--	--	--	--	--	--
14124500	114.00	135	21.3	2960	0.00	--	93.0	70.0	3.8	--	24.0
14125000	117.00	135	16.0	2910	0.00	--	93.0	70.0	3.8	--	24.0
14125200	4.10	412	4.4	1910	0.00	0.00	95.0	55.0	3.3	49	25.0
14125500	134.00	140	25.9	2770	2.00	--	92.0	70.0	3.5	--	24.0
14126300	0.54	590	1.4	710	0.00	0.00	80.0	70.0	3.5	49	25.0
14127000	108.00	103	20.0	2740	3.00	3.00	98.0	103.0	4.0	150	25.0
14127200	1.80	253	3.1	2270	0.00	--	98.0	116.0	5.0	--	30.0

TABLE 2.--Continued

STATION NUMBER	AREA (SQ-MI)	SLOPE (FT/MI)	LENGTH (MI)	ELEV (FT)	STORAGE (%)	LAKEAREA (%)	FOREST (%)	PRECIP (IN)	I24+2 (IN)	SNOWFALL (IN)	JANMIN (FAHR)
14128000	30.10	288	11.8	2560	0.00	--	95.0	90.0	4.3	--	24.0
14128500	225.00	62	29.6	2460	3.00	3.00	52.0	99.0	4.0	120	25.0
14143200	2.74	292	4.2	1310	0.00	0.00	80.0	75.0	4.0	25	29.0
14143500	108.00	57	23.9	1610	0.00	0.00	94.0	100.0	4.0	105	28.0
14144000	23.30	120	10.7	810	0.00	0.00	85.0	70.0	3.9	45	29.0
14144550	2.14	337	2.3	750	0.00	0.00	95.0	62.0	2.9	59	30.0
14144600	0.51	240	1.3	560	0.00	0.00	50.0	44.0	3.0	10	31.0
14211900	21.60	17	10.5	240	0.00	--	10.0	42.0	2.5	--	31.0
14212000	18.30	285	5.2	3010	0.00	0.00	93.0	73.0	3.5	75	29.0
14213200	127.00	227	25.4	3950	8.00	8.00	93.0	100.0	3.0	275	26.0
14213500	13.20	144	6.9	3950	0.15	0.15	93.0	106.0	3.5	225	23.0
14214000	5.87	303	5.2	4490	3.41	3.41	92.0	86.0	3.5	210	25.0
14214500	11.70	356	5.5	3980	0.17	0.17	96.0	88.0	3.5	210	25.0
14215000	26.00	294	8.8	4000	1.54	1.54	96.0	90.0	3.5	210	25.0
14215500	11.60	200	4.2	2960	0.86	0.86	100.0	105.0	3.5	200	25.0
14216000	227.00	141	36.7	3540	0.44	0.44	95.0	104.0	4.0	250	24.0
14216500	131.00	80	19.1	3180	0.15	0.15	95.0	119.0	4.0	175	26.0
14216800	22.40	367	11.4	2920	0.00	0.00	78.0	132.0	4.0	210	27.0
14217500	27.50	631	9.4	3140	4.00	4.00	82.0	130.0	4.0	200	27.0
14218000	481.00	68	51.9	3120	1.91	1.91	93.0	113.0	3.7	215	25.0
14218300	2.31	832	2.6	1660	0.00	0.00	99.0	115.0	4.1	110	28.0
14219000	64.90	128	16.2	2410	2.00	2.00	98.0	102.0	4.0	110	27.0
14219500	665.00	50	67.8	2830	2.56	2.56	95.0	112.0	3.7	190	27.0
14219800	12.60	455	5.5	2100	0.00	--	100.0	105.0	4.8	--	28.0
14220500	731.00	43	71.0	1788	7.52	7.52	92.0	108.0	4.0	180	27.0
14221500	40.80	94	17.9	980	0.12	0.12	91.0	76.0	3.5	90	29.0

TABLE 2.--Continued

STATION NUMBER	AREA (SQ-MI)	SLOPE (FT/MI)	LENGTH (MI)	ELEV (FT)	STORAGE (%)	LAKEAREA (%)	FOREST (%)	PRECIP (IN)	I24+2 (IN)	SNOFALL (IN)	JANMIN (FAHR)
14222500	125.00	78	23.3	1940	1.00	1.00	99.0	93.0	3.5	85	28.0
14222700	0.53	80	1.5	250	0.00	0.00	35.0	45.0	2.9	25	31.0
14222930	8.21	--	--	--	--	--	--	--	--	--	--
14222970	--	--	--	--	--	--	--	--	--	--	--
14222980	37.40	236	7.8	2750	0.10	--	98.0	120.0	5.5	--	26.0
14223000	179.00	83	39.1	2100	0.28	0.28	99.0	96.0	4.0	100	29.0
14223500	198.00	73	45.2	1880	1.00	1.00	98.0	82.0	4.0	100	29.0
14223800	1.06	525	2.0	580	0.00	0.00	95.0	46.0	3.8	11	32.0
14224000	101.00	--	--	--	--	--	--	--	--	--	--
14224500	56.50	189	16.6	4330	2.00	2.00	91.0	102.0	3.0	450	20.0
14225500	19.20	354	8.2	4700	4.17	4.17	74.0	107.0	3.0	400	21.0
14226000	26.50	--	--	--	--	--	--	--	--	--	--
14226500	287.00	111	24.0	4230	0.45	0.45	88.0	95.0	3.0	450	21.0
14226800	1.22	1250	2.1	4360	0.00	0.00	95.0	95.0	4.0	250	24.0
14226900	1.82	1080	2.3	3760	0.00	0.00	95.0	100.0	4.0	250	24.0
14230000	50.00	275	12.1	4010	2.00	2.00	94.0	99.0	3.0	310	22.0
14231100	2.29	1080	3.0	2460	--	0.00	80.0	65.0	3.3	150	26.0
14231700	5.25	358	4.1	4090	0.50	--	96.0	80.0	3.5	--	16.0
14232000	66.30	123	15.5	3740	0.00	0.00	75.0	75.0	3.0	220	25.0
14232500	321.00	84	38.1	4130	0.15	0.15	76.0	84.0	3.5	300	23.0
14233200	1.48	1031	1.8	4060	0.00	--	100.0	95.0	3.7	--	24.0
14233400	1030.00	30	62.6	3760	0.20	0.20	86.0	86.0	4.0	295	24.0
14233500	1040.00	--	--	--	--	--	--	--	--	--	--
14235000	1162.00	17	89.4	3430	0.18	0.18	86.0	72.0	4.0	260	25.0
14235300	0.79	890	1.8	2580	0.00	0.00	99.0	85.0	3.9	47	28.0
14235500	16.40	276	5.7	2450	0.12	0.12	76.0	87.0	3.5	35	28.0

TABLE 2.--Continued

STATION NUMBER	AREA (SQ-MI)	SLOPE (FT/MI)	LENGTH (MI)	ELEV (FT)	STORAGE (%)	LAKEAREA (%)	FOREST (%)	PRECIP (IN)	I24+2 (IN)	SNOFALL (IN)	JANMIN (FAHR)
14236200	141.00	43	22.7	2330	1.00	1.00	90.0	84.0	3.5	30	28.0
14236400	4.55	445	4.7	2220	0.00	--	98.0	75.0	3.0	--	29.0
14236500	156.00	39	27.0	1990	1.00	1.00	90.0	83.0	3.5	30	28.0
14237000	3.29	178	2.7	985	0.00	0.00	52.0	56.0	3.0	20	29.0
14237500	37.80	136	10.8	1640	0.00	0.00	76.0	60.0	3.0	30	29.0
14238000	1400.00	14	99.9	3150	0.15	0.15	86.0	72.0	3.5	220	26.0
14239000	77.60	35	26.4	630	0.00	--	91.0	56.0	3.5	--	28.0
14239100	0.36	105	1.1	650	0.00	0.00	95.0	48.0	3.0	10	30.0
14239700	0.38	390	1.1	470	0.00	0.00	80.0	46.0	3.9	20	31.0
14240450	3.27	1323	2.5	3080	0.00	--	100.0	100.0	4.5	--	26.0
14241200	5.47	--	--	--	--	--	--	--	--	--	--
14241500	120.00	86	32.3	2150	0.17	0.17	93.0	97.0	4.0	110	29.0
14242500	474.00	78	43.9	2310	0.93	0.52	94.0	84.0	3.5	85	29.0
14242600	0.64	30	12.5	540	0.00	0.00	80.0	57.0	4.1	10	31.0
14243000	2238.00	11	133.2	2540	0.26	0.26	88.0	71.0	3.7	160	27.0
14243500	19.60	284	8.6	906	0.00	0.00	97.0	72.0	4.0	20	32.0
14245000	119.00	49	28.8	1390	8.00	8.00	99.0	69.0	3.5	50	31.0
14246000	20.30	210	9.0	1020	0.00	--	97.0	70.0	3.5	--	32.0
14246500	28.30	103	10.9	865	0.00	--	95.0	70.0	3.5	--	32.0
14247500	65.80	48	19.4	1190	2.00	2.00	88.0	94.0	4.0	30	32.0
14248100	1.13	266	1.6	280	0.00	0.00	90.0	107.0	4.1	12	32.0
14248200	5.48	269	4.1	575	0.00	--	100.0	85.0	3.5	--	34.0
14249000	39.90	142	10.6	1350	0.00	0.00	90.0	116.0	4.0	50	31.0
14249500	60.30	--	--	--	--	--	--	--	--	--	--
14250500	15.20	150	7.0	1180	0.00	0.00	99.0	103.0	4.0	30	30.0

PART B

Statistics and Characteristics for Specific Sites

This section of the report presents the streamflow statistics and drainage-basin characteristics for specific sites in southwestern Washington.

STATION 14121300 WHITE SALMON R BLW CASCADES CR NR TROUT L, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1957	78.9	84.1	106	113	166	115	165	294	273	188	166	94.7	150
1958	85.4	176	199	221	119	90.6	142	184	219	167	129	92.9	154
1960	161	158	133	97.6	132	114	177	228	260	167	122	124	153
1961	82.3	145	106	135	240	151	169	234	298	204	147	103	169
1962	94.3	92.0	121	137	108	81.2	187	182	196	153	122	96.9	131
1963	110	175	164	108	171	114	145	185	174	127	108	95.6	139
1964	84.5	119	104	114	95.0	74.6	99.0	182	295	206	133	99.5	134
1965	96.7	102	214	147	139	115	194	231	232	152	125	96.5	154
1966	88.4	95.7	84.4	74.9	63.0	84.7	170	267	220	169	123	97.5	129
1967	86.2	104	164	133	123	94.7	86.8	215	283	199	133	105	144
1968	126	133	128	146	285	187	127	165	293	160	120	101	152
1969	116	177	134	120	88.4	83.9	134	319	293	160	117	104	154
1970	94.4	97.2	111	203	151	135	124	220	236	163	115	96.5	176
1971	80.5	116	118	120	154	99.2	114	344	347	281	205	134	176
1972	101	99.5	93.6	115	156	288	159	377	405	285	205	146	203
1973	107	122	202	149	90.7	83.5	106	136	143	133	106	88.7	123
1974	82.2	134	164	250	128	109	175	286	471	282	210	145	203
1975	106	113	141	177	118	111	88.0	251	313	266	156	113	163
1976	109	137	317	179	113	99.4	135	357	202	205	166	120	178
1977	93.3	86.7	73.0	66.2	69.5	65.0	121	137	122	81.8	88.9	84.1	90.8
1978	80.5	136	339	97.2	102	123	149	166	156	148	130	102	144
1979													

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MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1957-1979)

MEAN	98.3	123.9	153.1	139.2	132.9	114.7	141.3	236.2	253.6	185.0	135.6	105.8	151.8
MAXIMUM	161.0	177.0	339.0	250.0	265.0	288.0	194.0	377.0	471.0	285.0	210.0	146.0	203.0
MINIMUM	78.9	84.1	73.0	66.2	63.0	65.0	86.8	136.0	122.0	81.8	88.9	84.1	90.8
STD DEVIATION	19.48	29.52	69.67	46.43	49.71	48.47	31.95	71.34	85.99	54.82	33.42	17.49	25.60
SKEWNESS	1.419	0.549	1.585	0.772	1.248	2.565	-0.134	0.522	0.404	0.572	1.276	1.253	0.081
STD ERR SKEW	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.491	0.491	0.501
SER CORR COEFF	-0.219	-0.163	-0.486	-0.029	-0.203	-0.259	-0.114	-0.114	-0.049	0.151	0.071	-0.054	-0.146
COEFF OF VAR	0.198	0.238	0.455	0.334	0.374	0.423	0.226	0.302	0.339	0.296	0.247	0.165	0.169
MEAN LOGS	1.985	2.082	2.150	2.121	2.097	2.033	2.139	2.355	2.381	2.249	2.121	2.019	2.175
STD DEV LOGS	0.077	0.101	0.173	0.144	0.154	0.144	0.104	0.131	0.147	0.131	0.098	0.067	0.076
SKEWNESS LOGS	1.247	0.220	0.681	-0.081	0.182	1.346	-0.504	0.045	-0.070	-0.329	0.845	1.004	-0.732
STD ERR SKEW LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.491	0.491	0.501
SER CORR LOGS	-0.220	-0.200	-0.600	-0.036	-0.181	-0.335	-0.162	-0.150	-0.022	0.079	0.006	-0.094	-0.035
COEFF OF VAR LOGS	0.049	0.049	0.080	0.068	0.073	0.071	0.049	0.056	0.062	0.058	0.046	0.033	0.035
% OF AVE FLOW	5.4	6.8	8.4	7.6	7.3	6.3	7.8	13.0	13.9	10.2	7.5	5.8	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1979)

0.99	75.1	72.8	68.5	59.8	57.6	68.8	72.4	113.4	107.7	81.7	90.1	81.9	90.8
0.95	77.8	83.4	80.0	75.9	71.2	72.7	90.0	138.4	137.0	105.1	97.0	85.4	108.6
0.90	79.9	90.0	88.1	80.1	80.1	76.0	100.3	154.0	155.5	119.4	101.8	87.9	118.4
0.80	83.3	98.9	100.4	100.1	92.6	81.8	113.5	175.5	181.1	138.4	109.0	91.7	130.4
0.50	93.3	119.7	135.0	132.7	123.8	100.4	140.4	225.7	241.2	180.3	128.1	101.9	152.9
0.20	110.0	146.5	193.5	175.0	167.9	136.8	168.9	291.3	319.6	229.5	157.4	117.5	174.0
0.10	122.7	163.6	239.8	201.6	198.1	168.5	184.0	333.2	369.4	258.1	178.7	128.5	184.1
0.04	140.4	184.9	308.1	234.1	237.5	218.3	200.1	385.0	430.4	290.4	207.7	143.3	194.0
0.02	154.8	200.4	366.5	257.6	267.6	263.7	210.4	422.9	474.7	312.4	230.9	154.7	199.9
0.01	170.2	215.8	431.9	280.5	298.6	317.0	219.4	460.3	518.0	332.7	255.4	166.6	204.7

STATION 14121300 WHITE SALMON R BLW CASCADES CR NR TROUT L. WASH

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1959	72.0	72.0	73.0	77.0	84.0	88.0	99.0	115.0	144.0
1960	78.0	79.0	80.0	85.0	93.0	112.0	108.0	117.0	130.0
1961	71.0	71.0	72.0	73.0	78.0	83.0	89.0	113.0	113.0
1962	73.0	74.0	75.0	76.0	81.0	90.0	92.0	98.0	106.0
1963	83.0	84.0	86.0	87.0	94.0	103.0	105.0	113.0	129.0
1964	66.0	66.0	67.0	71.0	74.0	84.0	93.0	97.0	98.0
1965	76.0	77.0	79.0	81.0	86.0	93.0	96.0	106.0	130.0
1966	58.0	58.0	59.0	60.0	61.0	67.0	70.0	76.0	82.0
1967	75.0	75.0	77.0	78.0	84.0	87.0	94.0	102.0	115.0
1968	82.0	83.0	85.0	86.0	87.0	108.0	119.0	119.0	129.0
1969	73.0	73.0	74.0	75.0	79.0	85.0	97.0	107.0	120.0
1970	73.0	74.0	75.0	77.0	85.0	91.0	96.0	107.0	107.0
1971	72.0	72.0	72.0	75.0	79.0	86.0	93.0	100.0	107.0
1972	68.0	75.0	77.0	78.0	83.0	90.0	93.0	113.0	113.0
1973	74.0	76.0	78.0	79.0	87.0	87.0	108.0	127.0	126.0
1974	68.0	69.0	70.0	72.0	78.0	84.0	88.0	99.0	113.0
1975	81.0	83.0	85.0	89.0	97.0	107.0	113.0	121.0	128.0
1976	76.0	76.0	77.0	81.0	88.0	101.0	119.0	128.0	158.0
1977	60.0	61.0	62.0	65.0	65.0	67.0	67.0	68.0	76.0
1978	60.0	62.0	65.0	69.0	77.0	80.0	83.0	83.0	95.0

LOWEST MEAN FLOW STATISTICS (YEARS 1959-1978)

MEAN	71.9	73.0	74.4	76.6	81.7	89.6	96.1	103.6	115.9
MAXIMUM	83.0	84.0	86.0	89.0	97.0	112.0	119.0	128.0	158.0
MINIMUM	58.0	58.0	59.0	60.0	67.0	67.0	67.0	68.0	76.0
STANDARD DEVIATION	7.03	7.12	7.39	7.56	8.75	12.00	13.71	15.80	19.67
SKEWNESS	-0.499	-0.514	-0.425	-0.493	-0.594	-0.050	-0.290	-0.518	-0.085
STD ERROR OF SKEWNESS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SERIAL CORR COEFF	-0.073	-0.120	-0.167	-0.169	-0.206	-0.136	-0.061	-0.004	-0.145
COEFF OF VARIATION	0.098	0.097	0.099	0.099	0.107	0.134	0.143	0.152	0.170
MEAN LOGS	1.855	1.861	1.869	1.882	1.910	1.949	1.978	2.010	2.058
STD DEVIATION LOGS	0.044	0.044	0.044	0.044	0.049	0.059	0.065	0.071	0.077
SKEWNESS LOGS	-0.712	-0.744	-0.670	-0.778	-0.971	-0.358	-0.749	-0.955	-0.622
STD ERR SKEWNESS LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF LOGS	-0.045	-0.094	-0.148	-0.152	-0.196	-0.117	-0.051	0.019	-0.135
COEFF OF VAR LOGS	0.024	0.023	0.024	0.024	0.025	0.030	0.033	0.035	0.037

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1959-1978)

0.99	85.8	86.9	89.2	91.1	97.3	117.7	123.9	133.2	159.0
0.98	84.6	85.7	87.9	89.9	96.2	114.5	121.4	131.0	154.6
0.96	83.2	84.3	86.3	88.4	94.5	110.8	118.4	128.2	149.5
0.90	80.7	81.8	83.6	85.9	92.2	105.2	113.3	123.1	141.2
0.80	78.1	79.2	80.8	83.1	89.4	99.8	108.1	117.6	133.0
0.50	72.5	73.6	74.8	77.2	82.7	89.6	96.9	105.0	116.4
0.20	66.1	67.1	68.2	70.3	74.6	79.5	84.6	90.4	99.3
0.10	62.6	63.5	64.6	66.5	69.9	74.3	77.9	82.3	90.3
0.05	59.6	60.4	61.5	63.2	65.9	70.1	72.4	75.5	83.1
0.02	56.1	56.9	57.9	59.4	61.2	65.5	66.2	67.9	75.2
0.01	53.8	54.5	55.5	56.8	58.0	62.5	62.1	62.9	70.0

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1959-1978)

P95	P90	P75	P70	P50	P25	P10
76.0	83.0	98.0	100.0	130.0	180.0	260.0

FLOW DURATION DATA

STATION 14121300 WHITE SALMON R BLW CASCADES CR NR TROUT L, WASH

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

ANNUAL PEAK-FLOW DATA
FLOW(CFS) DATE REG.(R)

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1958	419.	399.	379.	347.	317.	286.	261.	236.	201.
1959	417.	397.	377.	345.	315.	284.	259.	234.	184.
1960	332.	321.	305.	288.	268.	246.	223.	203.	180.
1961	398.	357.	332.	302.	271.	248.	228.	211.	186.
1962	272.	241.	219.	208.	192.	181.	170.	156.	137.
1963	614.	392.	319.	259.	220.	180.	170.	158.	132.
1964	370.	356.	336.	324.	298.	264.	232.	206.	169.
1965	622.	530.	389.	286.	259.	233.	227.	208.	194.
1966	466.	413.	380.	305.	270.	245.	224.	208.	175.
1967	486.	377.	342.	313.	285.	270.	236.	210.	171.
1968	566.	533.	469.	369.	284.	226.	201.	190.	181.
1969	515.	443.	414.	389.	374.	330.	262.	230.	188.
1970	552.	482.	395.	308.	265.	230.	208.	187.	185.
1971	482.	481.	437.	391.	359.	330.	327.	297.	238.
1972	600.	582.	542.	531.	479.	405.	361.	321.	290.
1973	771.	553.	427.	314.	240.	179.	159.	146.	132.
1974	854.	703.	602.	539.	473.	385.	348.	318.	262.
1975	446.	422.	397.	355.	324.	310.	282.	249.	198.
1976	897.	709.	580.	432.	363.	283.	257.	236.	200.
1977	216.	198.	180.	169.	148.	140.	128.	116.	106.
1978	1030.	745.	525.	499.	367.	242.	195.	171.	166.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1958-1978)

MEAN	536.4	453.0	392.0	341.8	301.4	261.0	235.4	213.6	186.3
MAXIMUM	1030.0	745.0	602.0	539.0	479.0	405.0	361.0	321.0	290.0
MINIMUM	216.0	198.0	180.0	169.0	148.0	140.0	128.0	116.0	106.0
STANDARD DEVIATION	209.41	148.08	110.24	97.37	82.29	66.65	58.96	52.27	41.02
SKETCHNESS	0.822	0.450	0.158	0.574	0.577	0.464	0.569	0.559	0.751
STD ERROR OF SKEWNESS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SERIAL CORR COEFF	-0.236	-0.119	-0.011	-0.092	-0.136	-0.055	-0.007	-0.011	-0.065
COEFF OF VARIATION	0.390	0.327	0.281	0.285	0.273	0.265	0.250	0.245	0.220
MEAN LOGS	2.698	2.633	2.576	2.517	2.464	2.403	2.359	2.317	2.280
STD DEVIATION LOGS	0.170	0.148	0.131	0.125	0.120	0.113	0.109	0.107	0.095
SKETCHNESS LOGS	-0.121	-0.382	-0.671	-0.246	-0.293	-0.258	-0.172	-0.208	-0.157
STD ERR SKEWNESS LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR COEFF LOGS	-0.264	-0.130	-0.041	-0.118	-0.176	-0.094	-0.052	-0.046	-0.096
COEFF OF VAR LOGS	0.063	0.056	0.051	0.050	0.049	0.047	0.046	0.046	0.042

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1958-1978)

0.99	194.3	177.1	161.3	159.4	143.8	131.5	123.3	112.7	106.7	283.9
0.95	259.1	237.1	217.6	200.5	180.3	161.9	149.2	136.4	125.9	369.8
0.90	301.2	274.5	251.7	225.5	202.3	180.1	164.8	150.6	137.1	425.8
0.80	360.3	325.2	296.2	258.9	231.4	204.0	185.3	169.1	151.8	504.5
0.50	603.4	439.0	389.2	332.7	294.8	259.7	230.2	209.3	183.2	700.2
0.20	695.4	574.8	487.6	420.4	368.4	315.5	283.0	256.0	219.3	970.7
0.10	819.8	654.0	538.9	472.1	410.9	350.0	313.9	283.0	240.2	1151.4
0.04	973.9	744.1	592.1	531.6	459.1	389.1	349.7	313.9	264.0	1381.3
0.02	1086.5	805.1	625.1	572.4	491.8	415.7	374.3	334.9	280.3	1553.7
0.01	1197.5	861.6	653.7	610.8	522.1	440.4	397.5	354.6	295.5	1727.1

W R C SYSTEMATIC
ESTIMATE RECORD

STATION 14121400 WHITE SALMON R AB TR LK CR NM TROUT LK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1959	246	240	219	175	238	216	356	385	392	236	200	203	
1960	154	222	173	245	413	310	319	358	403	261	204	204	258
1961	179	169	192	226	191	164	313	292	271	288	233	188	274
1962	180	268	273	192	294	209	253	287	252	222	196	166	216
1963	148	188	174	193	179	145	189	266	396	198	174	156	227
1964	161	165	306	221	238	208	332	367	329	284	213	169	212
1965	146	154	142	141	119	159	314	410	309	244	216	176	247
1966	149	174	273	260	259	194	180	342	383	287	191	161	208
1967	206	211	208	246	434	344	236	267	272	287	217	186	242
1968	191	279	232	225	168	154	280	491	400	213	189	175	249
1969										261			

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1961	137.0	139.0	143.0	145.0	151.0	155.0	165.0	178.0	191.0
1962	135.0	141.0	148.0	153.0	161.0	167.0	172.0	178.0	188.0
1963	145.0	150.0	153.0	154.0	163.0	171.0	175.0	183.0	209.0
1964	133.0	136.0	137.0	137.0	143.0	151.0	157.0	164.0	170.0
1965	138.0	139.0	140.0	141.0	149.0	157.0	162.0	175.0	203.0
1966	110.0	111.0	111.0	114.0	117.0	127.0	130.0	137.0	143.0
1967	135.0	135.0	137.0	140.0	146.0	150.0	158.0	168.0	195.0
1968	150.0	152.0	161.0	173.0	180.0	188.0	199.0	197.0	210.0
1969	128.0	129.0	131.0	135.0	146.0	159.0	181.0	199.0	207.0

LOWEST MEAN FLOW STATISTICS (YEARS 1961-1969)

MEAN	134.6	136.9	140.1	143.6	150.7	158.3	166.6	174.3	190.7
MAXIMUM	150.0	152.0	161.0	173.0	180.0	188.0	199.0	197.0	210.0
MINIMUM	110.0	111.0	111.0	114.0	117.0	127.0	130.0	137.0	143.0
STANDARD DEVIATION	11.26	12.06	14.24	16.11	17.17	16.71	18.99	17.22	21.95
SKEWNESS	-1.150	-1.106	-0.763	0.028	-0.337	-0.103	-0.294	-1.191	-1.481
STD ERROR OF SKEWNESS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SERIAL CORR COEFF	-0.207	-0.091	-0.047	-0.056	-0.005	0.033	0.244	0.153	-0.292
COEFF OF VARIATION	0.084	0.088	0.102	0.112	0.114	0.106	0.114	0.099	0.115
MEAN LOGS	2.127	2.135	2.144	2.155	2.175	2.197	2.219	2.239	2.277
STD DEVIATION LOGS	0.038	0.040	0.046	0.049	0.051	0.047	0.051	0.045	0.054
SKEWNESS LOGS	-1.424	-1.372	-1.091	-0.407	-0.787	-0.508	-0.719	-1.478	-1.683
STD ERR SKEWNESS LOGS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SER CORR COEFF LOGS	-0.188	-0.078	-0.028	-0.030	0.010	0.056	0.235	0.134	-0.285
COEFF OF VAR LOGS	0.018	0.019	0.021	0.023	0.023	0.021	0.023	0.020	0.024

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1961-1969)

0.99	150.3	154.3	163.9	179.7	183.8	194.2	204.3	198.2	218.7
0.98	149.7	153.6	162.4	175.8	181.1	190.6	201.0	197.3	218.0
0.96	148.8	152.5	160.5	171.3	177.7	186.4	197.0	196.0	216.8
0.90	146.9	150.2	156.8	164.2	171.8	179.5	190.2	193.1	213.9
0.80	144.2	147.3	152.6	157.3	165.6	172.7	183.1	189.2	209.6
0.50	136.8	139.2	142.1	136.8	152.1	159.0	167.9	177.9	195.8
0.20	126.1	127.7	128.8	130.1	136.6	144.4	150.9	161.4	174.4
0.10	119.3	120.5	120.9	122.9	128.0	136.6	141.6	150.9	160.5
0.05	113.1	114.1	114.1	116.9	120.7	130.2	133.7	141.5	148.1
0.02	105.7	106.3	106.0	110.3	112.3	122.8	124.7	130.3	133.4
0.01	100.5	101.0	100.6	105.9	106.7	118.0	118.7	122.6	123.4

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1961-1969)

P95	P90	P75	P70	P50	P25	P10
140.0	150.0	170.0	180.0	210.0	280.0	360.0

STATION 14121400 WHITE SALMON R AB TR LK CR NR TROUT LK, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1960	520.	507.	477.	446.	419.	390.	381.	356.	308.	615. 10/22/59
1961	616.	580.	512.	454.	417.	383.	361.	354.	347.	786. 11/24/60
1962	422.	378.	345.	341.	331.	308.	294.	275.	244.	502. 03/07/62
1963	785.	546.	457.	386.	339.	308.	270.	261.	257.	970. 11/20/62
1964	500.	479.	432.	435.	401.	354.	319.	292.	253.	558. 06/04/64
1965	879.	663.	520.	468.	414.	388.	350.	321.	292.	1080. 12/23/64
1966	639.	575.	541.	460.	413.	367.	341.	309.	273.	706. 05/06/66
1967	624.	504.	460.	414.	388.	377.	341.	309.	279.	718. 12/13/66
1968	860.	805.	700.	585.	474.	388.	349.	321.	301.	990. 02/23/68
1969										826. 05/19/69

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1960-1969)

W R C SYSTEMATIC
ESTIMATE RECORD

MEAN	649.4	559.7	496.0	443.2	399.6	359.7	334.7	312.2	283.8	2.8769
MAXIMUM	879.0	805.0	700.0	585.0	474.0	390.0	381.0	356.0	347.0	0.1104
MINIMUM	422.0	378.0	345.0	341.0	331.0	282.0	270.0	261.0	244.0	0.0
STANDARD DEVIATION	161.28	120.98	95.12	66.86	43.47	38.98	34.56	32.25	32.27	
SKEWNESS	0.253	0.821	0.926	0.855	-0.225	-1.397	-0.838	-0.170	0.764	
STD ERROR OF SKEWNESS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	
SERIAL CORR COEFF	-0.448	-0.278	-0.083	0.036	0.195	0.403	0.469	0.423	0.061	
COEFF OF VARIATION	0.248	0.216	0.192	0.151	0.109	0.108	0.103	0.103	0.114	
MEAN LOGS	2.800	2.739	2.689	2.642	2.599	2.553	2.522	2.492	2.451	
STD DEVIATION LOGS	-0.109	0.092	0.081	0.064	0.048	0.050	-0.047	0.048	0.048	
SKEWNESS LOGS	-0.099	0.141	0.130	0.287	-0.502	-1.491	-1.020	-0.352	0.536	
STD ERR SKEWNESS LOGS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	
SER CORR COEFF LOGS	-0.446	-0.273	-0.070	0.072	0.228	0.402	0.461	0.426	0.070	
COEFF OF VAR LOGS	0.039	0.034	0.030	0.024	0.019	0.020	0.019	0.018	0.020	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1960-1969)

0.99	345.1	342.6	321.3	321.4	294.9	243.1	240.1	237.1	227.8	417.1	405.2
0.95	414.4	390.6	361.2	348.7	326.3	285.2	271.9	259.0	239.4	495.9	490.6
0.90	456.2	419.6	385.0	365.2	343.1	306.3	284.2	270.8	246.7	543.9	541.8
0.80	511.6	458.4	416.5	387.1	363.3	330.0	307.0	285.1	259.6	608.2	609.5
0.50	634.2	548.8	486.3	435.8	401.1	367.7	339.0	312.6	278.4	753.2	758.2
0.20	781.6	654.5	571.0	495.7	437.1	393.6	365.0	339.8	308.6	932.8	934.4
0.10	869.8	721.7	622.5	532.3	454.9	402.6	375.9	353.8	327.0	1043.2	1038.5
0.04	973.2	802.7	683.7	576.2	472.9	409.2	385.4	368.4	349.3	1175.3	1159.1
0.02	1045.4	860.9	727.1	607.5	484.1	412.1	390.6	377.6	365.5	1269.3	1242.5
0.01	1114.2	917.5	769.0	637.9	493.7	414.0	394.6	385.8	381.4	1360.4	1321.3

STATION 14121500 TROUT LAKE CREEK NR TROUT LAKE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1910	71.9	729	602	425	253	642	638	543	254	46.6	52.8	47.4	362
1911	72.4	435	447	148	145	245	388	671	377	116	53.2	73.3	265
1959											45.2	86.0	
1960	215	257	239	127	333	239	511	622	450	105	59.9	45.1	266
1961	55.9	394	164	367	773	430	441	607	388	90.5	50.0	51.9	314
1962	69.6	128	325	335	207	155	534	490	293	87.1	49.4	48.1	227
1963	150	479	356	192	483	209	365	381	140	59.4	37.2	29.9	238
1964	48.2	234	194	311	220	150	236	465	525	173	79.3	59.6	224
1965	72.2	147	611	302	318	249	567	522	280	77.9	54.1	44.1	270
1966	45.6	116	135	159	104	238	575	716	374	134	53.6	42.7	225
1967	61.2	170	452	410	318	191	184	544	460	114	50.4	41.1	249
1968	191	224	203	266	837	406	263	351	252	64.2	58.3	60.5	262
1969	175	425	253	392	115	154	443	873	428	95.3			

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1910-1969)

MEAN	102.3	311.5	331.7	286.2	342.2	275.7	428.7	565.4	351.7	99.4	53.6	52.5	263.8
MAXIMUM	215.0	729.0	611.0	425.0	837.0	642.0	638.0	873.0	525.0	173.0	79.3	86.0	362.0
MINIMUM	45.6	116.0	135.0	127.0	104.0	150.0	184.0	351.0	140.0	59.4	37.2	29.9	224.0
STD DEVIATION	61.72	184.12	164.21	106.90	241.19	146.53	145.46	145.21	109.79	30.22	10.02	15.31	41.88
SKENNESS	0.924	1.034	0.651	-0.282	1.291	1.680	-0.356	0.580	-0.335	1.161	1.315	0.988	1.466
STD ERR SKEW	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.637	0.637	0.661
SER CORR COEFF	-0.043	0.204	-0.346	-0.335	-0.314	-0.237	-0.040	-0.179	-0.420	-0.463	-0.377	0.133	0.045
COEFF OF VAR	0.603	0.591	0.495	0.373	0.705	0.532	0.339	0.257	0.312	0.304	0.187	0.292	0.159
MEAN LOGS	1.944	2.425	2.471	2.423	2.444	2.395	2.604	2.739	2.523	1.980	1.723	1.704	2.417
STD DEV LOGS	0.244	0.255	0.218	0.186	0.291	0.197	0.171	0.112	0.159	0.125	0.077	0.122	0.064
SKENNESS LOGS	0.612	0.123	0.049	-0.642	0.235	0.907	-0.870	-0.086	-1.174	0.332	0.436	0.232	1.162
STD ERR SKEW LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.637	0.637	0.661
SER CORR LOGS	-0.040	0.183	-0.437	-0.231	-0.353	-0.273	-0.003	-0.139	-0.336	-0.441	-0.401	0.057	0.052
COEFF OF VAR LOGS	0.125	0.105	0.088	0.077	0.119	0.082	0.066	0.041	0.053	0.063	0.045	0.072	0.027
% OF AVE FLOW	3.2	9.7	10.4	8.9	10.7	8.6	13.4	17.7	11.0	3.1	1.7	1.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1910-1969)

0.99	30.8	71.6	93.7	80.5	65.5	117.5	126.7	296.7	106.2	52.5	37.0	27.6	209.9
0.95	38.9	103.4	130.5	122.3	96.5	134.9	144.1	357.1	166.2	61.2	40.4	32.5	216.8
0.90	44.9	126.4	155.9	150.0	119.7	148.0	237.7	393.6	204.2	66.8	42.5	35.6	222.1
0.80	54.3	161.9	193.7	188.6	156.9	168.9	296.9	442.3	254.7	74.7	45.4	39.8	230.4
0.50	83.0	263.1	294.8	277.4	270.5	232.3	425.5	550.7	357.2	94.0	52.1	50.0	253.9
0.20	137.5	435.0	451.3	382.6	484.1	351.9	562.9	682.0	453.5	121.1	61.1	63.8	291.2
0.10	185.2	569.8	565.1	441.8	666.2	455.5	632.9	761.1	496.3	139.4	66.8	72.9	318.3
0.04	261.2	763.7	719.6	506.3	947.5	620.0	702.8	854.2	534.2	163.3	74.0	84.5	355.0
0.02	331.1	925.6	841.9	547.9	1197.3	770.7	744.5	919.6	554.2	181.5	79.2	93.1	384.0
0.01	414.0	1102.4	970.4	584.9	1484.2	949.3	779.2	982.1	569.2	200.2	84.5	101.9	414.4

STATION 14121500 TROUT LAKE CREEK NR TROUT LAKE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1911	46.0	46.0	46.0	47.0	47.0	50.0	57.0	63.0	142.0
1961	34.0	34.0	35.0	39.0	41.0	47.0	51.0	58.0	135.0
1962	41.0	41.0	42.0	44.0	45.0	50.0	54.0	60.0	96.0
1963	35.0	35.0	36.0	38.0	42.0	46.0	56.0	81.0	150.0
1964	26.0	27.0	27.0	28.0	30.0	31.0	34.0	43.0	89.0
1965	52.0	52.0	54.0	55.0	60.0	66.0	68.0	73.0	154.0
1966	39.0	39.0	40.0	40.0	43.0	44.0	48.0	52.0	78.0
1967	39.0	39.0	40.0	40.0	42.0	43.0	50.0	58.0	132.0
1968	37.0	38.0	38.0	40.0	41.0	46.0	50.0	58.0	132.0
1969	37.0	38.0	39.0	41.0	43.0	54.0	58.0	72.0	155.0

LOWEST MEAN FLOW STATISTICS (YEARS 1911-1969)

MEAN	38.6	38.9	39.7	41.2	43.6	47.7	53.4	64.5	126.3
MAXIMUM	52.0	52.0	54.0	55.0	60.0	66.0	68.0	85.0	155.0
MINIMUM	26.0	27.0	27.0	28.0	30.0	31.0	34.0	43.0	78.0
STANDARD DEVIATION	6.98	6.74	7.07	6.88	7.37	8.86	8.81	13.11	28.25
SKWENESS	0.275	0.341	0.384	0.212	0.659	0.316	-0.841	0.099	-0.797
STD ERROR OF SKWENESS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SERIAL CORR COEFF	-0.815	-0.822	-0.817	-0.846	-0.868	-0.898	-0.887	-0.881	-0.843
COEFF OF VARIATION	0.181	0.173	0.178	0.167	0.169	0.186	0.165	0.203	0.224
MEAN LOGS	1.580	1.584	1.593	1.609	1.634	1.672	1.722	1.801	2.090
STD DEVIATION LOGS	0.080	0.076	0.078	0.074	0.074	0.083	0.079	0.091	0.108
SKWENESS LOGS	-0.418	-0.300	-0.354	-0.589	-0.282	-0.590	-1.507	-0.319	-0.981
STD ERR SKWENESS LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SER CORR COEFF LOGS	-0.401	-0.408	-0.407	-0.421	-0.477	-0.484	-0.539	-0.411	-0.606
COEFF OF VAR LOGS	0.051	0.048	0.049	0.046	0.045	0.050	0.046	0.050	0.052

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1911-1969)

0.99	55.2	55.5	56.8	56.2	61.6	67.3	66.1	97.8	183.3
0.98	53.2	53.5	54.8	54.7	59.4	65.3	65.7	93.6	178.8
0.96	51.1	51.2	52.5	52.9	56.9	62.9	65.0	89.0	173.2
0.90	47.7	47.7	48.9	50.0	53.2	59.1	63.4	82.0	163.0
0.80	44.5	44.6	45.7	47.1	49.7	55.3	61.2	75.6	152.1
0.50	38.5	38.7	39.5	41.4	43.4	47.8	55.0	64.0	128.1
0.20	32.7	33.2	33.7	35.5	37.4	40.3	46.4	53.3	101.9
0.10	29.8	30.5	30.9	32.4	34.5	36.4	41.3	48.1	88.2
0.05	27.5	28.4	28.6	29.9	32.2	33.3	36.9	44.1	77.2
0.02	25.0	26.0	26.1	27.2	29.6	29.9	31.9	39.8	65.6
0.01	23.4	24.6	24.5	25.4	28.0	27.8	28.7	37.1	58.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1911-1969)

P95	P90	P75	P70	P50	P25	P10
42.0	48.0	75.0	92.0	180.0	390.0	590.0

STATION 14121500 THOUT LAKE CREEK NR TROUT LAKE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-FLow DATA DATE	REG. (R)
1910	1540.	1310.	1150.	1070.	851.	672.	611.	534.	557.	1580.	11/25/09	
1911	1130.	976.	812.	710.	694.	569.	493.	426.	348.	1470.	11/21/10	
1960	883.	827.	746.	694.	676.	581.	554.	461.	380.	985.	11/23/59	
1961	1530.	1240.	990.	855.	763.	595.	549.	560.	494.	2030.	11/25/60	
1962	986.	918.	721.	640.	591.	527.	444.	371.	359.	1050.	04/07/62	
1963	1800.	1510.	1160.	871.	631.	451.	417.	385.	366.	2700.	11/20/62	
1964	850.	762.	713.	659.	621.	500.	417.	356.	318.	895.	01/26/64	
1965	2200.	1900.	1240.	876.	685.	576.	499.	430.	430.	2900.	12/23/64	
1966	1210.	1160.	1070.	850.	723.	650.	565.	488.	366.	1310.	05/06/66	
1967	1560.	1220.	839.	698.	610.	508.	401.	350.	363.	1810.	12/14/66	
1968	1970.	1840.	1720.	1180.	847.	616.	515.	462.	403.	2280.	02/19/68	
1969										1420.	01/07/69	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1910-1969)

	W R C ESTIMATE	SYSTEMATIC RECORD
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MEAN	1423.5	1242.1	1014.6	827.5	699.3	567.7	494.1	438.5	398.5
MAXIMUM	2200.0	1900.0	1720.0	1180.0	851.0	672.0	611.0	560.0	557.0
MINIMUM	850.0	762.0	713.0	640.0	591.0	451.0	401.0	350.0	319.0
STANDARD DEVIATION	450.68	381.13	302.11	173.35	89.85	66.63	70.31	70.48	70.40
SKENNESS	0.300	0.624	1.251	0.955	0.707	-0.147	0.169	0.384	1.417
STD ERROR OF SKENNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	-0.503	-0.409	-0.428	-0.515	-0.234	0.105	0.037	-0.121	-0.344
COEFF OF VARIATION	0.317	0.307	0.298	0.209	0.128	0.117	0.142	0.161	0.177
MEAN LOGS	3.133	3.076	2.991	2.910	2.841	2.751	2.690	2.637	2.595
STD DEVIATION LOGS	-0.141	0.131	0.120	0.087	0.054	0.052	0.062	0.069	0.071
SKENNESS LOGS	-0.111	0.154	0.651	0.651	0.537	-0.382	0.006	0.160	1.138
STD ERR SKENNESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SER CORR COEFF LOGS	-0.522	-0.441	-0.461	-0.547	-0.220	0.145	0.047	-0.114	-0.352
COEFF OF VAR LOGS	0.045	0.043	0.040	0.030	0.019	0.019	0.023	0.026	0.027

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1910-1969)

0.99	621.5	609.9	588.3	561.8	545.4	413.3	351.6	304.8	309.2	648.5	665.2
0.95	788.2	734.1	657.4	609.2	576.9	457.8	387.3	335.9	319.8	843.5	851.9
0.90	892.6	812.6	704.1	640.4	596.6	482.0	407.8	354.3	328.7	970.3	974.0
0.80	1035.4	921.6	772.2	684.7	623.6	511.6	434.2	378.6	342.6	1148.0	1148.0
0.50	1366.4	1182.0	949.8	793.3	686.5	568.4	489.5	431.6	381.7	1590.6	1581.6
0.20	1787.8	1532.7	1216.6	951.8	761.8	624.8	551.9	494.9	444.2	2200.6	2196.7
0.10	2050.7	1763.5	1413.2	1058.8	819.5	653.7	587.8	533.0	490.1	2607.5	2616.7
0.04	2367.8	2055.1	1678.2	1198.1	882.9	684.0	628.6	577.8	552.6	3124.7	3161.4
0.02	2594.7	2272.8	1890.2	1304.9	929.1	703.2	656.4	609.4	602.3	3512.1	3577.0
0.01	2814.7	2491.5	2114.8	1414.4	974.7	720.1	682.6	639.8	654.8	3901.4	4001.1

3-2016
0.1675
0.0890

STATION 14122000 WHITE SALMON RIVER NEAR TROUT LAKE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1929	147	237	419	462	836	472	753	890	472	185	117	99.6	421
1930	104	104	202	175	146	237	430	881	531	160	94.8	90.6	254
1931	105	123	110	176	229	426	875	601	203	87.3	54.6	59.8	253
1957											44.7	85.0	
1958	147	237	419	462	836	472	753	890	472	185	117	99.6	421
1959	142	677	657	875	461	350	597	580	432	167	104	193	436
1960	416	456	429	278	548	433	797	904	667	198	115	90.8	443
1961	114	555	326	586	1177	726	703	845	614	215	143	157	508
1962	201	281	501	548	397	322	782	662	388	155	111	114	371
1963	290	727	619	365	750	403	617	579	228	111	84.5	82.1	402
1964	118	383	336	477	383	288	353	577	772	290	150	115	353
1965	166	272	935	537	601	463	909	792	449	160	111	78.8	455
1966	124	246	265	285	219	381	886	992	520	237	107	86.1	363
1967	156	319	714	682	587	390	343	755	664	216	109	85.9	418

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1929-1967)

MEAN	173.6	355.1	443.0	429.8	543.1	408.0	673.2	723.9	468.7	173.8	102.7	99.9	389.7
MAXIMUM	416.0	727.0	935.0	875.0	1177.0	726.0	909.0	992.0	772.0	290.0	150.0	193.0	508.0
MINIMUM	104.0	104.0	110.0	142.0	146.0	237.0	343.0	353.0	153.0	77.5	44.7	59.8	253.0
STD DEVIATION	92.34	196.53	234.70	218.96	286.40	117.15	195.12	181.80	190.07	59.98	28.56	36.22	76.68
SKWENESS	2.026	0.777	0.666	0.446	0.670	1.533	-0.652	-0.437	-0.260	0.086	-0.524	1.605	-0.701
STD ERR SKEW	0.637	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.597	0.597	0.637
SER CORR COEFF	-0.198	0.239	-0.117	0.054	-0.492	-0.210	-0.231	-0.058	0.052	0.086	0.375	0.094	0.320
COEFF OF VAR	0.532	0.553	0.530	0.509	0.527	0.287	0.290	0.251	0.406	0.345	0.278	0.363	0.197
MEAN LOGS	2.198	2.485	2.584	2.574	2.671	2.586	2.808	2.855	2.628	2.213	1.992	1.977	2.582
STD DEV LOGS	0.184	0.235	0.235	0.248	0.259	0.116	0.147	0.123	0.127	0.167	0.144	0.139	0.094
SKWENESS LOGS	1.341	-0.301	-0.545	-0.420	-0.571	0.337	-1.016	-1.095	-0.985	-0.728	-1.365	0.808	-1.097
STD ERR SKEW LOGS	0.637	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.597	0.597	0.637
SER CORR LOGS	-0.183	0.465	0.113	0.330	-0.533	-0.242	-0.237	-0.056	0.141	0.193	0.451	0.214	0.400
COEFF OF VAR LOGS	0.084	0.103	0.099	0.096	0.097	0.045	0.052	0.043	0.082	0.076	0.072	0.070	0.036
% OF AVE FLOW	3.8	7.7	9.6	9.4	11.8	8.9	14.7	15.8	10.2	3.8	2.2	2.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1967)

0.99	88.8	68.6	77.8	83.5	92.1	226.0	230.6	292.9	94.5	54.7	33.5	54.5	195.6
0.95	95.3	111.0	134.5	137.6	161.5	260.7	340.4	410.0	166.8	80.9	51.8	60.8	253.3
0.90	100.9	141.7	176.1	176.6	212.9	282.8	408.4	479.2	217.6	97.7	63.1	65.3	285.6
0.80	110.7	188.5	239.1	235.3	291.0	313.6	497.5	566.9	290.8	120.5	77.7	72.1	324.9
0.50	144.0	314.9	404.4	389.9	496.2	388.4	679.2	736.2	460.2	170.9	105.6	90.9	397.1
0.20	213.5	504.8	634.3	610.6	781.2	491.4	855.8	889.4	649.4	226.9	129.4	121.8	459.1
0.10	278.2	635.5	780.1	755.4	961.0	560.5	938.4	957.2	746.2	256.8	138.9	145.7	485.7
0.04	386.9	803.0	953.0	932.9	1172.9	649.4	1015.8	1018.0	841.7	288.1	146.6	179.9	509.2
0.02	491.9	927.9	1073.0	1060.4	1318.9	716.8	1059.1	1050.7	897.3	307.5	150.3	208.6	521.6
0.01	621.8	1052.4	1185.5	1183.2	1455.1	785.4	1093.4	1075.7	942.6	324.4	152.9	240.2	531.1

STATION 14122000 WHITE SALMON RIVER NEAR TROUT LAKE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1930	74.0	77.0	82.0	85.0	90.0	92.0	96.0	98.0	122.0
1931	44.0	48.0	50.0	51.0	52.0	57.0	62.0	72.0	88.0
1959	83.0	84.0	92.0	94.0	98.0	104.0	116.0	131.0	279.0
1960	91.0	92.0	94.0	99.0	101.0	120.0	149.0	196.0	279.0
1961	81.0	83.0	84.0	87.0	88.0	95.0	102.0	120.0	231.0
1962	122.0	123.0	124.0	131.0	142.0	148.0	158.0	174.0	224.0
1963	87.0	88.0	91.0	92.0	99.0	107.0	123.0	166.0	243.0
1964	74.0	76.0	79.0	79.0	81.0	82.0	84.0	95.0	165.0
1965	105.0	106.0	110.0	112.0	115.0	128.0	142.0	155.0	264.0
1966	72.0	73.0	73.0	75.0	78.0	92.0	104.0	114.0	163.0
1967	73.0	74.0	75.0	77.0	82.0	94.0	108.0	131.0	234.0

LOWEST MEAN FLOW STATISTICS (YEARS 1930-1967)

MEAN	82.4	84.0	86.7	89.3	93.3	101.7	113.1	132.0	208.4
MAXIMUM	122.0	123.0	124.0	131.0	142.0	148.0	158.0	196.0	279.0
MINIMUM	44.0	48.0	50.0	51.0	52.0	57.0	62.0	72.0	88.0
STANDARD DEVIATION	19.97	19.28	19.48	20.81	22.84	24.25	28.09	37.60	64.48
SKEWNESS	0.231	0.353	0.176	0.318	0.507	0.203	-0.016	0.171	-0.735
STD ERROR OF SKEWNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	0.012	0.004	-0.087	-0.092	-0.106	-0.108	-0.121	-0.023	0.054
COEFF OF VARIATION	0.242	0.229	0.225	0.233	0.245	0.238	0.254	0.285	0.309
MEAN LOGS	1.903	1.913	1.928	1.940	1.958	1.996	2.040	2.104	2.295
STD DEVIATION LOGS	0.112	0.104	0.103	0.105	0.110	0.109	0.118	0.130	0.162
SKEWNESS LOGS	-0.849	-0.629	-0.703	-0.606	-0.546	-0.667	-0.671	-0.392	-1.223
STD ERR SKEWNESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SER CORR COEFF LOGS	0.037	0.028	-0.071	-0.078	-0.103	-0.078	-0.080	0.030	0.130
COEFF OF VAR LOGS	0.059	0.054	0.053	0.054	0.056	0.055	0.056	0.062	0.071

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1967)

0.99	124.0	127.7	129.6	132.0	137.2	147.4	156.6	179.7	232.9	336.5
0.98	125.3	129.0	130.3	132.0	134.2	141.2	150.9	172.6	219.6	328.1
0.96	115.7	117.7	120.3	126.0	134.2	144.2	154.2	175.4	219.6	316.8
0.95	110.7	109.0	111.9	116.4	123.1	133.4	143.4	161.1	183.3	295.0
0.90	99.8	100.5	103.6	107.1	112.6	122.7	132.7	151.2	163.8	269.9
0.80	83.0	84.0	87.0	89.1	92.8	101.8	111.8	129.4	129.4	212.3
0.70	65.5	67.0	70.3	71.7	74.0	81.1	88.4	99.5	99.5	150.2
0.60	56.7	56.6	61.8	63.0	64.9	70.9	76.4	85.7	85.7	150.2
0.05	49.7	53.3	55.1	56.2	57.8	62.9	67.1	75.4	75.4	119.6
0.00	42.3	47.9	47.9	49.0	49.0	54.4	54.4	64.8	64.8	96.6
0.02	46.5	46.5	47.9	49.0	49.0	54.4	54.4	64.8	64.8	73.8
0.01	37.6	42.2	43.5	44.5	45.6	51.3	51.3	58.3	58.3	60.6

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1930-1967)

P95	P90	P75	P70	P50	P25	P10
81.0	95.0	140.0	160.0	310.0	550.0	820.0

STATION 14122000 WHITE SALMON RIVER NEAR TROUT LAKE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW(CFS)	DATE	REG.(R)
1929										1220.	05/23/29	
1930	1780.	1460.	1160.	921.	719.	610.	620.	544.	422.	1780.	02/20/30	
1931	2800.	1970.	1490.	1160.	889.	808.	641.	542.	417.	3000.	04/01/31	
1938	2080.	1870.	1380.	1060.	955.	868.	721.	743.	656.	2480.	04/20/58	
1959	1420.	1310.	1170.	994.	915.	773.	765.	679.	620.	1540.	11/21/58	
1960	1220.	1180.	1070.	992.	965.	863.	827.	706.	602.	1260.	11/23/59	
1961	1870.	1740.	1470.	1290.	1160.	943.	872.	859.	766.	2470.	11/25/60	
1962	1320.	1240.	1000.	918.	842.	731.	621.	550.	547.	1350.	04/07/62	
1963	2610.	2100.	1640.	1270.	972.	719.	674.	628.	606.	3860.	11/20/62	
1964	1220.	1120.	1030.	950.	865.	683.	574.	508.	475.	1240.	06/05/64	
1965	3030.	2720.	1880.	1400.	1080.	887.	740.	714.	707.	3670.	12/23/64	
1966	1750.	1640.	1510.	1200.	1030.	944.	813.	710.	553.	1830.	05/06/66	
1967	2030.	1700.	1280.	977.	828.	745.	664.	595.	590.	2300.	12/14/66	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1929-1967)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	1927.5	1670.8	1340.0	1094.3	935.0	797.8	711.0	648.2	580.1	3-2991	3-2991
MAXIMUM	3030.0	2720.0	1880.0	1400.0	1160.0	944.0	872.0	859.0	766.0	0.1776	0.1776
MINIMUM	1220.0	1120.0	1000.0	918.0	719.0	610.0	574.0	508.0	417.0	0.0	0.3090
STANDARD DEVIATION	615.01	459.77	269.85	183.90	119.86	105.41	94.03	104.68	106.06		
SKEWNESS	0.588	0.951	0.529	0.632	0.180	-0.147	0.318	0.455	-0.046		
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637		
SERIAL CORR COEFF	-0.369	-0.432	-0.439	-0.504	-0.168	0.037	0.206	-0.061	-0.048		
COEFF OF VARIATION	0.319	0.275	0.201	0.150	0.128	0.037	0.132	0.162	0.193		
MEAN LOGS	3.265	3.209	3.119	3.035	2.968	2.898	2.847	2.807	2.757		
STD DEVIATION LOGS	0.137	0.115	0.086	0.063	0.056	0.059	0.057	0.069	0.082		
SKEWNESS LOGS	0.169	0.354	0.199	0.491	-0.178	-0.380	0.141	0.175	-0.423		
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637		
SER CORR COEFF LOGS	-0.360	-0.452	-0.472	-0.524	-0.148	0.050	0.197	-0.049	0.035		
COEFF OF VAR LOGS	0.042	0.036	0.028	0.021	0.019	0.020	0.020	0.025	0.030		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1967)

0.99	920.5	938.0	853.8	813.9	676.1	556.9	526.7	451.0	347.3	769.2	844.6
0.95	1114.1	1077.5	960.4	871.4	746.0	625.2	571.3	496.6	409.8	1016.3	1055.4
0.90	1237.4	1166.5	1025.0	907.2	784.9	662.6	597.3	523.7	445.1	1179.0	1197.3
0.80	1409.5	1290.8	1111.6	956.3	833.6	708.6	631.0	559.3	489.5	1411.4	1404.8
0.50	1825.1	1592.2	1307.2	1070.7	931.5	798.1	703.2	637.6	578.5	1991.1	1949.7
0.20	2393.1	2007.8	1551.6	1214.2	1035.3	888.1	787.1	731.6	671.0	2808.8	2787.7
0.10	2711.3	2287.2	1703.5	1314.0	1091.7	934.7	836.3	788.3	719.9	3401.7	3401.7
0.04	3253.2	2646.5	1887.2	1431.0	1153.4	983.8	893.4	855.3	771.9	4073.3	4245.8
0.02	3616.0	2919.5	2019.6	1516.7	1194.2	1015.0	933.0	902.6	805.2	4610.6	4925.1
0.01	3982.5	3197.4	2148.9	1601.5	1231.3	1042.7	970.7	948.1	834.9	5154.2	5648.4

STATION 14122500 WHITE SALMON R AT SPLASH DAM NR TROUT LK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1912													
1913	203	558	316	411	288	335	622	897	368	190	173	206	
1914	227	368	293	764	380	703	943	870	985	416	230	271	459
1915	303	554	275	220	216	538	1113	519	445	234	170	208	468
1916	85.2	201	398	276	473	782	1074	1192	165	97.1	63.1	69.6	344
1917	155	202	157	154	164	149	400	957	1306	962	250	177	598
									964	496	175	169	345

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1913	1500.0	11-13-1912
1914	2000.0	1- 6-1914
1915	2140.0	4- 3-1915
1916	1840.0	6-18-1916
1917	1340.0	5-29-1917

STATION 14122800 PHELPS C NR B-Z CORNER, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1970	97.0	1-23-1970
1971	60.0	2-15-1971
1972	96.0	1-20-1972
1973	60.0	12-21-1972
1974	215.0	1-16-1974
1975	33.0	2-13-1975
1976	74.0	12- 4-1975
1977	14.0	5- 3-1977

STATION 14122900 WHITE SALMON RIVER AT B-Z CORNER, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1959	380	932	978	1467	1028	877	1056	1000	699	562	415	487	838
1960	626	640	627	466	898	823	1322	1502	1129	658	515	394	799
1961	382	804	567	909	1844	1541	1390	1446	1155	690	515	467	969
1962	429	458	706	859	775	696	1182	1120	839	555	436	370	701
1963	494	934	997	765	1214	788	1066	971	610	445	345	309	741
1964	331	556	501	764	774	677	704	904	1197	668	481	379	860
1965	393	410	1166	879	1118	974	1327	1264	1002	618	483	371	832

STATION 14122900 WHITE SALMON RIVER AT B-Z CORNER, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1959	2410.0	1-12-1959
1960	1900.0	5-13-1960
1961	3100.0	11-24-1960
1962	1790.0	4- 7-1962
1963	3830.0	11-20-1962
1964	1680.0	6- 5-1964
1965	3670.0	12-23-1964

STATION 14123000 WHITE SALMON RIVER AT HUSUM, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CU81C FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1910	568	1733	1223	1015	1013	2113	1749	1740	1220	917	685	608	1216
1911	614	1120	1097	919	876	900	1300	1414	1446	782	634	646	980
1912	513	733	596	1037	1724	986	1163	1446	1226	805	853	755	952
1913	533	820	709	953	864	907	1337	1374	1614	1104	853	755	1005
1914	656	751	660	1255	949	1259	1434	1374	1073	679	717	709	973
1915	712	883	628	590	642	1060	1429	1043	760	637	560	509	788
1916	479	602	902	706	1065	1599	1823	1586	2227	1865	1148	927	1277
1917	731	704	630	591	607	613	983	1562	1737	1309	888	751	927
1918	606	551	2280	2083	1580	1225	1250	1047	835	743	598	573	1114
1919	589	650	793	1393	1200	1248	1364	1371	1030	887	739	621	989
1920	432	398	486	416	1150	863	1192	868	648	522	450	424	650
1931	409	387	366	447	485	766	1264	1087	759	511	427	406	618
1932	421	465	501	661	684	1427	1552	1815	1533	991	734	580	948
1933	543	1039	817	953	719	943	1236	1566	2033	1303	887	809	1071
1934	797	845	3101	3088	1863	1795	1388	983	813	694	627	587	1383
1935	692	1218	1209	1197	1169	1053	1065	1473	1348	918	731	642	1059
1936	574	535	517	988	662	950	1287	1735	1415	858	685	595	901
1937	515	459	557	486	488	759	1290	1450	1558	969	721	639	825
1938	547	1004	1409	1655	1158	1310	1568	1723	1412	948	780	657	1181
1939	610	585	677	758	794	885	1088	1099	781	638	508	473	741
1940	465	431	720	637	1168	1559	1484	1180	806	638	511	497	840
1941	486	533	702	761	800	866	918	864	637	522	465	505	671
1957													
1958	593	611	935	1147	1775	1322	1588	1609	1250	828	665	602	1072
1959	575	1107	1195	1648	1239	1120	1258	1194	1080	759	618	686	1038
1960	825	821	829	674	1202	1108	1521	1610	1324	877	722	604	1008
1961	584	1062	770	1204	2285	1975	1680	1681	1416	928	743	694	1244
1962	646	686	1043	1110	987	956							

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1910-1962)

MEAN	582.0	767.9	939.0	1050.8	1079.6	1169.1	1358.1	1405.3	1230.0	877.8	681.4	616.2	979.7
MAXIMUM	825.0	1733.0	3101.0	3088.0	2285.0	2113.0	1823.0	1986.0	2227.0	1865.0	1148.0	927.0	1383.0
MINIMUM	409.0	387.0	366.0	416.0	485.0	613.0	918.0	864.0	637.0	511.0	427.0	406.0	618.0
STD DEVIATION	106.55	307.86	578.10	570.41	445.27	374.84	225.41	309.97	416.95	287.64	153.90	113.87	194.54
SKEWNESS	0.504	1.252	2.581	1.995	0.996	1.032	0.111	-0.201	0.514	1.713	0.842	0.550	-0.022
STD ERR SKEW	0.448	0.448	0.448	0.448	0.448	0.448	0.456	0.456	0.456	0.456	0.448	0.448	0.456
SER CORR COEFF	0.214	0.321	0.047	0.016	-0.027	-0.400	-0.325	-0.051	0.121	0.153	0.173	0.191	0.116
COEFF OF VAR	0.183	0.401	0.616	0.543	0.412	0.321	0.166	0.221	0.339	0.328	0.226	0.185	0.199
MEAN LOGS	2.758	2.855	2.920	2.972	3.000	3.048	3.127	3.137	3.065	2.924	2.823	2.783	2.982
STD DEV LOGS	0.079	0.164	0.202	0.205	0.174	0.131	0.074	0.102	0.150	0.129	0.097	0.080	0.090
SKEWNESS LOGS	0.061	0.283	1.037	0.431	0.097	0.379	-0.313	-0.538	-0.140	0.504	-0.011	-0.115	-0.504
STD ERR SKEW LOGS	0.448	0.448	0.448	0.448	0.448	0.448	0.456	0.456	0.456	0.456	0.448	0.448	0.456
SER CORR LOGS	0.278	0.363	0.164	0.073	0.022	-0.413	-0.333	-0.036	0.149	0.166	0.212	0.248	0.161
COEFF OF VAR LOGS	0.029	0.057	0.069	0.069	0.058	0.043	0.024	0.032	0.049	0.044	0.034	0.029	0.030
% OF AVE FLOW	5.0	6.5	8.0	8.9	9.2	9.9	11.6	12.0	10.5	7.5	5.8	5.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1910-1962)

0.99	378.7	322.6	401.4	364.6	405.2	602.3	869.4	725.8	501.2	471.3	395.9	388.5	549.8
0.95	426.4	397.8	452.9	459.8	523.1	703.7	999.7	902.3	648.8	540.3	461.2	444.8	664.5
0.90	454.6	447.6	493.2	525.4	600.8	769.6	1073.1	1004.5	742.2	585.0	500.2	477.5	729.8
0.80	491.5	519.4	559.3	626.9	715.4	863.1	1165.5	1134.7	870.8	651.7	551.8	519.6	812.1
0.50	571.8	703.3	768.0	906.9	992.7	1096.2	1351.7	1399.1	1172.0	819.2	665.6	608.4	977.0
0.20	667.0	976.7	1180.7	1376.3	1396.3	1430.5	1548.1	1674.7	1559.4	1066.7	802.4	708.8	1146.9
0.10	723.6	1171.5	1552.7	1745.9	1635.9	1653.9	1768.4	1819.3	1802.3	1242.6	884.6	766.2	1235.6
0.04	790.0	1433.5	2162.4	2284.9	2039.7	1968.1	1768.4	1971.2	2096.2	1478.9	981.3	831.3	1328.7
0.02	836.4	1640.4	2738.4	2742.0	2320.0	2205.4	1843.0	2067.3	2306.9	1665.6	1049.2	875.6	1387.6
0.01	880.8	1857.3	3438.5	3249.7	2607.5	2451.1	1910.3	2151.7	2511.3	1861.6	1114.3	917.0	1439.4

STATION 14123000 WHITE SALMON RIVER AT HUSUM, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1911	520.0	537.0	545.0	550.0	569.0	603.0	621.0	670.0	832.0
1912	452.0	460.0	475.0	475.0	490.0	558.0	590.0	605.0	629.0
1913	484.0	489.0	494.0	514.0	520.0	550.0	586.0	612.0	676.0
1914	585.0	585.0	585.0	601.0	630.0	661.0	688.0	696.0	786.0
1915	495.0	513.0	531.0	557.0	565.0	593.0	618.0	668.0	685.0
1916	450.0	450.0	450.0	466.0	472.0	486.0	505.0	522.0	579.0
1917	545.0	552.0	556.0	570.0	581.0	590.0	606.0	606.0	648.0
1918	505.0	505.0	514.0	525.0	541.0	563.0	601.0	657.0	684.0
1919	525.0	525.0	536.0	556.0	564.0	571.0	584.0	601.0	641.0
1921	344.0	347.0	352.0	357.0	364.0	375.0	390.0	390.0	409.0
1932	367.0	375.0	383.0	386.0	400.0	402.0	414.0	424.0	451.0
1933	502.0	503.0	510.0	524.0	539.0	559.0	608.0	676.0	768.0
1934	630.0	630.0	633.0	633.0	652.0	767.0	808.0	819.0	1070.0
1935	556.0	556.0	558.0	567.0	583.0	586.0	606.0	634.0	727.0
1936	470.0	470.0	474.0	493.0	507.0	523.0	540.0	565.0	647.0
1937	429.0	432.0	434.0	439.0	451.0	468.0	490.0	495.0	518.0
1938	519.0	522.0	530.0	538.0	540.0	567.0	615.0	663.0	833.0
1939	538.0	540.0	546.0	573.0	585.0	598.0	615.0	631.0	667.0
1940	406.0	408.0	412.0	426.0	426.0	446.0	449.0	462.0	526.0
1941	452.0	457.0	461.0	465.0	480.0	486.0	494.0	499.0	556.0
1959	530.0	534.0	539.0	557.0	573.0	584.0	606.0	646.0	820.0
1960	573.0	573.0	577.0	585.0	609.0	634.0	666.0	699.0	737.0
1961	528.0	535.0	545.0	562.0	571.0	581.0	613.0	647.0	758.0
1962	566.0	575.0	587.0	611.0	629.0	636.0	658.0	685.0	768.0

LOWEST MEAN FLOW STATISTICS (YEARS 1911-1962)

MEAN	498.8	503.0	509.6	522.3	539.5	558.0	581.1	607.5	692.2
MAXIMUM	630.0	630.0	633.0	652.0	729.0	767.0	808.0	819.0	1070.0
MINIMUM	344.0	347.0	352.0	357.0	364.0	375.0	381.0	390.0	409.0
STANDARD DEVIATION	68.42	68.03	68.08	72.96	81.36	84.71	91.76	98.89	147.73
SKEWNESS	-0.509	-0.562	-0.562	-0.631	-0.155	-0.104	-0.164	-0.506	0.286
STD ERROR OF SKEWNESS	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472
SERIAL CORR COEFF	0.245	0.243	0.242	0.228	0.225	0.244	0.287	0.303	0.173
COEFF OF VARIATION	0.137	0.135	0.134	0.140	0.151	0.152	0.158	0.163	0.213
MEAN LOGS	2.694	2.698	2.703	2.713	2.727	2.742	2.759	2.777	2.830
STD DEVIATION LOGS	0.063	0.062	0.062	0.065	0.068	0.069	0.072	0.076	0.095
SKEWNESS LOGS	-0.887	-0.918	-0.962	-0.970	-0.845	-0.681	-0.762	-0.944	-0.411
STD ERR SKEWNESS LOGS	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472
SER CORR COEFF LOGS	0.267	0.263	0.261	0.246	0.248	0.283	0.315	0.317	0.226
COEFF OF VAR LOGS	0.023	0.023	0.023	0.024	0.025	0.025	0.026	0.027	0.034

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1911-1962)

	P99	P95	P90	P75	P70	P50	P25	P10	
0.99	629.2	630.8	634.9	657.0	712.8	735.5	768.3	796.2	1055.3
0.98	619.0	621.1	625.8	647.2	695.9	718.7	751.6	781.8	1011.3
0.96	606.2	608.9	614.2	634.7	678.1	698.7	731.4	763.6	962.4
0.90	583.5	586.9	593.1	612.0	643.2	665.4	696.9	730.9	886.8
0.80	559.1	563.1	569.8	587.0	610.2	631.6	661.3	693.3	816.8
0.50	504.5	509.2	516.3	529.4	542.4	561.4	585.9	615.5	687.0
0.20	441.8	446.5	453.2	461.6	470.7	486.6	503.9	524.2	565.7
0.10	406.9	411.4	417.5	423.5	432.8	446.7	459.8	474.1	506.6
0.05	377.5	381.7	387.3	391.3	401.6	413.9	423.5	432.3	460.3
0.02	344.2	348.1	352.9	354.8	367.0	377.4	383.1	385.9	411.1
0.01	322.2	325.8	330.0	330.6	344.4	353.6	356.8	355.5	380.2

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1911-1962)

P95	P90	P75	P70	P50	P25	P10
460.0	500.0	620.0	650.0	830.0	1200.0	1600.0

STATION 14123000 WHITE SALMON RIVER AT HUSUM, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	DATE	REG.(R)
1910	4340.	3660.	3060.	2610.	2140.	1930.	1880.	1730.	1560.	4340.	11/24/09	
1911	2840.	2400.	1790.	1620.	1530.	1440.	1390.	1280.	1140.	3260.	11/21/10	
1912	2710.	2710.	2310.	2060.	1780.	1470.	1350.	1340.	1280.	2760.	02/17/12	
1913	2070.	2070.	1970.	1970.	1800.	1630.	1530.	1430.	1250.	2070.	06/03/13	
1914	2360.	2360.	1970.	1570.	1480.	1400.	1360.	1300.	1230.	2370.	01/06/14	
1915	2260.	2150.	1840.	1600.	1440.	1300.	1190.	1080.	928.	2260.	04/03/15	
1916	3200.	2910.	2590.	2370.	2290.	2130.	2070.	2030.	1790.	3200.	06/18/16	
1917	2220.	2110.	1990.	1840.	1790.	1710.	1560.	1420.	1210.	2220.	05/29/17	
1918	7220.	5900.	4630.	3990.	3190.	2480.	2080.	1880.	1600.	7500.	12/29/17	
1919	4800.	3670.	2920.	2270.	1740.	1480.	1300.	1410.	1300.			
1920	2020.	2020.	1690.	1410.	1200.	1080.	1090.	1020.	844.	2410.	02/20/30	
1930	2320.	3140.	2290.	1750.	1400.	1270.	1120.	1010.	833.	4720.	04/01/31	
1932	2280.	2090.	2020.	1950.	1850.	1740.	1680.	1600.	1360.	2330.	03/19/32	
1933	3550.	2950.	2860.	2410.	2100.	1810.	1680.	1550.	1330.	3660.	06/09/33	
1934	10300.	8360.	6400.	4330.	3630.	3260.	2790.	2530.	2040.	10800.	12/22/33	
1935	2590.	2360.	1980.	1610.	1540.	1430.	1310.	1240.	1260.	2770.	12/21/34	
1936	2140.	2070.	1970.	1870.	1760.	1690.	1500.	1350.	1180.	2180.	05/05/36	
1937	2970.	2600.	2100.	1710.	1560.	1510.	1470.	1320.	1120.	3070.	04/15/37	
1938	5040.	4030.	2990.	2190.	1940.	1730.	1590.	1510.	1530.	5370.	12/30/37	
1939	1230.	1210.	1170.	1150.	1130.	1110.	1040.	986.	900.	1240.	02/15/39	
1940	2150.	2070.	1980.	1750.	1600.	1550.	1460.	1370.	1150.	2180.	03/01/40	
1941	1230.	1140.	1080.	1040.	956.	903.	888.	873.	820.	1280.	05/18/41	
1958	3270.	2950.	2360.	2050.	1800.	1640.	1580.	1570.	1450.	3610.	04/20/58	
1959	2630.	2410.	2080.	1820.	1730.	1640.	1590.	1330.	1290.	2730.	01/12/59	
1960	2100.	2010.	1770.	1700.	1660.	1580.	1520.	1410.	1270.	2210.	02/08/60	
1961	3480.	3310.	2850.	2530.	2280.	2120.	1970.	1900.	1700.	3720.	02/10/61	
1962										2060.	12/24/61	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1910-1962)

MEAN	3289.2	2470.8	2389.2	2043.8	1819.1	1648.6	1534.5	1441.1	1284.0	W R C	SYSTEMATIC
MAXIMUM	10300.0	8360.0	6040.0	4330.0	3630.0	3260.0	2790.0	2530.0	2030.0	ESTIMATE	RECORD
MINIMUM	1230.0	1140.0	1080.0	1040.0	956.0	903.0	888.0	873.0	820.0		
STANDARD DEVIATION	1924.78	1471.30	1017.19	732.86	571.02	472.43	392.67	360.03	298.59		
SKENNESS	2.347	2.469	2.271	1.897	1.704	1.684	1.289	1.122	0.532		
STD ERROR OF SKENNESS	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456		
SERIAL CORR COEFF	0.002	-0.036	-0.010	0.010	0.030	0.015	-0.017	-0.072	-0.083		
COEFF OF VARIATION	0.585	0.513	0.426	0.359	0.314	0.287	0.256	0.250	0.233		
MEAN LOGS	3.465	3.418	3.349	3.289	3.242	3.202	3.173	3.147	3.097		
STD DEVIATION LOGS	0.205	0.180	0.155	0.135	0.123	0.114	0.105	0.103	0.101		
SKENNESS LOGS	0.679	0.686	0.715	0.707	0.538	0.481	0.306	0.279	-0.101	3.4670	3.4670
STD ERK SKENNESS LOGS	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.2078	0.2078
SER CORR COEFF LOGS	0.004	-0.048	-0.039	0.0	0.048	0.033	-0.007	-0.064	-0.049	0.0120	0.6070
COEFF OF VAR LOGS	0.059	0.053	0.046	0.041	0.038	0.035	0.033	0.033	0.033		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1910-1962)

0.99	1234.8	1231.5	1179.6	1108.2	1013.3	952.0	897.4	845.8	715.0	967.1	1282.6
0.95	1485.3	1447.1	1349.0	1247.7	1150.1	1077.0	1024.1	966.0	847.1	1336.5	1510.2
0.90	1666.5	1600.4	1468.0	1344.1	1240.7	1158.2	1103.6	1041.0	925.9	1588.7	1679.2
0.80	1947.5	1834.6	1647.4	1487.7	1371.1	1273.4	1213.1	1143.9	1029.6	1959.1	1946.2
0.50	2768.8	2498.5	2143.0	1873.9	1703.4	1568.0	1472.7	1386.0	1256.1	2928.4	2750.3
0.20	4244.8	3638.3	2959.7	2486.0	2193.3	1968.5	1819.3	1706.0	1524.0	4383.0	4255.1
0.10	5478.6	4554.9	3593.5	2945.6	2540.4	2250.9	2046.3	1913.8	1682.3	5414.4	5555.6
0.04	7374.1	5918.2	4508.7	3591.1	3007.0	2620.9	2332.6	2174.1	1866.2	7612.0	7612.0
0.02	9060.9	7037.0	5279.2	4121.3	3374.7	2907.4	2546.2	2367.2	1993.8	9491.4	9491.4
0.01	11010.8	8428.2	6131.1	4695.8	3760.4	3203.6	2760.7	2560.3	2114.8	8956.8	11712.3

STATION 14123500 WHITE SALMON R NR UNDERWOOD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1913													
1915		906	820										
1916	517	668	1112	874	1398	1229	1606	1147	813	687	596	556	
1917	775	719	716	744	757	2355	2306	2207	2338	1911	1225	1003	1492
1918	645	576	2984	2776	2108	821	1374	1723	1806	1345	964	816	1048
1919	633	706	865	1514	1327	1635	1367	1526	1919	1817	651	619	1352
1920	582	680	816	1120	946	942	1042	1087	1140	933	774	700	1111
1921	861	1021	1169	1871	1844	2145	1686	1868	1645	634	573	683	830
1922	692	727	1527	812	761	862	1356	1715	1605	1124	895	777	1407
1923	568	594	816	1917	1211	1203	1395	1413	1081	938	778	651	1037
1924	535	560	778	733	1748	1042	919	840	628	868	659	590	1031
1925	461	872	862	1359	2214	1525	1586	1659	1135	858	693	425	760
1926	536	531	666	1114	2214	1114	1062	1848	826	526	479	477	1144
1927	587	789	1171	1357	2021	1454	1381	1699	1630	999	816	745	1732
1928	752	1344	1162	1396	936	2051	1734	1823	1152	878	695	631	1216
1929	584	595	612	558	508	824	1001	1352	1057	680	581	486	738
1930	450	396	527	446	1461	1024	1285	915	682	538	451	434	712
1935													
1936	606	573	562	1322	773	1280	1456	1792	1474	890	711	677	1004
1937	551	496	584	487	549	1032	1627	1612	1641	987	742	654	914
1938	570	1101	1732	1994	1340	1805	1727	1736	1416	962	784	663	1320
1939	634	635	730	845	944	1049	1112	1118	803	644	518	490	793
1940	475	431	740	680	1557	1892	1695	1291	823	651	537	520	940
1941	500	559	771	879	941	984	986	910	866	533	469	513	723
1942	505	647	1502	889	1317	960	1147	1067	901	634	538	458	878
1943	443	961	1384	1318	1446	1544	2518	1845	1703	1178	825	717	1321
1944	679	623	728	657	810	742	822	804	642	514	457	437	659
1945	437	496	452	724	1130	1040	1134	1608	1001	730	598	560	824
1946	498	612	1137	1623	1318	1480	1376	1814	1572	1079	761	704	1164
1947	682	954	2194	1335	1774	1459	1377	1049	899	650	585	604	1127
1948	975	1036	949	1679	1543	1355	1267	1841	1631	910	752	669	1216
1949	630	793	1117	642	1406	1974	1878	2354	1761	1140	821	739	1273
1950	699	968	1021	991	1464	2399	2096	1904	2155	1420	1005	812	1417
1951	1003	1583	2504	2203	2675	1813	2018	2055	1537	1055	844	761	1667
1952	991	1001	1495	2542	1813	1269	1558	1656	1307	959	757	642	1201
1953	566	569	581	2542	2133	1413	1317	1608	1400	1046	770	649	1211
1954	666	811	1463	1442	1838	1808	1833	1797	1680	1210	880	774	1347
1955	751	911	813	899	960	925	1149	1257	1608	1076	778	734	987
1956	900	1607	2349	2010	1313	1812	2269	2565	2506	1640	1136	936	1755
1957	851	835	1252	812	1056	1915	1793	1748	1090	807	677	594	1120
1958	619	641	1121	1521	2433	1494	1804	1728	1279	852	692	629	1226
1959	613	1226	1375	2056	1454	1377	1488	1299	1137	795	655	711	1180
1960	870	870	873	719	1528	1411	1928	1775	1401	890	750	623	1134
1961	625	1163	898	1417	3156	2542	1788	1726	1385	943	753	726	1414
1962	650	727	1180	1264	1185	1252	1633	1482	1118	809	670	596	1467
1963	748	1253	1334	1043	1698	1161	1595	1282	888	712	588	560	1064
1964	559	833	816	1455	1297	1129	1028	1139	1427	906	702	608	990
1965	619	654	1882	1551	1852	1401	1666	1520	1218	836	706	579	1204
1966	590	636	626	912	803	1444	1730	1720	1304	949	683	594	1000
1967	618	721	1299	1654	1574	1214	1066	1319	1301	836	660	574	1068
1968	803	822	932	1182	2821	1786	1242	1319	1301	836	660	574	1068
1969	731	1180	1189	1385	973	1487	1756	2026	1495	927	703	675	1135
1970	673	695	847	2180	2003	1823	1761	1484	1245	817	661	606	1204
1971	583	808	946	2198	1948	1849	1632	2339	2080	1437	990	867	1481
1972	754	782	982	2035	2204	3417	2100	2433	2039	1318	996	920	1669
1973	764	841	1585	1537	1133	1131	990	846	716	599	544	544	933
1974	569	1209	2253	3362	2097	1771	1963	1999	2449	1636	1065	834	1765
1975	739	815	1221	2045	1738	1845	1314	1674	1572	1094	831	688	1296
1976	708	951	2252	2004	1527	1485	1471	1737	1274	987	812	661	1324
1977	617	592	542	505	509	558	651	659	634	456	432	499	554
1978	475	1029	2926	1550	1728	1482	1399	1303	974	741	622	599	1234
1979	512	496	517	430	849	1095	959	1165	738	583	501	483	693

STATION 14123500 WHITE SALMON R NR UNDERWOOD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1913-1979)

MEAN	648.5	813.8	1172.0	1342.2	1477.7	1465.1	1495.4	1537.8	1299.9	912.2	714.5	644.5	1127.3
MAXIMUM	1003.0	1507.0	2984.0	3362.0	3156.0	3417.0	2818.0	2865.0	2506.0	1911.0	1225.0	1003.0	1765.0
MINIMUM	437.0	396.0	452.0	430.0	508.0	558.0	651.0	659.0	626.0	456.0	432.0	425.0	554.0
STD DEVIATION	137.11	264.25	589.93	629.88	570.80	498.21	390.63	434.62	466.43	297.77	171.91	124.40	273.09
SKENNESS	0.777	1.025	1.413	0.776	0.607	1.181	0.275	0.108	0.628	1.093	0.689	0.590	0.193
SER CORR COEFF	0.311	0.309	0.309	0.311	0.311	0.309	0.309	0.309	0.309	0.309	0.309	0.306	0.311
COEFF OF VAR	0.211	0.325	0.503	0.469	0.386	0.340	0.261	0.283	0.112	0.143	0.159	0.222	0.057
MEAN LOGS	2.803	2.890	3.023	3.079	3.136	3.143	3.159	3.168	3.086	2.939	2.842	2.801	3.039
STD DEV LOGS	0.089	0.134	0.197	0.212	0.178	0.144	0.118	0.132	0.158	0.136	0.103	0.083	0.110
SKENNESS LOGS	0.297	0.249	0.420	0.224	0.450	0.053	0.440	0.557	0.130	0.163	0.022	0.037	0.473
SER CORR LOGS	0.311	0.309	0.311	0.311	0.311	0.309	0.309	0.309	0.309	0.309	0.309	0.306	0.311
COEFF OF VAR LOGS	0.162	0.157	0.157	0.048	0.027	0.106	0.115	0.057	0.095	0.122	0.149	0.219	0.050
COEFF OF VAR LOGS	0.032	0.046	0.065	0.069	0.057	0.046	0.037	0.042	0.051	0.046	0.036	0.030	0.036
% OF AVE FLOW	4.8	6.0	8.7	9.9	10.9	10.8	11.1	11.4	9.6	6.7	5.3	4.8	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1913-1979)

0.99	412.9	400.2	423.1	355.2	461.6	635.2	701.9	644.4	504.7	436.5	401.5	408.1	555.9
0.95	462.0	477.4	530.1	521.1	664.2	802.1	893.2	856.6	661.0	527.8	470.9	463.4	698.3
0.90	492.3	526.8	604.2	634.6	796.2	907.3	1007.3	985.2	760.9	585.9	512.9	496.1	782.0
0.80	533.4	596.2	715.3	800.2	980.2	1052.2	1156.5	1154.6	899.7	666.7	568.9	538.9	890.3
0.50	628.6	765.8	1021.1	1222.1	1409.8	1392.6	1472.8	1515.2	1229.1	861.6	694.4	632.3	1115.5
0.20	751.5	1001.6	1524.5	1818.8	1941.5	1835.6	1823.3	1910.9	1600.6	1126.8	848.5	743.1	1358.8
0.10	829.9	1161.1	1914.8	2216.6	2257.3	2117.2	2016.6	2125.2	1534.9	1302.9	942.7	809.1	1490.3
0.04	926.6	1367.0	2477.2	2716.6	2619.2	2462.3	2228.0	2354.8	1270.1	1526.7	1055.1	866.4	1631.8
0.02	997.6	1523.8	2949.2	3085.5	2864.9	2712.7	2366.2	2501.9	2512.4	1694.8	1135.0	940.5	1723.2
0.01	1067.8	1683.8	3468.9	3450.7	3092.6	2958.4	2491.0	2632.5	2749.2	1864.4	1212.2	992.1	1804.8

STATION 14123500 WHITE SALMON R NR UNDERWOOD, WASH.

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1916	469.0	488.0	491.0	500.0	515.0	530.0	546.0	563.0	631.0
1917	572.0	601.0	623.0	647.0	699.0	713.0	720.0	728.0	746.0
1918	498.0	522.0	539.0	547.0	565.0	594.0	642.0	703.0	933.0
1919	561.0	564.0	573.0	587.0	608.0	615.0	625.0	649.0	698.0
1920	460.0	506.0	515.0	550.0	579.0	619.0	624.0	651.0	732.0
1921	500.0	512.0	530.0	549.0	568.0	590.0	621.0	683.0	732.0
1922	431.0	525.0	573.0	592.0	661.0	669.0	709.0	759.0	880.0
1923	484.0	497.0	502.0	513.0	527.0	567.0	569.0	595.0	702.0
1924	447.0	468.0	469.0	475.0	484.0	522.0	548.0	580.0	631.0
1925	387.0	398.0	403.0	415.0	419.0	433.0	440.0	453.0	526.0
1926	489.0	491.0	498.0	503.0	516.0	533.0	549.0	567.0	610.0
1927	437.0	441.0	444.0	453.0	466.0	475.0	486.0	512.0	549.0
1928	586.0	636.0	649.0	666.0	677.0	724.0	742.0	777.0	966.0
1929	405.0	437.0	464.0	465.0	491.0	536.0	556.0	566.0	583.0
1930	366.0	370.0	373.0	384.0	389.0	413.0	430.0	455.0	480.0
1931	378.0	436.0	443.0	450.0	472.0	506.0	518.0	518.0	544.0
1932	269.0	422.0	512.0	534.0	564.0	588.0	636.0	682.0	887.0
1933	502.0	571.0	578.0	601.0	628.0	635.0	643.0	662.0	707.0
1940	316.0	384.0	407.0	415.0	427.0	448.0	452.0	470.0	534.0
1941	278.0	415.0	451.0	468.0	495.0	506.0	510.0	518.0	579.0
1942	379.0	433.0	442.0	453.0	466.0	487.0	493.0	497.0	555.0
1943	304.0	398.0	423.0	430.0	437.0	450.0	479.0	510.0	628.0
1944	346.0	390.0	398.0	531.0	619.0	651.0	660.0	668.0	697.0
1945	270.0	390.0	398.0	412.0	423.0	437.0	441.0	453.0	462.0
1946	348.0	434.0	464.0	471.0	485.0	510.0	529.0	549.0	631.0
1947	484.0	528.0	545.0	583.0	640.0	650.0	681.0	712.0	936.0
1948	496.0	530.0	545.0	552.0	571.0	592.0	606.0	637.0	780.0
1949	496.0	545.0	581.0	582.0	582.0	636.0	657.0	688.0	768.0
1950	158.0	584.0	643.0	660.0	683.0	706.0	725.0	761.0	860.0
1951	706.0	754.0	770.0	782.0	804.0	862.0	924.0	1020.0	1320.0
1952	662.0	689.0	700.0	718.0	758.0	801.0	836.0	877.0	1010.0
1953	411.0	488.0	526.0	546.0	560.0	565.0	571.0	586.0	662.0
1954	519.0	578.0	595.0	607.0	638.0	644.0	666.0	699.0	870.0
1955	569.0	610.0	639.0	676.0	723.0	736.0	764.0	805.0	833.0
1956	625.0	688.0	687.0	698.0	721.0	738.0	791.0	860.0	1050.0
1957	642.0	710.0	739.0	753.0	789.0	827.0	852.0	901.0	926.0
1958	406.0	508.0	536.0	569.0	591.0	602.0	608.0	628.0	699.0
1959	534.0	585.0	568.0	593.0	613.0	619.0	638.0	677.0	868.0
1960	485.0	611.0	622.0	626.0	645.0	672.0	698.0	736.0	776.0
1961	516.0	542.0	582.0	599.0	606.0	615.0	642.0	674.0	817.0
1962	605.0	630.0	645.0	658.0	672.0	676.0	694.0	717.0	793.0
1963	366.0	524.0	556.0	570.0	579.0	624.0	664.0	682.0	815.0
1964	395.0	483.0	522.0	536.0	540.0	552.0	566.0	593.0	673.0
1965	501.0	519.0	525.0	545.0	569.0	596.0	603.0	635.0	776.0
1966	439.0	475.0	540.0	548.0	576.0	580.0	600.0	607.0	653.0
1967	400.0	496.0	546.0	574.0	588.0	599.0	609.0	652.0	787.0
1968	521.0	549.0	556.0	565.0	574.0	612.0	642.0	699.0	763.0
1969	524.0	571.0	582.0	591.0	609.0	646.0	646.0	677.0	790.0
1970	470.0	550.0	577.0	588.0	629.0	657.0	676.0	672.0	728.0
1971	423.0	536.0	551.0	565.0	574.0	591.0	605.0	639.0	738.0
1972	661.0	681.0	698.0	732.0	746.0	756.0	790.0	832.0	925.0
1973	460.0	510.0	546.0	586.0	702.0	750.0	796.0	816.0	982.0
1974	431.0	471.0	485.0	493.0	501.0	521.0	538.0	553.0	626.0
1975	680.0	684.0	709.0	724.0	729.0	748.0	788.0	825.0	1010.0
1976	610.0	615.0	620.0	634.0	657.0	695.0	738.0	780.0	973.0
1977	361.0	441.0	463.0	477.0	496.0	506.0	518.0	529.0	555.0
1978	386.0	407.0	414.0	417.0	423.0	442.0	459.0	461.0	524.0
1979	390.0	399.0	407.0	419.0	430.0	450.0	474.0	483.0	522.0

STATION 14123500 - WHITE SALMON R NR UNDERWOOD, WASH.

LOWEST MEAN FLOW STATISTICS (YEARS 1916-1979)

MEAN	462.3	521.9	542.8	557.9	581.0	603.9	624.7	653.2	748.7
MAXIMUM	706.0	754.0	770.0	782.0	804.0	862.0	924.0	1020.0	1320.0
MINIMUM	158.0	370.0	373.0	384.0	389.0	413.0	430.0	453.0	462.0
STANDARD DEVIATION	112.41	90.85	90.93	93.99	101.11	104.41	112.63	124.86	169.18
SKEWNESS	-0.022	0.484	0.358	0.283	0.146	0.247	0.346	0.449	0.666
STD ERROR OF SKEWNESS	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314
SERIAL CORR COEFF	0.187	0.412	0.473	0.478	0.415	0.393	0.406	0.440	0.338
COEFF OF VARIATION	0.243	0.172	0.168	0.168	0.174	0.173	0.180	0.191	0.226
MEAN LOGS	2.651	2.711	2.729	2.740	2.758	2.775	2.789	2.807	2.864
STD DEVIATION LOGS	0.117	0.074	0.073	0.074	0.077	0.076	0.079	0.083	0.097
SKEWNESS LOGS	-1.088	0.110	-0.038	-0.092	-0.207	-0.141	-0.068	-0.021	0.055
STD ERR SKEWNESS LOGS	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314
SER CORR COEFF LOGS	0.139	0.428	0.483	0.490	0.420	0.396	0.403	0.442	0.365
COEFF OF VAR LOGS	0.044	0.027	0.027	0.027	0.028	0.027	0.028	0.030	0.034

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1916-1979)

	0.99	0.98	0.96	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01
MEAN	674.4	659.2	634.5	641.2	663.1	663.1	663.1	663.1	663.1	663.1	663.1	663.1	663.1	663.1	663.1
STD	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
COEFF OF VAR	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
MEAN LOGS	2.651	2.651	2.651	2.651	2.651	2.651	2.651	2.651	2.651	2.651	2.651	2.651	2.651	2.651	2.651
STD DEVIATION LOGS	0.117	0.117	0.117	0.117	0.117	0.117	0.117	0.117	0.117	0.117	0.117	0.117	0.117	0.117	0.117
SKEWNESS LOGS	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088	-1.088
STD ERR SKEWNESS LOGS	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314	0.314
SER CORR COEFF LOGS	0.139	0.139	0.139	0.139	0.139	0.139	0.139	0.139	0.139	0.139	0.139	0.139	0.139	0.139	0.139
COEFF OF VAR LOGS	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1916-1979)

	P95	P90	P75	P70	P50	P25	P10
490.0	540.0	670.0	720.0	950.0	1400.0	1900.0	

FLOW DURATION DATA

	P95	P90	P75	P70	P50	P25	P10
490.0	540.0	670.0	720.0	950.0	1400.0	1900.0	

STATION 14123500 WHITE SALMON R NR UNDERWOOD, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW (CFS)	DATE	REG. (R)
1916	3570.	3370.	3270.	2930.	2650.	2480.	2380.	2360.	2110.	4100.	03/21/16	
1917	2130.	2030.	1980.	1940.	1880.	1790.	1670.	1570.	1350.	2130.	06/09/17	
1918	9200.	7780.	6110.	5340.	4250.	3310.	2780.	2480.	2020.	9700.	12/29/17	
1919	5000.	3820.	3120.	2460.	1890.	1680.	1650.	1640.	1480.	5800.	01/23/19	
1920	3240.	2730.	2040.	1590.	1270.	1110.	1050.	1070.	1030.	3820.	01/26/20	
1921	4110.	3870.	3230.	2590.	2160.	2020.	1990.	1940.	1860.	4300.	03/18/21	
1922	3330.	2930.	2300.	2030.	1950.	1690.	1570.	1430.	1210.	3930.	12/01/21	
1923	6240.	5750.	3970.	2790.	2120.	1680.	1510.	1470.	1410.	6400.	12/07/23	
1924	2650.	2590.	2410.	2160.	1770.	1420.	1260.	1160.	1010.	3060.	02/01/24	
1925	4800.	4460.	3880.	2900.	2290.	1970.	1830.	1780.	1570.	5190.	02/03/25	
1926	2550.	2340.	1920.	1500.	1360.	1230.	1170.	1080.	939.	2780.	02/06/26	
1927	4140.	3810.	3190.	2470.	2010.	1720.	1650.	1670.	1580.	4410.	02/22/27	
1928	4390.	3580.	2810.	2130.	2340.	2010.	1910.	1710.	1560.	5320.	11/25/27	
1929	1640.	1610.	1510.	1420.	1380.	1270.	1150.	1070.	918.	2720.	05/03/29	
1930	2990.	2600.	2160.	1810.	1480.	1290.	1270.	1170.	971.	3220.	02/20/30	
1936	2540.	2340.	2030.	1930.	1850.	1760.	1590.	1510.	1350.	3490.	05/18/36	
1937	3600.	3300.	2730.	2110.	1840.	1710.	1650.	1500.	1270.	4210.	04/15/37	
1938	6240.	5250.	3910.	2780.	2420.	1960.	1870.	1830.	1760.	7300.	12/29/37	
1939	1950.	1650.	1370.	1260.	1180.	1150.	1100.	1070.	977.	2260.	02/15/39	
1940	3160.	3050.	2810.	2390.	1930.	1860.	1780.	1630.	1340.	3920.	02/28/40	
1941	1480.	1320.	1170.	1040.	1070.	1000.	976.	910.	750.	1750.	01/19/41	
1942	3290.	3020.	2410.	1830.	1530.	1280.	1230.	1170.	1150.	3790.	12/19/41	
1943	4900.	4590.	3900.	3190.	2790.	2300.	2150.	1940.	1740.	6000.	03/31/43	
1944	1270.	1230.	1060.	914.	846.	817.	801.	797.	760.	1720.	12/03/43	
1945	2690.	2350.	1770.	1630.	1490.	1400.	1320.	1270.	1120.	3440.	02/08/45	
1946	4270.	3710.	3100.	2460.	1900.	1710.	1610.	1570.	1560.	5280.	12/29/45	
1947	6550.	5970.	4780.	3190.	2300.	1870.	1780.	1700.	1560.	6910.	12/13/46	
1948	4610.	3590.	2800.	2180.	1910.	1760.	1590.	1610.	1550.	6430.	01/07/48	
1949	3390.	2900.	2630.	2560.	2370.	2170.	2110.	2020.	1760.	7200.	02/17/49	
1950	3780.	3650.	3110.	2990.	2630.	2380.	2240.	2220.	1930.	5260.	02/24/50	
1951	5580.	5160.	4300.	3290.	2760.	2600.	2480.	2310.	2220.	6240.	02/11/51	
1952	4710.	3770.	2960.	2330.	1790.	1620.	1550.	1570.	1460.	5900.	02/04/52	
1953	5700.	5160.	4140.	3480.	3050.	2410.	2070.	1900.	1740.	7170.	01/18/53	
1954	3680.	3340.	3000.	2440.	2230.	1990.	1910.	1870.	1730.	4410.	02/21/54	
1955	2290.	2210.	2070.	1820.	1610.	1460.	1350.	1280.	1160.	2330.	06/11/55	
1956	5450.	4600.	3510.	2970.	2790.	2580.	2470.	2350.	2120.	6420.	12/22/55	
1957	3330.	3090.	2640.	2370.	2050.	1920.	1890.	1700.	1450.	4250.	02/26/57	
1958	4030.	3640.	2900.	2790.	2460.	2080.	1930.	1880.	1730.	5130.	01/29/58	
1959	3760.	3320.	2720.	2330.	2180.	1790.	1690.	1610.	1530.	4780.	01/12/59	
1960	3070.	2940.	2480.	2270.	2040.	1910.	1800.	1690.	1490.	3790.	02/08/60	
1961	5870.	5450.	4500.	3690.	3140.	2820.	2480.	2290.	1980.	6340.	02/10/61	
1962	2390.	2300.	1990.	1800.	1690.	1600.	1470.	1400.	1370.	3070.	05/14/62	
1963	3510.	2980.	2530.	2010.	1700.	1460.	1480.	1420.	1400.	5410.	11/20/62	
1964	3550.	3150.	2610.	2100.	1690.	1410.	1300.	1230.	1240.	4990.	01/23/64	
1965	8040.	6080.	4130.	2870.	2260.	1960.	1830.	1720.	1650.	9640.	12/23/64	
1966	2490.	2260.	2260.	1920.	1780.	1750.	1680.	1570.	1340.	2650.	05/06/66	
1967	4060.	3790.	3070.	2370.	1960.	1640.	1530.	1450.	1370.	4570.	01/29/67	
1968	5700.	5440.	5160.	3790.	2870.	2290.	1980.	1770.	1540.	6930.	02/19/68	
1969	3400.	2770.	2320.	2280.	2140.	1900.	1890.	1710.	1520.	4950.	01/07/69	
1970	7170.	5940.	4840.	3620.	2790.	2380.	2130.	1950.	1700.	8000.	01/23/70	
1971	4020.	3810.	3360.	2810.	2370.	2210.	2060.	2030.	2030.	4560.	01/19/71	
1972	7500.	6010.	4390.	3930.	3640.	3070.	2790.	2680.	2410.	8360.	01/21/72	
1973	5660.	4740.	3680.	2710.	2140.	1730.	1540.	1410.	1210.	8160.	12/31/72	
1974	10800.	10500.	7700.	5180.	3830.	3020.	2820.	2440.	2320.	15300.	01/15/74	
1975	3890.	3550.	2820.	2670.	2160.	2050.	1890.	1770.	1720.	4860.	01/25/75	
1976	6750.	4950.	4080.	2930.	2260.	2150.	1940.	1830.	1750.	8250.	12/04/75	
1977	1010.	893.	804.	766.	698.	675.	652.	628.	588.	1500.	05/04/77	
1978	9080.	7860.	5420.	4110.	3110.	2320.	2110.	1940.	1760.	9980.	12/14/77	
1979	1850.	1750.	1520.	1330.	1210.	1070.	1080.	1040.	897.	2290.	02/07/79	

STATION 14123500 WHITE SALMON R NR UNDERWOOD, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1916-1979)

[illegible]

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1916-1979)

0.99	1124.0	1031.3	912.9	855.5	793.7	743.7	720.2	700.2	640.1	1461.2	1411.5
0.95	1650.4	1520.3	1339.0	1213.0	1099.2	1012.9	975.2	938.4	854.8	2063.5	2043.5
0.90	2012.3	1850.4	1619.0	1439.5	1288.5	1176.3	1127.8	1080.3	982.8	2520.9	2506.0
0.80	2543.1	2325.4	2011.9	1748.5	1541.2	1390.9	1325.4	1263.7	1148.6	3134.5	3147.4
0.50	3908.9	3499.9	2932.9	2534.1	2087.2	1841.5	1729.5	1638.2	1488.8	4768.6	4799.8
0.20	5859.4	5080.6	4020.5	3234.1	2591.4	2191.9	2140.8	2020.4	1839.6	6583.3	6695.5
0.10	7193.4	6088.0	4748.5	3580.3	2818.0	2269.7	2247.4	2131.4	2019.0	8057.6	8197.5
0.04	8875.5	7307.9	5518.0	4168.3	3365.8	2628.6	2554.9	2408.3	2281.6	10289.1	10489.1
0.02	10128.6	8117.9	6177.9	4485.8	3386.9	2679.9	2626.5	2526.6	2407.8	11617.6	11848.4
0.01	11378.4	9010.8	6516.2	4770.3	3781.5	3128.1	2785.4	2626.5	2407.8	13572.1	13920.6

STATION 14124000 LITTLE WHITE SALMON R NR WILLARD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1945			36.6	118	298	215	174	135	66.5	31.0	15.8	16.8	
1946	16.0	130	343	477	314	378	181	110	71.0	48.1	24.0	16.2	169
1947	128.9	205	573	247	327	178	99.7	180	33.3	19.0	12.8	15.7	148
1948				408	321	197	161	182	66.5	36.4	20.4	18.2	148
1949	194.8	120	125	408	406	404	334	233	63.8	32.9	18.3	15.9	165

STATION 14124000 LITTLE WHITE SALMON R NR WILLARD, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW (CFS)	DAT
1945	2010.0	2-8-1945
1946	2200.0	12-28-1945
1947	2900.0	12-15-1946
1948	2390.0	1-7-1948
1949	2330.0	2-17-1949

STATION 14124500 LITTLE WHITE SALMON RIVER AT WILLARD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1945			79.7	292	612	522	501	506	452	262	107	34.7	
1946	16.1	204	609	909	651	685	478	466	489	418	270	114	442
1947	69.4	374	1445	781	805	550	406	277	218	137	54.5	21.2	427
1948	220	411	410	819	642	557	463	547	459	362	177	71.6	428
1949	47.8	281	597	206	606	722	701	846	587	379	205	93.9	438
1950	52.4	150	505	539	718	1181	989	750	628	500	294	137	536
1951	205	744	1058	1048	1117	593	700	513	448	345	180	75.5	586
1952	209	472	799	405	788	423	580	458	463	322	174	66.5	536
1953	19.3	7.01	59.2	1538	1319	638	400	372	410	323	220	104	446
1954	42.4	109	799	836	772	689	780	511	483	403	259	124	483
1955	67.1	152	350	421	440	308	529	464	481	432	266	136	337
1956	206	696	1153	907	462	662	936	794	753	510	339	192	635
1957	109	148	402	330	416	711	684	443	338	207	87.5	32.2	325
1958	16.2	77.7	559	778	1038	557	608	493	379	256	109	32.5	405
1959	14.1	392	662	942	634	586	539	405	309	233	115	61.2	407
1960	154	216	327	260	734	514	770	545	464	318	156	64.4	375
1961	33.4	437	513	671	1428	1154	622	488	366	275	136	56.5	509

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1945-1961)

MEAN	92.6	304.4	607.5	689.6	775.4	650.1	626.6	522.2	454.5	334.2	185.2	83.1	450.4
MAXIMUM	220.0	744.0	1445.0	1538.0	1428.0	1181.0	989.0	846.0	753.0	510.0	339.0	192.0	635.0
MINIMUM	14.1	7.0	59.2	206.0	416.0	308.0	400.0	277.0	218.0	137.0	54.5	21.2	325.0
STD DEVIATION	78.90	213.56	362.76	351.29	291.72	221.63	171.33	147.40	123.97	101.02	80.32	46.43	83.39
SKENNESS	0.695	0.751	0.721	0.604	1.041	1.424	0.679	0.993	0.562	0.007	0.263	0.717	0.731
STD ERR SKEW	0.564	0.564	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.554
SER CORR COEFF	-0.058	-0.117	-0.317	-0.329	0.098	-0.086	0.132	0.190	0.012	0.021	0.045	0.141	-0.320
COEFF OF VAR	0.852	0.702	0.597	0.509	0.376	0.341	0.273	0.282	0.273	0.302	0.434	0.559	0.185
MEAN LOGS	1.786	2.325	2.679	2.779	2.863	2.792	2.784	2.703	2.642	2.503	2.223	1.849	2.657
STD DEV LOGS	0.433	0.486	0.365	0.247	0.154	0.138	0.116	0.118	0.123	0.146	0.212	0.269	0.078
SKENNESS LOGS	-0.092	-1.934	-1.443	-0.439	0.338	0.239	0.179	0.136	-0.553	-0.568	-0.640	-0.418	0.270
STD ERR SKEW LOGS	0.564	0.564	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.564
SER CORR LOGS	0.001	-0.015	-0.293	-0.348	0.201	-0.123	0.176	0.142	-0.007	-0.042	0.009	0.077	-0.336
COEFF OF VAR LOGS	0.242	0.209	0.136	0.089	0.054	0.049	0.042	0.044	0.047	0.058	0.096	0.145	0.030
% OF AVE FLOW	1.7	5.7	11.4	12.9	14.6	12.2	11.8	9.8	8.5	6.3	3.5	1.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1961)

0.99	5.6	3.9	30.0	134.0	348.9	313.0	338.4	275.1	202.8	118.8	42.9	13.9	302.2
0.95	11.6	22.7	93.4	221.2	421.5	375.7	397.3	325.7	264.3	170.9	65.2	23.8	334.4
0.90	16.9	48.9	155.7	284.1	469.5	416.0	434.1	357.2	301.1	203.1	87.3	31.2	380.3
0.80	26.5	105.5	285.6	378.6	538.5	472.6	484.5	400.3	349.1	245.6	113.4	42.6	439.9
0.50	62.1	295.4	580.0	626.1	715.0	611.4	602.9	501.0	449.9	334.0	176.2	73.7	514.8
0.20	142.1	508.8	957.7	976.2	976.5	805.3	758.7	632.6	558.7	424.1	254.4	119.8	561.5
0.10	217.2	586.6	1134.8	1204.1	1162.8	936.7	859.5	717.1	617.1	468.8	299.9	150.9	618.2
0.04	339.3	636.3	1286.1	1481.7	1413.4	1106.9	985.2	822.0	679.3	512.8	350.5	189.9	659.2
0.02	451.0	654.0	1360.2	1679.5	1611.4	1236.7	1078.1	899.1	718.9	538.7	383.7	218.2	699.3
0.01	581.2	663.2	1411.5	1869.3	1819.2	1369.3	1170.6	975.5	754.0	560.1	413.5	245.8	

STATION 14124500 LITTLE WHITE SALMON RIVER AT WILLARD, WASH.		LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31										
YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS			
1946	10.0	11.0	13.0	15.0	16.0	19.0	34.0	67.0	175.0			
1947	36.0	37.0	39.0	45.0	60.0	78.0	108.0	165.0	269.0			
1948	11.0	11.0	12.0	14.0	17.0	27.0	47.0	79.0	150.0			
1949	40.0	41.0	41.0	42.0	48.0	57.0	77.0	120.0	225.0			
1950	34.0	34.0	37.0	44.0	45.0	56.0	76.0	115.0	220.0			
1951	82.0	85.0	91.0	101.0	108.0	141.0	195.0	276.0	396.0			
1952	46.0	47.0	51.0	59.0	67.0	91.0	138.0	191.0	270.0			
1953	1.8	1.8	2.0	4.4	6.3	11.0	23.0	37.0	103.0			
1954	16.0	17.0	19.0	21.0	27.0	42.0	72.0	115.0	199.0			
1955	50.0	50.0	51.0	51.0	59.0	71.0	106.0	145.0	219.0			
1956	75.0	80.0	86.0	94.0	114.0	154.0	196.0	252.0	329.0			
1957	80.0	83.0	86.0	91.0	106.0	126.0	138.0	175.0	244.0			
1958	1.5	2.2	3.5	7.1	12.0	16.0	30.0	51.0	113.0			
1959	4.8	5.2	5.8	9.4	14.0	20.0	43.0	83.0	182.0			
1960	48.0	48.0	49.0	53.0	56.0	74.0	106.0	125.0	175.0			
1961	20.0	20.0	21.0	25.0	30.0	36.0	60.0	99.0	219.0			

LOWEST MEAN FLOW STATISTICS (YEARS 1946-1961)

MEAN	34.8	35.8	38.1	42.2	49.1	63.9	90.8	130.9	218.6
MAXIMUM	82.0	85.0	91.0	101.0	114.0	154.0	199.0	276.0	396.0
MINIMUM	1.5	1.8	2.0	4.4	6.3	11.0	23.0	37.0	103.0
STANDARD DEVIATION	27.45	28.48	30.06	31.65	35.54	45.19	55.03	67.62	75.40
SKWENESS	0.490	0.557	0.619	0.657	0.699	0.774	0.776	0.808	0.717
STD ERROR OF SKWENESS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SERIAL CORR COEFF	0.145	0.155	0.184	0.192	0.177	0.169	0.131	0.099	0.068
COEFF OF VARIATION	0.790	0.795	0.789	0.749	0.724	0.707	0.606	0.516	0.345
MEAN LOGS	1.518	1.540	1.582	1.673	1.687	1.559	1.877	2.060	2.315
STD DEVIATION LOGS	0.555	0.534	0.505	0.417	0.378	0.353	0.284	0.238	0.153
SKWENESS LOGS	-0.992	-0.918	-0.873	-0.870	-0.851	-0.828	-0.842	-0.868	-0.898
STD ERR SKWENESS LOGS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SER CORR COEFF LOGS	0.053	0.049	0.057	0.070	0.037	0.029	0.006	-0.020	-0.003
COEFF OF VAR LOGS	0.421	0.398	0.365	0.283	0.243	0.209	0.152	0.116	0.066

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1946-1961)

0.99	159.2	165.7	169.9	184.6	205.4	264.2	307.5	354.1	434.3
0.98	140.5	145.0	148.6	157.6	174.6	222.9	265.3	317.0	402.6
0.96	119.5	122.3	125.4	130.4	144.3	183.2	224.2	278.8	369.0
0.90	87.9	89.2	92.1	94.5	105.2	133.3	171.2	226.1	320.6
0.80	61.7	62.5	65.2	67.7	76.3	97.3	131.6	183.4	279.1
0.50	25.6	26.4	28.5	32.5	38.6	50.8	77.4	118.7	210.2
0.20	7.9	8.5	9.8	13.8	17.8	24.9	43.8	73.2	154.4
0.10	3.8	4.2	5.1	8.3	11.5	16.7	32.1	55.8	130.1
0.05	1.9	2.2	2.8	5.3	7.8	11.9	24.6	44.1	112.3
0.02	0.8	1.0	1.3	3.1	4.9	8.0	18.1	33.5	94.7
0.01	0.4	0.6	0.8	2.2	3.6	6.1	14.6	27.7	84.2

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1946-1961)

P95	P90	P75	P70	P50	P25	P10
33.0	58.0	180.0	240.0	410.0	610.0	890.0

STATION 14124500 LITTLE WHITE SALMON RIVER AT WILLARD, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	PEAK MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30										ANNUAL PEAK-FLOW DATA	
	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW(CFS)	DATE	REG.(R)
1945										2820.	02/08/45	
1946	2320.	1910.	1420.	1260.	1040.	844.	801.	724.	639.	3200.	12/28/45	
1947	3720.	3500.	2830.	2090.	1510.	1180.	1050.	933.	743.	4140.	12/15/46	
1948	2700.	2050.	1460.	1150.	834.	736.	675.	625.	583.	3070.	01/07/48	
1949	2150.	1560.	1170.	971.	850.	792.	796.	770.	642.	2820.	02/17/49	
1950	2350.	2170.	1600.	1550.	1350.	1180.	1040.	946.	807.	2580.	02/24/50	
1951	2580.	2350.	1940.	1420.	1210.	1200.	1130.	1000.	879.	2700.	02/11/51	
1952	2770.	1910.	1420.	1080.	831.	676.	683.	619.	586.	3070.	02/04/52	
1953	2950.	2750.	2420.	2120.	1950.	1460.	1180.	975.	774.	3330.	01/18/53	
1954	2010.	1700.	1340.	1030.	928.	844.	824.	800.	733.	3560.	12/09/53	
1955	1420.	1060.	797.	605.	531.	497.	496.	480.	446.	3560.	12/30/54	
1956	2640.	2020.	1540.	1360.	1270.	1120.	945.	827.	849.	2760.	12/22/55	
1957	1890.	1310.	1010.	943.	787.	742.	650.	579.	509.	2160.	02/26/57	
1958	1760.	1350.	1260.	1140.	1070.	925.	860.	767.	680.	2140.	12/26/57	
1959	2070.	1630.	1290.	1070.	994.	840.	768.	723.	646.	2240.	01/12/59	
1960	1790.	1440.	1130.	950.	814.	694.	673.	640.	557.	2110.	02/07/60	
1961	2710.	2220.	1900.	1760.	1490.	1280.	1090.	967.	836.	3930.	11/24/60	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1945-1961)

W R C
ESTIMATESYSTEMATIC
RECORD

MEAN	2364.4	1933.1	1532.9	1281.2	1091.2	938.1	853.8	773.4	681.8	
MAXIMUM	3720.0	3500.0	2830.0	2120.0	1950.0	1460.0	1180.0	1000.0	879.0	
MINIMUM	1420.0	1060.0	797.0	605.0	531.0	497.0	496.0	480.0	446.0	
STANDARD DEVIATION	564.04	604.22	521.85	420.16	355.85	265.71	199.63	159.35	128.02	
SKEWNESS	0.607	1.100	1.232	0.821	0.872	0.384	0.113	-0.108	-0.114	
STD ERROR OF SKEWNESS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	
SERIAL CORR COEFF	0.174	0.095	-0.058	-0.181	-0.348	-0.400	-0.311	-0.290	-0.442	
COEFF OF VARIATION	0.239	0.313	0.340	0.328	0.326	0.283	0.234	0.206	0.188	
MEAN LOGS	3.362	3.268	3.164	3.066	3.017	2.956	2.920	2.879	2.826	
STD DEVIATION LOGS	0.104	0.130	0.138	0.140	0.139	0.125	0.105	0.093	0.085	
SKEWNESS LOGS	-0.089	0.209	0.372	-0.017	0.010	-0.159	-0.332	-0.468	-0.457	
STD ERR SKEWNESS LOGS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	
SER CORR COEFF LOGS	0.173	0.129	-0.025	-0.144	-0.336	-0.395	-0.315	-0.305	-0.453	
COEFF OF VAR LOGS	0.031	0.040	0.044	0.045	0.046	0.042	0.036	0.032	0.030	
										3.4401
										0.1089
										0.0010
										-0.4520
										3.4401
										0.1089
										0.0010
										-0.4520

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1961)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
1302.1	967.1	760.3	573.4	494.7	446.7	447.1	426.9	399.1	1537.8	1416.9
1546.5	1153.3	896.5	716.3	614.5	555.1	546.8	517.7	474.9	1824.0	1770.7
1692.8	1271.6	985.4	806.2	690.0	621.3	605.5	569.9	517.9	1997.9	1978.6
1886.1	1436.2	1112.2	930.1	794.1	710.3	681.7	636.0	571.9	2230.7	2247.2
2310.8	1833.1	1431.2	1221.3	1039.4	909.8	842.5	770.1	680.1	2754.7	2807.1
2816.9	2374.4	1893.6	1601.7	1361.6	1152.9	1021.8	910.6	791.9	3402.0	3414.2
3118.0	2734.7	2217.4	1844.6	1568.4	1299.3	1122.0	985.0	850.6	3798.9	3743.9
3469.5	3194.0	2647.2	2143.6	1824.1	1471.4	1233.1	1064.1	912.7	4273.4	4100.1
3714.3	3539.9	2983.0	2361.6	2011.3	1591.7	1306.9	1114.6	952.3	4611.1	4331.0
3947.1	3889.6	3332.4	2576.1	2196.3	1706.3	1374.4	1159.5	987.4	4937.6	4538.1

STATION 14125000 LITTLE WHITE SALMON R ABV LAPHAM CR WILLARD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1949	107	212	563	610	765	1256	1080	829	694	558	338	149	601
1950	267	867	1205	1222	1195	689	822	579	507	384	230	139	672
1951	236	494	864	418	865	489	662	524	527	370	231	130	482
1952	84.3	69.4	130	160.1	141.6	74.1	461	425	475	372	261	159	511
1953	106	165	912	957	860	777	889	569	539	456	314	188	560
1954	136	219	422	488	505	375	598	519	531	479	321	194	398
1955	262	832	1408	1074	522	785	1095	901	853	569	408	255	748
1956	164	204	474	429	535	818	777	541	451	281	170	99.9	411
1957	84.5	158	732	963	1281	690	746	593	463	317	160	88.4	519
1958	69.3	498	818	1145	790	738	685	515	397	312	184	122	522
1959	235	303	426	344	908	665	963	678	575	406	228	133	486
1960	93.6	544	633	808	1552	1317	725	580	439	348	208	118	608
1961	99.4	206	632	740	594	592	688	627	415	305	199	99.9	433
1962	135	430	763	472	729	465	706	467	317	215	124	85.0	407
1963	66.1	318	432										
1964													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1949-1964)

MEAN	143.0	368.0	695.6	805.1	894.1	742.6	778.4	596.2	513.1	383.7	241.1	143.2	525.6
MAXIMUM	267.0	867.0	1408.0	1601.0	1552.0	1317.0	1095.0	901.0	853.0	569.0	408.0	255.0	748.0
MINIMUM	66.1	69.4	130.0	344.0	505.0	375.0	461.0	425.0	317.0	215.0	124.0	85.0	398.0
STD DEVIATION	71.92	240.95	324.00	372.19	340.96	265.02	178.09	130.93	132.48	102.25	79.04	46.98	103.90
SKWENESS	0.802	1.024	0.627	0.622	0.726	1.127	0.404	1.310	1.335	0.489	0.664	0.921	0.719
STD ERR SKW	0.580	0.580	0.580	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR COEFF	0.006	-0.203	-0.450	-0.472	-0.074	-0.166	-0.220	-0.184	0.048	-0.312	0.383	0.392	-0.399
COEFF OF VAR	0.503	0.655	0.466	0.462	0.391	0.357	0.229	0.220	0.258	0.266	0.328	0.328	0.198
MEAN LOGS	2.107	2.477	2.789	2.861	2.923	2.847	2.881	2.767	2.698	2.570	2.361	2.135	2.713
STD DEV LOGS	0.209	0.298	0.245	0.206	0.162	0.148	0.101	0.098	0.105	0.117	0.142	0.137	0.083
SKWENESS LOGS	0.379	-0.258	-1.334	-0.045	0.228	0.174	-0.236	0.840	0.505	-0.138	-0.010	0.244	0.357
STD ERR SKW LOGS	0.580	0.580	0.580	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR LOGS	-0.012	-0.095	-0.411	-0.538	0.064	-0.155	-0.234	-0.181	0.133	0.337	0.437	0.474	-0.399
COEFF OF VAR LOGS	0.099	0.120	0.088	0.072	0.052	0.052	0.035	0.032	0.039	0.045	0.060	0.064	0.031
% OF AVERAGE FLOW	2.3	5.8	11.0	12.8	14.2	11.8	12.3	9.5	8.1	6.1	3.8	2.3	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1949-1964)

0.99	47.7	53.5	99.3	236.8	375.3	332.3	425.5	413.2	311.6	193.3	107.1	69.7	347.7
0.95	61.2	92.5	207.1	330.6	465.7	408.2	510.9	441.9	348.3	236.2	134.0	83.3	384.5
0.90	70.6	122.4	289.1	394.4	525.2	457.2	561.2	461.7	372.1	262.1	151.0	92.1	407.3
0.80	84.7	170.0	411.0	487.7	610.4	526.3	626.7	491.1	408.8	296.7	174.4	104.4	438.4
0.50	124.1	308.6	694.6	729.4	826.0	696.1	766.4	568.1	488.9	373.5	229.7	134.7	510.6
0.20	189.8	537.3	985.9	1085.5	1140.3	933.7	925.1	684.1	606.2	466.2	302.2	177.3	604.5
0.10	241.2	706.4	1116.2	1333.6	1360.7	1094.7	1015.7	766.9	686.5	521.6	348.7	206.3	684.7
0.04	315.8	934.5	1228.2	1658.4	1653.2	1302.9	1117.9	878.1	791.1	586.5	406.2	244.0	739.2
0.02	378.7	1112.4	1284.7	1907.7	1881.3	1461.4	1186.9	965.7	871.6	631.8	448.1	272.9	794.0
0.01	448.3	1295.6	1325.2	2162.6	2118.3	1623.1	1251.0	1057.5	954.2	674.8	489.6	302.5	848.4

STATION 14125000 LTLE WHITE SALMON R ABV LAPHAM CR WILLARD, WASH

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31										
YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	
1951	142.0	144.0	148.0	157.0	164.0	194.0	249.0	328.0	459.0	
1952	110.0	111.0	116.0	123.0	132.0	152.0	193.0	232.0	323.0	
1953	63.0	63.0	64.0	66.0	68.0	75.0	88.0	102.0	165.0	
1954	70.0	73.0	77.0	79.0	86.0	104.0	130.0	165.0	254.0	
1955	116.0	116.0	117.0	119.0	127.0	140.0	171.0	209.0	282.0	
1956	139.0	142.0	150.0	153.0	173.0	211.0	252.0	307.0	383.0	
1957	132.0	137.0	140.0	147.0	161.0	183.0	196.0	234.0	317.0	
1958	68.0	69.0	71.0	75.0	80.0	84.0	102.0	127.0	192.0	
1959	58.0	58.0	59.0	64.0	69.0	76.0	98.0	139.0	246.0	
1960	101.0	101.0	104.0	115.0	117.0	138.0	175.0	198.0	252.0	
1961	78.0	79.0	80.0	84.0	90.0	102.0	124.0	167.0	302.0	
1962	74.0	78.0	81.0	84.0	88.0	105.0	123.0	153.0	225.0	
1963	78.0	78.0	81.0	87.0	92.0	117.0	131.0	161.0	245.0	

LOWEST MEAN FLOW STATISTICS (YEARS 1951-1963)

MEAN	94.5	96.1	99.1	104.1	111.5	129.3	156.3	194.3	280.4
MAXIMUM	142.0	144.0	150.0	157.0	173.0	211.0	252.0	328.0	459.0
MINIMUM	58.0	58.0	59.0	64.0	69.0	75.0	88.0	102.0	165.0
STANDARD DEVIATION	30.25	30.93	32.18	33.37	36.78	45.11	54.57	67.15	78.63
SKEWNESS	0.462	0.488	0.500	0.463	0.557	0.565	0.613	0.625	0.690
STD ERROR OF SKEWNESS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SERIAL CORR COEFF	0.365	0.368	0.371	0.325	0.367	0.315	0.294	0.310	0.206
COEFF OF VARIATION	0.320	0.322	0.325	0.321	0.330	0.349	0.349	0.346	0.280
MEAN LOGS	1.955	1.962	1.975	1.997	2.026	2.088	2.170	2.266	2.433
STD DEVIATION LOGS	0.137	0.138	0.140	0.138	0.141	0.151	0.150	0.146	0.119
SKEWNESS LOGS	0.212	0.205	0.189	0.175	0.241	0.114	0.135	0.157	0.135
STD ERR SKEWNESS LOGS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SER CORR COEFF LOGS	0.310	0.312	0.310	0.267	0.312	0.249	0.226	0.227	0.117
COEFF OF VAR LOGS	0.070	0.070	0.071	0.069	0.069	0.072	0.069	0.065	0.049

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1951-1963)

0.99	197.9	201.5	208.5	216.9	238.8	282.2	343.2	419.4	525.1
0.98	179.1	182.4	188.6	196.6	215.2	254.7	309.0	378.6	483.9
0.96	160.6	163.5	169.1	176.6	192.2	227.5	275.5	338.4	442.3
0.90	136.3	138.7	143.4	150.1	166.1	191.6	231.4	285.3	385.7
0.80	117.3	119.4	123.3	129.4	138.9	163.4	197.2	244.0	340.1
0.50	89.2	90.7	93.5	98.4	104.8	121.5	146.6	182.7	269.2
0.20	68.9	69.9	71.9	75.8	80.6	91.2	110.4	138.5	216.9
0.10	60.6	61.4	63.0	66.5	70.8	78.8	95.6	120.4	191.7
0.05	54.7	55.4	56.7	59.8	63.8	69.9	85.2	107.5	174.7
0.02	48.8	49.4	50.5	53.2	57.0	61.3	75.0	94.9	157.7
0.01	45.4	45.9	46.8	49.4	53.0	56.2	69.0	87.5	147.5

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1951-1963)

P95	P90	P75	P70	P50	P25	P10
92.0	120.0	230.0	290.0	470.0	690.0	1000.0

STATION 14125200 ROCK CREEK NEAR WILLARD, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1968)			W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKENNESS LOGS	ESTIMATE		
1949	428.0	2-17-1949				2.2914		2.2914
1950	323.0	2-24-1950				0.1888		0.1888
1951	175.0	2- 9-1951				0.002		0.526
1952	237.0	2- 4-1952						
1953	256.0	1- 9-1953						
1954	182.0	12- 9-1953						
1955	151.0	2- 8-1955						
1956	257.0	11-26-1955						
1957	107.0	3- 7-1957						
1958	155.0	12-25-1957				71.2		84.3
1959	116.0	11-18-1958				95.7		102.7
1960	140.0	2- 7-1960				112.1		115.5
1961	283.0	11-24-1960				135.7		134.8
1962	140.0	2-14-1962				195.6		188.3
1963	138.0	11-20-1962				282.0		277.7
1964	240.0	1-25-1964				341.5		347.9
1965	491.0	12-22-1964				418.8		450.3
1966	178.0	1-14-1966				477.9		537.1
1967	105.0	1-28-1967				538.1		633.7
1968	200.0	2-19-1968						

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1949-1968)

0.99
0.95
0.90
0.80
0.50
0.20
0.10
0.04
0.02
0.01

STATION 14125500 LITTLE WHITE SALMON RIVER NEAR COOK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1957	209	252	579	474	587	1004	917	629	485	326	194	137	482
1958	128	197	770	973	1311	751	789	648	511	365	210	140	562
1959	120	553	840	1149	835	806	756	576	450	365	235	175	524
1960	282	340	456	365	947	725	1001	724	604	434	270	172	571
1961	136	606	680	865	1662	1447	792	633	483	387	249	166	669
1962	148	247	692	795	621	643	733	663	447	335	233	155	476
1963	183	486	809	522	791	528	778	514	354	257	161	121	456
1964	109	346	441	996	828	698	475	404	441	405	289	182	467
1965	135	173	1283	1049	1147	749	667	608	522	372	227	133	588
1966	122	162	239	636	420	819	908	654	563	440	279	164	451
1967	126	218	702	1152	999	863	495	392	400	363	250	165	491
1968	224	372	603	656	1662	1102	578	357	307	244	159	125	528
1969	191	536	720	777	403	603	979	751	728	454	245	158	546
1970	155	188	415	1255	1303	909	633	501	411	327	201	135	532
1971	124	257	578	1398	1274	940	849	744	683	552	396	269	669
1972	190	271	628	1483	1499	1975	1083	727	679	459	302	213	791
1973	174	226	807	1049	594	550	342	294	251	196	139	118	395
1974	116	678	1420	1854	1486	977	938	738	827	693	445	284	868
1975	190	214	688	1334	1100	950	607	560	514	409	271	170	582
1976	159	439	1605	1458	862	780	708	594	495	308	223	160	650
1977	134	124	118	119	134	359	297	287	281	213	145	130	195
1978													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1957-1978)

MEAN	159.8	327.9	717.8	969.5	974.5	856.1	729.8	571.3	497.0	376.4	244.0	166.3	547.3
MAXIMUM	282.0	678.0	1605.0	1854.0	1662.0	1975.0	1083.0	751.0	827.0	693.0	445.0	284.0	868.0
MINIMUM	109.0	124.0	118.0	119.0	134.0	359.0	297.0	287.0	251.0	196.0	139.0	118.0	195.0
SID DEVIATION	43.57	161.16	355.16	423.32	429.39	345.42	212.70	168.28	147.58	113.17	75.15	43.19	139.84
SKWENESS	1.214	0.835	1.022	-0.016	-0.050	1.876	-0.415	-0.678	0.440	0.908	1.099	1.660	0.041
STD ERR SKEW	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR COEFF	-0.233	-0.246	-0.407	0.136	-0.326	-0.185	-0.300	-0.224	-0.354	-0.246	-0.197	-0.135	-0.253
COEFF OF VAR	0.273	0.492	0.495	0.437	0.441	0.403	0.291	0.260	0.297	0.301	0.308	0.260	0.256
MEAN LOGS	2.190	2.468	2.799	2.929	2.932	2.904	2.842	2.740	2.677	2.557	2.369	2.209	2.722
STD DEV LOGS	0.109	0.208	0.248	0.265	0.259	0.156	0.148	0.130	0.133	0.130	0.128	0.100	0.129
SKWENESS LOGS	0.674	0.207	-1.181	-1.790	-1.590	0.360	-1.130	-1.060	-0.325	-0.165	0.171	1.059	-1.676
STD ERR SKEW LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR LOGS	-0.228	-0.189	-0.504	-0.066	-0.254	-0.193	-0.279	-0.200	-0.371	-0.274	-0.251	-0.188	-0.281
COEFF OF VAR LOGS	0.050	0.084	0.089	0.091	0.088	0.054	0.052	0.048	0.050	0.051	0.054	0.045	0.047
% OF AVE FLOW	2.4	5.0	10.9	14.7	14.8	13.0	11.1	8.7	7.5	5.7	3.7	2.5	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1978)

0.99	97.7	103.8	105.1	100.6	114.0	382.5	240.7	219.3	216.9	173.4	122.1	113.3	190.6
0.95	107.9	137.7	212.2	253.4	265.7	461.7	363.3	311.9	279.8	217.5	146.0	120.0	294.1
0.90	114.7	160.9	293.1	379.5	387.1	514.2	439.5	367.5	318.3	244.6	161.1	125.1	356.1
0.80	124.7	195.5	414.0	572.4	571.1	590.1	539.3	438.8	369.8	281.2	182.0	133.0	433.3
0.50	150.5	288.9	702.6	1006.7	993.6	785.4	739.7	578.9	483.8	363.8	231.9	155.5	570.6
0.20	189.0	436.8	1019.2	1382.3	1391.4	1077.7	927.4	709.2	618.2	465.3	299.1	192.4	670.9
0.10	216.5	547.4	1172.4	1512.7	1547.6	1287.5	1011.4	768.1	696.4	526.7	343.2	220.4	704.6
0.04	253.6	701.5	1314.1	1600.1	1665.5	1571.7	1086.8	821.9	785.4	599.1	399.0	260.0	727.8
0.02	283.0	826.6	1390.9	1633.6	1717.2	1797.5	1127.2	851.3	845.8	649.9	440.6	292.5	737.2
0.01	313.9	960.8	1449.6	1652.7	1750.0	2035.6	1158.1	874.2	902.0	698.4	482.5	327.7	742.9

STATION 14125500 LITTLE WHITE SALMON RIVER NEAR COOK, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31												
YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS			
1958	114.0	115.0	116.0	119.0	124.0	127.0	140.0	163.0	232.0			
1959	109.0	109.0	109.0	114.0	120.0	127.0	148.0	189.0	298.0			
1960	153.0	154.0	158.0	166.0	169.0	190.0	226.0	246.0	300.0			
1961	122.0	122.0	123.0	127.0	133.0	143.0	166.0	209.0	339.0			
1962	136.0	128.0	131.0	135.0	137.0	152.0	169.0	197.0	268.0			
1963	134.0	135.0	139.0	142.0	148.0	169.0	179.0	206.0	285.0			
1964	100.0	101.0	107.0	103.0	101.0	114.0	126.0	150.0	221.0			
1965	118.0	119.0	120.0	123.0	124.0	133.0	155.0	190.0	270.0			
1966	112.0	112.0	113.0	115.0	120.0	127.0	143.0	163.0	209.0			
1967	109.0	109.0	110.0	112.0	121.0	130.0	158.0	193.0	293.0			
1968	141.0	141.0	144.0	149.0	156.0	171.0	204.0	245.0	296.0			
1969	109.0	110.0	111.0	112.0	119.0	131.0	153.0	176.0	224.0			
1970	139.0	140.0	144.0	148.0	153.0	155.0	167.0	174.0	259.0			
1971	108.0	108.0	109.0	111.0	116.0	126.0	141.0	166.0	241.0			
1972	172.0	174.0	177.0	185.0	190.0	201.0	230.0	274.0	379.0			
1973	164.0	166.0	167.0	168.0	172.0	190.0	201.0	215.0	296.0			
1974	106.0	107.0	108.0	110.0	113.0	116.0	124.0	137.0	178.0			
1975	157.0	158.0	160.0	164.0	168.0	193.0	223.0	266.0	406.0			
1976	135.0	136.0	138.0	142.0	144.0	163.0	191.0	231.0	322.0			
1977	105.0	105.0	107.0	112.0	115.0	118.0	119.0	121.0	132.0			

LOWEST MEAN FLOW STATISTICS (YEARS 1958-1977)

MEAN	126.6	127.4	129.2	132.9	137.4	148.8	168.1	195.6	272.4
MAXIMUM	172.0	174.0	177.0	185.0	190.0	201.0	230.0	274.0	406.0
MINIMUM	100.0	101.0	101.0	103.0	107.0	114.0	119.0	121.0	132.0
STANDARD DEVIATION	21.65	22.06	22.85	23.93	23.75	28.43	34.34	41.68	64.76
SKEWNESS	0.753	0.768	0.701	0.721	0.732	0.572	0.487	0.254	-0.027
STD ERROR OF SKEWNESS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SERIAL CORR COEFF	-0.162	-0.156	-0.180	-0.194	-0.192	-0.189	-0.210	-0.195	-0.242
COEFF OF VARIATION	0.171	0.173	0.177	0.180	0.173	0.191	0.204	0.213	0.238
MEAN LOGS	2.097	2.099	2.105	2.117	2.132	2.165	2.217	2.282	2.422
STD DEVIATION LOGS	0.071	0.072	0.074	0.075	0.072	0.081	0.087	0.094	0.112
SKEWNESS LOGS	0.557	0.569	0.507	0.513	0.522	0.394	0.187	-0.215	-0.909
STD ERR SKEWNESS LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF LOGS	-0.205	-0.199	-0.220	-0.230	-0.224	-0.215	-0.235	-0.225	-0.281
COEFF OF VAR LOGS	0.034	0.034	0.035	0.036	0.034	0.037	0.039	0.041	0.046

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1958-1977)

0.99	195.7	198.1	201.7	209.0	212.7	237.7	270.7	306.1	405.3
0.98	183.7	185.7	189.1	195.8	199.6	222.6	254.3	291.2	394.0
0.96	171.6	173.3	176.6	182.5	186.6	207.5	237.5	275.1	380.0
0.90	155.5	156.8	159.7	164.7	169.1	186.9	214.2	251.2	355.5
0.80	142.7	143.7	146.3	150.6	155.1	170.3	194.9	230.0	329.7
0.50	123.1	123.8	125.6	129.0	133.6	144.6	163.9	192.8	274.9
0.20	108.6	109.0	110.1	112.8	117.7	124.8	139.0	159.8	216.9
0.10	102.5	102.9	103.6	106.0	110.8	116.4	128.0	144.2	187.1
0.05	98.1	98.5	98.8	101.1	105.9	110.2	119.8	132.2	163.6
0.02	93.8	94.2	94.2	96.3	101.1	104.0	111.3	119.6	138.6
0.01	91.2	91.6	91.4	93.4	98.2	100.3	106.2	111.6	123.0

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1958-1977)

P95	120.0	P90	140.0	P75	230.0	P70	260.0	P50	440.0	P25	720.0	P10	1100.0
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STATION 14125500 LITTLE WHITE SALMON RIVER NEAR COOK, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (H)
1957	2090.	1580.	1380.	1250.	1080.	1010.	894.	800.	712.	2580. 02/26/57
1958	1900.	1640.	1560.	1430.	1340.	1160.	1100.	980.	878.	2060. 12/26/57
1959	2010.	1740.	1470.	1270.	1210.	1040.	962.	931.	846.	2110. 01/12/59
1960	1920.	1380.	1190.	1060.	1190.	916.	892.	849.	735.	2170. 02/07/60
1961	3370.	2330.	2060.	1960.	1740.	1540.	1340.	1190.	1040.	5210. 11/24/60
1962	1740.	1440.	1300.	1120.	1010.	817.	732.	751.	700.	2160. 12/21/61
1963	1600.	1320.	1150.	996.	915.	762.	733.	695.	682.	2050. 11/20/62
1964	2750.	2230.	1760.	1420.	1150.	928.	844.	758.	646.	3740. 01/25/64
1965	6540.	4310.	2960.	1970.	1380.	1320.	1180.	1040.	913.	6990. 12/23/64
1966	1580.	1390.	1200.	1040.	955.	894.	809.	743.	612.	2850. 03/09/66
1967	2580.	2430.	1940.	1540.	1300.	1070.	963.	878.	729.	2950. 02/29/67
1968	4470.	3290.	3010.	2310.	1750.	1380.	1160.	1020.	824.	4400. 02/19/68
1969	2330.	1790.	1420.	1050.	1000.	907.	859.	795.	713.	2700. 01/07/69
1970	4840.	3430.	2720.	2130.	1750.	1400.	1190.	1040.	844.	5380. 01/23/70
1971	2750.	2480.	2110.	1890.	1600.	1350.	1220.	1120.	982.	3350. 01/19/71
1972	6380.	5020.	3380.	2440.	2180.	1920.	1740.	1540.	1240.	9250. 01/21/72
1973	3250.	2390.	1920.	1510.	1310.	1050.	895.	773.	607.	4170. 12/21/72
1974	5500.	4760.	3420.	2610.	2290.	1820.	1600.	1450.	1250.	8120. 01/15/74
1975	2490.	2080.	1710.	1630.	1380.	1250.	1160.	1060.	881.	2650. 01/25/75
1976	3130.	2370.	2100.	1740.	1670.	1550.	1320.	1190.	1010.	3990. 12/04/75
1977	614.	580.	481.	407.	369.	330.	316.	307.	265.	654. 03/09/77

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1957-1977)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKENNESS	STD ERROR OF SKENNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKENNESS LOGS	STD ERR SKENNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	3042.1	6560.0	614.0	1619.55	0.942	0.501	-0.116	0.532	3.424	-0.465	-0.465	0.501	-0.054	0.070	3.5055	3.5055
	5020.0	580.0	580.0	1163.21	0.535	0.501	-0.096	0.405	3.331	-0.414	-0.414	0.501	0.018	0.065	0.2581	0.2581
	1925.3	1567.8	1354.2	1162.6	1043.3	949.0	817.6	1250.0	265.0	219.84	-0.071	0.501	-0.071	0.048	0.0020	-0.4450
	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	3.5055	3.5055
	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.2581	0.2581
	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.0020	-0.4450
	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	3.5055	3.5055
	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.2581	0.2581
	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.0020	-0.4450

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1977)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	611.7	583.8	468.8	384.8	355.6	315.5	305.5	299.4	256.8	804.0
	1002.5	899.0	765.7	659.1	600.6	527.7	497.2	474.5	416.1	663.9
	1281.6	1115.8	967.8	841.4	760.1	664.0	614.4	583.0	513.9	1204.9
	1697.9	1431.0	1249.6	1088.7	972.4	844.1	776.0	721.9	637.2	1461.4
	2772.0	2217.4	1886.3	1598.1	1393.2	1197.6	1078.2	982.6	857.0	1975.3
	4259.9	3273.9	2591.8	2064.2	1754.3	1497.4	1326.1	1190.9	1013.0	3201.7
	5211.3	3940.0	2957.8	2260.2	1896.2	1614.1	1419.9	1268.0	1062.8	5280.7
	6354.1	4735.9	3326.6	2423.2	2007.8	1704.6	1491.5	1326.0	1095.2	9325.7
	7158.7	5295.3	3547.0	2503.8	2059.7	1747.6	1523.8	1351.7	1107.6	6860.0
	7923.1	5827.3	3730.4	2560.9	2094.8	1775.9	1545.0	1366.5	1114.7	8232.4
										9068.6
										10860.7
										12773.8
										10486.3

STATION 14126300 COLUMBIA RIVER TRIBUTARY AT HOME VALLEY, WASH.

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1970)		W R C	
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS STANDARD DEVIATION LOGS SKEWNESS LOGS	ESTIMATE	SYSTEMATIC RECORD
1950	74.0	2-24-1950		1.6430	1.6430
1951	32.0	2-11-1951		0.1789	0.1789
1952	39.0	2-4-1952		0.002	0.085
1953	58.0	1-9-1953			
1954	40.0	12-9-1953			
1955	19.0	2-8-1955			
1956	75.0	12-21-1955			
1957	45.0	3-7-1957			
1958	32.0	12-25-1957			
1959	32.0	11-12-1958			
1960	33.0	2-7-1960			
1961	69.0	11-24-1960			
1962	32.0	12-20-1961			
1963	40.0	11-20-1962			
1964	51.0	1-25-1964			
1965	103.0	12-23-1964			
1966	36.0	1-3-1966			
1967	24.0	1-28-1967			
1968	51.0	2-19-1968			
1969	82.0	1-7-1969			
1970	54.0	1-23-1970			

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1950-1970)

0.99	16.9	17.3
0.95	22.3	22.5
0.90	25.9	26.0
0.80	31.1	31.0
0.50	43.9	43.7
0.20	62.2	62.1
0.10	74.5	74.8
0.04	90.4	91.5
0.02	102.5	104.3
0.01	114.7	117.6

STATION 14127000 WIND R AB TROUT CREEK NR CARSON, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1945	59.9	257	321	836	1086	723	686	917	327	135	93.1	103	458
1946	79.1	609	1171	1265	748	875	731	772	491	282	127	95.3	604
1947	166	798	1683	613	906	875	598	274	182	112	80.4	80.2	512
1948	679	748	599	1079	753	585	729	875	459	181	114	100	575
1949	155	605	848	235	726	948	1022	1175	447	198	107	95.6	545
1950	147	664	737	646	964	1329	1100	1065	885	335	139	99.7	673
1951	450	1144	1460	989	1242	506	909	737	341	147	98.6	89.2	612
1952	611	745	1022	328	962	505	962	755	373	169	98.2	77.2	549
1953	66.1	73.5	234	2465	1138	576	549	668	458	221	120	90.9	553
1954	112	508	1416	917	1064	845	1059	764	574	287	138	106	647
1955	151	512	589	563	620	407	829	866	873	382	153	128	584
1956	561	1382	1643	1193	403	942	1302	1206	669	283	170	126	825
1957	258	449	1032	323	696	1332	1159	633	246	126	88.8	65.5	533
1958	92.3	327	1226	1225	1676	590	1056	470	274	128	84.6	74.6	595
1959	110	1140	1050	1595	584	809	866	516	325	157	96.0	223	623
1960	485	554	623	387	1262	835	1143	800	467	183	120	97.8	576
1961	127	1159	651	1029	2038	1262	762	665	306	144	96.7	84.6	684
1962	181	423	1109	793	611	583	938	648	310	146	99.5	90.2	494
1963	262	1078	868	468	987	484	948	611	220	139	93.7	77.5	515
1964	103	815	667	1197	708	628	609	585	493	220	127	99.3	520
1965	113	405	1620	880	985	701	961	596	275	128	92.0	69.4	567
1966	71.5	264	340	813	493	1082	1201	834	390	214	110	87.7	492
1967	121	448	1293	1377	837	713	527	592	392	158	188.1	73.0	551
1968	407	486	823	894	1940	946	500	330	387	147	159	172	594
1969	485	1015	861	720	300	637	1219	1180	502	177	108	131	613

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1945-1969)

MEAN	242.1	664.3	955.4	913.2	949.2	780.6	894.6	741.4	426.6	192.0	112.1	101.5	579.0
MAXIMUM	679.0	1382.0	1683.0	2465.0	2038.0	1332.0	1302.0	1206.0	885.0	382.0	170.0	223.0	825.0
MINIMUM	59.9	73.5	234.0	235.0	300.0	407.0	500.0	274.0	182.0	112.0	80.4	65.5	458.0
STD DEVIATION	192.87	333.55	414.81	478.44	432.97	260.59	234.73	242.18	177.05	70.98	24.37	34.38	79.26
SKWENESS	1.063	0.472	0.153	1.335	1.117	0.836	-0.133	0.295	1.314	1.272	0.926	2.265	1.248
STD ERR SKEW	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464
SER CORR COEFF	0.029	-0.140	-0.451	-0.344	-0.233	-0.064	0.015	0.092	0.178	0.201	0.035	-0.022	-0.233
COEFF OF VAR	0.797	0.502	0.434	0.524	0.456	0.334	0.262	0.327	0.415	0.370	0.217	0.339	0.137
MEAN LOGS	2.260	2.756	2.932	2.903	2.936	2.870	2.936	2.845	2.598	2.259	2.040	1.988	2.759
STD DEV LOGS	0.330	0.273	0.225	0.237	0.196	0.140	0.122	0.156	0.168	0.144	0.089	0.121	0.056
SKWENESS LOGS	0.405	-1.368	-0.897	-0.447	-0.169	0.243	-0.516	-0.790	0.249	0.739	0.597	1.335	0.792
STD ERR SKEW LOGS	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464
SER CORR LOGS	0.142	-0.044	-0.433	-0.392	-0.252	-0.045	0.034	0.004	0.102	0.116	-0.002	-0.064	-0.224
COEFF OF VAR LOGS	0.146	0.099	0.077	0.082	0.067	0.049	0.042	0.055	0.065	0.064	0.044	0.061	0.020
% OF AVE FLOW	3.5	9.5	13.7	13.1	13.6	11.2	12.8	10.6	6.1	2.8	1.6	1.5	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1969)

0.99	39.1	73.6	185.2	187.9	285.4	372.1	403.8	249.4	173.0	100.5	74.5	66.5	458.0
0.95	57.3	168.7	326.8	305.1	401.9	447.5	523.0	362.8	215.8	113.6	81.3	69.7	479.2
0.90	71.5	245.7	427.5	388.5	480.0	496.0	594.3	424.1	244.1	122.7	85.7	72.4	493.3
0.80	95.1	364.8	574.0	512.6	592.3	564.4	687.4	529.6	285.0	136.5	92.0	77.0	513.7
0.50	172.9	655.2	922.6	832.4	873.5	732.6	883.8	734.0	390.0	174.2	107.5	91.6	564.5
0.20	338.3	964.2	1329.9	1276.3	1265.3	968.5	1098.2	951.8	547.0	235.5	129.4	118.8	635.4
0.10	495.1	1103.6	1548.0	1561.1	1525.0	1129.2	1214.3	1064.1	656.6	282.5	144.2	141.4	683.0
0.04	760.5	1222.9	1771.7	1904.6	1851.1	1337.6	1339.2	1174.3	805.5	343.7	163.5	175.6	743.6
0.02	1016.5	1282.4	1907.0	2147.3	2092.0	1419.6	1247.6	1025.9	405.8	178.3	205.6	239.9	789.2
0.01	1331.4	1324.7	2020.5	2378.8	2331.0	1660.5	1491.2	1306.3	1045.8	467.3	193.4	239.9	835.2

STATION 14127000 WIND R AB TROUT CREEK NR CARSON, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1946	60.0	61.0	63.0	67.0	75.0	88.0	91.0	100.0	109.0
1947	80.0	81.0	82.0	85.0	86.0	95.0	114.0	144.0	265.0
1948	68.0	68.0	70.0	72.0	76.0	80.0	89.0	105.0	183.0
1949	80.0	83.0	86.0	87.0	93.0	105.0	134.0	134.0	250.0
1950	76.0	78.0	80.0	85.0	91.0	98.0	110.0	127.0	235.0
1951	84.0	85.0	87.0	89.0	99.0	115.0	147.0	217.0	465.0
1952	74.0	75.0	75.0	77.0	82.0	90.0	109.0	307.0	307.0
1953	60.0	61.0	63.0	64.0	66.0	69.0	72.0	77.0	119.0
1954	78.0	78.0	80.0	82.0	91.0	101.0	106.0	116.0	225.0
1955	69.0	90.0	91.0	96.0	101.0	112.0	129.0	142.0	279.0
1956	98.0	100.0	102.0	119.0	135.0	135.0	189.0	276.0	478.0
1957	114.0	115.0	116.0	118.0	122.0	132.0	152.0	202.0	294.0
1958	60.0	60.0	61.0	62.0	65.0	72.0	80.0	88.0	157.0
1959	62.0	64.0	67.0	71.0	73.0	76.0	86.0	97.0	179.0
1960	82.0	83.0	85.0	87.0	93.0	109.0	142.0	190.0	257.0
1961	76.0	78.0	80.0	84.0	90.0	100.0	108.0	126.0	259.0
1962	69.0	70.0	71.0	73.0	75.0	87.0	98.0	119.0	190.0
1963	74.0	75.0	77.0	81.0	83.0	92.0	105.0	141.0	218.0
1964	64.0	65.0	67.0	69.0	71.0	76.0	85.0	102.0	183.0
1965	84.0	85.0	87.0	91.0	99.0	106.0	110.0	122.0	219.0
1966	62.0	62.0	63.0	64.0	67.0	70.0	77.0	87.0	149.0
1967	75.0	75.0	76.0	78.0	81.0	87.0	99.0	116.0	226.0
1968	65.0	66.0	67.0	69.0	73.0	80.0	101.0	132.0	263.0
1969	100.0	101.0	103.0	106.0	114.0	140.0	156.0	172.0	251.0

LOWEST MEAN FLOW STATISTICS (YEARS 1946-1969)

MEAN	76.4	77.5	79.1	81.7	86.9	96.5	111.6	136.8	243.3
MINIMUM	114.0	115.0	116.0	118.0	122.0	140.0	189.0	276.0	478.0
STANDARD DEVIATION	60.0	60.0	61.0	62.0	65.0	69.0	72.0	77.0	119.0
SKWENESS	13.86	14.04	14.05	14.33	15.20	20.14	28.61	46.49	84.56
STD ERROR OF SKWENESS	0.993	0.951	0.917	0.823	0.688	0.673	1.013	1.423	1.554
SERIAL CORR COEFF	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472
COEFF OF VARIATION	0.036	0.041	0.033	0.022	0.102	0.083	0.192	0.174	0.191
MEAN LOGS	1.181	1.181	1.178	1.175	1.186	1.209	1.256	1.340	1.348
STD DEVIATION LOGS	1.877	1.883	1.892	1.906	1.932	1.976	2.035	2.115	2.364
SKWENESS LOGS	0.075	0.075	0.074	0.074	0.079	0.088	0.105	0.134	0.138
STD ERR SKWENESS LOGS	0.568	0.536	0.524	0.432	0.356	0.289	0.452	0.600	0.411
SER CORR SKWENESS LOGS	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472
COEFF OF VAR LOGS	-0.015	-0.011	-0.016	-0.031	0.043	0.039	0.138	0.127	0.140
	0.040	0.040	0.039	0.039	0.041	0.045	0.052	0.063	0.058

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1946-1969)

0.99	120.8	122.1	123.5	125.9	136.5	158.3	206.3	304.7	531.1
0.98	112.9	114.2	115.8	118.4	128.2	148.0	188.8	269.7	474.4
0.96	105.1	106.4	108.1	110.9	119.9	137.6	171.7	237.0	420.2
0.90	94.7	96.0	97.7	100.7	108.4	123.3	149.3	196.4	351.2
0.80	86.5	87.7	89.5	92.4	99.2	111.8	132.0	166.8	299.6
0.50	74.1	75.2	76.9	79.6	84.6	93.6	106.4	126.5	226.5
0.20	64.9	65.8	67.4	69.7	73.3	79.5	88.1	100.2	176.5
0.10	61.1	61.9	63.5	65.4	68.3	73.4	80.5	90.1	156.8
0.05	58.4	59.1	60.6	62.3	64.7	66.9	75.2	83.2	143.0
0.02	55.8	56.3	57.8	59.2	61.1	64.3	70.0	76.8	129.7
0.01	54.2	54.7	56.1	57.3	58.9	61.5	66.9	73.1	122.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1946-1969)

P95	P90	P75	P70	P50	P25	P10
80.0	93.0	150.0	190.0	430.0	800.0	1200.0

STATION 14127000 WIND R AB THOUT CREEK NR CARSON, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	DATE	REG. (R)
1945	5050.	3670.	2460.	1620.	1160.	962.	903.	866.	757.	8840.	02/08/45	
1946	4290.	3210.	2430.	1680.	1300.	1070.	1120.	1070.	962.	6210.	12/28/45	
1947	5590.	4280.	2660.	2070.	1300.	1080.	1190.	1080.	885.	6870.	12/13/46	
1948	4560.	3160.	2270.	1710.	1260.	922.	922.	803.	785.	5300.	01/07/48	
1949	2810.	2190.	1670.	1550.	1350.	1180.	1120.	1010.	845.	3020.	05/02/49	
1950	3870.	2880.	2080.	2020.	1600.	1350.	1240.	1190.	1010.	4770.	11/27/49	
1951	3860.	3290.	2610.	1730.	1550.	1360.	1360.	1240.	1050.	4560.	12/23/50	
1952	4080.	2830.	2310.	1660.	1220.	959.	845.	822.	774.	6260.	12/01/51	
1953	5400.	4650.	3850.	3550.	2840.	1810.	1410.	1190.	971.	6260.	01/09/53	
1954	3380.	2670.	2170.	1840.	1510.	1220.	1140.	1100.	1030.	5460.	12/09/53	
1955	2780.	2010.	1440.	1090.	1010.	890.	866.	767.	707.	3050.	12/31/54	
1956	5550.	4130.	2790.	2260.	1600.	1390.	1440.	1230.	1180.	6480.	12/31/55	
1957	4870.	3210.	2430.	2200.	1600.	1390.	1170.	962.	866.	6320.	02/26/57	
1958	3780.	2970.	2270.	1960.	1780.	1510.	1390.	1180.	1030.	4040.	12/26/57	
1959	3750.	3010.	2420.	1850.	1650.	1350.	1310.	1120.	1030.	4480.	01/12/59	
1960	3310.	2860.	2170.	1760.	1360.	1080.	1100.	1020.	851.	4460.	02/07/60	
1961	6000.	3940.	2930.	2520.	2010.	1630.	1460.	1340.	1180.	8400.	11/24/60	
1962	3080.	2380.	2160.	1740.	1400.	1030.	872.	845.	797.	4030.	12/21/61	
1963	5700.	3340.	2470.	2000.	1480.	1080.	944.	868.	834.	7300.	11/20/62	
1964	3550.	2850.	2190.	1630.	1250.	1030.	965.	868.	777.	4750.	01/25/64	
1965	5970.	4630.	3220.	1950.	1670.	1190.	1100.	1100.	982.	8160.	12/22/64	
1966	2540.	2070.	1780.	1490.	1300.	1220.	1050.	935.	803.	3170.	03/09/66	
1967	4950.	3560.	2430.	1750.	1440.	1360.	1180.	1060.	891.	5810.	12/13/66	
1968	5500.	4280.	3770.	2540.	1940.	1460.	1260.	1150.	950.	6730.	02/18/68	
1969	2600.	2050.	1670.	1360.	1290.	1210.	1090.	896.	829.	3380.	01/07/69	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1945-1969)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	MINIMUM	STANDARD DEVIATION	SKWENESS	STD ERROR OF SKWENESS	SERIAL CORR. COEFF.	COEFF. OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKWENESS LOGS	STD ERR SKWENESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS
4322.8	6210.0	2540.0	1166.25	0.044	-0.355	0.270	3.620	0.122	-0.274	-0.355	-0.201	0.034
3300.4	5590.0	1440.0	1090.0	0.968	-0.157	0.279	3.503	0.120	0.047	-0.355	-0.201	0.034
2522.0	4280.0	1440.0	1090.0	0.968	-0.157	0.279	3.503	0.120	0.047	-0.355	-0.201	0.034
1954.8	3550.0	1090.0	505.64	1.319	-0.208	0.259	3.278	0.115	0.278	0.464	-0.138	0.032
1576.4	2840.0	1010.0	384.47	1.520	-0.319	0.244	3.187	0.097	0.693	0.464	-0.345	0.030
1256.9	890.0	237.49	188.83	0.437	-0.223	0.189	3.092	0.082	0.073	0.464	-0.210	0.026
1141.1	845.0	158.42	108.35	0.053	-0.223	0.165	3.051	0.068	-0.194	0.464	-0.210	0.023
1028.9	767.0	158.42	128.35	0.028	-0.223	0.154	3.007	0.060	-0.184	0.464	-0.210	0.020
911.0	707.0	158.42	128.35	0.028	-0.223	0.154	3.007	0.060	-0.184	0.464	-0.210	0.020
1160.0	1160.0	1160.0	1160.0	1160.0	1160.0	1160.0	1160.0	1160.0	1160.0	1160.0	1160.0	1160.0

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1969)

0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
2044.7	2566.6	2882.4	3301.4	4219.9	5296.4	5922.3	6366.6	7123.1	7577.0
1690.5	2028.4	2237.2	2520.8	3174.9	4011.1	4538.2	5181.6	6048.0	6105.3
1390.6	1612.0	1751.6	1945.0	2407.3	3031.4	3444.0	3967.4	4360.4	4756.7
1148.5	1305.7	1405.0	1542.6	1871.9	2317.4	2612.4	2987.3	3269.2	3553.9
1025.3	1179.5	1269.1	1398.3	1717.9	2070.7	2344.0	2630.9	2886.7	3124.2
802.5	909.1	972.0	1054.5	1234.1	1446.9	1573.5	1721.7	1825.3	1924.2
743.3	846.1	904.6	979.0	1132.0	1298.8	1391.4	1494.1	1562.5	1625.4
692.2	780.2	830.0	893.1	1021.9	1161.4	1234.4	1323.6	1380.2	1432.2
673.7	727.4	759.6	802.2	896.7	1011.7	1081.4	1165.1	1224.4	1281.6
2507.3	3106.3	3482.3	3999.2	5211.8	6793.0	7802.5	9045.2	9951.5	10844.3
2415.2	3062.7	3464.6	4010.3	5256.3	6807.8	7756.8	8883.8	9678.9	10441.5

STATION 14127200 LAYOUT CR NR CARSON, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1966-1975)									
WATER YEAR	FLOW(CFS)	DATE	W R C SYSTEMATIC ESTIMATE RECORD									
1966	218.0	3-9-1966										
1967	356.0	12-13-1966										
1968	508.0	2-19-1968										
1969	163.0	1-7-1969										
1970	285.0	1-14-1970										
1971	270.0	1-17-1971										
1972	564.0	1-20-1972										
1973	419.0	12-21-1972										
1974	575.0	1-15-1974										
1975	303.0	12-21-1974										
			MEAN LOGS									
			STANDARD DEVIATION LOGS									
			SKEWNESS LOGS									
			ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES									
			LOG-PEARSON III ANALYSIS (YEARS 1966-1975)									
			0.99									
			0.95									
			0.90									
			0.80									
			0.50									
			0.20									
			0.10									
			0.04									
			0.02									
			0.01									
			128.7									
			170.8									
			198.7									
			238.7									
			339.3									
			346.3									
			482.7									
			485.0									
			572.1									
			580.6									
			707.1									
			676.9									
			803.3									
			751.4									
			901.0									
			822.9									

STATION 14128000 PANTHER CREEK NEAR CARSON, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1945			82.3	224	298	217	198	212	104	70.9	51.9	52.4	
1946	49.4	200	354	355	273	267	194	148	118	106.4	82.4	68.6	184
1947	75.9	250	438	222	234	199	164	94.5	84.5	65.2	57.1	53.9	163
1948	211	196	177	346	305	187	211	205	103	80.5	65.7	61.7	179
1949	61.1	194	255	80.4	284	304	276	304	114	87.7	69.2	62.3	173
1950	66.3	190	221	186	378	440	335	277	190	122	94.7	78.5	214
1951	181	386	423	355	443	193	252	160	111	90.8	75.9	66.8	227
1952	192	228	320	134	332	171	228	141	103	85.1	70.4	63.3	172
1953	57.3	56.0	114	709	325	214	155	162	128	93.4	80.3	66.9	180

STATION 14128000 PANTHER CREEK NEAR CARSON, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1945	2150.0	2-7-1945
1946	2030.0	12-28-1945
1947	1830.0	12-15-1946
1948	2230.0	1-7-1948
1949	1500.0	2-17-1949
1950	1880.0	2-24-1950
1951	1920.0	2-9-1951
1952	1770.0	2-8-1952
1953	2400.0	1-9-1953

STATION 14128500 WIND RIVER NEAR CARSON, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1935	700	2500	2483	1764	1542	1345	1448	1411	703	342	241	196	1220
1936	188	296	723	3371	855	1819	1499	1312	870	364	234	205	977
1937	164	149	928	408	836	2008	1456	1605	1392	526	297	243	966
1938	266	2606	3325	2381	1006	2119	1107	1233	585	319	218	187	1371
1939	227	643	1336	1669	1767	1526	1107	649	393	243	172	157	804
1940	174	181	1767	1205	2574	2444	1299	884	323	214	168	163	977
1941	249	808	1255	1495	1100	793	550	759	380	224	194	447	686
1942	496	1005	3170	817	1706	977	905	731	691	344	211	164	931
1943	170	2476	2695	1413	1911	1995	2974	1259	825	393	250	194	1373
1944	449	643	952	805	1003	806	1000	1658	434	222	167	164	607
1945	168	650	664	1836	2380	1888	1505	1819	612	297	211	234	997
1946	205	1553	2598	2864	1861	2033	1505	1306	846	550	278	219	1316
1947	430	2037	3605	1499	2037	1463	1267	557	438	284	204	215	1165
1948	1662	1649	1317	2447	1869	1320	1627	1786	814	372	248	224	1277
1949	383	1548	2314	517	2042	2187	2192	2317	774	391	238	219	1238
1950	339	1479	1697	1507	2528	3122	2426	2182	1541	604	304	228	1489
1951	1172	2690	3238	2566	2830	1224	1977	1351	622	315	222	201	1525
1952	1545	1813	2474	826	2488	1278	2072	1492	697	357	220	179	1282
1953	147	152	674	5840	2561	1425	1172	1328	881	417	275	213	1254
1954	278	1268	3241	2054	2484	1744	2239	1305	1014	556	323	259	1390
1955	367	1136	1411	1244	1413	973	1823	1740	1660	723	336	299	1090
1956	1292	2895	3704	1282	856	2373	2893	2293	1136	535	355	275	1779
1957	530	969	2028	650	1618	2585	2876	1043	503	291	214	174	1053
1958	248	733	2574	2851	3388	1183	2026	828	461	265	202	183	1215
1959	270	2399	2168	3094	1254	1728	1709	1083	662	344	218	503	1286
1960	1246	1271	1461	793	2928	1913	2598	1559	822	367	260	219	1254
1961	298	2790	1338	2217	4830	2820	1452	1246	560	313	233	232	1503
1962	450	961	1537	1618	1281	1499	1975	1268	551	297	225	217	1073
1963	619	2492	1686	898	2213	1067	2005	1194	424	287	208	174	1095
1964	250	1784	1338	2951	1483	1414	1188	1034	822	396	280	234	1097
1965	256	1100	4147	2173	2092	1332	1805	1013	495	276	211	175	1253
1966	183	669	739	1887	1181	2346	2256	1349	624	407	234	186	1004
1967	273	938	2728	3124	1669	1510	1062	1022	649	316	199	165	1138
1968	799	986	1795	1854	4134	1878	1020	875	760	286	326	423	1234
1969	1103	2221	1909	1745	794	1583	2422	2080	913	395	236	280	1309
1970	539	1028	854	4508	2820	1594	1061	854	469	254	189	182	1265
1971	340	1304	1950	3753	2599	2374	1919	2336	1097	617	307	335	1574
1972	386	1355	1719	3635	3753	3812	1903	1719	801	408	277	309	1677
1973	222	892	3097	1778	853	1208	711	558	393	252	170	204	865
1974	381	2802	3692	4687	2343	2234	2185	1531	1310	650	335	234	1864
1975	204	770	2377	3522	1932	1788	1126	1416	700	384	268	237	1227
1976	583	1823	3911	2688	1615	1458	1628	1363	607	366	267	204	1378
1977	183	229	276	309	425	1322	905	708	609	241	184	334	477

STATION 14128500 WIND RIVER NEAR CARSON, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1935-1977)

MEAN	475.2	1388.2	2118.0	2138.3	1968.9	1751.4	1702.3	1298.7	741.0	372.2	242.1	234.6	1199.0
MAXIMUM	1662.0	2895.0	4147.0	5840.0	4830.0	3812.0	3056.0	2336.0	1660.0	723.0	355.0	503.0	1864.0
MINIMUM	147.0	149.0	276.0	309.0	425.0	793.0	550.0	557.0	323.0	214.0	167.0	157.0	477.0
STD DEVIATION	389.54	811.35	992.16	1224.59	941.65	623.31	599.44	485.45	308.43	123.88	49.69	76.49	284.69
SKEWNESS	1.751	0.367	0.214	0.856	0.918	1.072	0.204	0.504	1.274	1.144	0.545	1.950	-0.139
STD ERR SKEW	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361
SER CORR COEFF	0.103	-0.198	-0.292	-0.038	-0.049	-0.048	-0.081	0.091	0.149	0.145	0.124	-0.112	-0.023
COEFF OF VAR	0.820	0.584	0.468	0.573	0.478	0.356	0.352	0.374	0.416	0.333	0.205	0.326	0.237
MEAN LOGS	2.570	3.041	3.267	3.250	3.244	3.218	3.202	3.083	2.837	2.550	2.375	2.353	3.065
STD DEV LOGS	0.291	0.342	0.252	0.288	0.219	0.150	0.168	0.169	0.168	0.133	0.088	0.119	0.116
SKEWNESS LOGS	0.750	-1.092	-1.067	-0.697	-0.446	0.042	-0.610	-0.271	0.305	0.528	0.180	1.223	-1.183
STD ERR SKEW LOGS	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361
SER CORR LOGS	0.126	-0.034	-0.268	-0.146	-0.019	-0.063	-0.027	0.017	0.172	0.143	0.111	-0.091	-0.005
COEFF OF VAR LOGS	0.113	0.112	0.077	0.088	0.068	0.047	0.052	0.055	0.059	0.052	0.037	0.051	0.038
% OF AVE FLOW	3.3	9.6	14.7	14.8	13.6	12.1	11.8	9.0	5.1	2.6	1.7	1.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1935-1977)

0.99	113.7	97.3	312.1	274.4	460.2	748.6	546.2	452.4	305.3	195.9	152.5	152.0	503.7
0.95	145.0	247.9	617.8	533.4	720.1	940.9	792.9	619.1	377.0	225.1	172.1	160.5	699.1
0.90	169.3	382.7	848.7	735.4	900.1	1063.7	951.2	726.7	424.9	244.5	184.0	167.4	813.0
0.80	209.4	611.0	1196.0	1053.3	1162.9	1235.2	1168.0	876.6	494.3	272.7	199.9	178.8	955.3
0.50	342.0	1265.2	2043.9	1918.6	1820.0	1648.2	1654.4	1230.9	673.9	345.3	235.8	213.3	1222.8
0.20	628.2	2143.7	3023.0	3135.1	2701.2	2206.9	2216.7	1685.8	944.7	454.2	280.6	275.1	1454.6
0.10	907.4	2631.7	3524.8	3892.7	3253.8	2574.3	2529.8	1968.0	1140.0	532.6	308.3	325.3	1552.8
0.04	1397.2	3125.8	4013.6	4765.9	3910.3	3036.8	2869.6	2304.7	1405.2	639.1	341.8	399.8	1637.6
0.02	1887.9	3414.9	4293.1	5352.1	4368.9	3380.8	3088.9	2542.4	1616.3	723.9	366.0	464.1	1681.6
0.01	2512.9	3648.0	4516.1	5885.2	4802.6	3724.8	3283.9	2770.0	1839.3	813.6	389.5	536.4	1714.3

STATION 14129500 WIND RIVER NEAR CARSON, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31									
YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1936	169.0	169.0	172.0	175.0	187.0	188.0	198.0	218.0	299.0
1937	142.0	142.0	142.0	143.0	147.0	153.0	168.0	182.0	264.0
1938	183.0	198.0	201.0	215.0	222.0	246.0	264.0	301.0	653.0
1939	174.0	175.0	177.0	179.0	184.0	195.0	207.0	234.0	314.0
1940	141.0	144.0	144.0	145.0	152.0	159.0	165.0	170.0	261.0
1941	146.0	148.0	150.0	153.0	154.0	163.0	170.0	183.0	277.0
1942	157.0	158.0	159.0	166.0	176.0	206.0	255.0	300.0	399.0
1943	141.0	143.0	146.0	149.0	151.0	159.0	176.0	216.0	382.0
1944	167.0	169.0	172.0	175.0	181.0	202.0	226.0	286.0	457.0
1945	146.0	146.0	148.0	150.0	155.0	165.0	166.0	178.0	286.0
1946	175.0	176.0	179.0	183.0	195.0	213.0	214.0	233.0	416.0
1947	186.0	187.0	188.0	196.0	200.0	217.0	253.0	341.0	521.0
1948	177.0	177.0	180.0	184.0	195.0	209.0	229.0	273.0	422.0
1949	186.0	186.0	186.0	186.0	199.0	233.0	272.0	303.0	515.0
1950	185.0	187.0	191.0	198.0	208.0	222.0	253.0	283.0	465.0
1951	195.0	198.0	201.0	206.0	224.0	257.0	334.0	464.0	954.0
1952	168.0	168.0	170.0	175.0	187.0	205.0	241.0	331.0	649.0
1953	126.0	128.0	129.0	136.0	141.0	148.0	157.0	171.0	267.0
1954	181.0	184.0	184.0	190.0	213.0	243.0	254.0	271.0	479.0
1955	221.0	224.0	226.0	231.0	247.0	270.0	303.0	336.0	552.0
1956	237.0	239.0	243.0	250.0	275.0	309.0	397.0	580.0	965.0
1957	258.0	259.0	262.0	263.0	265.0	285.0	323.0	402.0	585.0
1958	166.0	167.0	169.0	170.0	174.0	189.0	204.0	222.0	337.0
1959	163.0	165.0	168.0	175.0	180.0	187.0	204.0	227.0	349.0
1960	188.0	190.0	195.0	198.0	211.0	250.0	304.0	411.0	596.0
1961	180.0	181.0	185.0	193.0	205.0	229.0	239.0	277.0	519.0
1962	195.0	196.0	200.0	205.0	211.0	227.0	243.0	281.0	408.0
1963	175.0	177.0	180.0	187.0	197.0	213.0	239.0	292.0	446.0
1964	154.0	155.0	162.0	164.0	165.0	174.0	191.0	221.0	379.0
1965	204.0	205.0	210.0	219.0	234.0	245.0	252.0	275.0	414.0
1966	163.0	164.0	165.0	167.0	172.0	178.0	188.0	205.0	320.0
1967	158.0	162.0	165.0	168.0	173.0	186.0	211.0	249.0	408.0
1968	148.0	149.0	150.0	154.0	165.0	181.0	220.0	283.0	491.0
1969	198.0	199.0	203.0	208.0	227.0	273.0	330.0	364.0	521.0
1970	188.0	188.0	188.0	193.0	203.0	238.0	297.0	339.0	526.0
1971	155.0	156.0	160.0	163.0	171.0	175.0	186.0	210.0	350.0
1972	218.0	220.0	223.0	231.0	252.0	294.0	328.0	402.0	633.0
1973	193.0	193.0	202.0	206.0	218.0	265.0	267.0	292.0	443.0
1974	128.0	129.0	131.0	137.0	146.0	167.0	196.0	228.0	323.0
1975	195.0	195.0	196.0	196.0	199.0	216.0	242.0	290.0	553.0
1976	190.0	192.0	194.0	200.0	218.0	249.0	260.0	310.0	568.0
1977	165.0	165.0	166.0	170.0	177.0	193.0	203.0	208.0	241.0

STATION 14128500 WIND RIVER NEAR CARSON, WASH.

LOWEST MEAN FLOW STATISTICS (YEARS 1936-1977)

MEAN	175.6	177.2	180.0	184.6	194.2	213.7	238.8	282.0	457.2
MAXIMUM	258.0	259.0	262.0	263.0	275.0	309.0	377.9	580.0	965.0
MINIMUM	126.0	128.0	129.0	136.0	141.0	148.0	157.0	170.0	214.0
STANDARD DEVIATION	27.49	27.72	28.32	29.10	32.57	41.04	54.81	83.84	161.09
SKEWNESS	0.700	0.681	0.617	0.559	0.490	0.401	0.743	1.335	1.317
STD ERROR OF SKEWNESS	0.365	0.365	0.365	0.365	0.365	0.365	0.365	0.365	0.365
SERIAL CORR COEFF	0.251	0.232	0.234	0.215	0.221	0.175	0.218	0.196	0.181
COEFF OF VARIATION	0.157	0.156	0.157	0.158	0.168	0.192	0.229	0.297	0.354
MEAN LOGS	2.240	2.244	2.250	2.261	2.282	2.322	2.367	2.433	2.636
STD DEVIATION LOGS	0.067	0.067	0.067	0.068	0.072	0.083	0.097	0.120	0.145
SKEWNESS LOGS	0.183	0.184	0.128	0.143	0.115	0.067	0.231	0.421	0.178
STD ERR SKEWNESS LOGS	0.365	0.365	0.365	0.365	0.365	0.365	0.365	0.365	0.365
SER CORR COEFF LOGS	0.201	0.182	0.186	0.173	0.175	0.134	0.177	0.168	0.167
COEFF OF VAR LOGS	0.030	0.030	0.030	0.030	0.032	0.036	0.041	0.049	0.055

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1936-1977)

0.99	253.2	255.5	258.9	266.1	285.8	330.4	405.7	561.0	981.9
0.98	241.4	243.7	247.2	254.0	272.1	312.9	377.9	508.1	885.9
0.96	229.2	231.3	234.9	241.2	257.8	294.5	349.8	456.8	791.5
0.90	211.9	213.8	217.4	223.1	237.4	268.5	311.3	390.4	567.3
0.80	197.2	199.0	202.5	207.6	220.1	246.4	280.1	339.7	570.9
0.50	172.8	174.4	177.3	181.7	191.0	209.5	231.0	266.1	428.3
0.20	152.4	153.8	156.0	159.9	166.5	178.7	192.9	214.2	325.7
0.10	143.1	144.4	146.2	149.8	155.2	164.6	176.3	193.2	283.9
0.05	136.0	137.3	138.7	142.2	146.7	153.9	164.1	178.4	254.1
0.02	128.6	129.8	130.8	134.2	137.7	142.8	151.8	164.0	225.0
0.01	124.0	125.2	125.9	129.2	132.1	135.9	144.3	155.5	207.8

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1936-1977)

P95	P90	P75	P70	P50	P25	P10
180.0	200.0	310.0	370.0	800.0	1500.0	2600.0

STATION 1412B500 WIND RIVER NEAR CAHSON, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	DATE	REG. (R)
1935	8430.	7170.	5750.	3830.	2630.	2500.	2250.	2080.	1850.	12200.	12/21/34	
1936	8730.	8260.	6130.	5210.	3560.	2170.	2070.	1920.	1650.	10900.	01/12/36	
1937	11600.	9750.	6250.	4140.	3090.	2540.	2270.	2030.	1580.	14900.	04/14/37	
1938	14200.	11600.	8040.	4760.	3790.	2870.	2420.	2030.	1320.	20000.	12/29/37	
1939	6280.	4440.	3240.	2260.	1810.	1670.	1610.	1530.	1320.	7300.	02/15/39	
1940	8570.	6420.	5030.	3940.	3490.	2780.	2320.	2200.	1760.	10100.	02/08/40	
1941	4780.	3680.	2600.	2260.	1810.	1490.	1360.	1220.	1030.	5860.	11/29/40	
1942	11200.	7680.	5660.	3880.	3250.	2220.	1970.	1750.	1450.	15800.	12/19/41	
1943	11800.	8100.	7280.	5120.	3890.	2840.	2390.	2150.	2270.	17600.	11/23/42	
1944	3600.	2690.	1990.	1350.	1070.	937.	941.	901.	872.	4910.	02/06/44	
1945	11000.	8570.	5670.	3660.	2570.	2100.	2010.	1910.	1630.	17600.	02/08/45	
1946	11300.	9640.	7180.	5510.	3810.	2960.	2600.	2490.	2140.	15800.	12/28/45	
1947	13000.	11700.	9130.	5720.	4750.	2940.	2750.	2480.	1990.	15000.	12/13/46	
1948	10700.	7310.	5430.	4020.	2910.	2170.	2100.	1820.	1770.	13500.	01/07/48	
1949	7200.	5050.	3970.	3300.	2840.	2530.	2550.	2230.	1970.	9460.	02/17/49	
1950	6720.	7840.	5420.	5000.	3910.	3200.	2890.	2670.	2310.	10800.	11/27/49	
1951	8900.	7680.	6060.	4020.	3420.	3180.	3200.	2930.	2450.	9460.	12/23/50	
1952	11300.	7700.	5690.	4030.	2950.	2300.	2140.	2050.	1860.	13800.	02/04/52	
1953	12600.	11000.	8790.	6100.	6590.	4230.	3300.	2770.	2200.	15500.	01/09/53	
1954	8380.	6550.	5360.	4260.	3610.	2830.	2600.	2510.	2260.	14600.	12/09/53	
1955	7330.	5400.	3590.	2240.	1930.	1790.	1770.	1580.	1520.	8330.	12/31/54	
1956	13900.	9840.	6380.	5130.	4450.	3760.	3260.	2770.	2630.	18500.	12/21/55	
1957	9980.	6680.	4790.	4420.	3170.	2660.	2180.	1870.	1680.	12300.	02/26/57	
1958	8230.	5940.	4720.	3960.	3650.	3210.	2890.	2450.	2110.	9160.	12/26/57	
1959	7840.	6130.	4750.	3460.	3170.	2670.	2650.	2290.	2100.	9500.	01/12/59	
1960	8900.	6780.	5270.	4250.	3120.	2430.	2420.	2210.	1870.	11500.	02/07/60	
1961	12000.	10500.	7320.	6190.	4750.	3780.	3300.	3070.	2610.	26400.	11/24/60	
1962	8130.	6430.	5350.	4120.	3140.	2270.	1910.	1900.	1750.	11400.	12/21/61	
1963	15500.	8450.	5840.	4630.	3260.	2280.	2030.	1850.	1780.	20400.	11/20/62	
1964	11500.	8010.	5570.	4070.	3090.	2380.	2170.	1930.	1700.	15900.	01/25/64	
1965	20000.	15700.	9810.	5470.	4450.	3020.	2940.	2610.	2190.	28300.	12/23/64	
1966	7300.	5200.	4210.	3110.	2700.	2400.	2050.	1970.	1630.	8920.	03/09/66	
1967	12300.	8700.	5630.	3960.	3210.	2990.	2530.	2280.	1880.	14500.	12/13/66	
1968	16200.	11400.	9220.	5830.	4120.	3060.	2630.	2410.	1970.	18800.	02/19/68	
1969	8400.	5950.	4270.	3010.	2530.	2400.	2120.	1800.	1830.	10000.	01/07/69	
1970	17600.	12500.	10100.	7810.	5190.	3710.	3170.	2710.	2120.	23700.	01/23/70	
1971	10300.	8000.	7000.	5450.	4170.	3270.	2950.	2760.	2510.	13800.	01/19/71	
1972	22200.	16600.	9970.	6090.	5250.	4580.	3680.	3360.	2830.	31400.	01/20/72	
1973	17700.	11800.	9150.	5930.	3900.	2560.	2120.	1790.	1440.	24400.	12/21/72	
1974	30000.	21500.	12800.	7670.	5350.	4370.	4000.	3520.	3030.	45700.	01/15/74	
1975	9840.	7000.	5570.	4990.	3600.	3110.	2780.	2440.	2060.	12900.	12/21/74	
1976	15900.	12100.	9370.	6020.	4050.	3460.	2540.	2230.	720.	23000.	12/04/75	
1977	3360.	2880.	2180.	1750.	1370.	1150.	1000.	925.		4140.	03/07/77	
1978										31600.	12/13/77	
1979										8500.	02/07/79	

STATION 14143500 WASHOUGAL RIVER NEAR WASHOUGAL, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1945	137	874	584	1732	1597	1451	1370	1060	237	103	67.1	216	780
1946	149	1841	1714	1681	1681	1637	810	365	346	305	101	86.8	907
1947	724	2042	2598	1458	1254	815	1086	241	494	215	101	212	934
1948	1511	1737	1042	1517	1566	1031	1138	860	236	139	89.7	175	918
1949	456	1552	2065	330	2142	1529	1017	786	168	121	74.0	118	854
1950	457	1296	1605	1241	2519	2332	1771	771	183	123	77.8	102	1012
1951	1043	1926	1988	1232	1583	1003	790	409	257	89.5	64.2	143	943
1952	1677	1020	1612	660	1646	1269	1042	435	194	144	74.0	59.0	817
1953	53.7	78.6	930	4320	1913	1185	672	737	444	148	136	91.1	890
1954	251	1268	2920	1501	1037	880	1061	292	676	305	129	128	932
1955	390	1023	1143	1197	1134	953	1747	1046	452	253	127	160	799
1956	1268	2431	2262	2161	763	2132	1328	534	336	127	153	112	1139
1957	921	888	1894	413	1547	1990	1093	342	257	129	87.1	58.7	798
1958	217	728	2364	1757	1844	704	1543	285	200	116	59.2	95.4	820
1959	294	2471	1842	1951	959	1351	1074	760	530	167	75.1	727	1015
1960	1342	985	910	623	1762	1296	1290	1104	355	132	127	127	834
1961	446	2474	891	1453	3224	2095	1951	837	226	106	68.6	99.9	1056
1962	599	954	1805	1122	835	830	1127	731	258	114	101	146	719
1963	515	1790	1013	635	1348	902	1407	796	201	183	95.2	108	743
1964	313	1666	959	2519	1062	1347	919	629	465	184	174	176	867
1965	276	1181	2883	2464	1361	529	613	407	157	83.2	72.9	55.3	840
1966	87.9	693	724	1972	950	1589	948	363	158	267	83.3	74.3	659
1967	384	1017	1670	2524	1264	1015	769	423	174	83.9	55.5	51.8	785
1968	933	715	1634	1126	542	843	594	323	514	119	340	449	838
1969	1009	1642	1726	1501	683	1288	1446	737	477	262	104	251	913
1970	610	716	1358	3037	1529	864	843	631	181	95.0	67.5	136	837
1971	487	1287	1659	3226	1707	1621	1166	695	402	181	87.3	251	1062
1972	502	1510	2135	3041	2891	2229	1187	694	256	133	75.3	220	1235
1973	99.6	777	2196	1386	514	923	529	361	390	163	110	193	637
1974	467	2499	2733	2702	1781	1834	1461	770	463	275	171.7	1261	1261
1975	844	2018	2861	1349	1242	719	677	222	136	136	193	156	874
1976	671	1534	2947	2240	1431	1095	1008	464	290	164	154	102	1009
1977	124	265	340	357	551	1468	728	612	477	112	136	457	468
1978	401	2450	3975	1102	1041	881	779	779	358	133	115	239	996
1979	118	671	1245	287	2160	1403	769	590	150	144	78.5	113	634

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1945-1979)

MEAN	542.8	1341.3	1753.8	1724.5	1542.0	1290.3	1039.9	615.6	319.5	159.3	106.6	170.3	880.7
MAXIMUM	1677.0	2499.0	3975.0	4320.0	3224.0	2332.0	1747.0	1104.0	676.0	305.0	340.0	727.0	1261.0
MINIMUM	53.7	78.6	340.0	287.0	514.0	486.0	529.0	241.0	150.0	83.2	55.5	51.8	468.0
STO DEVIATION	428.31	654.54	785.92	945.77	626.18	478.83	294.38	232.49	136.70	62.66	52.78	134.86	163.78
SKWENESS	1.113	0.316	0.563	0.523	0.691	0.536	0.344	0.224	0.635	1.108	2.798	2.647	0.111
STD ERR SKEW	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398
SER CORR COEFF	0.112	-0.365	-0.405	0.087	-0.141	-0.147	-0.063	0.051	0.120	-0.065	0.004	-0.034	-0.334
COEFF OF VAR	0.789	0.488	0.448	0.548	0.406	0.371	0.293	0.378	0.428	0.393	0.495	0.792	0.186
MEAN LOGS	2.584	3.057	3.195	3.155	3.151	3.091	3.000	2.756	2.466	2.173	1.992	2.143	2.937
STD DEV LOGS	0.397	0.296	0.223	0.299	0.188	0.167	0.127	0.178	0.196	0.157	0.166	0.204	0.085
SKWENESS LOGS	-0.449	-1.458	-0.853	-0.865	-0.496	-0.305	-0.254	-0.395	0.098	0.511	1.122	0.667	-0.727
STD ERR SKEW LOGS	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398
SER CORR LOGS	0.040	-0.201	-0.394	0.023	-0.165	-0.212	-0.087	0.055	0.111	-0.122	0.082	0.037	-0.331
COEFF OF VAR LOGS	0.154	0.097	0.070	0.095	0.060	0.054	0.042	0.065	0.075	0.072	0.083	0.123	0.029
% OF AVE FLOW	5.1	12.6	16.5	16.3	14.5	12.2	9.8	5.8	3.0	1.5	1.0	1.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1979)

0.99	34.0	99.5	348.6	187.8	444.0	451.0	480.3	195.6	111.5	73.7	55.3	45.8	497.3
0.95	76.6	293.7	606.0	398.1	657.9	618.8	606.1	278.6	146.5	87.0	60.4	58.2	606.4
0.90	114.8	468.7	788.2	568.3	799.4	726.7	682.7	332.6	169.9	96.1	64.4	58.2	606.4
0.80	182.6	749.2	1052.9	940.0	998.5	827.5	785.0	408.1	203.7	109.3	71.0	130.1	742.2
0.50	411.0	1399.4	1684.3	1578.1	1467.8	1277.7	1011.4	585.8	290.5	144.5	91.6	130.1	885.7
0.20	839.7	1939.7	2431.3	2570.4	2051.5	1672.6	1280.5	894.4	418.3	199.5	130.5	225.1	1028.6
0.10	1175.8	2109.8	2837.5	3149.8	2397.5	1945.1	1438.8	909.5	508.2	240.4	164.1	312.1	1088.6
0.04	1639.0	2212.3	3260.6	3775.8	2792.0	2269.7	1621.0	1101.6	627.3	297.5	216.9	456.3	1153.9
0.02	2002.5	2247.2	3520.5	4169.5	3058.1	2491.7	1746.0	1209.8	719.9	344.2	265.0	593.7	1192.9
0.01	2375.7	2265.1	3741.4	4508.1	3303.3	2705.4	1863.3	1311.3	815.7	394.4	321.7	761.3	1225.5

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1946	58.0	59.0	59.0	63.0	65.0	80.0	114.0	123.0	296.0
1947	67.0	70.0	71.0	75.0	80.0	86.0	99.0	179.0	249.0
1948	77.0	77.0	78.0	82.0	92.0	129.0	168.0	245.0	353.0
1949	65.0	65.0	66.0	66.0	76.0	88.0	111.0	146.0	281.0
1950	58.0	58.0	60.0	60.0	63.0	87.0	100.0	114.0	213.0
1951	54.0	56.0	57.0	57.0	60.0	73.0	94.0	131.0	356.0
1952	46.0	47.0	48.0	48.0	58.0	60.0	71.0	98.0	278.0
1953	46.0	47.0	47.0	49.0	51.0	55.0	66.0	100.0	277.0
1954	70.0	71.0	72.0	75.0	90.0	114.0	123.0	152.0	308.0
1955	82.0	87.0	89.0	98.0	113.0	121.0	150.0	218.0	308.0
1956	70.0	70.0	72.0	75.0	86.0	137.0	166.0	222.0	308.0
1957	86.0	90.0	97.0	100.0	105.0	122.0	127.0	155.0	308.0
1958	48.0	53.0	53.0	55.0	59.0	87.0	108.0	167.0	170.0
1959	42.0	44.0	44.0	48.0	51.0	65.0	82.0	106.0	170.0
1960	58.0	60.0	61.0	65.0	71.0	109.0	188.0	295.0	495.0
1961	66.0	69.0	71.0	72.0	84.0	124.0	121.0	143.0	357.0
1962	55.0	56.0	57.0	58.0	63.0	84.0	86.0	106.0	256.0
1963	55.0	61.0	61.0	69.0	77.0	94.0	110.0	145.0	263.0
1964	60.0	63.0	68.0	68.0	83.0	98.0	100.0	126.0	263.0
1965	93.0	107.0	107.0	119.0	148.0	166.0	175.0	201.0	289.0
1966	49.0	50.0	54.0	51.0	54.0	61.0	74.0	134.0	200.0
1967	61.0	63.0	64.0	68.0	74.0	77.0	85.0	135.0	200.0
1968	42.0	44.0	45.0	46.0	51.0	53.0	63.0	87.0	212.0
1969	63.0	64.0	66.0	71.0	82.0	120.0	229.0	285.0	368.0
1970	69.0	70.0	71.0	74.0	80.0	106.0	265.0	368.0	368.0
1971	54.0	55.0	56.0	59.0	65.0	77.0	105.0	207.0	335.0
1972	71.0	73.0	76.0	83.0	87.0	128.0	160.0	230.0	335.0
1973	55.0	56.0	58.0	62.0	66.0	76.0	113.0	130.0	227.0
1974	53.0	54.0	56.0	60.0	68.0	78.0	132.0	191.0	246.0
1975	53.0	54.0	54.0	55.0	58.0	67.0	78.0	120.0	243.0
1976	70.0	70.0	72.0	76.0	87.0	125.0	156.0	173.0	312.0
1977	79.0	79.0	80.0	85.0	89.0	99.0	116.0	131.0	171.0
1978	60.0	61.0	63.0	65.0	73.0	99.0	168.0	243.0	348.0
1979	74.0	75.0	78.0	84.0	100.0	116.0	152.0	148.0	243.0

LOWEST MEAN FLOW STATISTICS (YEARS 1946-1979)

MEAN	62.0	63.5	65.3	69.0	76.8	95.5	121.7	158.1	278.3
MAXIMUM	93.0	98.0	107.0	119.0	148.0	166.0	229.0	295.0	512.0
MINIMUM	42.0	43.0	44.0	46.0	51.0	53.0	59.0	66.0	100.0
STANDARD DEVIATION	12.48	13.02	14.26	16.01	20.21	27.09	42.07	59.99	89.70
SKENNESS	0.516	0.711	0.963	1.076	1.396	0.446	0.599	0.748	0.592
STD ERROR OF SKENNESS	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403
SERIAL CORR COEFF	0.088	0.048	0.028	-0.016	0.038	0.036	0.033	-0.038	0.015
COEFF OF VARIATION	0.201	0.205	0.218	0.232	0.263	0.284	0.346	0.379	0.322
MEAN LOGS	1.784	1.794	1.806	1.828	1.872	1.963	2.060	2.169	2.421
STD DEVIATION LOGS	0.087	0.087	0.091	0.096	0.106	0.125	0.151	0.163	0.148
SKENNESS LOGS	0.071	0.215	0.351	0.390	0.511	-0.093	-0.037	0.021	-0.020
STD ERR SKENNESS LOGS	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403
SER CORR COEFF LOGS	0.119	0.083	0.072	0.024	0.062	0.074	0.049	-0.037	0.002
COEFF OF VAR LOGS	0.048	0.048	0.050	0.052	0.057	0.063	0.073	0.075	0.061

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1946-1979)

0.99	97.7	102.3	109.6	119.7	143.8	175.4	255.2	355.7	498.5
0.98	92.3	96.0	102.0	110.8	131.1	163.1	232.7	320.6	472.6
0.96	86.6	89.6	94.4	101.9	118.9	150.3	210.0	285.7	443.2
0.90	78.7	80.8	84.1	90.0	102.9	132.2	179.0	239.1	396.9
0.80	71.9	73.5	75.9	80.6	90.7	117.0	153.9	202.5	353.5
0.50	60.7	63.1	65.8	66.4	73.0	92.2	115.1	147.5	273.3
0.20	51.4	52.5	53.5	55.8	60.5	72.2	85.8	107.7	201.1
0.10	47.2	49.3	49.3	51.3	55.4	63.4	73.5	91.4	167.7
0.05	44.0	45.4	46.3	48.1	51.8	56.9	64.6	79.9	142.8
0.02	40.7	42.3	43.3	44.9	48.4	50.2	52.9	68.6	117.6
0.01	38.7	40.4	41.5	43.0	46.4	46.2	50.7	62.1	102.6

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1946-1979)

P95	P90	P75	P70	P50	P25	P10
69.0	84.0	160.0	210.0	500.0	1100.0	2000.0

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	DATE	REG. (R)
1945	6800.	4970.	3560.	2990.	1960.	1690.	1630.	1570.	1310.	15700.	02/07/45	
1946	10900.	6430.	4310.	3370.	2450.	2120.	1970.	1900.	1590.	14000.	12/28/45	
1947	12200.	11600.	7900.	4530.	3920.	2560.	2240.	1970.	1480.	15300.	12/11/46	
1948	7590.	5060.	3750.	2730.	2120.	1650.	1700.	1480.	1400.	8900.	01/07/48	
1949	12300.	6570.	4660.	3480.	2850.	1930.	1620.	1470.	17600.	17600.	02/17/49	
1950	13600.	9020.	5440.	4460.	3370.	2630.	2210.	2050.	1770.	17600.	02/24/50	
1951	6990.	4600.	3470.	2720.	2440.	2180.	2150.	1990.	1640.	9650.	12/23/50	
1952	8300.	5820.	4670.	2920.	1790.	1510.	1450.	1420.	1320.	13000.	02/03/52	
1953	11000.	10100.	7350.	5640.	4820.	3160.	2500.	2120.	1620.	13100.	01/18/53	
1954	11300.	6880.	5090.	3890.	3300.	2440.	2110.	1990.	1570.	17700.	12/09/53	
1955	1250.	4520.	2910.	2120.	1900.	1550.	1350.	1270.	1270.	11000.	02/08/55	
1956	10000.	7780.	4720.	3500.	3030.	2630.	2390.	2070.	1900.	14100.	12/11/55	
1957	8420.	6510.	4660.	3360.	2400.	1880.	1560.	1390.	12700.	12700.	03/07/57	
1958	7990.	5530.	4150.	3390.	2500.	2230.	1990.	1720.	1490.	11800.	04/20/58	
1959	6760.	5920.	3930.	3650.	2570.	2230.	2140.	1860.	1630.	12500.	11/19/58	
1960	5970.	3860.	2920.	2640.	1960.	1550.	1500.	1400.	1200.	10100.	10/22/59	
1961	10800.	6870.	4940.	4250.	3430.	2620.	2250.	2200.	1870.	14200.	11/24/60	
1962	8300.	5120.	3800.	2730.	2110.	1670.	1410.	1220.	1160.	13200.	11/22/61	
1963	13100.	6530.	3930.	3180.	2270.	1550.	1340.	1220.	1230.	24900.	11/20/62	
1964	13800.	7710.	4880.	3510.	2590.	1830.	1770.	1590.	1420.	21200.	01/25/64	
1965	13500.	11100.	7520.	4240.	2970.	2550.	2440.	2020.	1500.	25100.	12/22/64	
1966	7370.	4570.	3340.	3160.	2140.	1520.	1540.	1420.	1180.	9300.	03/09/66	
1967	7440.	5790.	3680.	2670.	2540.	1830.	1760.	1680.	1390.	9080.	01/28/67	
1968	11300.	6820.	5330.	3060.	2490.	1840.	1810.	1530.	1310.	16000.	02/19/68	
1969	8400.	6880.	4250.	2650.	2070.	1500.	1370.	1370.	1370.	10600.	12/03/68	
1970	9160.	7630.	6520.	5290.	3610.	2500.	2060.	1740.	1400.	14400.	01/18/70	
1971	8120.	6490.	4880.	4400.	3490.	2620.	2270.	2090.	1800.	13200.	12/30/70	
1972	20000.	13400.	7780.	5150.	3720.	3320.	2760.	2710.	2160.	27700.	01/20/72	
1973	10200.	7090.	5690.	4080.	2820.	1890.	1520.	1330.	1060.	13700.	12/21/72	
1974	11100.	7850.	5190.	3870.	3190.	2440.	2800.	2550.	2180.	15800.	01/15/74	
1975	10900.	8850.	5540.	3930.	3230.	2510.	2170.	1930.	1570.	15300.	01/13/75	
1976	13800.	9620.	7130.	4810.	3110.	2460.	2360.	2070.	1750.	19900.	12/01/75	
1977	3370.	2800.	2120.	1960.	1570.	1230.	1010.	911.	718.	4380.	03/07/77	
1978	26000.	14100.	8000.	6930.	4990.	3300.	2570.	2180.	1670.	40400.	12/02/77	
1979	8800.	6060.	4500.	3040.	2440.	1770.	1430.	1310.	1110.	17600.	02/07/79	

W R C
ESTIMATE SYSTEMATIC
RECORD

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1945-1979)

MEAN	10366.6	7150.0	4928.9	3665.7	2810.6	2188.9	1936.0	1749.7	1485.9		
MAXIMUM	26000.0	14100.0	8000.0	6930.0	4990.0	3420.0	2800.0	2710.0	2180.0		
MINIMUM	3370.0	2800.0	2120.0	1460.0	1370.0	1230.0	1010.0	911.0	718.0		
STANDARD DEVIATION	4095.94	2543.55	1519.01	1046.72	789.33	547.44	443.83	393.38	301.98		
SKWENESS	1.894	1.083	0.616	0.398	0.266	0.161	0.070	0.264	0.155		
STD ERROR OF SKWENESS	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398		
SERIAL CORR COEFF	-0.266	-0.281	-0.223	-0.245	-0.214	-0.317	-0.380	-0.299	-0.330		
COEFF OF VARIATION	0.395	0.356	0.308	0.286	0.281	0.250	0.229	0.225	0.203		
MEAN LOGS	3.987	3.829	3.673	3.548	3.433	3.327	3.229	3.163	3.163		
STD DEVIATION LOGS	0.157	0.149	0.135	0.119	0.117	0.110	0.104	0.101	0.093	4.1584	
SKWENESS LOGS	0.013	0.030	-0.148	0.203	0.250	-0.072	-0.412	-0.371	-0.787	0.1360	
STD ERR SKWENESS LOGS	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.5490	
SER CORR COEFF LOGS	-0.317	-0.307	-0.238	-0.268	-0.250	-0.343	-0.312	-0.312	-0.340	-0.7410	
COEFF OF VAR LOGS	0.039	0.039	0.037	0.034	0.034	0.033	0.032	0.031	0.029		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1979)

0.99	4193.8	3063.2	2214.6	1946.9	1523.4	1164.0	1006.5	935.5	784.2	0.0	5110.9
0.95	5358.0	3851.9	2792.8	2288.8	1776.4	1396.4	1239.4	1139.4	981.3	9074.6	7327.2
0.90	6107.2	4355.0	3151.0	2503.3	1935.7	1533.4	1258.3	1258.3	1092.4	9863.7	8713.7
0.80	7158.0	5056.1	3636.6	2799.1	2156.0	1718.3	1550.9	1411.4	1230.3	11011.9	10568.1
0.50	9706.5	6739.4	4743.9	3499.9	2681.3	2129.3	1915.8	1730.5	1495.7	13997.1	14546.4
0.20	13176.8	9004.8	6121.7	4433.9	3487.3	2627.2	2312.2	2079.1	1747.7	18526.9	18833.4
0.10	15466.5	10487.8	6964.8	5044.2	3853.2	2927.3	2528.4	2270.7	1869.5	21816.3	21074.2
0.04	18354.4	12348.5	7966.7	5811.6	4442.1	3281.0	2763.4	2480.4	1985.4	26315.1	23384.5
0.02	20504.6	13726.2	8674.4	6382.7	4863.1	3529.7	2916.5	2618.0	2055.7	29923.8	24806.2
0.01	22655.8	15104.6	9353.6	6954.8	5326.9	3767.1	3054.5	2742.9	2113.3	33760.2	26023.6

STATION 14144000 LITTLE WASMOUGAL RIVER NEAR WASMOUGAL, WASH.

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1952-1968)		W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS STANDARD DEVIATION LOGS SKEWNESS LOGS	ESTIMATE	RECORD	
1952	1130.0	10-23-1951		3.0963	3.0963	
1953	1620.0	1-18-1953		0.1628	0.1628	
1954	1360.0	12- 9-1953		0.063	0.063	
1955	915.0	2- 8-1955				
1956	1260.0	11-26-1955				
1957	1020.0	3- 7-1957				
1958	720.0	4-20-1958				
1959	840.0	0- 0-1959				
1960	626.0	10-22-1959				
1961	1960.0	11-24-1960				
1962	1090.0	12-19-1961				
1963	1640.0	11-20-1962				
1964	2180.0	1-25-1964				
1965	2430.0	12-22-1964				
1966	1240.0	12-28-1965				
1967	1140.0	12-13-1966				
1968	1490.0	2-19-1968				
ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1952-1968)						
			0.99	530.9	522.8	
			0.95	678.3	674.2	
			0.90	774.0	772.2	
			0.80	909.4	910.3	
			0.50	1243.3	1247.6	
			0.20	1709.2	1711.1	
			0.10	2023.1	2018.8	
			0.04	2425.8	2408.6	
			0.02	2730.0	2699.8	
			0.01	3038.1	2992.0	

STATION 14144550 SHANGHAI CREEK NEAR HOCKINSON, WASH.

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1970)		W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS STANDARD DEVIATION LOGS SKEWNESS LOGS	ESTIMATE	RECORD	
1950	50.0	1- 6-1950		1.8763	1.8763	
1951	64.0	12-23-1950		0.1815	0.1815	
1952	99.0	10-23-1951		0.074	-0.224	
1953	112.0	1-18-1953				
1954	99.0	1-22-1954				
1955	64.0	2- 7-1955				
1956	124.0	1- 5-1956				
1957	50.0	2-26-1957				
1958	39.0	12-25-1957				
1959	53.0	1-24-1959				
1960	43.0	11-22-1959				
1961	126.0	11-24-1960				
1962	51.0	4- 6-1962				
1963	72.0	11-20-1962				
1964	127.0	1-25-1964				
1965	119.0	12-22-1964				
1966	74.0	1- 3-1966				
1967	38.0	1-13-1967				
1968	87.0	2-19-1968				
1969	101.0	1- 5-1969				
1970	118.0	1-22-1970				
ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1950-1970)						
			0.99	29.1	26.6	
			0.95	38.2	36.9	
			0.90	44.2	43.6	
			0.80	52.8	53.2	
			0.50	74.8	76.4	
			0.20	106.7	107.3	
			0.10	128.9	127.1	
			0.04	158.0	151.2	
			0.02	180.4	168.6	
			0.01	203.4	185.6	

STATION 1+144600 GROENEVELD CREEK NEAR CAMAS, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1958-1979)			W R C		SYSTEMATIC	
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKENNESS LOGS	ESTIMATE	RECORD	ESTIMATE	RECORD
1958	46.0	4-20-1958							
1959	24.0	1-27-1959				1.6068	1.6208	0.1803	0.1575
1960	25.0	2- 6-1960				0.081	0.630		
1961	47.0	11-24-1960							
1962	30.0	12-20-1961							
1963	45.0	11-20-1962							
1964	48.0	1-25-1964							
1965	103.0	12-22-1964							
1966	62.0	1- 3-1966	0.99			--	--	--	--
1967	40.0	1-13-1967	0.95			20.6	24.7		
1968	36.0	2-19-1968	0.90			23.8	27.1		
1969	55.0	1- 5-1969	0.80			28.5	30.6		
1970	44.0	1-22-1970	0.50			40.2	40.2		
1971	35.0	12-30-1970	0.20			57.3	55.8		
1972	38.0	12- 5-1971	0.10			69.1	67.6		
1973	49.0	12-21-1972	0.04			84.6	84.6		
1974	38.0	1-15-1974	0.02			96.6	98.7		
1975	28.0	1-13-1975	0.01			108.9	114.2		
1976	32.0	2-16-1976							
1977	7.0	2-27-1977							
1978	80.0	12-13-1977							
1979	50.0	2- 7-1979							

STATION 1+211900 BURNTBRIDGE CREEK AT VANCOUVER, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1971)			W R C		SYSTEMATIC	
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKENNESS LOGS	ESTIMATE	RECORD	ESTIMATE	RECORD
1949	99.0	2-10-1949							
1950	77.0	2-24-1950				1.8859	1.8736	0.2131	0.2131
1951	83.0	12-23-1950				0.111	-0.933		
1952	56.0	2- 4-1952							
1953	78.0	1-18-1953							
1954	88.0	1-22-1954							
1955	17.0	12-30-1954							
1956	176.0	12-11-1955							
1957	55.0	2-27-1957							
1958	46.0	12- 6-1957	0.99			--	--	17.3	17.3
1959	57.0	1-24-1959	0.95			39.4	29.9		
1960	50.0	2-15-1960	0.90			45.4	38.7		
1961	108.0	2-10-1961	0.80			54.1	51.3		
1962	54.0	3-25-1962	0.50			76.3	80.6		
1963	63.0	2- 3-1963	0.20			108.8	113.6		
1964	97.0	1-23-1964	0.10			131.5	130.8		
1965	115.0	12-22-1964	0.04			161.5	148.1		
1966	90.0	1- 3-1966	0.02			184.7	158.4		
1967	52.0	1-28-1967				208.8	166.8		
1968	64.0	2-19-1968							
1969	127.0	1- 5-1969							
1970	156.0	1-23-1970							
1971	97.0	12-30-1970							

STATION 14212000 SALMON CREEK NEAR BATTLE GROUND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1944	13.2	16.2	54.7	42.1	82.6	44.9	63.7	23.2	27.6	7.31	3.69	4.11	32.1
1945	4.46	36.0	46.7	122	110	126	79.1	82.1	18.1	5.51	3.04	5.28	52.9
1946	7.90	119	119	134	131	115	35.2	15.9	15.1	9.61	3.63	3.57	62.5
1947	32.8	142	207	115	105	60.1	81.4	16.8	14.6	6.15	3.76	3.52	65.4
1948	42.0	159	94.4	142	110	97.5	69.3	79.6	16.9	6.98	5.51	7.59	69.0
1949	11.3	110	213	41.0	258	58.9	26.4	35.0	6.55	2.96	1.72	2.21	62.6
1950	6.83	56.5	129	147	179	128	88.0	29.6	10.4	4.94	2.83	2.84	68.1
1951	32.7	188	173	214	126	109	26.2	22.0	8.61	4.29	2.26	3.00	74.0
1952	63.4	85.5	155	174.7	98.9	124	32.8	14.7	8.97	5.82	3.11	2.84	58.0
1953	2.36	3.18	41.7	286	121	60.8	41.8	14.7	34.7	8.14	5.51	3.97	57.1
1954	8.82	82.9	226	185	121	53.9	52.2	15.9	49.0	15.7	6.23	4.87	68.2
1955	10.5	74.6	94.7	98.2	98.9	81.1	134	31.1	16.9	12.4	4.95	5.55	54.8
1956	84.5	200	201	181	110	154	48.6	19.0	19.2	6.98	7.09	4.88	86.4
1957	48.7	70.8	113	51.5	106	139	70.7	21.2	14.7	5.33	3.33	2.25	53.7
1958	4.98	25.5	180	124	138	55.9	104	21.0	14.6	6.52	2.41	4.47	56.3
1959	5.90	122	117	170	121	74.8	52.6	58.8	48.4	12.0	4.23	9.09	66.0
1960	53.8	84.7	40.3	71.4	116	85.1	102	91.9	21.4	6.53	4.89	5.00	60.0
1961	16.2	203	55.6	95.1	249	152	76.2	67.7	13.6	5.07	2.91	3.70	77.0
1962	12.4	85.5	146	79.8	67.0	111	60.3	58.1	22.1	6.58	5.67	4.98	53.3
1963	18.2	184	82.2	56.8	119	106	115	71.5	13.5	12.9	5.79	5.55	62.3
1964	12.9	103	78.4	243	119	174.2	43.0	30.8	34.0	12.2	7.69	7.66	634.0
1965	8.52	65.9	228	243	109	31.1	23.3	10.5	6.13	4.54	4.02	2.99	634.3
1966	5.17	25.7	97.9	170	64.7	116	60.9	21.1	10.1	3.86	2.14	2.78	44.4
1967	9.15	53.0	157	198	103	93.5	44.0	21.7	44.5	7.10	1.95	2.23	59.5
1968	22.1	33.8	130	46.8	164	54.8	52.9	36.2	36.2	20.8	11.2	22.5	54.0
1969	82.4	126	196	213	138	52.9	42.8	48.7	11.3	4.76	2.78	4.89	63.4
1970	37.2	60.5	115	260	122	42.8	52.6	15.7	19.3	10.2	4.27	8.09	72.8
1971	11.6	64.9	156	275	108	137	63.3	45.7	14.4	5.87	2.81	5.09	84.5
1972	17.8	103	245	211	142	145	81.6	39.7	14.5	6.93	4.05	5.78	37.6
1973	3.65	32.6	148	85.7	31.8	62.5	103	43.5	20.5	14.7	5.30	3.37	92.5
1974	18.1	198	208	203	156	142	103	43.5	20.5	14.7	5.30	3.37	92.5
1975	3.35	63.7	155	206	101	97.9	41.7	34.8	10.4	5.29	6.31	4.34	60.8
1976	28.6												

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1944-1976)

MEAN	23.0	92.7	138.9	152.5	121.3	94.7	61.6	36.6	19.5	8.0	4.4	5.4	62.9
MAXIMUM	84.5	203.0	245.0	286.0	258.0	154.0	134.0	91.9	49.0	20.8	11.2	22.5	92.5
MINIMUM	2.4	3.2	41.7	41.0	31.8	31.1	23.3	10.5	6.1	3.0	1.7	2.2	32.1
STD DEVIATION	23.58	57.18	57.68	72.14	45.20	35.71	28.53	22.66	11.88	3.99	2.00	3.83	12.90
SKWENESS	1.645	0.515	0.073	0.111	1.378	0.018	0.738	1.037	1.326	1.517	1.309	3.239	0.027
STD ERR SKEW	0.409	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414
SER CORR COEFF	0.101	-0.103	-0.180	0.154	-0.065	-0.034	-0.150	0.166	0.138	-0.008	0.121	0.194	-0.314
COEFF OF VAR	1.024	0.617	0.415	0.473	0.373	0.377	0.463	0.619	0.608	0.501	0.454	0.715	0.205
MEAN LOGS	1.165	1.853	2.099	2.125	2.055	1.942	1.744	1.489	1.223	0.857	0.604	0.664	1.789
STD DEV LOGS	0.422	0.378	0.210	0.243	0.165	0.184	0.204	0.255	0.241	0.192	0.189	0.221	0.095
STD ERR SKEW LGS	0.409	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414
STD CORR LOGS	0.036	-0.023	-0.045	0.043	-0.150	-0.058	-0.068	0.119	0.197	0.043	0.157	0.175	-0.272
COEFF OF VAR LGS	0.362	0.204	0.100	0.114	0.080	0.095	0.117	0.172	0.197	0.224	0.313	0.332	0.053
% OF AVE FLOW	3.0	12.2	18.3	20.1	16.0	12.5	8.1	4.8	2.6	1.1	0.6	0.7	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1944-1976)

0.99	1.8	3.8	32.0	48.7	37.9	27.5	18.3	9.0	5.3	3.1	1.5	2.1	32.3
0.95	3.1	13.0	52.2	65.4	56.5	41.0	25.5	12.4	7.1	3.7	2.0	2.4	41.0
0.90	4.3	22.5	66.0	83.4	66.3	49.9	30.3	14.8	8.4	4.2	2.3	2.6	45.9
0.80	6.4	39.6	85.8	105.4	84.4	62.3	37.4	19.7	10.4	4.9	2.8	3.0	52.0
0.50	14.2	88.9	132.9	141.4	119.3	91.0	55.7	29.9	16.2	6.9	4.0	4.2	63.6
0.20	32.8	145.3	189.9	215.5	157.3	125.6	82.5	50.0	26.4	10.3	5.8	6.8	74.2
0.10	51.7	169.8	222.1	260.5	177.1	145.6	101.1	66.6	34.6	12.9	7.1	9.1	79.2
0.04	85.2	189.1	257.0	312.0	197.4	167.7	125.3	81.6	47.0	16.8	8.7	13.0	84.0
0.02	118.6	197.7	279.4	346.6	209.7	182.4	143.9	113.5	57.7	20.1	10.0	16.9	86.7
0.01	160.4	203.3	299.0	378.1	220.2	195.6	162.8	133.3	69.7	23.8	11.3	21.6	88.9

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1945	1.8	1.9	2.1	2.6	2.9	3.8	4.0	4.8	11.0
1946	1.9	1.9	2.1	2.4	2.9	3.8	3.9	4.5	20.0
1947	2.4	2.7	2.7	2.9	3.3	3.6	3.9	6.2	9.9
1948	2.9	3.0	3.2	3.2	3.5	3.7	4.3	5.7	12.0
1949	2.8	2.9	3.1	3.1	3.9	4.8	5.8	7.8	14.0
1950	1.3	1.4	1.4	1.4	1.5	1.9	2.2	3.0	5.5
1951	1.6	1.6	1.8	1.9	2.1	2.7	3.4	4.9	12.0
1952	1.3	1.3	1.4	1.6	2.1	2.1	2.9	4.3	9.7
1953	1.8	1.8	1.9	2.0	2.0	2.4	2.6	2.8	4.3
1954	2.8	3.0	3.1	3.2	3.4	4.7	5.3	6.5	18.0
1955	2.8	3.0	3.2	3.4	4.5	5.1	6.0	8.3	17.0
1956	2.8	3.1	3.3	3.3	3.8	5.0	6.8	9.0	22.0
1957	3.6	3.7	3.7	4.2	4.8	5.2	5.7	7.7	12.0
1958	1.8	1.8	1.9	2.1	2.2	2.7	3.2	3.8	7.7
1959	1.9	2.0	2.1	2.2	2.3	2.9	3.7	4.5	8.4
1960	3.0	3.3	3.0	3.5	4.0	5.4	7.3	14.0	27.0
1961	2.9	3.1	3.2	3.6	4.1	4.9	5.1	6.2	22.0
1962	2.0	2.1	2.3	2.4	2.7	3.2	3.5	4.6	11.0
1963	2.2	2.4	2.6	3.0	3.8	4.9	5.5	7.7	16.0
1964	3.6	3.7	3.8	4.3	5.1	5.5	5.9	8.0	16.0
1965	4.5	4.7	5.0	5.9	6.5	7.4	7.8	8.7	15.0
1966	1.9	2.0	2.2	2.3	2.8	3.3	3.6	4.1	6.7
1967	1.2	1.3	1.4	1.7	2.0	2.3	2.8	3.9	6.0
1968	1.4	1.4	1.6	1.7	1.7	2.0	2.6	3.7	9.1
1969	2.1	2.3	2.7	3.2	4.3	6.8	10.0	15.0	22.0
1970	3.3	3.3	3.5	3.8	4.3	6.3	12.0	18.0	23.0
1971	2.2	2.2	2.4	2.4	2.7	3.5	3.9	4.5	10.0
1972	3.3	3.3	3.5	3.8	4.2	5.3	6.2	9.3	12.0
1973	1.7	1.7	1.8	2.1	2.4	2.9	3.7	4.3	8.5
1974	2.8	3.0	3.2	3.7	3.8	4.1	5.1	7.3	11.0
1975	2.5	2.5	2.6	2.7	2.7	3.2	3.9	5.7	13.0

LOWEST MEAN FLOW STATISTICS (YEARS 1945-1975)

MEAN	2.4	2.5	2.6	2.9	3.3	4.0	4.9	6.7	13.3
MAXIMUM	4.5	4.7	5.0	5.9	6.5	7.4	12.0	18.0	27.0
MINIMUM	1.2	1.3	1.4	1.4	1.5	1.9	2.2	2.8	4.3
STANDARD DEVIATION	0.79	0.83	0.84	0.97	1.15	1.44	2.19	3.53	5.77
SKENNESS	0.572	0.504	0.554	0.896	0.572	0.428	1.334	1.710	0.444
STD ERROR OF SKEWNESS	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421
SERIAL CORR COEFF	0.237	0.260	0.232	0.206	0.232	0.203	0.230	0.146	0.182
COEFF OF VARIATION	0.331	0.333	0.320	0.335	0.348	0.357	0.444	0.525	0.435
MEAN LOGS	0.356	0.371	0.398	0.438	0.493	0.579	0.657	0.782	1.082
STD DEVIATION LOGS	0.146	0.148	0.142	0.144	0.155	0.160	0.174	0.197	0.196
SKENNESS LOGS	-0.114	-0.172	-0.181	-0.039	-0.188	-0.185	0.445	0.599	-0.255
STD ERR SKEWNESS LOGS	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421
SER CORR COEFF LOGS	0.305	0.302	0.281	0.259	0.251	0.231	0.200	0.090	0.150
COEFF OF VAR LOGS	0.410	0.400	0.356	0.329	0.314	0.277	0.264	0.252	0.181

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1975)

0.99	4.8	5.0	5.1	5.9	6.8	8.5	13.1	21.1	31.7
0.98	4.4	4.6	4.7	5.4	6.3	7.8	11.3	17.6	28.7
0.96	4.0	4.2	4.3	4.9	5.7	7.1	9.7	14.6	25.6
0.90	3.5	3.6	3.8	4.2	4.9	6.0	7.7	11.0	21.3
0.80	3.0	3.1	3.3	3.6	4.2	5.2	6.3	8.7	17.8
0.50	2.3	2.4	2.5	2.7	3.1	3.8	4.4	5.8	12.3
0.20	1.7	1.8	1.9	2.1	2.3	2.8	3.2	4.1	8.3
0.10	1.5	1.5	1.6	1.6	2.0	2.4	2.8	3.5	6.7
0.05	1.3	1.3	1.4	1.6	1.7	2.0	2.5	3.1	5.6
0.02	1.1	1.1	1.2	1.4	1.4	1.7	2.2	2.8	4.5
0.01	1.0	1.0	1.1	1.3	1.3	1.5	2.0	2.6	3.9

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED *PM PERCENT OF THE TIME (YEARS 1945-1975)

P95	2.8	3.6	7.3	9.7	30.0	82.0	170.0
P10							

STATION 14212000 SALMON CREEK NEAR BATTLE GROUND, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-FLOW DATA DATE	REG. (R)
1944	252.	200.	137.	107.	82.	65.	65.	59.	53.	330.	02/06/44	
1945	290.	258.	235.	196.	136.	118.	121.	110.	95.	335.	02/07/45	
1946	774.	484.	312.	242.	187.	165.	158.	143.	116.	1050.	12/28/45	
1947	978.	634.	617.	365.	295.	184.	174.	147.	120.	1200.	12/11/46	
1948	600.	462.	359.	251.	183.	143.	139.	126.	113.	728.	01/07/48	
1949	1440.	807.	544.	428.	257.	171.	171.	155.	117.	1440.	02/17/49	
1950	646.	558.	388.	243.	206.	189.	179.	162.	129.	709.	01/21/50	
1951	610.	427.	354.	294.	246.	204.	196.	174.	139.	844.	12/23/50	
1952	760.	393.	289.	191.	162.	128.	125.	118.	107.	855.	10/23/51	
1953	800.	638.	498.	399.	323.	206.	164.	136.	106.	925.	01/18/53	
1954	986.	539.	453.	317.	247.	207.	181.	162.	120.	1500.	01/22/54	
1955	501.	350.	231.	167.	139.	115.	110.	108.	98.	708.	02/08/55	
1956	689.	551.	361.	302.	250.	232.	204.	180.	159.	1080.	01/04/56	
1957	400.	317.	233.	165.	156.	123.	106.	109.	96.	588.	03/07/57	
1958	398.	365.	300.	249.	182.	161.	148.	125.	105.	525.	04/20/58	
1959	452.	320.	257.	189.	177.	151.	143.	135.	110.	610.	01/23/59	
1960	430.	315.	216.	161.	133.	106.	104.	102.	95.	674.	11/22/59	
1961	974.	645.	516.	372.	252.	196.	163.	167.	141.	1380.	11/24/60	
1962	450.	341.	296.	229.	173.	131.	107.	103.	92.	596.	03/25/62	
1963	700.	467.	329.	296.	203.	135.	119.	108.	110.	1060.	11/20/62	
1964	998.	623.	420.	353.	245.	169.	149.	134.	109.	1460.	01/25/64	
1965	1010.	883.	586.	349.	248.	231.	206.	166.	119.	1220.	01/28/65	
1966	640.	446.	346.	312.	233.	150.	139.	114.	83.	780.	12/28/65	
1967	713.	486.	315.	241.	200.	181.	155.	140.	112.	880.	01/13/67	
1968	542.	396.	289.	174.	161.	132.	131.	111.	86.	658.	02/19/68	
1969	753.	680.	529.	368.	259.	217.	187.	170.	135.	940.	01/07/69	
1970	696.	564.	522.	439.	298.	213.	187.	142.	109.	1050.	01/22/70	
1971	800.	594.	439.	373.	300.	218.	185.	175.	134.	1010.	01/25/71	
1972	859.	643.	415.	329.	271.	242.	207.	195.	155.	1140.	01/20/72	
1973	548.	437.	387.	274.	184.	122.	98.	86.	66.	792.	12/21/72	
1974	572.	477.	339.	314.	240.	218.	217.	205.	167.	989.	11/15/73	
1975	562.	475.	332.	257.	234.	186.	159.	145.	114.	612.	01/14/75	
1976										712.	12/04/75	
1977										176.	03/07/77	
1978										2600.	12/02/77	
1979										820.	02/07/79	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1944-1979)

W R C
ESTIMATESYSTEMATIC
RECORD

MEAN	682.0	499.2	370.1	280.2	214.4	169.0	152.4	137.9	112.9	
MAXIMUM	1440.0	883.0	617.0	439.0	323.0	242.0	217.0	205.0	167.0	
MINIMUM	252.0	200.0	137.0	107.0	82.0	65.0	65.0	59.0	53.0	
STANDARD DEVIATION	248.11	164.05	116.80	84.26	56.81	43.90	37.03	32.81	24.58	
SKWENESS	0.791	0.542	0.352	-0.005	-0.168	-0.253	-0.252	-0.084	0.017	
STD ERROR OF SKWENESS	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	
SERIAL CORR COEFF	0.107	0.132	0.142	0.096	0.111	-0.085	-0.177	-0.218	-0.325	
COEFF OF VARIATION	0.364	0.329	0.316	0.301	0.265	0.260	0.243	0.238	0.218	
MEAN LOGS	2.805	2.675	2.546	2.426	2.314	2.212	2.169	2.126	2.042	
STD DEVIATION LOGS	0.164	0.147	0.145	0.143	0.129	0.126	0.117	0.113	0.102	
SKWENESS LOGS	-0.416	-0.339	-0.519	-0.701	-0.985	-1.007	-0.953	-0.925	-0.957	
STD ERR SKWENESS LOGS	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	0.414	
SER CORR COEFF LOGS	0.261	0.245	0.222	0.112	0.157	-0.041	-0.134	-0.181	-0.293	
COEFF OF VAR LOGS	0.058	0.055	0.057	0.059	0.056	0.057	0.054	0.053	0.050	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1944-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
MEAN	237.1	197.5	142.9	104.9	84.5	67.5	66.0	61.8	54.4	211.0
MAXIMUM	329.5	262.4	194.3	146.3	118.4	94.3	89.3	82.4	70.9	346.9
MINIMUM	388.5	303.0	226.1	171.7	136.7	110.2	102.9	94.4	80.3	440.0
STANDARD DEVIATION	469.6	358.0	268.7	205.5	164.7	130.6	120.2	109.6	92.0	508.4
SKWENESS	655.5	482.2	361.9	277.2	216.4	170.8	153.9	139.1	114.2	605.2
STD ERROR OF SKWENESS	881.7	632.1	468.0	354.1	285.4	208.6	185.6	166.9	134.5	849.2
SERIAL CORR COEFF	1015.0	720.6	527.1	394.4	288.2	225.9	200.4	179.9	143.8	1200.6
COEFF OF VARIATION	1167.3	822.4	591.8	436.1	309.6	242.1	214.2	192.2	152.4	1443.1
MEAN LOGS	1270.5	891.9	634.0	462.0	321.6	251.0	222.0	199.2	157.2	1759.9
STD DEVIATION LOGS	1366.4	956.9	671.9	484.3	331.1	258.1	228.3	204.9	161.1	1895.1
SKWENESS LOGS										2252.3
STD ERR SKWENESS LOGS										
SER CORR COEFF LOGS										
COEFF OF VAR LOGS										

2.9313
0.1768
0.0770
2.9190
0.2062
-0.7910

STATION 14213200 LEWIS RIVER NEAR TROUT LAKE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1959	157	1511	1176	1339	454	457	976	1126	961	350	171	328	751
1960	910	934	684	379	947	677	1101	1363	1076	331	179	134	724
1961	183	1254	608	1124	1716	945	872	1288	1046	328	198	145	801
1962	191	422	1016	769	539	300	1175	1012	802	308	206	168	575
1963	546	1374	854	489	1154	441	880	924	421	223	159	128	628
1964	182	928	668	861	531	307	561	1150	1632	755	360	207	677
1965	242	546	1712	861	777	577	1271	1215	980	314	178	120	722
1966	115	328	458	521	268	656	1207	1670	1448	528	196	129	590
1967	154	478	1405	952	648	494	429	1325	1448	445	184	125	675
1968	509	693	544	830	2088	948	556	808	877	265	292	319	721
1969	620	1275	830	822	255	328	967	2103	1051	307	162	190	745
1970	347	483	655	1604	836	742	611	969	757	239	145	124	626
1971	159	689	721	939	864	436	707	1914	1662	1213	400	238	828
1972	261	507											

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1959-1972)

MEAN	326.9	815.9	871.8	843.8	852.1	562.2	870.2	1297.5	1043.2	431.2	217.7	181.2	697.2
MAXIMUM	910.0	1511.0	1712.0	1604.0	2088.0	948.0	1271.0	2103.0	1662.0	1213.0	400.0	328.0	828.0
MINIMUM	115.0	328.0	458.0	379.0	255.0	300.0	429.0	808.0	421.0	223.0	145.0	120.0	575.0
STD DEVIATION	233.87	396.28	365.34	335.97	538.43	220.79	277.45	387.22	353.35	274.64	80.74	73.00	77.54
SKEWNESS	1.448	0.560	1.259	0.629	1.270	0.631	-0.106	0.971	0.483	2.300	1.556	1.253	-0.019
STD ERR SKEW	0.597	0.597	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SER CORR COEFF	-0.178	0.0	-0.585	-0.281	-0.357	-0.346	0.016	-0.461	-0.465	-0.345	-0.425	-0.239	-0.199
COEFF OF VAR	0.716	0.486	0.419	0.380	0.632	0.393	0.319	0.4298	0.439	0.637	0.371	0.403	0.111
MEAN LOGS	2.428	2.863	2.910	2.916	2.854	2.719	2.917	3.097	2.994	2.580	2.315	2.230	2.841
STD DEV LOGS	0.274	0.214	0.166	0.173	0.272	0.170	0.151	0.123	0.157	0.208	0.138	0.156	0.049
SKEWNESS LOGS	0.661	0.079	0.607	-0.409	-0.052	0.071	-0.518	0.468	-0.670	1.433	1.247	0.893	-0.208
STD ERR SKEW LOGS	0.597	0.597	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SER CORR LOGS	-0.126	0.054	-0.701	-0.355	-0.383	-0.334	0.020	-0.471	-0.387	-0.394	-0.471	-0.274	-0.181
COEFF OF VAR LOGS	0.113	0.075	0.057	0.059	0.095	0.063	0.052	0.040	0.052	0.081	0.060	0.070	0.017
% OF AVE FLOW	3.9	9.8	10.4	10.6	10.2	6.7	10.4	15.5	12.5	5.2	2.6	2.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1959-1972)

0.99	84.0	238.3	396.8	289.7	162.7	214.6	323.6	714.2	358.4	204.0	131.7	93.4	524.6
0.95	108.0	327.8	465.9	409.8	252.9	276.9	445.9	817.3	512.6	218.3	140.0	104.4	572.5
0.90	126.2	389.5	513.7	487.4	319.3	317.8	521.5	884.7	609.7	231.5	146.8	112.5	598.8
0.80	155.8	480.9	585.4	595.4	422.6	376.0	624.1	980.7	740.6	255.2	158.2	125.0	631.4
0.50	249.7	725.1	781.4	846.9	718.4	521.4	850.8	1221.9	1026.2	340.2	193.8	161.2	695.8
0.20	441.8	1103.2	1101.5	1159.2	1211.7	727.7	1111.9	1570.6	1343.3	531.3	260.4	224.0	762.6
0.10	620.3	1378.9	1348.4	1345.9	1587.6	868.5	1258.5	1814.1	1514.0	720.3	316.6	274.7	798.3
0.04	920.4	1754.1	1703.3	1561.4	2113.1	1051.0	1419.6	2136.8	1694.4	1055.7	402.8	350.4	836.9
0.02	1209.5	2052.3	2000.7	1708.7	2538.6	1190.1	1525.1	2388.7	1808.0	1396.7	479.5	416.0	862.0
0.01	1565.7	2366.0	2328.3	1846.2	2991.6	1331.9	1620.3	2650.5	1907.2	1837.7	568.1	490.3	884.7

STATION 1+213200 LEWIS RIVER NEAR TROUT LAKE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31										
YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	
1960	135.0	137.0	143.0	148.0	162.0	196.0	267.0	392.0	547.0	
1961	99.0	100.0	105.0	114.0	122.0	134.0	152.0	191.0	442.0	
1962	110.0	111.0	116.0	117.0	126.0	156.0	176.0	201.0	316.0	
1963	123.0	123.0	126.0	136.0	146.0	178.0	215.0	298.0	448.0	
1964	82.0	86.0	91.0	92.0	103.0	119.0	137.0	163.0	320.0	
1965	162.0	166.0	174.0	186.0	205.0	224.0	239.0	280.0	565.0	
1966	92.0	96.0	98.0	104.0	114.0	116.0	134.0	165.0	247.0	
1967	82.0	84.0	87.0	92.0	106.0	125.0	149.0	189.0	408.0	
1968	102.0	103.0	105.0	112.0	125.0	153.0	193.0	285.0	407.0	
1969	155.0	170.0	174.0	179.0	192.0	249.0	282.0	319.0	491.0	
1970	103.0	105.0	111.0	115.0	129.0	164.0	213.0	243.0	329.0	
1971	86.0	87.0	91.0	98.0	108.0	117.0	133.0	159.0	326.0	

LOWEST MEAN FLOW STATISTICS (YEARS 1960-1971)

MEAN	110.9	114.0	118.4	124.4	136.5	160.9	190.8	240.4	403.8
MINIMUM	162.0	170.0	174.0	186.0	205.0	249.0	282.0	392.0	565.0
STANDARD DEVIATION	27.33	29.53	30.40	31.74	33.57	43.77	52.83	74.46	99.32
SKEWNESS	0.862	1.058	1.059	1.062	1.163	0.868	0.500	0.676	0.213
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SERIAL CORR COEFF	-0.366	-0.326	-0.356	-0.356	-0.320	-0.290	-0.226	-0.276	-0.473
COEFF OF VARIATION	0.246	0.259	0.257	0.255	0.246	0.272	0.276	0.310	0.246
MEAN LOGS	2.034	2.045	2.061	2.083	2.124	2.193	2.266	2.363	2.594
STD DEVIATION LOGS	0.102	0.105	0.104	0.103	0.099	0.112	0.118	0.131	0.109
SKEWNESS LOGS	0.570	0.760	0.771	0.754	0.842	0.511	0.220	0.284	-0.203
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR COEFF LOGS	-0.352	-0.316	-0.301	-0.348	-0.368	-0.299	-0.252	-0.287	-0.476
COEFF OF VAR LOGS	0.050	0.051	0.050	0.050	0.046	0.051	0.052	0.055	0.042

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1960-1971)

0.99	205.1	221.3	229.0	239.2	260.1	313.2	362.6	495.0	678.5
0.98	187.2	199.5	206.5	216.0	234.5	284.0	332.7	448.1	639.9
0.96	169.9	178.9	185.3	194.0	210.5	255.9	302.8	402.1	598.8
0.90	147.5	153.0	158.6	166.4	180.5	219.6	262.8	342.0	538.6
0.80	130.4	134.0	138.9	145.9	158.6	192.2	231.0	295.6	486.1
0.50	105.7	107.5	111.8	117.5	128.8	152.5	182.6	227.2	395.1
0.20	88.4	90.1	93.9	98.8	109.6	124.9	146.3	178.2	318.5
0.10	81.5	83.5	87.1	91.9	102.5	113.8	131.1	158.1	282.9
0.05	76.6	79.0	82.4	86.7	97.7	106.1	120.0	143.9	255.9
0.02	71.9	74.8	78.1	82.1	93.4	98.5	109.0	129.9	227.9
0.01	69.2	72.4	75.7	79.5	91.0	94.2	102.4	121.7	210.6

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1960-1971)

P95	P90	P75	P70	P50	P25	P10
120.0	160.0	260.0	300.0	510.0	930.0	1500.0

STATION 14213200 LEWIS RIVER NEAR TROUT LAKE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW (CFS)	DATE	REG. (R)
1959	3470.	3100.	2450.	2060.	1740.	1400.	1380.	1140.	1030.	4300.	11/12/58	
1960	4070.	3060.	2320.	1640.	1500.	1270.	1280.	1040.	932.	4610.	11/23/59	
1961	4100.	3250.	2830.	2170.	1740.	1430.	1290.	1230.	1160.	6600.	11/24/60	
1962	2910.	2280.	1840.	1630.	1300.	1130.	1000.	840.	831.	3260.	12/24/61	
1963	7500.	4770.	3350.	2310.	1670.	1200.	1070.	979.	893.	10000.	11/20/62	
1964	2700.	2430.	2200.	1890.	1820.	1470.	1200.	1040.	863.	3090.	01/25/64	
1965	7020.	4750.	3160.	2070.	1600.	1400.	1190.	1050.	1080.	9130.	12/23/64	
1966	3860.	3430.	2900.	2080.	1690.	1450.	1300.	1170.	905.	4200.	05/06/66	
1967	7770.	4920.	3070.	2010.	1620.	1420.	1100.	966.	914.	9350.	12/13/66	
1968	6440.	4920.	4400.	2920.	2090.	1570.	1310.	1130.	1030.	7060.	02/19/68	
1969	3540.	3390.	2950.	2680.	2340.	1730.	1400.	1150.	930.	4130.	11/11/68	
1970	6100.	4500.	3920.	2770.	1780.	1320.	1120.	1010.	958.	7520.	01/23/70	
1971	3430.	2930.	2350.	2030.	1950.	1800.	1610.	1390.	1160.	4670.	01/19/71	
1972										15600.	01/20/72	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1959-1972)

W R C
ESTIMATESYSTEMATIC
RECORD

MEAN	4839.2	3671.5	2906.9	2181.5	1773.8	1430.0	1250.0	1090.4	975.8
MAXIMUM	7770.0	4920.0	4440.0	2920.0	2340.0	1800.0	1610.0	1390.0	1160.0
MINIMUM	2700.0	2280.0	1840.0	1630.0	1320.0	1130.0	1000.0	840.0	831.0
STANDARD DEVIATION	1837.59	966.82	717.74	395.89	254.80	189.52	162.79	136.78	107.36
SKEWNESS	0.542	0.163	0.724	0.613	0.591	0.518	0.577	0.416	0.646
STD ERROR OF SKEWNESS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SERIAL CORR COEFF	-0.479	-0.305	-0.138	0.256	0.294	0.087	-0.124	-0.281	-0.339
COEFF OF VARIATION	0.380	0.263	0.247	0.181	0.144	0.133	0.130	0.125	0.110
MEAN LOGS	3.657	3.551	3.452	3.332	3.245	3.152	3.094	3.034	2.987
STD DEVIATION LOGS	0.162	0.117	0.105	0.077	0.062	0.057	0.056	0.054	0.047
SKEWNESS LOGS	0.279	-0.119	0.145	0.246	0.060	0.185	0.230	-0.031	0.500
STD ERR SKEWNESS LOGS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SER CORR COEFF LOGS	-0.529	-0.317	-0.153	0.204	0.271	0.122	-0.083	-0.239	-0.308
COEFF OF VAR LOGS	0.044	0.033	0.030	0.023	0.019	0.018	0.018	0.018	0.016

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1959-1972)

0.99	2057.0	1855.4	1653.1	1467.8	1270.2	1065.0	940.6	806.9	786.4	1973.5	2298.3
0.95	2532.6	2261.6	1919.2	1625.1	1394.2	1151.9	1013.2	880.2	826.7	2731.2	2907.3
0.90	2847.0	2508.1	2082.6	1720.2	1485.9	1262.9	1056.0	921.8	851.5	3247.8	3333.9
0.80	3299.7	2837.3	2303.9	1847.4	1586.4	1269.3	1112.1	974.5	885.1	4005.9	3979.3
0.50	4456.5	3571.6	2812.3	2133.9	1754.8	1412.9	1234.4	1083.2	961.9	5983.9	5783.4
0.20	6168.6	4462.1	3461.3	2490.4	1979.9	1581.8	1379.6	1202.9	1058.8	8938.7	8821.8
0.10	7384.9	4997.9	3871.1	2711.2	2110.5	1681.8	1466.3	1270.2	1119.1	11025.0	11222.3
0.04	9016.7	5627.7	4372.8	2977.9	2260.7	1798.6	1568.2	1345.7	1192.1	13789.0	14732.5
0.02	10302.1	6068.8	4737.7	3169.7	2364.2	1880.2	1639.8	1396.7	1244.6	15932.8	17717.2
0.01	11648.0	6489.8	5096.7	3356.8	2461.8	1958.0	1708.3	1444.0	1295.9	18144.5	21038.4

STATION 14213500 BIG CREEK BELOW SKOOKUM MDW NR TROUT LK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1928	68.3	138	58.9	68.4	28.6	109	88.9	157	43.0	23.0	10.7	9.06	67.1
1929	28.8	44.9	40.4	18.3	14.1	32.3	70.7	177	85.0	17.0	8.10	6.47	45.4
1930	5.74	5.23	32.9	20.4	139	49.9	125	74.6	31.1	11.1	5.84	4.63	41.3
1931	9.00	11.6	12.7	29.8	38.4	83.5	130	72.3	27.8	15.4	8.71	8.80	37.3
1936	87.5	141	123	60.2	28.3	43.6	104	218	188	54.2	22.9	14.2	90.4
1937	43.1	55.2	125	27.2	31.0	67.6	104	143	43.6	16.0	12.4	8.04	56.6
1958	12.3	33.9	68.0	64.1	124	46.3	136	136	47.5	14.2	8.65	8.94	57.8
1959	15.1	167	111	121	39.2	34.6	98.1	111	68.0	18.3	9.90	30.3	68.7
1960	76.2	79.1	56.2	26.7	62.4	47.0	88.7	156	120	23.0	14.4	11.7	63.3
1961	21.7	137	49.3	89.3	161	81.7	88.3	148	83.9	19.0	11.1	11.2	74.4
1962	25.0	39.1	96.4	74.3	42.0	26.0	118	117	72.9	20.0	13.0	12.3	54.6
1963	43.9	123	66.7	42.2	102	44.6	74.7	91.1	32.1	16.7	10.0	7.92	54.1
1964	18.6	90.5	55.4	73.6	45.0	26.0	50.9	126	195	56.4	23.5	18.8	64.8
1965	26.8	58.9	189	92.5	67.8	43.6	125	126	74.8	33.8	13.4	8.96	70.9
1966	11.8	30.7	43.2	36.3	16.7	40.9	92.1	142	93.2	23.5	10.9	8.50	46.8
1967	17.1	46.5	103	80.0	55.8	34.5	32.6	129	142	25.4	10.4	8.54	57.1
1968	70.2	53.1	46.9	57.0	183	92.3	58.1	94.1	68.3	15.3	21.7	30.0	65.4
1969	73.3	120	56.2	70.7	21.2	23.7	76.9	217	108	23.1	11.7	18.6	68.6
1970	38.7	43.5	54.8	123	74.0	65.5	59.5	96.9	52.0	13.8	8.99	9.27	53.3

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1928-1970)

MEAN	36.5	74.6	73.1	61.8	67.0	52.2	90.6	133.3	83.0	23.1	12.4	12.4	59.9
MAXIMUM	87.5	167.0	189.0	123.0	183.0	109.0	136.0	218.0	195.0	56.4	23.5	30.3	90.4
MINIMUM	5.7	5.2	12.7	18.3	14.1	23.7	32.6	72.3	27.8	11.1	5.8	4.6	37.3
STD DEVIATION	26.18	48.81	41.80	31.47	50.85	24.38	28.83	41.00	49.14	12.48	5.00	7.22	12.69
SKENESS	0.722	0.483	1.284	0.398	1.126	0.973	-0.194	0.614	1.147	2.008	1.362	1.725	0.331
STD ERR SKEW	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SER CORR COEFF	0.017	-0.158	-0.127	-0.042	-0.343	-0.426	0.266	-0.270	-0.321	-0.125	-0.038	0.022	-0.101
COEFF OF VAR	0.718	0.654	0.572	0.509	0.759	0.467	0.318	0.308	0.592	0.540	0.402	0.580	0.212
MEAN LOGS	1.443	1.751	1.797	1.729	1.711	1.676	1.932	2.105	1.851	1.320	1.066	1.041	1.768
STD DEV LOGS	0.346	0.386	0.259	0.252	0.329	0.194	0.160	0.135	0.250	0.186	0.157	0.211	0.094
SKENESS LOGS	-0.205	-1.175	-0.624	-0.470	0.104	0.275	-1.027	-0.124	0.108	1.164	0.600	0.784	-0.304
STD ERR SKEW LOGS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SER CORR LOGS	0.114	0.175	-0.018	0.066	-0.307	-0.460	0.259	-0.199	-0.227	-0.057	0.092	0.123	-0.006
COEFF OF VAR LOGS	0.240	0.144	0.144	0.146	0.192	0.115	0.083	0.064	0.135	0.141	0.147	0.203	0.053
% OF AVE FLOW	5.1	10.4	10.2	8.6	9.3	7.3	12.6	18.5	11.5	3.2	1.7	1.7	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1928-1970)

0.99	3.8	3.5	12.0	11.4	9.4	18.4	28.0	60.2	19.4	11.1	5.9	4.7	33.8
0.95	7.1	10.4	21.4	19.2	15.2	23.6	42.8	75.7	28.0	12.2	6.9	5.6	40.3
0.90	9.8	17.1	28.3	24.9	19.7	27.2	52.3	85.3	34.1	13.1	7.6	6.2	44.1
0.80	14.3	29.3	38.9	33.5	27.1	32.5	64.8	98.4	43.5	14.6	8.6	7.2	49.0
0.50	28.5	66.7	66.6	56.1	50.7	46.5	91.0	128.2	70.2	19.3	11.2	10.3	59.2
0.20	54.6	119.2	104.5	88.0	96.7	68.6	117.0	165.7	114.8	27.7	15.5	16.1	70.5
0.10	75.6	148.5	128.0	108.7	136.6	85.0	129.3	188.7	149.4	37.2	18.8	21.0	76.7
0.04	105.7	177.6	155.1	133.8	198.4	107.8	140.8	216.3	198.7	51.0	23.4	28.9	83.6
0.02	130.5	194.2	173.6	151.6	234.4	126.4	147.2	235.9	239.5	64.1	27.3	36.0	88.1
0.01	157.1	207.2	190.5	168.6	316.4	146.3	152.4	254.7	283.7	79.9	31.5	44.5	92.3

STATION 14214000 RUSH CREEK AB MEADOW CREEK NR TROUT LAKE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1956	45.8	47.6	39.2	3.43	1.09	3.11	14.4	69.4	97.9	96.3	7.87	0.28	35.7
1957	11.7	14.5	49.8	1.14	3.39	15.2	15.3	76.9	39.5	0.61	0.10	0.10	19.2
1958	4.57	13.3	18.4	13.8	22.8	5.58	25.3	86.9	83.5	3.46	0.10	18.9	23.1
1959	3.21	63.4	34.1	34.8	12.7	3.19	18.1	44.7	78.6	14.5	0.10	0.35	26.4
1960	32.1	29.5	12.6	4.79	36.2	11.0	16.5	43.1	95.0	23.0	1.09	0.83	25.0
1961	8.99	57.5	4.27	23.5	36.2	11.0	12.0	40.4	97.9	11.6	0.08	0.15	25.0
1962	8.06	6.74	27.9	16.5	2.05	0.65	27.4	31.3	90.5	33.4	0.83	2.20	19.7
1963	17.7	56.9	13.8	4.65	45.0	4.65	12.5	26.1	39.0	2.59	0.02	0.00	20.2
1964	4.67	23.5	10.2	14.6	3.75	1.24	4.39	26.1	78.0	64.0	9.46	2.93	20.2
1965	5.24	22.1	43.5	7.88	12.7	3.60	35.1	44.2	69.7	5.38	0.00	0.00	20.7

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1956-1965)

MEAN	14.2	33.5	25.4	12.5	14.3	5.1	18.1	50.6	77.0	25.5	2.2	3.1	23.4
MAXIMUM	45.8	63.4	49.8	34.8	45.0	15.2	35.1	86.9	97.9	96.3	9.5	18.9	35.7
MINIMUM	3.2	6.7	4.3	1.1	1.1	0.6	4.4	26.1	39.0	0.6	0.0	0.0	19.2
STD DEVIATION	14.09	20.94	15.71	10.51	15.56	4.55	8.87	20.08	21.93	31.47	3.72	6.47	4.94
SKWNESS	1.644	0.292	0.250	1.103	1.186	1.540	0.604	0.829	-1.062	1.616	1.626	2.675	1.993
STD ERR SKEW	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.717	0.752	0.687
SER CORR COEFF	-0.135	-0.551	0.028	-0.169	-0.488	-0.213	-0.499	0.603	-0.215	-0.508	-0.224	-0.217	-0.241
COEFF OF VAR	0.992	0.625	0.619	0.840	1.089	0.884	0.490	0.397	0.295	1.235	1.702	2.068	0.211
MEAN LOGS	0.990	1.429	1.390	0.927	0.873	0.559	1.202	1.675	1.866	1.037	-0.441	-0.218	1.361
STD DEV LOGS	0.382	0.326	0.339	0.447	0.555	0.403	0.249	0.167	0.151	0.679	0.942	0.826	0.081
SKWNESS LOGS	0.634	-0.513	-0.742	-0.597	0.044	-0.332	-1.050	0.267	-1.366	-0.400	0.337	0.882	1.610
STD ERR SKEW LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.717	0.752	0.687
SER CORR LOGS	-0.076	-0.520	0.001	0.005	-0.457	-0.300	-0.364	0.540	-0.259	-0.434	-0.687	-0.097	-0.208
COEFF OF VAR LOGS	0.386	0.228	0.260	0.482	0.636	0.721	0.297	0.100	0.081	0.654	-2.138	-3.782	0.060
% OF AVE FLOW	5.0	11.9	9.0	4.4	5.1	1.8	6.4	18.0	27.3	9.1	0.8	1.1	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1965)

0.99	1.9	3.6	2.2	0.5	0.4	0.3	2.8	20.9	23.7	0.2	0.0	0.0	18.4
0.95	2.7	7.1	4.8	1.3	0.9	0.7	5.4	25.9	37.5	0.7	0.0	0.0	18.7
0.90	3.4	10.0	7.1	2.2	1.5	1.1	7.4	29.3	46.1	1.4	0.0	0.1	19.1
0.80	4.6	14.7	10.9	3.7	2.5	1.7	10.4	34.1	57.3	3.0	0.1	0.1	19.7
0.50	8.9	28.6	22.2	9.4	7.4	3.8	17.6	46.5	79.2	12.1	0.3	0.5	21.9
0.20	19.7	51.1	39.4	20.4	21.9	8.0	25.9	65.0	98.1	41.4	2.1	2.6	26.0
0.10	31.5	66.8	50.5	29.1	38.7	11.4	30.2	78.1	105.7	74.5	6.4	7.7	29.4
0.04	54.3	86.7	63.5	40.9	71.5	16.4	34.5	95.9	111.9	133.8	22.8	27.9	34.4
0.02	79.1	101.3	72.2	49.8	106.5	20.5	36.9	109.8	114.8	191.0	54.4	68.9	38.6
0.01	112.9	115.5	80.2	58.8	152.7	24.9	38.8	124.5	116.9	259.3	122.5	163.9	43.3

STATION 14214000 RUSH CREEK AB MEADOW CREEK NR TROUT LAKE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31											
YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS		
1957	0.10	0.10	0.14	0.20	0.26	0.62	4.90	7.40	13.00		
1958	0.10	0.10	0.10	0.10	0.10	0.10	0.13	0.60	4.80		
1959	0.10	0.10	0.10	0.10	0.10	0.10	0.13	1.30	17.00		
1960	0.10	0.10	0.10	0.10	0.10	1.70	6.10	7.90	16.00		
1961	0.0	0.0	0.0	0.02	0.08	0.72	0.74	3.70	13.00		
1962	0.0	0.0	0.01	0.05	0.08	0.12	0.44	2.60	8.70		
1963	0.10	0.10	0.10	0.10	0.11	0.51	6.10	7.20	16.00		
1964	0.0	0.0	0.0	0.0	0.0	0.0	0.06	1.50	6.70		
1965	0.20	0.23	0.39	1.10	2.50	3.80	4.10	6.90	15.00		

LOWEST MEAN FLOW STATISTICS (YEARS 1957-1965)

MEAN	0.1	0.1	0.1	0.2	0.4	1.0	2.5	4.3	12.2
MAXIMUM	0.2	0.2	0.4	1.1	2.5	3.8	6.1	7.9	17.0
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	4.8
STANDARD DEVIATION	0.04	0.05	0.12	0.36	0.84	1.26	2.71	2.99	4.45
SKEWNESS	2.449	2.449	2.006	2.714	2.802	2.016	0.420	0.025	-0.716
STD ERROR OF SKEWNESS	0.845	0.845	0.794	0.752	0.752	0.752	0.717	0.717	0.717
SERIAL CORR COEFF	0.000	0.000	0.059	0.059	-0.057	-0.075	-0.587	-0.534	-0.473
COEFF OF VARIATION	0.0	0.0	0.889	1.622	2.028	1.318	1.075	0.688	0.363
MEAN LOGS	0.0	0.0	-1.038	-0.957	-0.792	-0.344	-0.068	0.502	1.054
STD DEVIATION LOGS	0.0	0.0	0.476	0.499	0.507	0.590	0.810	0.407	0.194
SKEWNESS LOGS	0.0	0.0	-1.375	0.867	2.344	0.216	-0.202	-0.660	-1.115
STD ERR SKEWNESS LOGS	-0.001	-0.002	0.794	0.752	0.752	0.752	0.717	0.717	0.717
SER CORR COEFF LOGS	*****	*****	-0.053	0.215	0.029	-0.020	-0.592	-0.330	-0.478
COEFF OF VAR LOGS	0.0	0.0	-0.459	-0.521	-0.640	-1.715	-12.001	0.811	0.184

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1965)

0.99	999999.0	999999.0	0.4	3.2	13.3	13.2	49.7	17.7	22.3
0.98	999999.0	999999.0	0.4	1.9	5.4	8.6	32.2	15.4	21.5
0.96	999999.0	999999.0	0.3	1.1	2.2	5.4	19.6	13.0	20.4
0.90	999999.0	999999.0	0.3	0.5	0.7	2.7	8.9	9.7	18.6
0.80	999999.0	999999.0	0.2	0.3	0.3	1.4	4.2	7.1	16.6
0.50	999999.0	999999.0	0.1	0.1	0.1	0.4	0.9	3.5	12.3
0.20	999999.0	999999.0	0.0	0.0	0.1	0.1	0.2	1.5	8.1
0.10	999999.0	999999.0	0.0	0.0	0.1	0.1	0.1	0.9	6.2
0.05	999999.0	999999.0	0.0	0.0	0.1	0.1	0.0	0.6	4.9
0.02	999999.0	999999.0	0.0	0.0	0.1	0.0	0.0	0.3	3.6
0.01	999999.0	999999.0	0.0	0.0	0.1	0.0	0.0	0.2	2.8

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "PPM" PERCENT OF THE TIME (YEARS 1957-1965)

P95	P90	P75	P70	P50	P25	P10
0.1	0.2	0.9	1.3	5.3	30.0	74.0

STATION 14214000 RUSH CREEK AB MEADOW CREEK NR TROUT LAKE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	ANNUAL PEAK-FLOW DATA
1956	343.	196.	139.	135.	116.	107.	90.	72.	48.	499.	10/09/55
1957	365.	266.	154.	97.	82.	61.	45.	38.	30.	451.	12/11/56
1958	330.	221.	149.	135.	117.	86.	67.	52.	40.	428.	06/06/58
1959	275.	183.	104.	87.	80.	63.	49.	40.	31.	640.	12/02/58
1960	295.	184.	134.	114.	95.	75.	55.	46.	33.	560.	10/11/59
1961	326.	203.	143.	112.	101.	71.	52.	43.	38.	790.	11/17/60
1962	140.	130.	124.	114.	95.	70.	56.	46.	31.	198.	06/23/62
1963	629.	278.	193.	104.	67.	42.	36.	30.	24.	1180.	11/20/62
1964	115.	112.	92.	91.	79.	73.	59.	45.	31.	190.	07/14/64
1965	300.	193.	116.	88.	77.	62.	52.	39.	31.	402.	12/01/64

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1956-1965)

	W R C ESTIMATE	SYSTEMATIC RECORD
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MEAN	311.8	194.6	134.8	107.7	90.9	71.0	56.1	45.1	33.7	2.6687	2.6687
MAXIMUM	629.0	278.0	193.0	135.0	117.0	107.0	90.0	72.0	48.0	0.2443	0.2443
MINIMUM	115.0	112.0	92.0	87.0	67.0	42.0	36.0	30.0	24.0	0.0	-0.2900
STANDARD DEVIATION	139.43	52.63	28.47	17.68	16.84	17.09	14.49	11.15	6.67		
SKEWNESS	0.992	0.093	0.555	0.473	0.429	0.653	1.384	1.566	1.036		
STD ERROR OF SKEWNESS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687		
SERIAL CORR COEFF	-0.658	-0.453	-0.347	-0.367	-0.150	-0.388	-0.575	-0.475	-0.161		
COEFF OF VARIATION	0.447	0.270	0.211	0.164	0.185	0.241	0.258	0.247	0.198		
MEAN LOGS	2.452	2.274	2.121	2.027	1.952	1.840	1.737	1.644	1.520		
STD DEVIATION LOGS	0.210	0.124	0.092	0.070	0.080	0.106	0.105	0.099	0.082		
SKEWNESS LOGS	-0.672	-0.503	-0.050	0.261	0.155	-0.328	0.522	0.728	0.492		
STD ERR SKEWNESS LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687		
SER CORR COEFF LOGS	-0.649	-0.464	-0.316	-0.334	-0.104	-0.345	-0.569	-0.470	-0.118		
COEFF OF VAR LOGS	0.085	0.055	0.043	0.035	0.041	0.057	0.060	0.060	0.054		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1965)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
MEAN	73.2	87.2	80.3	75.4	59.7	37.0	34.2	29.3	22.9	11.9
MAXIMUM	118.1	113.2	93.2	82.6	66.8	45.4	38.1	31.9	25.0	176.9
MINIMUM	148.9	128.8	100.8	86.9	71.0	50.3	40.7	33.6	26.3	226.8
STANDARD DEVIATION	193.2	149.2	110.7	92.7	76.6	56.6	44.4	36.2	28.2	290.5
SKEWNESS	298.8	192.4	132.4	105.7	89.1	70.1	53.5	42.8	32.0	466.4
STD ERROR OF SKEWNESS	424.3	239.9	157.9	121.6	104.3	85.1	66.3	52.7	38.6	748.8
SERIAL CORR COEFF	502.4	265.8	172.9	131.5	113.6	93.6	75.2	59.6	42.6	959.1
COEFF OF VARIATION	583.9	293.8	190.4	143.3	124.6	102.9	86.8	69.0	47.6	1248.7
MEAN LOGS	311.8	311.8	202.6	151.7	132.5	109.1	95.7	76.4	51.3	1480.9
STD DEVIATION LOGS	683.8	328.0	214.1	159.9	140.1	114.8	104.9	84.1	55.1	1726.3

STATION 14214500 MEADOW CR BLW LONE BUTTE WDW NR TROUT LK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1928				99.1	80.4	107	100	140	95.3	87.4	77.2	72.1	
1929	71.0	81.3	80.9	71.0	60.0	61.7	71.3	112	128	79.5	68.6	63.0	79.1
1930	58.8	56.5	67.9	60.3	111	73.2	106	95.3	79.5	64.0	59.4	54.5	73.6
1931	54.9	51.7	49.3	57.0	58.6	73.8	116	95.9	69.0	60.4	55.9	52.1	66.2
1936	113	137	134	107	99.7	94.7	103	151	169	126	101	91.2	119
1957	92.3	91.7	126	84.7	87.0	105	123	159	113	88.5	78.0	69.8	101
1958	68.2	70.2	86.1	88.1	111	84.9	112	125	107	87.7	82.9	78.3	91.6
1959	73.5	130	122	125	93.1	85.1	102	109	112	87.6	79.2	81.7	100.0
1960	97.5	97.3	91.1	80.0	89.6	79.8	103	132	138	101	92.2	82.9	98.7
1961	78.5	124	98.4	110	149	115	113	133	126	98.5	92.1	86.3	110
1962	84.3	84.0	104	99.1	84.5	76.7	112	119	108	85.5	80.9	76.4	92.9
1963	85.2	122	105	91.2	122	92.0	102	110	91.4	83.6	77.9	72.9	96.1
1964	71.7	103	88.5	97.3	83.9	71.2	74.6	114	164	113	92.6	85.2	96.5
1965	81.6	86.2	151	115	111	88.1	119	124	115	90.2	80.7	74.9	103

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1928-1965)

MEAN	79.3	95.0	100.3	91.8	95.8	86.3	104.1	122.8	115.4	89.5	79.9	74.4	94.4
MAXIMUM	113.0	137.0	151.0	125.0	149.0	115.0	123.0	159.0	169.0	126.0	101.0	91.2	119.0
MINIMUM	54.9	51.7	49.3	57.0	58.6	61.7	71.3	95.3	69.0	60.4	55.9	52.1	66.2
STD DEVIATION	15.81	27.38	27.88	19.96	24.05	15.21	14.94	18.89	28.53	17.00	12.58	11.56	14.42
SKWENESS	0.533	0.017	0.073	-0.276	0.482	0.412	-1.272	0.397	0.445	0.391	-0.395	-0.679	-0.507
STD ERR SKEW	0.616	0.616	0.616	0.597	0.537	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.616
SER CORR COEFF	0.017	-0.100	0.002	0.103	-0.357	-0.225	-0.048	0.277	-0.244	-0.034	0.164	0.247	0.188
COEFF OF VAR	0.159	0.284	0.278	0.217	0.251	0.176	0.144	0.154	0.247	0.190	0.157	0.155	0.153
MEAN LOGS	1.891	1.960	1.984	1.952	1.968	1.930	2.013	2.084	2.050	1.944	1.897	1.866	1.970
STD DEV LOGS	0.086	0.133	0.130	0.101	0.111	0.076	0.089	0.066	0.109	0.084	0.072	0.072	0.070
SKWENESS LOGS	0.012	-0.484	-0.717	-0.705	-0.246	0.088	-1.559	0.088	-0.177	-0.261	-0.786	-0.977	-0.880
STD ERR SKEW LOGS	0.616	0.616	0.616	0.597	0.537	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.616
SER CORR LOGS	0.061	0.023	0.066	0.203	-0.337	-0.205	-0.056	0.279	-0.170	0.056	0.232	0.305	0.246
COEFF OF VAR LOGS	0.046	0.068	0.066	0.052	0.056	0.039	0.034	0.032	0.053	0.043	0.038	0.036	0.036
% OF AVE FLOW	7.0	8.4	8.8	8.1	8.4	7.6	9.2	10.8	10.2	7.9	7.0	6.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1928-1965)

0.99	49.2	40.1	41.3	46.4	49.0	57.1	60.2	86.0	60.7	54.2	48.9	44.5	58.0
0.95	56.2	52.9	55.9	58.6	60.1	64.0	75.3	94.8	73.4	63.3	58.2	53.8	69.2
0.90	60.4	60.7	64.7	65.7	66.6	68.1	83.3	100.0	81.0	68.4	63.2	58.8	75.2
0.80	65.9	71.1	76.2	74.5	75.3	73.4	92.3	106.7	91.1	75.1	69.3	64.7	82.4
0.50	77.8	93.4	100.0	92.1	93.9	84.9	107.1	121.2	112.9	88.7	80.6	75.5	95.6
0.20	92.0	118.5	124.7	109.4	115.5	98.5	117.3	138.0	138.6	103.6	91.0	84.7	107.2
0.10	100.4	132.5	137.4	118.0	128.0	106.6	120.8	148.0	153.7	111.9	95.8	88.7	112.4
0.04	110.3	147.8	150.4	126.7	142.1	116.1	123.3	159.5	171.0	121.0	100.5	92.4	117.4
0.02	117.1	157.7	158.3	131.9	151.7	122.7	124.4	167.5	183.0	127.1	103.2	94.4	120.1
0.01	123.7	166.7	165.1	136.4	160.7	129.0	125.0	175.1	194.2	132.6	105.4	96.0	122.4

STATION 14214500 MEADOW CR BLW LONE BUTTE MOW NR TROUT LK, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1929	56.0	57.0	57.0	58.0	59.0	61.0	64.0	69.0	71.0
1930	53.0	53.0	54.0	55.0	56.0	57.0	58.0	60.0	63.0
1931	47.0	47.0	47.0	48.0	48.0	49.0	51.0	52.0	54.0
1957	79.0	80.0	80.0	81.0	81.0	85.0	91.0	92.0	95.0
1958	61.0	62.0	62.0	63.0	63.0	67.0	69.0	71.0	76.0
1959	69.0	69.0	69.0	70.0	73.0	75.0	78.0	80.0	91.0
1960	71.0	71.0	72.0	73.0	74.0	79.0	81.0	84.0	88.0
1961	74.0	74.0	75.0	76.0	78.0	79.0	83.0	85.0	96.0
1962	75.0	75.0	75.0	75.0	77.0	80.0	84.0	85.0	89.0
1963	72.0	72.0	73.0	74.0	76.0	78.0	79.0	81.0	86.0
1964	64.0	64.0	66.0	68.0	69.0	72.0	74.0	76.0	83.0
1965	69.0	70.0	71.0	72.0	75.0	80.0	82.0	85.0	97.0

LOWEST MEAN FLOW STATISTICS (YEARS 1929-1965)

MEAN	65.8	66.2	66.8	67.8	69.3	71.8	74.5	76.7	82.6
MAXIMUM	79.0	80.0	80.0	81.0	81.0	85.0	91.0	92.0	97.0
MINIMUM	47.0	47.0	48.0	48.0	48.0	49.0	51.0	52.0	54.0
STANDARD DEVIATION	9.78	9.81	9.87	9.80	10.18	11.04	11.80	11.70	13.79
SKEWNESS	-0.680	-0.691	-0.780	-0.819	-0.999	-0.988	-0.797	-0.983	-1.007
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SERIAL CORR COEFF	0.218	0.192	0.209	0.209	0.266	0.253	0.185	0.170	0.293
COEFF OF VARIATION	0.149	0.148	0.148	0.145	0.147	0.154	0.158	0.153	0.167
MEAN LOGS	1.814	1.816	1.820	1.826	1.836	1.851	1.867	1.879	1.911
STD DEVIATION LOGS	0.069	0.069	0.069	0.067	0.069	0.073	0.074	0.072	0.080
SKEWNESS LOGS	-0.913	-0.950	-1.029	-1.062	-1.221	-1.217	-1.072	-1.268	-1.263
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR COEFF LOGS	0.253	0.232	0.242	0.241	0.285	0.280	0.232	0.207	0.317
COEFF OF VAR LOGS	0.038	0.038	0.038	0.037	0.038	0.039	0.040	0.038	0.042

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1965)

0.99	84.5	84.6	84.6	85.2	86.1	90.3	95.7	95.7	105.4
0.98	83.0	83.2	83.4	84.0	85.2	89.3	94.3	94.7	104.2
0.96	81.2	81.4	81.8	82.5	83.9	87.8	92.4	93.3	102.5
0.90	78.0	78.3	78.9	79.7	81.4	85.1	89.0	90.5	99.1
0.80	74.5	74.9	75.5	76.5	78.3	81.7	85.0	87.1	95.0
0.50	66.7	67.1	67.8	68.9	70.7	73.4	75.8	78.4	84.5
0.20	57.7	58.0	58.6	59.7	61.0	62.8	64.7	67.2	71.2
0.10	52.7	53.0	53.4	54.5	55.3	56.7	58.5	60.6	63.6
0.05	48.5	48.7	49.0	50.0	50.5	51.5	53.3	55.0	57.2
0.02	43.9	44.0	44.1	45.0	45.0	45.7	47.4	48.7	50.0
0.01	40.8	40.8	40.8	41.7	41.4	41.8	43.5	44.5	45.3

FLOW DURATION DATA

OAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1929-1965)									
P95	P90	P75	P70	P50	P25	P10			
57.0	63.0	77.0	79.0	89.0	110.0	130.0			

STATION 14214500 MEADOW CR RL# LONE BUTTE MD# NR TROUT LK. WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW(CFS)	DATE	REG.(R)
1929	175.	162.	156.	140.	134.	121.	108.	99.	87.	185.	06/15/29	
1930	191.	173.	147.	129.	109.	102.	97.	97.	87.	197.	02/20/30	
1931	116.	116.	116.	116.	116.	108.	98.	90.	80.	232.	03/31/31	
1956	258.	215.	186.	182.	177.	164.	150.	139.	124.	273.	12/22/55	
1957	259.	232.	191.	173.	160.	133.	132.	126.	116.	330.	12/11/56	
1958	254.	211.	167.	138.	130.	126.	116.	111.	105.	292.	04/20/58	
1959	237.	200.	175.	152.	139.	129.	128.	118.	111.	302.	11/12/58	
1960	199.	168.	155.	147.	137.	137.	125.	120.	109.	215.	11/23/59	
1961	286.	224.	199.	168.	148.	132.	126.	127.	124.	435.	11/24/60	
1962	177.	150.	139.	133.	125.	118.	114.	107.	102.	197.	04/27/62	
1963	400.	253.	212.	169.	139.	116.	116.	111.	108.	528.	11/20/62	
1964	207.	200.	181.	178.	167.	149.	132.	122.	107.	227.	06/18/64	
1965	400.	327.	254.	183.	154.	133.	127.	119.	118.	480.	12/23/64	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1929-1965)

	W	R	C	SYSTEMATIC ESTIMATE	RECORD
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MEAN	243.0	202.4	175.4	154.7	141.9	129.2	120.7	114.3	106.0			
MAXIMUM	400.0	327.0	254.0	183.0	177.0	164.0	150.0	139.0	124.0			
MINIMUM	116.0	116.0	116.0	116.0	109.0	102.0	97.0	90.0	80.0			
STANDARD DEVIATION	83.08	52.89	35.39	22.28	19.70	16.82	14.66	13.65	13.98			
SKWENESS	0.842	0.788	0.572	-0.231	0.087	0.408	0.044	-0.159	-0.605			
STD ERROR OF SKWENESS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616			
SERIAL CORR COEFF	-0.252	-0.052	-0.030	0.173	0.189	0.140	0.199	0.174	0.277			
COEFF OF VARIATION	0.342	0.261	0.202	0.144	0.139	0.130	0.122	0.119	0.132			
MEAN LOGS	2.363	2.293	2.236	2.185	2.148	2.106	2.079	2.053	2.022			
STD DEVIATION LOGS	0.147	0.113	0.087	0.084	0.061	0.056	0.053	0.053	0.060			
SKWENESS LOGS	-0.067	-0.110	-0.055	-0.409	-0.201	0.069	-0.275	-0.420	-0.817			
SER ERR SKWENESS LOGS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616			
COEFF OF VAR LOGS	-0.182	-0.051	-0.025	0.163	0.213	0.183	0.249	0.210	0.324			
	0.062	0.049	0.039	0.028	0.028	0.027	0.026	0.026	0.030			
										2.4502		
										0.1530		
										0.0		
										0.6270		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1965)

	0.99	0.95	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01
MEAN	103.1	105.0	107.0	103.9	99.4	95.5	87.8	82.4	70.3	124.2	146.4			
MAXIMUM	131.3	127.0	123.3	118.1	110.8	103.9	97.0	91.7	81.4	157.9	169.3			
MINIMUM	149.0	140.2	132.9	126.0	117.2	108.7	102.0	96.7	87.3	179.5	185.0			
STANDARD DEVIATION	173.6	157.9	145.4	135.7	125.2	115.0	108.3	102.6	94.4	209.6	208.5			
SKWENESS	231.4	197.1	172.5	154.7	141.3	128.0	120.5	114.5	107.1	282.0	271.8			
STD ERROR OF SKWENESS	306.9	244.5	204.0	173.8	158.5	142.9	133.1	126.0	118.3	379.3	373.4			
SERIAL CORR COEFF	355.0	272.9	222.5	183.8	167.8	151.5	139.8	131.9	123.4	442.9	450.5			
COEFF OF VARIATION	413.9	306.2	243.8	194.2	178.1	161.3	146.9	138.0	128.3	522.5	559.8			
MEAN LOGS	456.6	329.5	258.6	200.8	184.8	168.1	151.5	141.8	131.1	581.4	650.4			
STD DEVIATION LOGS	496.5	351.7	272.6	206.6	191.0	174.4	155.6	145.1	133.4	640.0	749.3			

STATION 14215000 RUSH CREEK ABOVE FALLS NEAR COUGAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1928	116	121	107	155	128	191	172	296	217	145	120	108	
1929	95.1	87.6	108	84.6	212	113	180	206	296	156	127	111	136
1930	86.2	83.5	99.9	105	171	168	182	220	154	102	96.7	88.7	124
1931	215	272	258	188	171	179	195	303	384	333	189	93.4	120
1956	167	163	120	146	186	142	182	297	265	145	126	111	235
1957	109	268	223	239	156	137	181	292	260	138	123	112	179
1958	109	268	223	239	156	137	181	292	260	138	123	112	165
1959	177	180	162	136	171	142	195	249	313	181	142	126	184
1960	129	136	146	165	253	199	205	233	256	168	138	124	181
1961	130	136	177	167	139	127	199	216	226	166	130	123	187
1962	112	163	131	152	126	108	122	179	299	229	144	130	161
1964	127	146	292	196	186	153	207	211	220	148	132	114	178
1965	103	129	118	117	96.1	114	162	242	244	189	120	109	145
1966	109	134	200	179	152	129	119	213	300	179	124	113	163
1967	167	145	142	153	302	189	159	193	241	132	135	127	173
1968	167	207	158	180	131	124	157	312	272	156	131	130	176
1969	157	132	135	141	253	167	150	182	218	130	117	109	159
1970	132	135	141	253	167	150	150	182	218	130	117	109	159
1971	104	164	152	168	165	128	139	257	294	286	182	154	183
1972	136	137	132	160	198	304	198	356	321	236	161	164	209
1973	132	156	282	212	133	134	139	180	148	113	107	106	154
1974	119	179	205	279	151	149	177	236	345	295	195	150	207

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1928-1974)

MEAN	130.1	159.4	171.7	167.6	162.5	151.3	170.0	239.9	255.9	176.6	134.6	123.0	170.3
MAXIMUM	215.0	272.0	292.0	279.0	302.0	304.0	207.0	356.0	384.0	333.0	195.0	164.0	235.0
MINIMUM	86.2	86.6	83.5	84.6	87.9	100.0	107.0	179.0	130.0	102.0	96.7	88.7	120.0
STD DEVIATION	31.19	49.11	58.46	49.30	49.46	44.01	30.14	50.24	62.99	62.32	26.33	20.41	27.52
SKWENESS	1.154	0.969	0.717	0.433	1.123	2.097	-0.654	0.689	-0.200	1.245	1.050	0.529	0.256
STD ERR SKEW	0.501	0.501	0.501	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.501
SER CORR COEFF	0.042	-0.058	-0.112	0.230	-0.278	-0.197	-0.009	-0.054	-0.417	-0.229	-0.184	-0.012	0.029
COEFF OF VAR	0.240	0.304	0.342	0.294	0.304	0.291	0.177	0.209	0.246	0.353	0.196	0.166	0.162
MEAN LOGS	2.103	2.184	2.211	2.205	2.193	2.166	2.223	2.371	2.394	2.224	2.122	2.084	2.226
STD DEV LOGS	0.097	0.129	0.146	0.133	0.127	0.119	0.084	0.088	0.118	0.139	0.081	0.071	0.071
SKWENESS LOGS	0.605	0.125	0.107	-0.399	0.144	1.119	-0.931	0.373	-0.896	0.634	0.587	0.195	-0.263
STD ERR SKEW LOGS	0.501	0.501	0.501	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.501
SER CORR LOGS	0.049	0.043	-0.061	0.326	-0.275	-0.190	-0.041	-0.061	-0.303	-0.220	-0.158	0.022	0.114
COEFF OF VAR LOGS	0.046	0.059	0.066	0.060	0.058	0.050	0.038	0.037	0.049	0.063	0.038	0.036	0.032
% OF AVE FLOW	6.4	7.8	8.4	8.2	8.0	7.4	8.3	11.7	12.5	8.6	6.6	6.0	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1928-1974)

0.99	83.3	78.6	76.6	72.1	81.5	100.5	94.3	155.2	111.1	92.4	93.2	85.0	111.4
0.95	91.5	94.7	94.0	94.0	97.6	106.5	116.8	172.3	149.6	105.4	100.9	93.7	127.0
0.90	96.9	104.8	106.3	107.3	107.7	111.1	111.1	183.0	172.2	114.3	105.9	98.9	135.8
0.80	104.7	118.7	122.5	125.0	121.7	118.5	144.3	197.7	201.0	127.4	112.9	105.7	146.9
0.50	124.0	151.8	161.7	163.8	154.8	139.9	172.2	232.2	257.8	162.1	129.9	120.8	169.4
0.20	151.8	195.9	215.3	208.5	198.9	176.4	197.1	277.6	312.3	216.5	159.5	139.1	193.4
0.10	170.9	224.9	243.9	227.6	204.9	208.3	208.3	306.9	338.1	257.0	169.2	150.2	206.4
0.04	196.1	260.5	296.3	282.3	263.7	245.9	218.7	343.7	382.9	313.4	189.4	163.4	220.6
0.02	215.5	287.1	330.2	302.3	290.4	280.3	224.5	370.9	377.2	359.4	204.6	172.7	229.9
0.01	235.6	313.7	364.5	298.6	317.2	318.2	229.1	398.1	388.8	409.0	220.1	181.8	238.4

STATION 14215000 RUSH CREEK ABOVE FALLS NEAR COUGAR, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1929	86.0	86.0	87.0	87.0	88.0	89.0	92.0	96.0	104.0
1930	79.0	79.0	79.0	80.0	83.0	85.0	94.0	94.0	102.0
1931	79.0	79.0	80.0	81.0	83.0	85.0	88.0	88.0	88.0
1957	140.0	140.0	140.0	140.0	140.0	145.0	158.0	164.0	170.0
1958	97.0	98.0	100.0	100.0	106.0	108.0	111.0	116.0	125.0
1959	99.0	99.0	100.0	106.0	108.0	110.0	114.0	119.0	125.0
1960	112.0	113.0	114.0	114.0	119.0	120.0	125.0	134.0	150.0
1961	112.0	116.0	116.0	118.0	120.0	125.0	130.0	135.0	153.0
1962	110.0	111.0	110.0	114.0	118.0	125.0	127.0	131.0	144.0
1965	108.0	110.0	110.0	113.0	117.0	123.0	126.0	133.0	167.0
1966	89.0	89.0	90.0	93.0	94.0	104.0	105.0	111.0	112.0
1967	93.0	93.0	94.0	97.0	101.0	106.0	109.0	117.0	137.0
1968	102.0	106.0	107.0	109.0	113.0	118.0	122.0	136.0	138.0
1969	110.0	111.0	113.0	115.0	120.0	127.0	129.0	136.0	152.0
1970	97.0	98.0	100.0	103.0	113.0	124.0	130.0	129.0	134.0
1971	94.0	95.0	96.0	98.0	101.0	106.0	109.0	113.0	128.0
1972	108.0	108.0	108.0	110.0	114.0	127.0	129.0	132.0	145.0
1973	105.0	107.0	109.0	115.0	130.0	134.0	146.0	147.0	175.0
1974	97.0	98.0	98.0	101.0	102.0	105.0	110.0	110.0	128.0

LOWEST MEAN FLOW STATISTICS (YEARS 1929-1974)

MEAN	100.9	101.6	102.8	105.4	109.2	114.4	118.7	123.5	137.6
MAXIMUM	140.0	140.0	140.0	140.0	140.0	145.0	150.0	164.0	175.0
MINIMUM	79.0	79.0	79.0	80.0	82.0	83.0	85.0	85.0	88.0
STANDARD DEVIATION	14.03	14.20	14.31	14.71	15.40	16.38	18.56	19.64	24.13
SKWENESS	0.852	0.695	0.852	0.550	-0.098	-0.303	0.103	-0.132	-0.406
STD ERROR OF SKWENESS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SERIAL CORR COEFF	0.010	0.019	0.053	0.102	0.129	0.131	0.002	0.036	0.059
COEFF OF VARIATION	0.139	0.140	0.139	0.140	0.141	0.143	0.156	0.159	0.175
MEAN LOGS	2.000	2.003	2.008	2.019	2.034	2.054	2.069	2.086	2.132
STD DEVIATION LOGS	0.059	0.060	0.060	0.061	0.063	0.065	0.069	0.072	0.081
SKWENESS LOGS	0.293	0.160	0.052	-0.224	-0.415	-0.604	-0.283	-0.346	-0.777
STD ERR SKWENESS LOGS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SER CORR COEFF LOGS	0.091	0.101	0.135	0.188	0.207	0.206	0.079	0.123	0.137
COEFF OF VAR LOGS	0.029	0.030	0.030	0.030	0.031	0.031	0.033	0.034	0.038

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1974)

0.99	141.1	140.9	141.2	141.6	144.8	149.7	164.3	167.4	187.8
0.98	134.9	135.1	135.8	137.1	140.8	146.2	158.7	162.8	183.3
0.96	128.5	129.0	130.0	132.2	136.3	142.1	152.5	157.5	177.8
0.90	119.4	120.3	121.7	124.2	129.2	135.3	143.1	148.9	168.5
0.80	111.8	112.9	114.4	117.7	122.4	128.6	134.4	140.5	156.9
0.50	99.3	100.3	101.7	105.0	109.2	114.9	120.9	126.8	138.8
0.20	89.1	89.6	90.7	92.9	96.1	100.5	102.9	106.8	117.1
0.10	84.5	84.6	85.4	86.9	89.4	92.9	95.3	98.0	105.6
0.05	81.0	80.8	81.3	82.1	83.9	86.6	89.2	90.9	96.2
0.02	77.4	76.8	77.0	77.4	77.9	79.6	82.7	83.0	85.9
-0.01	75.1	74.3	74.3	73.5	74.0	75.1	78.4	77.9	79.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1929-1974)

	P95	P90	P75	P70	P50	P25	P10
95.0	100.0	120.0	130.0	150.0	200.0	270.0	

STATION 14215000 RUSH CREEK ABOVE FALLS NEAR COUGAR, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW (CFS) DATE REG. (R)
1929	500.	416.	378.	338.	296.	259.	220.	198.	167.	578. 11/09/28
1930	455.	404.	346.	265.	205.	187.	173.	173.	155.	515. 02/20/30
1931	535.	446.	334.	255.	229.	216.	193.	174.	152.	578. 04/01/31
1956	606.	423.	406.	394.	386.	381.	308.	259.	209.	762. 10/09/55
1957	636.	489.	403.	327.	305.	270.	243.	228.	209.	846. 12/11/56
1958	562.	434.	388.	358.	328.	287.	255.	225.	208.	690. 06/06/58
1959	610.	487.	386.	327.	286.	250.	240.	223.	203.	762. 11/20/58
1960	542.	428.	364.	344.	314.	288.	255.	239.	209.	718. 10/11/59
1961	581.	412.	356.	303.	262.	227.	223.	224.	223.	995. 11/24/60
1962	309.	273.	255.	239.	227.	222.	217.	203.	181.	324. 12/24/61
1963	378.	373.	338.	330.	304.	273.	241.	215.	184.	424. 06/18/64
1965	800.	667.	523.	383.	297.	243.	230.	213.	210.	1130. 12/23/64
1966	343.	317.	303.	271.	258.	247.	228.	211.	179.	369. 07/03/66
1967	716.	501.	365.	333.	303.	276.	233.	205.	189.	895. 12/13/66
1968	734.	603.	553.	395.	320.	297.	220.	219.	206.	836. 06/02/68
1969	538.	423.	406.	378.	350.	297.	253.	226.	198.	746. 11/11/68
1970	766.	579.	504.	376.	274.	224.	204.	191.	192.	1070. 01/23/70
1971	528.	375.	356.	326.	300.	291.	285.	257.	219.	581. 11/24/70
1972	530.	497.	450.	407.	379.	304.	309.	297.	272.	589. 05/15/72
1973	1500.	883.	636.	454.	350.	255.	219.	198.	184.	2750. 12/21/72
1974	1300.	970.	675.	435.	347.	320.	295.	272.	237.	1470. 01/16/74

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1929-1974)

W R C
ESTIMATE SYSTEMATIC
RECORD

MEAN	636.2	495.2	414.0	344.8	300.2	267.7	242.6	223.7	201.6		
MAXIMUM	1500.0	970.0	675.0	454.0	386.0	381.0	342.0	306.0	272.0		
MINIMUM	309.0	273.0	255.0	239.0	205.0	187.0	174.0	173.0	152.0		
STANDARD DEVIATION	286.13	169.89	108.12	57.85	47.61	44.61	39.06	34.95	30.11		
SKEWNESS	2.006	1.677	1.108	-0.072	-0.142	0.767	0.863	0.986	0.606		
STD ERROR OF SKEWNESS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501		
SERIAL CORR COEFF	0.380	0.406	0.391	0.360	0.186	-0.099	-0.043	0.047	0.047		
COEFF OF VARIATION	0.450	0.343	0.261	0.168	0.159	0.167	0.161	0.156	0.149		
MEAN LOGS	2.771	2.675	2.604	2.531	2.472	2.422	2.380	2.345	2.300		
STD DEVIATION LOGS	0.163	0.131	0.106	0.075	0.071	0.071	0.068	0.065	0.064		
SKEWNESS LOGS	0.840	0.834	0.566	-0.432	-0.548	0.227	0.382	0.596	0.044		
STD ERR SKEWNESS LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501		
SER CORR COEFF LOGS	0.236	0.261	0.339	0.320	0.210	-0.060	-0.004	-0.009	0.109		
COEFF OF VAR LOGS	0.059	0.049	0.041	0.030	0.029	0.029	0.028	0.028	0.028		
HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1974)											
0.99	311.1	282.8	252.4	215.3	189.5	186.0	173.9	167.0	144.4	245.2	323.3
0.95	352.1	312.5	280.8	250.7	221.0	204.5	188.7	177.9	157.8	339.2	382.1
0.90	381.9	333.5	299.4	270.5	238.4	215.5	197.7	184.9	165.7	425.4	493.7
0.80	428.1	365.5	326.0	295.3	259.7	230.2	209.8	194.7	176.1	493.7	597.9
0.50	560.6	453.6	392.8	344.2	301.0	262.7	237.5	218.0	198.7	742.1	1076.6
0.20	790.8	597.1	488.9	394.3	341.4	302.5	272.4	249.4	225.5	1107.7	1401.5
0.10	977.1	706.9	555.6	420.5	361.7	326.7	294.3	269.9	241.5	1365.8	1912.1
0.04	1255.3	863.3	643.7	448.1	355.8	320.9	295.7	269.3	237.5	1707.5	2376.0
0.02	1497.0	993.4	712.0	465.6	395.4	376.4	340.1	314.9	273.5	1972.4	2760.0
0.01	1770.9	1135.7	782.9	481.2	406.6	396.4	359.0	334.0	286.1	2245.7	2921.6

STATION 14215500 CURLY CREEK NEAR COUGAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1956	72.8	132	129	77.8	41.4	50.6	88.8	167	162	74.6	27.6	20.0	87.0
1957	28.9	53.3	109	35.5	33.6	86.3	104	127	45.1	21.1	13.5	12.4	56.1
1958	10.4	29.2	88.4	87.1	140	52.6	116	90.8	52.3	18.0	11.6	9.87	58.3
1959	10.5	124	103	141	48.2	37.3	188.4	84.5	61.1	23.9	12.9	19.3	62.9
1960	56.3	62.3	65.1	29.1	81.6	52.1	110	124	85.9	28.3	17.7	15.2	60.5
1961	16.1	152	54.7	98.3	212	90.5	82.6	113	64.5	23.0	15.8	13.5	76.9
1962	18.8	40.8	93.3	79.4	51.0	31.8	110	106	57.6	25.7	15.6	14.5	53.7
1963	35.0	157	88.6	53.5	92.9	45.7	80.7	86.6	38.0	20.3	15.1	12.7	60.1
1964	13.5	86.2	61.4	82.0	56.0	32.0	52.9	103	117	46.4	20.9	15.9	57.2
1965	17.3	39.7	172	66.2	75.6	48.0	98.6	102	56.0	22.3	17.2	14.2	60.7
1966	13.1	29.5	42.5	42.9	27.8	59.0	103	154	97.3	46.5	18.8	14.4	54.2
1967	16.5	52.4	133	110	75.2	48.8	45.6	102	86.9	31.9	16.5	13.2	61.0
1968	44.1	58.7	51.3	64.9	144	94.9	59.1	55.4	81.3	21.2	19.1	23.4	57.5
1969	55.5	99.7	61.4	63.7	26.5	26.9	82.6	172	81.3	24.5	15.9	16.6	60.7
1970	29.5	47.9	61.8	163	93.3	72.5	55.3	60.4	40.4	20.5	14.3	11.8	55.8

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1956-1970)

MEAN	29.2	77.6	87.6	79.6	79.9	55.3	85.2	109.8	73.6	29.9	16.8	15.1	61.5
MAXIMUM	72.8	157.0	172.0	163.0	212.0	94.9	116.0	172.0	162.0	74.6	27.6	23.4	87.0
MINIMUM	10.4	29.2	42.5	29.1	26.5	26.9	45.6	55.4	38.0	18.0	11.6	9.9	53.7
STD DEVIATION	19.59	44.45	36.46	37.07	51.52	21.60	22.79	34.56	33.06	15.16	3.87	3.51	8.92
SKEWNESS	1.050	0.737	0.915	0.896	1.365	0.695	-0.457	0.402	1.504	2.193	1.524	1.003	2.185
STD ERR SKEW	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580
SER CORR COEFF	0.062	-0.273	-0.399	-0.404	-0.305	-0.371	0.152	-0.396	-0.400	-0.216	-0.021	-0.170	-0.315
COEFF OF VAR	0.671	0.572	0.416	0.466	0.645	0.391	0.268	0.315	0.649	0.507	0.230	0.232	0.145
MEAN LOGS	1.380	1.824	1.909	1.857	1.826	1.712	1.914	2.020	1.832	1.438	1.217	1.170	1.785
STD DEV LOGS	0.279	0.249	0.175	0.207	0.267	0.168	0.130	0.142	0.175	0.171	0.092	0.096	0.056
SKEWNESS LOGS	0.357	0.175	0.231	-0.220	0.175	0.074	-0.794	-0.352	0.577	1.498	0.768	0.435	1.951
STD ERR SKEW LGS	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580
SER CORR LOGS	0.106	-0.195	-0.147	-0.470	-0.365	-0.389	0.151	-0.412	-0.397	-0.214	0.088	-0.181	-0.344
COEFF OF VAR LGS	0.203	0.136	0.091	0.111	0.146	0.098	0.068	0.070	0.095	0.119	0.075	0.082	0.032
% OF AVE FLOW	3.9	10.5	11.8	10.8	10.8	7.5	11.5	14.8	10.0	4.0	2.3	2.0	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1970)

0.99	6.4	19.0	34.1	22.0	17.3	21.4	34.6	45.0	31.6	16.7	11.4	9.5	53.5
0.95	8.9	26.8	43.1	31.9	25.1	27.5	47.4	59.3	37.7	17.6	12.3	10.6	53.8
0.90	10.8	32.4	49.0	38.7	30.8	31.5	55.0	68.1	41.8	18.4	12.9	11.3	58.2
0.80	13.8	41.0	57.7	48.5	39.7	37.2	64.9	80.1	48.1	19.8	13.7	12.2	55.1
0.50	23.1	65.6	79.9	73.2	65.7	51.3	85.2	106.7	65.4	25.0	16.0	14.5	58.7
0.20	40.6	107.4	113.3	107.8	111.6	71.3	105.8	138.4	93.8	36.0	19.4	17.7	66.1
0.10	55.8	140.2	137.1	130.8	148.8	84.9	126.1	156.9	115.9	46.4	21.8	19.8	72.3
0.04	79.7	187.9	169.3	159.5	203.7	102.6	166.4	178.0	147.9	63.9	25.1	22.5	81.3
0.02	101.3	227.8	194.7	180.6	250.6	116.0	132.5	192.3	174.9	80.9	27.6	24.5	88.8
0.01	126.6	271.7	221.4	201.5	302.8	129.6	137.6	205.7	204.7	102.0	30.2	26.5	97.1

STATION 14215500 CURLY CREEK NEAR COUGAR, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1957	18.0	18.0	18.0	18.0	18.0	20.0	24.0	31.0	45.0
1958	9.0	9.0	9.1	9.4	10.0	11.0	11.0	13.0	21.0
1959	8.8	8.9	9.0	9.3	9.6	10.0	11.0	12.0	30.0
1960	12.0	12.0	12.0	12.0	13.0	14.0	16.0	25.0	37.0
1961	13.0	13.0	13.0	14.0	14.0	15.0	16.0	17.0	40.0
1962	12.0	12.0	12.0	12.0	13.0	14.0	15.0	17.0	27.0
1963	13.0	13.0	13.0	13.0	14.0	15.0	17.0	22.0	35.0
1964	9.7	9.8	9.9	10.0	11.0	12.0	13.0	15.0	27.0
1965	14.0	14.0	14.0	15.0	16.0	17.0	17.0	19.0	41.0
1966	12.0	12.0	12.0	12.0	13.0	13.0	15.0	16.0	23.0
1967	13.0	13.0	13.0	13.0	13.0	14.0	16.0	19.0	40.0
1968	12.0	12.0	12.0	13.0	13.0	15.0	17.0	23.0	35.0
1969	15.0	15.0	15.0	16.0	16.0	19.0	21.0	24.0	36.0
1970	13.0	13.0	13.0	13.0	14.0	16.0	18.0	21.0	29.0

LOWEST MEAN FLOW STATISTICS (YEARS 1957-1970)

MEAN	12.5	12.5	12.5	12.8	13.4	14.6	16.3	19.6	33.3
MAXIMUM	18.0	18.0	18.0	18.0	18.0	20.0	24.0	31.0	45.0
MINIMUM	8.8	8.9	9.0	9.3	9.6	10.0	11.0	12.0	21.0
STANDARD DEVIATION	2.39	2.37	2.34	2.44	2.29	2.79	3.47	5.17	7.23
SKWENESS	0.509	0.543	0.598	0.445	0.185	0.331	0.504	0.587	-0.190
STD ERROR OF SKWENESS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SERIAL CORR COEFF	-0.225	-0.232	-0.238	-0.200	-0.238	-0.043	-0.104	-0.248	-0.580
COEFF OF VARIATION	0.192	0.190	0.187	0.190	0.171	0.191	0.213	0.264	0.217
MEAN LOGS	1.088	1.089	1.090	1.101	1.121	1.158	1.203	1.278	1.512
STD DEVIATION LOGS	0.084	0.083	0.081	0.082	0.076	0.083	0.093	0.114	0.100
SKWENESS LOGS	-0.127	-0.092	-0.032	-0.036	-0.281	-0.154	-0.174	-0.021	-0.531
STD ERR SKWENESS LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR COEFF LOGS	-0.147	-0.154	-0.161	-0.138	-0.108	-0.003	-0.050	-0.190	-0.547
COEFF OF VAR LOGS	0.077	0.076	0.074	0.075	0.067	0.072	0.078	0.090	0.066

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1970)

0.99	18.8	18.9	18.9	19.5	19.1	22.0	25.6	34.8	50.6
0.98	18.0	18.0	18.0	18.6	18.4	21.0	24.3	32.5	48.7
0.96	17.0	17.0	17.0	17.6	17.6	19.9	22.9	30.0	46.4
0.90	15.6	15.6	15.6	16.1	16.4	18.4	20.9	26.6	42.9
0.80	14.4	14.4	14.4	14.8	15.3	16.9	19.1	23.7	39.6
0.50	12.3	12.3	12.3	12.6	13.3	14.5	16.0	19.0	33.2
0.20	10.4	10.5	10.5	10.8	11.4	12.3	13.3	15.2	27.0
0.10	9.6	9.6	9.7	9.9	10.5	11.2	12.1	13.5	24.0
0.05	8.9	8.9	9.0	9.2	9.8	10.4	11.1	12.3	21.6
0.02	8.1	8.2	8.4	8.5	9.0	9.6	10.1	11.0	19.1
0.01	7.7	7.8	7.9	8.1	8.5	9.0	9.4	10.2	17.5

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1957-1970)

P95	P90	P75	P70	P50	P25	P10
13.0	15.0	22.0	26.0	47.0	83.0	130.0

STATION 14215500 CURLY CREEK NEAR COUGAR, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30										
YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (R)
1956	370.	282.	233.	215.	198.	165.	145.	126.	101.	417. 12/22/55
1957	272.	249.	206.	169.	135.	117.	107.	94.	84.	345. 12/11/56
1958	360.	288.	229.	168.	141.	113.	107.	101.	96.	412. 04/20/58
1959	315.	280.	222.	181.	125.	127.	106.	94.	96.	390. 11/20/58
1960	216.	187.	160.	149.	133.	120.	113.	95.	81.	280. 11/22/59
1961	964.	575.	407.	277.	209.	156.	138.	134.	121.	1870. 11/24/60
1962	226.	191.	168.	150.	129.	111.	92.	77.	79.	306. 12/24/61
1963	1260.	615.	439.	286.	193.	132.	111.	100.	90.	1880. 11/20/62
1964	185.	172.	165.	153.	142.	111.	94.	81.	74.	200. 06/05/64
1965	809.	582.	363.	216.	178.	120.	110.	95.	95.	1010. 12/23/64
1966	214.	204.	198.	170.	156.	131.	119.	107.	83.	240. 05/06/66
1967	722.	437.	273.	183.	137.	124.	111.	96.	86.	940. 12/13/66
1968	375.	302.	280.	195.	145.	119.	104.	94.	81.	458. 02/19/68
1969	268.	232.	214.	205.	185.	141.	115.	93.	76.	355. 11/11/68
1970	648.	447.	378.	276.	182.	136.	115.	102.	86.	970. 01/23/70
1971										940. 01/19/71
1972										672. 01/20/72
1973										1060. 12/21/72
1974										1320. 01/16/74

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1956-1974)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKENNESS	STD ERROR OF SKENNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKENNESS LOGS	STD ERR SKENNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	480.3	336.2	262.3	199.5	160.6	128.1	113.9	100.1	88.5							
	1260.0	615.0	439.0	286.0	209.0	165.0	145.0	134.0	121.0							
	185.0	172.0	160.0	149.0	129.0	111.0	92.0	77.0	74.0							
	325.43	154.33	91.87	46.65	27.16	15.97	14.22	14.64	11.88							
	1.279	0.832	0.807	0.908	0.518	1.181	0.771	0.966	1.492							
	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580							
	-0.385	-0.719	-0.591	-0.533	-0.440	-0.333	-0.281	-0.404	-0.344							
	0.678	0.459	0.350	0.234	0.169	0.125	0.125	0.146	0.134							
	2.601	2.487	2.396	2.290	2.200	2.104	2.053	1.996	1.943							
	0.286	0.190	0.145	0.096	0.072	0.052	0.053	0.061	0.055							
	0.594	0.421	0.431	0.637	0.400	0.966	0.418	0.496	1.108							
	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580							
	-0.762	-0.826	-0.760	-0.581	-0.443	-0.337	-0.272	-0.412	-0.358							
	0.102	0.076	0.060	0.042	0.033	0.024	0.026	0.031	0.028							
															2.7708	2.7708
															0.3011	0.3011
															0.1120	0.2140

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1974)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	125.7	127.3	127.4	129.4	113.4	105.1	88.5	75.2	72.6	131.3
	163.1	158.2	150.1	141.6	123.3	108.6	94.0	80.3	74.7	124.5
	191.1	179.4	165.2	149.7	129.4	111.2	97.4	83.5	76.4	192.9
	232.9	211.1	186.9	161.2	137.6	115.0	101.9	87.8	78.9	244.8
	375.3	297.5	242.8	190.4	156.8	124.8	112.1	98.0	85.8	328.1
	650.5	437.7	326.2	232.4	181.4	139.2	124.9	111.1	96.4	582.4
	898.8	545.2	386.0	261.5	197.1	149.1	132.8	119.5	103.9	1053.0
	1304.9	698.8	467.0	299.8	216.3	161.9	142.3	129.8	113.9	1445.0
	1686.7	826.7	531.4	329.6	230.4	171.7	149.1	137.3	121.6	2038.3
	2147.5	966.7	599.3	360.4	244.2	181.6	155.7	144.8	129.6	2552.8
										3132.1
										3296.9

STATION 14216000 LEWIS RIVER AB MUDDY RIVER NR COUGAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	DCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1927													
1928	1112	2886	1317	1669	842	2182	1778	2555	1947	625	394	509	1396
1929	527	854	877	509	336	798	1329	2410	1755	597	360	317	888
1930	234	208	679	487	2513	1086	1782	1217	730	375	280	232	805
1931	241	1703	331	896	1103	1785	2285	1567	689	396	259	224	833
1932	371	836	904	1145	1102	2432	2311	2725	2336	1039	451	327	1331
1933	359	1767	1336	1452	544	1027	1562	2449	3880	1709	646	595	1446
1934	1222	1363	6954	3794	1314	2109	1563	784	434	360	291	256	1716
1935	577	1517	1064	934	1567	558	1035	1922	3269	1561	612	455	1212
1936	1761	2918	2762	1602	754	1196	2243	3585	2955	1599	651	434	1875
1937	738	1147	2206	706	988	1726	2165	2480	1035	511	373	295	1200
1938	331	671	1579	1714	2829	1029	2162	2843	1884	521	356	297	1209
1939	337	2678	2117	2861	957	960	1771	1847	1587	654	374	619	1381
1940	1478	1597	1386	775	1830	1314	2104	2453	1936	679	423	344	1356
1941	436	2563	1268	2134	3428	1967	1674	2314	1734	647	424	347	1563
1942	452	831	2007	1548	1051	718	2108	1817	1365	610	416	363	1107
1943	933	2422	1620	994	1940	895	1683	1668	793	454	338	285	1161
1944	401	1838	1282	1716	1118	766	1157	2033	2685	1246	640	432	1274
1945	491	1050	3226	1695	1667	1175	2186	2011	1458	609	423	304	1356
1946	266	611	863	1036	636	1327	2099	2762	1680	925	414	308	1080
1947	363	916	2528	1915	1302	1023	873	2129	2205	780	382	290	1226
1948	962	1236	1457	1581	3720	1835	1158	1421	1480	517	553	609	1342
1949	1175	2177	1463	1538	570	708	1819	3222	1794	599	390	427	1327
1970	676	910	1662	3093	1746	1428	1187	1628	1266	473	323	301	1190

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1927-1970)

MEAN	671.4	1446.7	1747.3	1547.6	1437.3	1306.3	1740.6	2141.0	1708.6	760.3	424.9	368.4	1272.9
MAXIMUM	1761.0	2918.0	6954.0	3794.0	3720.0	2432.0	2311.0	3585.0	3880.0	1709.0	651.0	619.0	1875.0
MINIMUM	234.0	208.0	331.0	487.0	336.0	558.0	873.0	784.0	434.0	360.0	259.0	224.0	805.0
STD DEVIATION	428.35	824.09	1324.96	806.20	888.88	532.21	462.80	634.96	864.19	400.52	117.01	116.85	250.72
SKWENESS	1.136	0.464	2.948	1.181	1.304	0.634	-0.456	0.125	0.891	1.406	0.877	1.033	0.2559
STD ERR SKEW	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SER CORR COEFF	0.004	0.031	-0.120	-0.101	-0.233	-0.246	0.093	-0.114	-0.164	0.044	-0.015	-0.112	0.206
COEFF OF VAR	0.638	0.570	0.761	0.521	0.618	0.407	0.294	0.297	0.506	0.527	0.275	0.317	0.197
MEAN LOGS	2.750	3.076	3.162	3.135	3.084	3.082	3.225	3.310	3.178	2.834	2.614	2.547	3.096
STD DEV LOGS	0.260	0.303	0.262	0.228	0.259	0.177	0.123	0.144	0.231	0.198	0.114	0.128	0.088
SKWENESS LOGS	0.367	-0.875	0.199	-0.203	0.006	0.041	-0.829	-1.013	0.386	0.768	0.397	0.589	-0.457
STD ERR SKEW LOGS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SER CORR LOGS	0.161	0.327	0.107	0.034	-0.250	-0.274	0.077	-0.094	-0.262	-0.044	0.004	-0.047	0.313
COEFF OF VAR LOGS	0.095	0.098	0.083	0.073	0.084	0.057	0.038	0.043	0.073	0.070	0.044	0.050	0.028
% OF AVE FLOW	4.4	9.5	11.4	10.1	9.4	8.5	11.4	14.0	11.2	5.0	2.8	2.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1927-1970)

0.99	164.1	153.7	390.3	371.7	303.7	473.7	735.5	748.1	375.6	306.2	241.1	202.3	728.6
0.95	224.2	327.7	557.8	558.1	455.4	620.6	995.1	1095.5	593.4	360.3	275.4	229.4	873.0
0.90	268.1	469.2	679.7	688.3	565.3	717.5	1149.3	1309.4	746.7	399.8	297.4	247.6	955.2
0.80	336.9	696.3	869.4	881.5	734.6	856.2	1347.3	1589.1	973.7	461.5	328.3	274.1	1059.1
0.50	542.1	1317.8	1422.0	1387.6	1213.5	1203.9	1746.0	1557.3	1557.3	643.7	403.7	342.7	1268.1
0.20	918.6	2162.1	2392.7	2130.0	2006.2	1699.7	2141.1	2705.9	2372.7	974.6	508.9	446.4	1485.5
0.10	1236.3	2659.3	3176.8	2638.7	2610.1	2038.6	2334.5	2962.8	2902.3	1253.5	580.1	521.3	1600.3
0.04	1725.2	3200.1	4336.0	3291.4	3456.6	2477.8	3549.2	3203.2	3549.2	1685.4	672.4	623.4	1720.0
0.02	2159.4	3542.1	5327.1	3781.5	4144.9	2812.6	2636.9	3337.6	4012.6	2072.5	743.0	705.1	1799.7
0.01	2659.0	3837.8	6431.6	4273.1	4880.9	3153.5	2730.0	3444.1	4459.5	2522.8	815.1	791.6	1668.7

STATION 14216000 LEWIS RIVER AB MUDDY RIVER NR COUGAR, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1929	286.0	292.0	294.0	302.0	315.0	348.0	407.0	433.0	571.0
1930	186.0	194.0	195.0	200.0	203.0	214.0	229.0	252.0	374.0
1931	200.0	204.0	205.0	213.0	225.0	234.0	244.0	256.0	286.0
1932	160.0	180.0	180.0	184.0	197.0	215.0	236.0	290.0	436.0
1933	245.0	249.0	256.0	268.0	292.0	336.0	376.0	509.0	865.0
1934	425.0	430.0	436.0	443.0	460.0	556.0	663.0	947.0	1490.0
1956	362.0	363.0	377.0	425.0	440.0	502.0	757.0	1020.0	1870.0
1957	346.0	346.0	355.0	362.0	386.0	448.0	578.0	732.0	966.0
1958	256.0	259.0	271.0	283.0	288.0	298.0	318.0	351.0	511.0
1959	253.0	255.0	259.0	267.0	288.0	309.0	326.0	364.0	784.0
1960	323.0	325.0	334.0	340.0	361.0	420.0	524.0	706.0	962.0
1961	283.0	284.0	291.0	307.0	322.0	347.0	376.0	443.0	897.0
1962	286.0	287.0	296.0	300.0	315.0	362.0	400.0	445.0	644.0
1963	294.0	295.0	301.0	317.0	331.0	377.0	434.0	564.0	817.0
1964	219.0	225.0	234.0	235.0	250.0	275.0	305.0	351.0	623.0
1965	357.0	364.0	378.0	399.0	430.0	461.0	482.0	537.0	1030.0
1966	225.0	230.0	235.0	248.0	267.0	280.0	322.0	367.0	503.0
1967	232.0	235.0	242.0	250.0	270.0	301.0	346.0	406.0	764.0
1968	254.0	257.0	260.0	269.0	290.0	333.0	401.0	547.0	786.0
1969	354.0	364.0	370.0	377.0	399.0	493.0	546.0	610.0	898.0
1970	306.0	310.0	316.0	322.0	343.0	392.0	463.0	512.0	650.0

LOWEST MEAN FLOW STATISTICS (YEARS 1929-1970)

MEAN	279.6	283.2	289.8	300.5	317.7	357.2	415.9	506.8	777.5
MAXIMUM	425.0	430.0	436.0	443.0	460.0	556.0	757.0	1020.0	1490.0
MINIMUM	160.0	160.0	180.0	184.0	197.0	214.0	229.0	252.0	286.0
STANDARD DEVIATION	64.73	64.91	67.17	71.37	74.42	95.49	138.47	206.26	310.39
SKEWNESS	0.408	0.444	0.374	0.395	0.318	0.403	0.857	1.157	0.825
STD ERROR OF SKEWNESS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SERIAL CORR COEFF	0.274	0.262	0.285	0.321	0.311	0.331	0.463	0.498	0.490
COEFF OF VARIATION	0.231	0.229	0.232	0.237	0.234	0.267	0.333	0.407	0.399
MEAN LOGS	2.435	2.441	2.451	2.466	2.491	2.538	2.597	2.674	2.857
STD DEVIATION LOGS	0.101	0.100	0.102	0.104	0.103	0.118	0.141	0.166	0.179
SKEWNESS LOGS	-0.053	-0.025	-0.106	-0.093	-0.171	-0.119	0.124	0.293	-0.335
STD ERR SKEWNESS LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR COEFF LOGS	0.314	0.305	0.332	0.346	0.342	0.360	0.448	0.475	0.506
COEFF OF VAR LOGS	0.041	0.041	0.041	0.042	0.041	0.046	0.054	0.062	0.062

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1970)

0.99	463.8	469.0	477.7	502.0	522.0	632.5	866.1	1246.9	1691.1
0.98	436.4	441.1	450.4	472.4	493.2	591.2	786.4	1098.1	1552.6
0.96	407.7	411.9	421.5	441.2	462.5	548.0	707.3	956.7	1406.8
0.90	366.6	370.4	380.0	396.5	417.6	486.4	601.6	778.5	1198.4
0.80	331.6	335.1	344.2	358.1	378.6	434.0	518.4	646.7	1022.3
0.50	273.1	276.5	283.6	293.6	311.5	347.0	392.7	463.0	736.4
0.20	224.3	227.9	232.3	239.5	253.8	275.3	300.4	340.3	513.6
0.10	202.1	205.8	208.8	214.8	227.2	243.2	262.1	292.8	419.8
0.05	185.3	189.2	190.9	196.2	206.9	219.1	234.6	259.9	352.9
0.02	168.0	172.0	172.4	176.9	185.8	194.6	207.5	228.5	288.0
0.01	157.3	161.4	161.0	165.0	172.7	179.6	191.5	210.4	250.4

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1929-1970)

P95	P90	P75	P70	P50	P25	P10
280.0	320.0	440.0	550.0	920.0	1700.0	2600.0

STATION 14216000

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

ANNUAL	PEAK-FLOW DATA	
FLOW (CFS)	DATE	REG. (R)
14,500	11/25/27	
3630	05/22/29	
6120	02/20/30	
111600	03/31/31	
7100	02/26/32	
10300	06/09/33	
127000	12/21/33	
6390	06/10/55	
9500	11/27/55	
6900	12/11/56	
8210	04/20/58	
7880	11/12/58	
7340	11/23/59	
13100	11/24/60	
6370	12/24/61	
15600	11/20/62	
5380	01/25/64	
15200	12/23/64	
6110	05/06/66	
15200	12/13/66	
111300	02/19/68	
6900	11/11/68	
14100	01/23/70	
18400	01/20/72	
11200	12/21/72	
227000	01/16/74	
10300	01/14/75	
2490	03/07/77	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1928-1977)

[illegible]

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1928-1977)

3372.4	3351.0	3308.7	2378.1	2538.6	2052.2	1776.7	1562.1	1213.7	2652.1	2428.1
4122.9	4110.9	3455.9	3007.9	2553.4	2070.7	1826.2	1614.1	1330.7	3869.6	3744.0
4627.1	4329.0	3590.2	3049.4	2577.0	2095.5	1870.0	1657.8	1404.3	4731.4	4676.9
4698.0	4598.0	3828.6	3144.9	2636.0	2150.5	1945.5	1730.7	1505.6	6034.1	6076.1
5281.1	5081.0	4358.1	3649.9	3149.5	2386.5	2185.9	1954.3	1745.4	9600.1	9795.5
5728.1	5587.7	4637.2	3573.6	2924.4	2316.2	2049.4	1834.5	1623.8	12555.4	15329.0
6198.2	6202.8	6261.9	4615.8	3651.9	2924.4	2619.4	2344.5	2063.6	34285.4	34329.0
11048.2	10232.8	7695.2	5613.7	4384.5	3411.6	2963.9	2649.7	2271.2	19428.9	19148.3
17664.8	13433.9	9976.7	7281.3	5499.7	4182.8	3461.8	3084.2	2531.5	25125.0	24066.5
21116.3	16378.8	12069.4	8870.1	6591.4	4880.4	3878.6	3445.0	2725.0	29662.6	27766.6
24824.3	19535.6	14549.5	10809.7	7984.7	5594.5	4335.9	3838.2	2918.6	34433.7	31480.7

STATION 14216500 MUDDY RIVER BLW CLEAR CREEK NEAR COUGAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1928	622	1807	861	1162	671	1508	1202	1363	486	270	167	134	855
1929	224	624	740	441	638	1060	1060	1499	999	308	156	123	590
1930	113	102	739	487	1884	847	1112	750	418	183	136	126	566
1931	145	211	313	1007	1000	1496	1719	1037	391	255	153	132	653
1932	325	755	989	1026	887	1933	1833	1756	1473	590	233	175	998
1933	194	1817	1123	1079	422	1039	1275	1824	2341	1128	438	354	1088
1934		1059			968	1159	694	425	232	162	124	122	
1955	290	1053	812	665	814	386	790	1252	1819	789	292	228	763
1956	958	2057	2128	1263	1263	966	1696	2467	1818	1076	386	231	1297
1957	413	789	1374	444	905	1437	1392	1276	451	220	168	132	751
1958	199	488	1202	1441	2279	758	1403	1227	549	235	166	143	831
1959	181	1504	1478	2263	1576	745	1184	1160	947	342	188	343	919
1960	906	1166	1030	614	1512	1033	1513	1372	945	314	200	159	893
1961	232	1539	1068	1665	2489	1528	1110	1399	889	302	203	175	1039
1962	205	459	1415	1111	906	529	1371	1035	710	278	198	188	699
1963	632	1730	1236	702	1467	595	1301	1045	409	241	179	138	800
1964	208	1471	1020	1304	845	583	849	1213	1468	587	353	230	843
1965	240	728	2009	1129	1191	870	1397	1192	749	283	193	150	842
1966	161	523	671	817	488	1174	1602	1751	980	492	221	169	756
1967	190	748	2214	1603	1004	826	652	1522	1360	346	200	149	907
1968	657	834	823	1434	2678	1357	783	957	1051	293	287	385	954
1969	826	1683	1138	1031	380	579	1536	2160	1035	317	198	237	929
1970	462	713	1156	2188	1414	1087	814	986	611	213	152	145	826
1971	257	1129	1230	1582	1365	821	1256	2356	1764	1163	362	318	1132
1972	375	929	789	1395	1874	2841	1122	1974	1218	461	220	290	1123
1973	220	718	1905	1143	458	688	620	728	397	234	160	217	627
1974	342	1857	2828										

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1928-1974)

MEAN	368.3	1055.3	1242.0	1160.6	1127.4	1054.7	1203.3	1374.1	981.2	428.2	220.6	199.7	867.2
MAXIMUM	958.0	2057.0	2828.0	2263.0	2678.0	2841.0	1833.0	2467.0	2341.0	1163.0	438.0	385.0	1297.0
MINIMUM	113.0	102.0	313.0	441.0	254.0	386.0	620.0	425.0	232.0	162.0	124.0	122.0	566.0
STD DEVIATION	245.74	543.96	565.81	480.30	663.80	526.07	346.53	497.39	545.33	293.12	82.35	78.76	179.93
SKWENESS	1.272	0.238	1.143	0.342	0.920	1.719	-0.091	0.536	0.160	1.666	1.349	1.092	0.466
STD ERR SKEW	0.456	0.448	0.456	0.464	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456
SER CORR COEFF	0.037	-0.018	0.026	0.007	-0.221	-0.140	0.049	-0.173	-0.127	-0.020	-0.132	-0.059	0.036
COEFF OF VAR	0.667	0.515	0.456	0.414	0.589	0.499	0.288	0.362	0.556	0.685	0.373	0.394	0.207
MEAN LOGS	2.487	2.947	3.052	3.026	2.978	2.979	3.061	3.109	2.923	2.558	2.319	2.272	2.929
STD DEV LOGS	0.260	0.299	0.198	0.194	0.266	0.195	0.136	0.169	0.257	0.242	0.144	0.156	0.091
SKWENESS LOGS	0.538	-1.397	-0.372	-0.476	-0.201	0.313	-0.561	-0.686	-0.250	0.922	0.807	0.665	-0.110
STD ERR SKEW LOGS	0.456	0.444	0.456	0.464	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456
SER CORR LOGS	0.113	0.274	0.061	0.011	-0.219	-0.120	0.053	-0.194	-0.234	-0.099	-0.127	-0.023	0.115
COEFF OF VAR LOGS	0.104	0.101	0.065	0.064	0.089	0.066	0.044	0.054	0.088	0.095	0.062	0.069	0.031
% OF AVE FLOW	3.5	10.1	11.9	11.1	10.8	10.1	11.6	13.2	9.4	4.1	2.1	1.9	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1928-1974)

0.99	96.9	93.4	344.9	321.5	208.4	371.6	490.2	429.9	189.3	144.7	117.6	96.9	514.2
0.95	126.7	233.3	508.8	481.0	334.9	474.5	457.8	633.9	303.4	170.9	131.7	111.7	598.9
0.90	148.7	352.9	618.9	587.6	427.7	544.9	761.1	764.9	386.3	191.3	141.7	122.1	648.7
0.80	183.7	544.7	776.3	776.3	570.9	649.4	85.3	944.1	512.9	224.7	157.0	137.5	713.6
0.50	290.7	1033.1	1160.3	1099.6	969.8	931.1	1165.1	1342.3	858.5	332.1	199.4	179.8	852.7
0.20	496.2	1569.0	1666.1	1556.9	1600.3	1380.0	1505.2	1792.5	1387.5	553.6	269.7	248.6	1013.5
0.10	677.3	1812.4	1982.3	1831.8	2055.7	1719.4	1679.2	2037.0	1759.2	761.5	324.4	301.5	1106.9
0.04	967.2	2015.9	2355.0	2146.9	2665.3	2193.9	1866.1	2296.6	2243.2	1114.9	403.3	377.4	1214.1
0.02	1234.5	2122.4	2623.7	2364.8	3131.8	2584.0	1986.1	2460.6	2610.4	1450.7	460.8	446.9	1587.7
0.01	1552.0	2194.3	2875.8	2565.3	3613.5	3005.6	2092.6	2603.7	2981.0	1889.8	543.4	510.7	1356.9

STATION 14216500 MUDDY RIVER BLW CLEAR CREEK NEAR CDUGAR, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1929	118.0	120.0	122.0	126.0	134.0	148.0	175.0	186.0	306.0
1930	94.0	94.0	95.0	99.0	101.0	106.0	110.0	118.0	242.0
1931	113.0	114.0	117.0	122.0	125.0	128.0	134.0	140.0	183.0
1932	115.0	117.0	119.0	123.0	127.0	131.0	138.0	140.0	331.0
1933	135.0	136.0	143.0	150.0	161.0	179.0	199.0	280.0	679.0
1956	182.0	183.0	184.0	194.0	219.0	246.0	375.0	529.0	850.0
1957	179.0	181.0	186.0	191.0	203.0	240.0	331.0	445.0	598.0
1958	121.0	122.0	124.0	127.0	131.0	141.0	154.0	175.0	271.0
1959	118.0	119.0	122.0	129.0	139.0	148.0	161.0	177.0	395.0
1960	166.0	169.0	172.0	172.0	182.0	211.0	281.0	391.0	566.0
1961	135.0	135.0	138.0	144.0	150.0	171.0	218.0	281.0	450.0
1962	100.0	105.0	125.0	141.0	157.0	176.0	189.0	208.0	358.0
1963	150.0	151.0	154.0	164.0	168.0	185.0	213.0	302.0	453.0
1964	103.0	109.0	113.0	115.0	120.0	136.0	156.0	181.0	348.0
1965	196.0	196.0	208.0	218.0	228.0	235.0	258.0	289.0	578.0
1966	133.0	133.0	136.0	140.0	148.0	155.0	166.0	186.0	329.0
1967	131.0	132.0	136.0	140.0	148.0	165.0	186.0	218.0	461.0
1968	126.0	129.0	132.0	137.0	149.0	174.0	228.0	309.0	488.0
1969	180.0	184.0	188.0	191.0	208.0	277.0	317.0	363.0	587.0
1970	142.0	145.0	151.0	154.0	166.0	200.0	247.0	300.0	412.0
1971	118.0	119.0	124.0	127.0	138.0	139.0	149.0	176.0	372.0
1972	216.0	219.0	224.0	230.0	250.0	286.0	346.0	455.0	576.0
1973	168.0	168.0	170.0	175.0	184.0	219.0	242.0	280.0	421.0

LOWEST MEAN FLOW STATISTICS (YEARS 1929-1973)

MEAN	140.8	142.7	146.9	152.5	162.4	182.4	214.9	266.0	445.9
MAXIMUM	216.0	219.0	224.0	230.0	250.0	286.0	375.0	529.0	850.0
MINIMUM	94.0	94.0	95.0	99.0	101.0	106.0	110.0	118.0	183.0
STANDARD DEVIATION	33.01	33.15	33.28	34.01	38.00	49.15	73.48	109.28	154.76
SKWENESS	0.696	0.747	0.799	0.783	0.744	0.837	0.780	0.909	0.689
STD ERROR OF SKWENESS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SERIAL CORR COEFF	0.024	0.029	0.027	0.009	0.066	0.136	0.179	0.193	0.343
COEFF OF VARIATION	0.234	0.232	0.227	0.223	0.234	0.269	0.342	0.411	0.347
MEAN LOGS	2.138	2.144	2.157	2.173	2.200	2.247	2.309	2.392	2.624
STD DEVIATION LOGS	0.099	0.097	0.094	0.093	0.098	0.115	0.143	0.172	0.154
SKWENESS LOGS	0.331	0.386	0.407	0.373	0.280	0.176	0.253	0.224	0.298
STD ERR SKWENESS LOGS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SER CORR COEFF LOGS	0.039	0.056	0.071	0.053	0.118	0.190	0.212	0.236	0.368
COEFF OF VAR LOGS	0.046	0.045	0.044	0.043	0.045	0.051	0.062	0.072	0.059

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1973)

0.99	245.9	249.4	253.8	260.4	281.0	337.1	466.9	659.6	889.1
0.98	227.6	230.6	234.9	241.6	260.8	310.8	419.5	581.7	823.7
0.96	209.4	211.9	216.2	222.9	240.5	284.4	373.5	507.3	754.9
0.90	184.9	186.9	191.2	197.7	213.0	248.5	313.6	412.7	554.9
0.80	165.5	167.2	171.4	177.7	191.0	219.7	267.8	342.1	459.6
0.50	135.6	137.3	141.4	147.1	156.7	175.0	201.0	242.9	313.8
0.20	113.2	113.2	115.1	119.2	130.6	141.0	153.9	176.2	227.7
0.10	103.6	105.7	109.9	114.3	119.4	126.5	134.8	150.1	191.7
0.05	96.7	99.0	103.1	107.3	111.2	115.9	121.4	132.1	161.7
0.02	89.8	92.3	96.4	100.2	102.9	105.2	108.3	114.9	141.7
0.01	85.7	88.3	92.4	96.0	98.0	99.6	100.6	105.0	130.3

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1929-1973)

P95	P90	P75	P70	P50	P25	P10
140.0	170.0	290.0	340.0	640.0	1200.0	1800.0

STATION 14216500 MUDDY RIVER BLW CLEAR CREEK NEAR COUGAR, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	DATE	REG. (R)
1928	6690.	4900.	3710.	2990.	2180.	1520.	1390.	1200.	1280.	7240.	11/25/27	
1929	2260.	1900.	1880.	1730.	1570.	1360.	1230.	1070.	820.	2780.	12/10/28	
1930	4290.	3710.	2800.	2340.	1820.	1370.	1250.	1130.	977.	4570.	02/20/30	
1931	4430.	3830.	2950.	2460.	2200.	1750.	1520.	1460.	1100.	5000.	03/31/31	
1932	4760.	4220.	2950.	2530.	2140.	2040.	1970.	1850.	1520.	5150.	02/26/32	
1933	3230.	3010.	2890.	2730.	2420.	2090.	1880.	1680.	1360.			
1934										17500.	12/21/33	
1955	4140.	3720.	3050.	2290.	1920.	1570.	1330.	1170.	969.	4660.	11/19/54	
1956	6980.	5340.	3740.	3040.	2610.	2320.	2070.	1880.	1560.	7550.	12/22/55	
1957	6490.	4530.	3150.	2660.	1890.	1620.	1540.	1300.	1150.	7650.	02/26/57	
1958	3970.	3410.	2750.	2660.	2300.	1850.	1660.	1490.	1370.	4220.	02/25/58	
1959	5540.	4540.	3530.	2590.	2290.	1890.	1810.	1510.	1350.	5900.	01/12/59	
1960	4480.	3720.	2860.	2300.	1870.	1580.	1460.	1380.	1230.	4660.	02/07/60	
1961	4800.	4100.	3580.	2910.	2500.	2090.	1930.	1800.	1640.	5980.	11/24/60	
1962	3210.	2800.	2370.	2110.	1760.	1330.	1180.	1060.	1070.	3350.	12/24/61	
1963	6210.	4600.	3820.	2870.	2160.	1610.	1430.	1300.	1200.	6780.	11/20/62	
1964	2750.	2580.	2150.	2010.	1710.	1350.	1330.	1170.	1060.	3340.	01/25/64	
1965	7200.	5700.	3700.	2450.	2130.	1520.	1520.	1390.	1330.	7480.	12/23/64	
1966	3690.	3390.	2920.	2200.	1830.	1690.	1550.	1400.	1150.	3850.	05/06/66	
1967	9480.	6880.	4390.	3050.	2290.	1890.	1700.	1440.	1310.	11000.	12/13/66	
1968	6250.	5650.	5290.	3570.	2680.	2190.	1840.	1620.	1410.	6710.	02/19/68	
1969	5120.	4320.	3070.	2600.	2320.	1930.	1640.	1350.	1170.	5930.	11/11/68	
1970	7160.	5640.	5040.	3690.	2470.	1930.	1680.	1510.	1300.	7770.	01/23/70	
1971	5230.	4240.	3240.	2580.	2390.	2080.	1810.	1680.	1560.	6470.	01/19/71	
1972	7400.	6250.	3980.	3420.	3360.	2550.	2200.	2070.	1750.	10100.	01/20/72	
1973	8040.	6330.	4990.	3420.	2340.	1570.	1280.	1090.	938.	9910.	12/21/72	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1928-1973)

W R C SYSTEMATIC
ESTIMATE RECORD

MEAN	5353.6	4376.0	3414.4	2710.4	2206.0	1787.6	1608.4	1440.0	1263.0			
MAXIMUM	9480.0	6880.0	5290.0	3980.0	3360.0	2550.0	2200.0	2070.0	1750.0			
MINIMUM	2280.0	1990.0	1880.0	1730.0	1570.0	1330.0	1180.0	1060.0	820.0			
STANDARD DEVIATION	1795.09	1237.88	882.20	538.08	379.51	324.93	278.34	274.38	232.25			
SKENNESS	0.327	0.202	0.605	0.643	0.914	0.667	0.339	0.542	0.185			
STD. ERROR OF SKEWNESS	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464			
SERIAL CORR. COEFF.	-0.094	0.027	0.048	0.081	0.082	0.156	-0.008	-0.046	-0.085			
COEFF. OF VARIATION	0.335	0.283	0.258	0.199	0.172	0.182	0.173	0.191	0.184			
MEAN LOGS	3.704	3.623	3.520	3.425	3.338	3.245	3.200	3.151	3.094			
STD. DEVIATION LOGS	0.154	0.130	0.112	0.085	0.073	0.078	0.075	0.081	0.081			
SKENNESS LOGS	-0.400	-0.522	-0.031	0.109	0.265	0.138	0.056	0.197	-0.241			
STD. ERR. SKEWNESS LOGS	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464	0.464			
SER. CORR. COEFF. LOGS	-0.140	-0.040	-0.012	0.051	0.080	0.200	0.029	-0.019	-0.059			
COEFF. OF VAR LOGS	0.042	0.036	0.032	0.025	0.022	0.024	0.023	0.026	0.026			

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1928-1973)

0.99	1999.2	1869.9	1809.7	1716.4	1524.8	1179.9	1069.2	941.0	777.9	2297.0	2577.4	
0.95	2716.9	2464.6	2163.6	2076.9	1675.4	1310.8	1197.3	1051.6	902.0	3052.5	3198.9	
0.90	3168.0	2824.0	2376.5	2255.6	1887.7	1401.8	1272.6	1118.4	973.2	3552.2	3621.6	
0.80	3784.0	3298.6	2666.3	2255.6	1887.7	1511.3	1370.8	1207.4	1064.0	4268.1	4245.2	
0.50	5175.1	4310.4	3312.7	2651.5	2160.3	1752.7	1583.0	1407.1	1251.6	6064.7	5910.2	
0.20	6844.7	5429.0	4108.1	3132.6	2498.1	2044.6	1832.3	1656.1	1456.6	8618.5	8535.7	
0.10	7821.0	6040.2	4593.8	3424.8	2722.2	2197.7	1806.3	1570.4	1355.7	10356.7	10501.0	
0.04	8931.7	6700.2	5172.4	3772.3	2958.1	2430.9	2151.4	1989.6	1696.2	12598.6	13251.6	
0.02	9683.2	7126.6	5582.6	4018.8	3138.4	2579.3	2271.1	2120.9	1779.9	14298.9	15501.2	
0.01	10378.8	7507.3	5978.1	4256.6	3314.1	2722.3	2385.0	2248.7	1856.6	16023.7	17928.1	

STATION 14216800 PINE CREEK NEAR COUGAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1958	133	179	242	230	272	177	245	191	157	154	144	139	188
1959	137	306	271	326	191	220	254	208	179	150	138	156	211
1960	232	213	199	157	249	202	258	236	176	148	139	127	194
1961	132	289	204	268	411	294	258	234	172	145	134	129	221
1962	147	170	255	219	184	159	245	188	144	130	114	112	172
1963	151	275	205	174	249	170	245	183	144	130	120	114	179
1964	125	265	200	242	186	176	213	206	173	142	137	130	183
1965	133	190	420	280	234	200	259	206	163	141	130	119	206
1966	116	149	155	183	131	200	270	224	153	142	125	114	164
1967	124	168	287	308	221	203	182	207	154	128	120	113	185
1968	165	168	207	212	399	265	218	185	192	146	144	144	203
1969	186	255	221	218	139	173	303	280	167	139	130	130	195
1970	153	160	207	350	245	238	224	185	151	135	121	114	190

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1958-1970)

MEAN	148.8	214.4	236.4	243.6	239.3	205.9	244.2	210.2	163.2	140.8	130.5	126.2	191.6
MAXIMUM	232.0	306.0	420.0	350.0	411.0	294.0	303.0	280.0	192.0	154.0	144.0	156.0	221.0
MINIMUM	116.0	149.0	155.0	157.0	131.0	159.0	182.0	183.0	140.0	128.0	114.0	112.0	164.0
STD DEVIATION	31.32	55.68	65.32	59.61	84.98	39.66	29.94	27.71	15.04	8.13	9.84	13.78	15.90
SKWENESS	1.777	0.466	1.983	0.380	1.035	1.087	-0.242	1.398	0.247	-0.197	-0.147	0.870	0.136
STD ERR SKEW	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SER CORR COEFF	-0.013	-0.147	-0.518	-0.321	-0.282	-0.282	-0.234	-0.320	0.058	0.259	0.164	0.244	-0.184
COEFF OF VAR	0.211	0.260	0.276	0.244	0.355	0.193	0.123	0.132	0.092	0.058	0.075	0.109	0.083
MEAN LOGS	2.165	2.318	2.381	2.375	2.355	2.307	2.385	2.319	2.211	2.148	2.114	2.099	2.281
STD DEV LOGS	0.082	0.111	0.105	0.107	0.147	0.074	-0.055	0.034	0.030	0.033	0.046	0.046	0.036
SKWENESS LOGS	1.334	0.303	1.160	-0.017	0.242	0.761	-0.685	1.107	0.074	-0.286	-0.242	0.698	-0.055
STD ERR SKEW LOGS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SER CORR LOGS	0.046	-0.096	-0.619	-0.361	-0.263	-0.263	-0.187	-0.306	0.086	0.285	0.171	0.251	-0.162
COEFF OF VAR LOGS	0.038	0.048	0.044	0.044	0.063	0.034	0.023	0.023	0.018	0.012	0.016	0.022	0.016
% OF AVE FLOW	6.5	9.3	10.3	10.6	10.4	8.9	10.6	9.1	7.1	6.1	5.7	5.5	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1958-1970)

0.99	113.1	121.8	160.7	133.4	109.3	147.2	169.7	172.9	131.9	121.3	107.6	103.7	156.9
0.95	114.7	140.0	169.5	154.0	132.8	157.1	192.6	178.1	140.0	127.2	114.2	108.0	166.4
0.90	119.8	151.5	176.3	172.9	148.1	163.8	204.8	181.9	144.6	130.3	117.8	110.9	171.6
0.80	124.8	167.4	187.2	192.7	169.8	173.5	219.3	187.8	150.4	134.0	122.2	114.7	178.1
0.50	140.4	205.3	219.3	237.1	223.6	198.1	245.9	204.0	162.3	140.9	130.5	124.0	191.1
0.20	167.3	256.5	274.3	291.4	300.2	233.7	270.2	228.9	175.5	147.7	138.8	136.5	204.9
0.10	188.1	290.3	317.3	324.5	353.0	259.3	281.7	246.5	183.0	151.1	143.1	144.6	212.4
0.04	217.8	333.2	379.2	363.8	422.1	290.6	292.9	269.8	191.3	154.7	147.7	154.6	220.6
0.02	242.3	365.4	431.1	391.6	475.4	315.5	299.6	287.8	197.0	156.9	150.6	162.0	226.0
0.01	268.9	397.8	488.1	418.3	530.2	341.1	305.1	306.3	202.3	158.9	153.2	169.3	231.0

STATION 14216800 PINE CREEK NEAR COUGAR, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1959	121.0	121.0	124.0	132.0	135.0	137.0	139.0	143.0	152.0
1960	131.0	132.0	135.0	137.0	137.0	141.0	146.0	154.0	171.0
1961	111.0	111.0	113.0	114.0	116.0	123.0	129.0	134.0	153.0
1962	124.0	125.0	125.0	126.0	127.0	125.0	133.0	137.0	149.0
1963	95.0	96.0	97.0	99.0	102.0	111.0	116.0	123.0	134.0
1964	107.0	108.0	109.0	109.0	111.0	114.0	116.0	120.0	134.0
1965	126.0	126.0	127.0	129.0	130.0	132.0	133.0	134.0	145.0
1966	111.0	112.0	112.0	113.0	116.0	117.0	121.0	125.0	134.0
1967	111.0	111.0	112.0	112.0	113.0	115.0	120.0	123.0	137.0
1968	110.0	110.0	111.0	111.0	113.0	116.0	120.0	123.0	140.0
1969	132.0	132.0	132.0	133.0	135.0	140.0	143.0	146.0	165.0
1970	116.0	117.0	118.0	119.0	123.0	128.0	132.0	138.0	142.0

LOWEST MEAN FLOW STATISTICS (YEARS 1959-1970)

MEAN	116.2	116.7	117.9	119.5	121.5	125.3	129.2	133.3	146.3
MAXIMUM	132.0	132.0	135.0	137.0	137.0	141.0	146.0	154.0	171.0
MINIMUM	95.0	96.0	97.0	99.0	102.0	111.0	116.0	120.0	134.0
STANDARD DEVIATION	10.88	10.78	10.95	11.71	11.30	10.76	10.19	10.81	12.23
SKEWNESS	-0.207	-0.163	-0.134	-0.023	-0.053	0.184	0.283	0.489	0.909
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SERIAL CORR COEFF	-0.155	-0.172	-0.101	-0.001	0.060	0.152	0.234	0.343	0.279
COEFF OF VARIATION	0.094	0.092	0.093	0.098	0.093	0.086	0.079	0.081	0.084
MEAN LOGS	2.064	2.066	2.070	2.075	2.083	2.097	2.110	2.124	2.164
STD DEVIATION LOGS	0.041	0.041	0.041	0.043	0.041	0.037	0.034	0.035	0.035
SKEWNESS LOGS	-0.433	-0.378	-0.351	-0.181	-0.188	0.110	0.195	0.373	0.787
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR COEFF LOGS	-0.127	-0.144	-0.079	0.001	0.063	0.167	0.242	0.350	0.300
COEFF OF VAR LOGS	0.020	0.020	0.020	0.021	0.020	0.018	0.016	0.016	0.016

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1959-1970)

0.99	140.1	140.8	142.6	147.7	148.6	153.5	156.3	163.7	184.4
0.98	137.6	138.2	139.9	144.3	145.3	149.7	152.5	159.2	178.0
0.96	134.7	135.3	136.8	140.5	141.7	145.6	148.5	154.4	171.5
0.90	130.1	130.5	131.9	134.7	136.2	139.5	142.6	147.7	162.6
0.80	125.6	126.0	127.3	129.4	131.0	134.2	137.5	141.9	155.5
0.50	116.6	117.0	118.1	119.3	121.4	124.7	128.5	132.3	144.3
0.20	107.1	107.7	108.7	109.6	111.9	116.2	120.5	124.1	136.1
0.10	102.1	102.8	103.8	104.6	107.1	112.1	116.7	120.4	132.7
0.05	97.9	98.8	99.7	100.6	103.2	108.8	113.7	117.6	130.2
0.02	93.2	94.2	95.2	96.2	98.9	105.3	110.6	114.6	127.9
0.01	90.1	91.2	92.1	93.3	96.1	103.1	108.5	112.8	126.6

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1959-1970)

P95	P90	P75	P70	P50	P25	P10
120.0	120.0	140.0	140.0	170.0	220.0	280.0

STATION 14216800 PINE CREEK NEAR COUGAR, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW (CFS)	DATE	REG. (R)
1958	592.	457.	369.	308.	261.	255.	247.	235.	227.	710.	04/19/58	
1959	753.	536.	440.	376.	333.	301.	306.	277.	264.	921.	01/24/59	
1960	633.	474.	370.	312.	282.	259.	239.	237.	231.	801.	02/07/60	
1961	979.	697.	509.	476.	408.	351.	329.	311.	294.	1230.	02/21/61	
1962	575.	467.	382.	346.	298.	248.	225.	215.	211.	704.	04/06/62	
1963	1160.	714.	494.	398.	312.	257.	240.	228.	224.	1840.	11/20/62	
1964	570.	458.	365.	318.	268.	241.	224.	214.	214.	748.	01/25/64	
1965	1330.	987.	681.	471.	435.	335.	324.	296.	273.	1720.	12/23/64	
1966	439.	405.	347.	302.	278.	255.	235.	215.	195.	529.	04/11/66	
1967	1120.	804.	523.	369.	314.	302.	274.	256.	235.	1290.	12/13/66	
1968	1060.	833.	756.	516.	398.	332.	301.	280.	252.	1190.	02/19/68	
1969	601.	544.	410.	328.	317.	292.	262.	233.	225.	820.	01/06/69	
1970	934.	763.	671.	542.	396.	321.	295.	273.	243.	1140.	01/23/70	
1972											01/20/72	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1958-1972)

W R C
ESTIMATE

SYSTEMATIC
RECORD

MEAN	826.6	626.8	485.9	389.4	332.3	288.2	270.6	252.3	236.8			
MAXIMUM	1330.0	987.0	756.0	542.0	435.0	351.0	329.0	311.0	294.0			
MINIMUM	439.0	405.0	347.0	302.0	268.0	239.0	225.0	215.0	195.0			
STANDARD DEVIATION	284.03	183.02	137.52	84.24	57.05	38.26	36.33	31.96	27.65			
SKEWNESS	0.362	0.575	0.919	0.728	0.696	0.282	0.407	0.525	0.692			
STD ERROR OF SKEWNESS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616			
SERIAL CORR COEFF	-0.598	-0.508	-0.373	-0.573	-0.524	-0.348	-0.531	-0.515	-0.548			
COEFF OF VARIATION	0.344	0.292	0.263	0.216	0.172	0.133	0.134	0.127	0.117			
MEAN LOGS	2.893	2.761	2.672	2.581	2.516	2.456	2.429	2.399	2.372			
STD DEVIATION LOGS	0.152	0.124	0.115	0.090	0.072	0.057	0.058	0.054	0.050			
SKEWNESS LOGS	0.001	0.263	0.647	0.550	0.555	0.171	0.300	0.393	0.455			
STD ERR SKEWNESS LOGS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616			
SER CORR COEFF LOGS	-0.740	-0.552	-0.428	-0.596	-0.528	-0.325	-0.509	-0.498	-0.545			
COEFF OF VAR LOGS	0.052	0.045	0.043	0.035	0.029	0.023	0.024	0.023	0.021			
										2.9932	2.9932	
										0.1607	0.1607	
										0.0060	0.0060	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1958-1972)

0.99	347.2	327.9	287.5	256.2	238.8	213.7	203.1	194.5	187.5	416.8	441.6	
0.95	440.4	385.4	320.1	280.9	258.9	231.7	218.5	207.2	198.1	535.9	548.3	
0.90	500.0	421.9	342.1	296.6	268.5	242.1	227.6	214.9	204.7	618.6	618.6	
0.80	582.9	472.9	374.0	319.3	284.6	255.6	239.7	225.2	213.4	720.9	718.6	
0.50	781.9	595.8	456.5	374.3	323.0	284.8	266.6	248.5	233.3	984.0	971.4	
0.20	1048.9	764.2	580.2	450.8	374.8	319.1	299.3	277.3	258.2	1344.0	1338.0	
0.10	1223.1	876.7	669.0	502.4	408.7	339.3	319.2	295.0	273.6	1582.1	1594.1	
0.04	1440.8	1020.6	789.2	568.9	451.5	362.9	342.9	316.4	292.2	1883.0	1932.6	
0.02	1601.6	1129.5	884.6	619.5	483.4	379.4	359.7	331.7	305.6	2107.4	2195.8	
0.01	1761.6	1239.8	985.4	671.1	515.4	395.0	375.9	346.5	318.6	2332.0	2468.4	

STATION 14217500 SWIFT CREEK NEAR COUGAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1924	128	248	243	306	402	201	227	229	188	92.9	93.9	98.9	214
1925	116	160	250	172	272	202	169	179	144	125	113	121	168
1926	204	227	217	246	276	209	198	247	247	171	137	144	210
1927	191	349	214	259	205	291	303	308	224	171	143	108	231
1928	161	181	182	165	120	163	192	217	213	158	129	108	166
1929	98.8	94.5	178	126	298	191	187	174	148	119	102	96.1	150
1930	97.9	114	121	178	178	252	258	187	152	127	104	104	155
1931	145	188	182	208	189	346	335	306	307	266	185	144	234
1932	159	380	307	310	171	238	205	281	395	317	233	203	267
1933	260	246											
1934													
1954	157	242	222	217	251	174	211	234	287	227	180	153	212
1955	272	424	423	384	230	291	288	326	312	234	175	153	
1956													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1924-1956)

MEAN	165.8	237.8	230.8	233.7	235.6	232.5	233.8	244.4	237.9	180.6	144.7	129.1	200.7
MAXIMUM	272.0	424.0	423.0	384.0	402.0	346.0	335.0	326.0	395.0	317.0	233.0	203.0	267.0
MINIMUM	97.9	94.5	121.0	126.0	120.0	163.0	168.0	174.0	144.0	92.9	93.9	95.7	150.0
STD DEVIATION	57.08	102.33	79.64	76.55	76.66	57.09	54.31	54.29	80.64	67.09	41.52	31.61	39.08
SKEWNESS	0.765	0.518	1.412	0.607	0.767	0.779	0.761	0.186	0.560	0.780	0.778	1.110	0.136
STD ERR SKEW	0.637	0.637	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.637	0.637	0.637	0.687
SER CORR COEFF	0.183	0.205	0.222	0.232	0.092	-0.080	-0.099	0.112	0.506	0.571	0.538	0.517	0.294
COEFF OF VAR	0.344	0.430	0.345	0.328	0.325	0.285	0.232	0.222	0.339	0.372	0.287	0.245	0.195
MEAN LOGS	2.197	2.337	2.342	2.348	2.351	2.355	2.359	2.378	2.354	2.230	2.145	2.100	2.295
STD DEV LOGS	0.146	0.198	0.140	0.142	0.142	0.103	0.097	0.098	0.147	0.158	0.121	0.100	0.086
SKEWNESS LOGS	0.201	-0.341	0.309	-0.019	-0.169	0.422	0.504	-0.058	0.053	0.161	0.282	0.619	-0.108
STD ERR SKEW LOGS	0.637	0.637	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.637	0.637	0.637	0.687
SER CORR LOGS	0.287	0.361	0.308	0.134	0.006	-0.098	-0.080	0.148	0.467	0.526	0.497	0.560	0.305
COEFF OF VAR LOGS	0.066	0.085	0.060	0.061	0.060	0.044	0.041	0.041	0.063	0.071	0.056	0.049	0.037
% OF AVE FLOW	6.6	9.5	9.2	9.3	9.4	9.3	9.3	9.7	9.5	7.2	5.8	5.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1924-1956)

0.99	75.7	67.2	111.8	103.3	100.8	140.7	147.8	140.2	103.9	76.1	77.5	81.9	122.7
0.95	92.4	98.4	133.3	129.6	129.2	158.3	163.8	164.4	129.9	95.0	90.4	95.0	141.8
0.90	103.1	119.4	147.2	146.1	146.9	169.5	174.2	178.8	146.5	107.3	98.7	95.6	152.9
0.80	118.3	149.4	167.0	169.0	171.1	185.1	188.7	197.8	169.6	128.8	110.1	103.4	167.3
0.50	155.6	222.9	216.2	222.9	226.7	222.8	224.2	239.4	225.2	168.2	137.8	123.0	197.9
0.20	208.0	320.7	286.7	293.5	296.5	274.7	273.6	288.8	300.2	175.6	151.3	123.0	233.1
0.10	243.6	382.3	335.4	338.8	339.4	309.5	306.9	318.1	349.5	272.4	200.9	171.0	253.4
0.04	269.8	456.4	399.5	394.6	390.6	354.0	350.0	352.4	411.6	233.2	197.1	171.0	276.5
0.02	325.1	508.9	449.1	435.3	426.8	387.8	382.8	376.3	457.8	257.6	217.3	197.1	292.4
0.01	361.1	559.1	500.4	475.5	461.6	422.2	416.3	399.1	503.9	413.4	282.4	238.3	307.3

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1926	186.0	186.0	188.0	112.0	115.0	115.0	121.0	129.0	146.0
1927	100.0	101.0	103.0	105.0	111.0	113.0	119.0	124.0	140.0
1928	116.0	118.0	123.0	130.0	136.0	138.0	149.0	158.0	183.0
1929	102.0	107.0	110.0	112.0	117.0	128.0	138.0	145.0	154.0
1930	91.0	91.0	97.0	92.0	94.0	95.0	98.0	104.0	122.0
1931	93.0	93.0	93.0	95.0	96.0	96.0	98.0	101.0	108.0
1932	81.0	81.0	82.0	84.0	90.0	93.0	99.0	109.0	131.0
1933	123.0	123.0	125.0	128.0	134.0	149.0	162.0	185.0	228.0
1956	129.0	131.0	136.0	141.0	150.0	160.0	178.0	196.0	213.0

LOWEST MEAN FLOW STATISTICS (YEARS 1926-1956)

	MEAN	104.6	105.4	107.8	111.0	115.9	120.8	129.1	139.0	158.3
MAXIMUM	129.0	131.0	131.0	141.0	141.0	150.0	160.0	178.0	196.0	228.0
MINIMUM	81.0	81.0	82.0	84.0	84.0	90.0	90.0	98.0	101.0	108.0
STANDARD DEVIATION	15.619	16.20	18.13	19.15	20.82	20.82	24.57	29.49	34.74	41.17
SKEWNESS	0.265	0.168	0.28	0.181	0.298	0.181	0.320	0.367	0.451	0.720
STD ERROR OF SKEWNESS	0.171	0.171	0.171	0.171	0.171	0.171	0.171	0.171	0.171	0.171
SERIAL CORR COEFF	0.242	0.262	0.308	0.279	0.368	0.368	0.397	0.434	0.469	0.429
COEFF OF VARIATION	0.150	0.154	0.168	0.173	0.228	0.228	0.203	0.228	0.250	0.260
MEAN LOGS	2.015	2.018	2.027	2.040	2.058	2.058	2.074	2.101	2.131	2.187
STD DEVIATION LOGS	0.065	0.067	0.073	0.075	0.078	0.078	0.088	0.098	0.106	0.109
SKEWNESS LOGS	-0.040	-0.096	0.022	-0.061	0.091	0.091	0.152	0.204	0.347	0.389
STD ERR SKEWNESS LOGS	0.071	0.071	0.071	0.071	0.071	0.071	0.071	0.071	0.071	0.071
SER CORR COEFF LOGS	0.203	0.225	0.274	0.257	0.357	0.357	0.373	0.411	0.447	0.440
COEFF-OF VAR LOGS	0.032	0.033	0.036	0.037	0.038	0.038	0.042	0.047	0.050	0.050

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1926-1956)

0.99	166.3	147.9	157.8	162.8	175.4	194.1	220.8	253.7	296.6
0.98	140.6	128.2	130.6	137.9	165.5	182.6	205.6	233.3	271.5
0.96	134.4	126.1	128.1	135.9	165.2	182.6	205.6	233.3	271.5
0.95	134.4	126.1	128.1	135.9	165.2	182.6	205.6	233.3	271.5
0.90	125.5	120.0	125.0	132.1	144.0	154.1	169.3	186.4	214.3
0.80	117.5	118.9	122.6	128.8	132.7	140.4	152.7	165.3	189.0
0.70	103.6	104.6	106.4	109.7	113.9	118.0	125.2	133.4	151.4
0.50	103.6	104.6	106.4	109.7	113.9	118.0	125.2	133.4	151.4
0.20	91.2	91.7	92.0	94.7	98.2	99.9	104.1	109.9	124.1
0.10	85.3	85.4	85.8	87.6	91.0	91.9	95.0	100.1	112.8
0.05	80.7	80.6	80.8	82.1	85.5	85.8	88.2	93.8	104.7
0.02	75.7	75.3	75.5	76.2	79.8	79.6	81.4	85.9	96.8
0.01	72.6	72.0	72.2	72.6	76.2	75.8	77.2	81.7	93.1

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1926-1956)

p95	p90	p75	p70	p50	p25	p10
99.0	110.0	140.0	150.0	180.0	240.0	310.0

STATION 14217500 SWIFT CREEK NEAR COUGAR, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-FLOW DATA DATE	REG. (R)
1925	1150.	995.	824.	610.	452.	349.	315.	298.	270.	1470.	02/03/25	
1926	680.	522.	385.	297.	273.	235.	231.	223.	206.	1060.	12/23/25	
1927	855.	496.	390.	328.	275.	261.	252.	249.	238.	1380.	10/16/26	
1928	1210.	869.	604.	508.	341.	317.	307.	284.	282.	1900.	11/24/27	
1929	410.	331.	270.	236.	219.	218.	201.	201.	180.	537.	12/10/28	
1930	495.	413.	364.	342.	289.	241.	223.	211.	194.	620.	12/14/29	
1931	1050.	674.	459.	364.	323.	265.	242.	228.	201.	1450.	03/31/31	
1932	850.	667.	476.	450.	386.	359.	342.	332.	301.	965.	02/26/32	
1933	765.	654.	572.	460.	404.	366.	336.	310.	279.	1130.	11/13/32	
1955	805.	642.	452.	334.	291.	267.	252.	240.	232.	1100.	02/08/55	
1956										1710.	12/11/55	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1925-1956)

W R C
ESTIMATESYSTEMATIC
RECORD

MEAN	827.0	626.3	479.6	392.9	330.3	287.8	271.0	257.6	239.3			
MAXIMUM	1210.0	995.0	824.0	610.0	452.0	366.0	342.0	332.0	301.0			
MINIMUM	410.0	331.0	270.0	236.0	219.0	218.0	210.0	201.0	180.0			
STANDARD DEVIATION	260.79	200.10	155.67	112.08	73.83	55.08	49.09	45.27	42.61			
SKEWNESS	-0.090	0.448	1.149	0.677	0.253	0.385	0.381	0.425	0.105			
STD ERROR OF SKEWNESS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687			
SERIAL CORR COEFF	-0.237	-0.264	-0.266	-0.381	-0.196	0.087	0.091	0.118	0.041			
COEFF OF VARIATION	0.315	0.319	0.325	0.285	0.224	0.191	0.181	0.176	0.179			
MEAN LOGS	2.896	2.776	2.662	2.579	2.509	2.452	2.427	2.405	2.371			
STD DEVIATION LOGS	0.151	0.143	0.134	0.122	0.098	0.082	0.078	0.075	0.078			
SKEWNESS LOGS	-0.719	-0.629	0.283	0.111	-0.093	0.230	0.247	0.250	-0.061			
STD ERR SKEWNESS LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687			
SER CORR COEFF LOGS	-0.124	-0.164	-0.210	-0.353	-0.180	0.076	0.091	0.126	0.060			
COEFF OF VAR LOGS	0.052	0.052	0.050	0.047	0.039	0.034	0.032	0.031	0.033			

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1925-1956)

0.99	293.3	258.8	238.5	201.6	187.9	188.3	182.0	175.3	153.1	457.1	363.0
0.95	417.2	358.4	283.3	240.8	221.3	210.1	201.6	193.5	174.0	595.3	549.7
0.90	494.5	388.0	312.1	265.3	241.2	223.3	213.5	204.5	186.1	685.7	670.2
0.80	597.8	455.1	352.6	298.8	267.2	241.1	229.3	219.2	201.9	814.3	834.8
0.50	819.4	606.8	452.3	377.1	324.0	281.1	259.3	252.3	235.3	1133.4	1196.2
0.20	1059.0	791.1	592.3	479.6	390.9	331.2	309.7	293.3	273.5	1581.7	1591.6
0.10	1184.9	900.9	687.7	545.4	430.3	362.4	337.4	318.7	295.6	1884.7	1798.5
0.04	1315.5	1028.1	811.7	626.9	476.0	400.1	370.8	349.2	320.9	2273.6	2010.4
0.02	1396.2	1115.8	906.8	686.8	507.7	427.3	394.8	371.2	338.2	2567.7	2139.7
0.01	1465.8	1198.3	1004.2	746.2	537.8	453.9	418.3	392.6	354.5	2865.3	2249.3

3.0552
0.1713
0.0270
3.0552
0.1713
-0.4000

STATION 14218000 LEWIS RIVER NEAR COUGAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1924	1247	5010	3743	4691	6836	2638	4021	4234	2603	811	676	631	
1925	661	1086	3622	2374	4753	2968	2346	2059	1154	1283	904	736	3133
1926	2430	3729	3702	4065	4428	2708	3101	4894	4374	1778	671	736	1919
1927	2504	6587	3497	4119	2354	5651	4449	5068	2122	1359	905	1217	3106
1928	1180	2150	2436	1666	998	2323	3493	4809	3415	1315	846	673	3280
1929	581	523	2124	1480	5749	2869	3424	2476	1549	1873	705	608	2115
1930	650	856	1105	2697	2937	4325	5044	2997	1481	1045	715	657	1872
1931	1141	2492	2689	3274	2734	6180	5502	5636	7584	2239	1126	857	3209
1932	1010	5834	3622	3747	1631	3387	3929	5585	4634	3571	1512	1464	3577
1933	2761	3243	13390	8541	3431	4632	3217	1885	1161	931	761	693	3741
1934	1934	6793	4840	3813	3689	2866	3173	5128	3852	1631	949	809	3310
1935	739	944	1826	5256	1933	3092	3814	5521	3770	1585	984	827	2530
1936	671	596	2603	1259	1275	3180	5536	5019	5245	1970	1023	820	2436
1937	859	5636	5655	4643	2153	3007	5037	4868	2942	1319	876	709	3147
1938	859	5636	5655	4643	2153	3007	5037	4868	2942	1319	876	709	3147
1939	860	1630	3104	3764	2389	2779	3720	3570	2135	1179	853	766	2224
1940	765	809	5073	3056	5389	5291	3495	2955	1253	679	731	679	2526
1941	842	1713	3276	3169	2042	2026	1993	2378	1367	911	764	1236	1839
1942	1713	2520	6099	1898	2688	2026	2817	2545	2550	1272	861	706	2307
1943	706	5042	4357	2229	2808	3456	6612	4150	3731	1899	1050	826	3098
1944	1205	1731	2388	2284	2563	1970	2791	2919	1743	869	681	654	1813
1945	637	1824	1955	4086	4441	3004	2940	5581	2589	1180	791	898	2483
1946	784	2985	4882	3935	2653	3488	3938	5729	4828	2993	1200	846	3196
1947	1336	4343	8258	2936	4688	3466	3789	2636	1774	1133	875	989	3008
1948	4290	4346	3427	4487	2766	3590	4722	7093	6287	1685	1093	991	3509
1949	1364	2940	2979	1133	2825	3764	4722	7093	4084	1990	1082	934	3506
1950	1156	4257	3442	3317	4637	5889	4970	5559	6287	3166	1427	1053	3753
1951	3122	6077	7710	4056	6515	2353	4560	5115	2888	1459	997	923	3793
1952	3658	3420	4101	1611	4079	2216	4742	5141	3097	1574	960	779	2941
1953	648	648	1320	10460	5392	2535	3179	4934	3805	2300	1172	882	3098
1954	1154	3404	6477	3774	5029	3623	4718	5166	4742	2958	1364	1048	3611
1955	1310	3451	2951	2500	2971	1593	3062	4335	6106	2945	1315	1092	2794
1956	3753	7078	7115	5106	2236	3847	5457	7205	5887	3519	1625	1038	4497
1957	1843	2836	4935	1805	2715	4715	4213	4687	2077	1122	905	733	2718
1958	895	1740	3948	4478	6820	2610	4934	4104	2287	1222	906	777	2865

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1924-1958)

MEAN	1491.8	3187.2	4195.6	3590.6	3563.9	3325.0	4009.9	4456.0	3337.1	1678.6	979.5	859.0	2887.9
MAXIMUM	4290.0	7078.0	13390.0	10460.0	6836.0	6180.0	6612.0	7205.0	7584.0	3571.0	1625.0	1464.0	4497.0
MINIMUM	581.0	523.0	1105.0	1183.0	998.0	1593.0	1943.0	1885.0	1154.0	793.0	671.0	608.0	1813.0
STD DEVIATION	1009.20	1950.50	2379.89	1894.91	1573.46	1158.50	1032.72	1373.33	1660.35	808.06	242.82	193.94	648.23
STDEV	1.432	0.447	1.966	1.840	0.586	1.013	0.331	-0.248	0.652	1.075	0.987	1.198	0.122
SKEDNESS	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.398	0.398	0.398	0.403
SER CORR COEFF	0.168	-0.002	0.018	-0.162	-0.092	-0.092	0.035	0.176	0.101	0.232	0.309	0.025	0.247
COEFF OF VAR	0.676	0.612	0.567	0.528	0.441	0.348	0.258	0.308	0.498	0.481	0.248	0.226	0.224
MEAN LOGS	3.095	3.403	3.566	3.504	3.509	3.498	3.589	3.625	3.468	3.181	2.979	2.924	3.449
STD DEV LOGS	0.254	0.327	0.225	0.214	0.203	0.143	0.115	0.153	0.228	0.193	0.102	0.091	0.101
SKEDNESS LOGS	0.676	-0.603	0.012	-0.037	-0.362	0.308	-0.326	-0.812	-0.201	0.444	0.492	0.687	-0.369
STD ERR SKEW LGS	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.398	0.398	0.398	0.403
SER CORR LOGS	0.223	0.125	0.101	-0.210	-0.095	0.095	0.095	0.134	0.080	0.236	0.318	0.089	0.265
COEFF OF VAR LOGS	0.082	0.096	0.063	0.061	0.058	0.041	0.032	0.064	0.066	0.061	0.034	0.031	0.029
% OF AVE FLOW	4.3	9.2	12.1	10.4	10.3	9.6	11.6	12.9	9.6	4.8	2.8	2.5	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1924-1958)

0.99	428.7	316.6	1106.1	998.5	955.0	1578.1	1945.0	1520.9	801.3	624.7	602.1	573.7	1538.2
0.95	539.2	652.2	1570.7	1409.4	1432.5	1888.5	2449.6	2206.7	1202.9	775.9	671.7	622.4	1875.4
0.90	621.9	928.7	1894.1	1691.7	1748.1	2090.7	2739.0	2635.7	1483.3	880.6	716.5	654.8	2072.3
0.80	754.3	1383.8	2377.1	2108.0	2201.7	2378.1	3118.9	2739.0	1899.6	1037.5	779.7	701.6	2326.1
0.50	1165.9	2724.2	3674.6	3200.5	3317.8	3097.0	3935.2	4422.7	2990.8	1469.0	934.8	820.1	2855.5
0.20	1977.5	4818.8	5688.4	4838.6	4804.6	4131.0	4844.7	5702.2	4593.2	2179.3	1151.5	991.8	3435.0
0.10	2710.4	6237.3	7152.1	5995.4	5742.1	4849.5	5392.4	6354.4	5692.1	2730.3	1298.7	1111.1	3753.9
0.04	3912.1	7940.8	9134.1	7525.7	6866.9	5797.6	5983.4	7011.9	7103.4	3524.6	1489.4	1268.5	4103.1
0.02	5045.3	9218.7	10700.3	8710.2	7661.9	6533.9	6379.4	7407.6	8143.9	4191.7	1635.2	1390.6	4332.5
0.01	6417.8	10394.6	12339.2	9929.5	8422.1	7296.4	6744.0	7740.3	9228.3	4926.9	1784.5	1517.0	4540.7

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1926	572.0	574.0	578.0	603.0	617.0	669.0	720.0	811.0	1180.0
1927	542.0	546.0	552.0	569.0	634.0	663.0	726.0	801.0	1230.0
1928	844.0	849.0	877.0	896.0	965.0	1020.0	1290.0	1590.0	2400.0
1929	656.0	660.0	665.0	673.0	710.0	795.0	924.0	978.0	1350.0
1930	490.0	495.0	502.0	509.0	516.0	539.0	572.0	624.0	996.0
1931	550.0	553.0	560.0	570.0	593.0	618.0	638.0	678.0	799.0
1932	464.0	464.0	477.0	510.0	564.0	619.0	668.0	812.0	1240.0
1933	708.0	715.0	728.0	749.0	794.0	886.0	990.0	1250.0	2520.0
1934	1020.0	1030.0	1060.0	1100.0	1150.0	1360.0	1570.0	2160.0	3210.0
1935	577.0	585.0	599.0	632.0	641.0	681.0	723.0	789.0	1100.0
1936	614.0	622.0	637.0	669.0	728.0	744.0	788.0	842.0	1130.0
1937	550.0	556.0	562.0	570.0	590.0	620.0	675.0	742.0	1080.0
1938	614.0	614.0	628.0	628.0	717.0	801.0	883.0	1040.0	1290.0
1939	622.0	625.0	646.0	656.0	677.0	745.0	803.0	918.0	1380.0
1940	679.0	687.0	697.0	713.0	726.0	753.0	777.0	795.0	1050.0
1941	597.0	601.0	629.0	654.0	661.0	682.0	712.0	757.0	952.0
1942	680.0	692.0	698.0	714.0	740.0	827.0	945.0	1030.0	1360.0
1943	578.0	592.0	594.0	608.0	623.0	668.0	731.0	858.0	1610.0
1944	722.0	729.0	733.0	745.0	775.0	844.0	944.0	1180.0	1680.0
1945	570.0	570.0	575.0	580.0	632.0	643.0	655.0	703.0	1050.0
1946	659.0	671.0	674.0	686.0	721.0	803.0	810.0	892.0	1460.0
1947	745.0	752.0	761.0	784.0	804.0	880.0	929.0	1040.0	2440.0
1948	800.0	800.0	804.0	811.0	839.0	929.0	987.0	1140.0	1730.0
1949	862.0	862.0	881.0	893.0	942.0	1030.0	1150.0	1210.0	1750.0
1950	780.0	788.0	816.0	845.0	937.0	976.0	1030.0	1170.0	2050.0
1951	915.0	925.0	940.0	967.0	1030.0	1190.0	1480.0	2040.0	3330.0
1952	798.0	800.0	811.0	827.0	857.0	931.0	1100.0	1450.0	2160.0
1953	552.0	556.0	573.0	600.0	628.0	645.0	684.0	745.0	978.0
1954	757.0	759.0	768.0	795.0	882.0	997.0	1060.0	1160.0	2000.0
1955	892.0	902.0	912.0	930.0	1010.0	1090.0	1190.0	1350.0	2100.0
1956	915.0	923.0	955.0	1000.0	1060.0	1160.0	1580.0	2110.0	3090.0
1957	878.0	895.0	910.0	929.0	1090.0	1160.0	1410.0	1800.0	2310.0
1958	650.0	662.0	690.0	707.0	728.0	749.0	813.0	873.0	1220.0

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LOWEST MEAN FLOW STATISTICS (YEARS 1926-1958)

MEAN	692.5	698.6	711.9	732.6	771.1	837.8	942.7	1107.8	1688.6
MAXIMUM	1020.0	1030.0	1060.0	1100.0	1150.0	1360.0	1580.0	2160.0	3330.0
MINIMUM	464.0	464.0	477.0	504.0	516.0	539.0	572.0	624.0	799.0
STANDARD DEVIATION	140.73	142.16	146.22	149.41	161.65	197.27	278.38	421.06	695.86
SKEWNESS	0.584	0.500	0.541	0.684	0.611	0.757	0.938	1.282	0.898
STD ERROR OF SKEWNESS	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409
SERIAL CORR COEFF	0.332	0.335	0.347	0.351	0.371	0.313	0.305	0.273	0.278
COEFF OF VARIATION	0.203	0.203	0.204	0.204	0.210	0.235	0.295	0.380	0.412
MEAN LOGS	2.832	2.836	2.844	2.856	2.878	2.912	2.957	3.018	3.194
STD DEVIATION LOGS	0.087	0.087	0.088	0.087	0.089	0.099	0.121	0.148	0.170
SKEWNESS LOGS	0.175	0.160	0.191	0.238	0.280	0.334	0.489	0.707	0.348
STD ERR SKEWNESS LOGS	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409
SER CORR COEFF LOGS	0.338	0.341	0.357	0.364	0.378	0.328	0.316	0.298	0.310
COEFF OF VAR LOGS	0.031	0.031	0.031	0.030	0.031	0.034	0.041	0.049	0.053

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1926-1958)

0.99	1109.6	1118.1	1147.7	1182.6	1266.7	1463.7	1908.2	2732.8	4291.4
0.98	1043.3	1051.8	1077.9	1109.3	1184.3	1354.7	1720.5	2369.9	3751.9
0.96	975.3	983.7	1006.4	1034.7	1100.9	1246.1	1540.2	2039.2	3245.2
0.90	880.6	888.6	907.2	931.8	986.8	1100.2	1309.4	1642.5	2615.2
0.80	802.0	809.5	825.2	847.4	894.1	984.1	1135.4	1364.8	2156.6
0.50	675.1	681.4	693.4	712.8	748.3	806.4	896.5	1002.5	1529.3
0.20	573.0	577.8	587.9	606.3	634.7	672.7	714.7	779.2	1119.9
0.10	527.6	531.7	541.2	559.6	585.4	616.1	646.4	697.5	963.4
0.05	493.7	497.2	506.4	524.9	549.1	575.0	598.6	643.0	856.1
0.02	458.9	461.7	470.8	489.5	512.3	534.0	552.4	592.9	754.5
0.01	437.5	439.9	449.0	467.9	490.0	509.3	525.5	565.0	696.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1926-1958)

P95	P90	P75	P70	P50	P25	P10
680.0	780.0	1100.0	1300.0	2200.0	3900.0	5800.0

STATION 1421R000 LEWIS RIVER NEAR COUGAR, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

ANNUAL PEAK-FLOW DATA
FLOW (CFS) DATE REG. (R)

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1918	21000.	18800.	15900.	11300.	8070.	5760.	5280.	5030.	4450.
1925	10800.	9860.	8130.	5850.	4780.	3810.	3630.	3410.	2990.
1926	12200.	11400.	9100.	7320.	5310.	4910.	4670.	4400.	3980.
1927	24900.	17600.	13600.	10800.	8160.	5700.	5170.	4440.	3800.
1928	7200.	6450.	5550.	4680.	3900.	3240.	2800.	2400.	2000.
1929	9460.	8430.	7170.	6910.	5540.	4170.	3900.	3540.	3100.
1930	16100.	13500.	9530.	7380.	6420.	5000.	4380.	4120.	3240.
1931	13100.	11900.	8860.	7870.	6720.	6020.	6090.	5760.	4720.
1932	15300.	12500.	11000.	9360.	8010.	6620.	5890.	5300.	4370.
1933	45000.	38400.	26700.	19600.	14800.	11400.	8870.	7780.	6290.
1934	19200.	17700.	12900.	6880.	5890.	5180.	4960.	4280.	3400.
1935	10600.	10400.	8110.	7450.	5880.	5250.	4420.	4130.	3940.
1936	17200.	14400.	10200.	7180.	6020.	5280.	4760.	4660.	3710.
1937	22200.	18400.	12100.	7860.	6430.	5600.	4660.	4510.	30200.
1938	9120.	8420.	6370.	4640.	3920.	3240.	3170.	3220.	9440.
1939	18500.	16200.	11600.	7740.	6450.	5520.	4890.	4210.	20200.
1940	9720.	6750.	5170.	4370.	3580.	3370.	3090.	2820.	26000.
1941	18600.	14200.	10100.	7080.	6210.	4490.	3920.	3400.	22700.
1942	23000.	16200.	12000.	9050.	7790.	5920.	5350.	4600.	32700.
1943	7760.	6500.	4730.	3390.	3110.	2910.	2670.	2590.	8690.
1944	20600.	14900.	9970.	6470.	5840.	4410.	4030.	4060.	3760.
1945	17500.	14500.	9590.	7070.	5780.	5290.	5070.	4540.	4290.
1946	29300.	26000.	20200.	13100.	10400.	6340.	5340.	4700.	32300.
1947	13000.	12300.	9680.	6810.	5890.	5300.	4820.	4270.	15000.
1948	11500.	10100.	9350.	8560.	7400.	6310.	5510.	5130.	12200.
1949	21600.	14200.	10200.	9440.	7180.	6100.	5690.	5250.	26800.
1950	23400.	19600.	14700.	9420.	8300.	7020.	6290.	5270.	25800.
1951	16100.	12200.	9490.	6850.	5380.	5020.	4440.	4040.	3670.
1952	20800.	19600.	15800.	15100.	12400.	7960.	6170.	5550.	18800.
1953	14700.	13000.	9780.	8570.	7370.	5800.	5160.	4910.	23900.
1954	11600.	10700.	9400.	7380.	6340.	5360.	4600.	4150.	21400.
1955	18400.	15300.	11600.	9410.	8500.	7330.	6640.	5910.	12900.
1956	14300.	10700.	9250.	7580.	5670.	4830.	4890.	4280.	21400.
1957	14000.	12200.	10000.	7720.	6940.	5640.	5140.	4790.	17300.
1958									14000.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1925-1958)

W R C SYSTEMATIC
ESTIMATE RECORD

MEAN	16992.9	14215.6	10834.1	8325.3	6828.5	5585.0	5003.8	4601.2	4092.1
MAXIMUM	45000.0	38300.0	26700.0	19600.0	14800.0	11400.0	8870.0	7780.0	6290.0
MINIMUM	7200.0	6450.0	4730.0	3390.0	3110.0	2910.0	2670.0	2590.0	2490.0
STANDARD DEVIATION	7283.58	6018.84	4209.58	3032.36	2284.05	1501.03	1176.51	1054.31	867.03
SKWENESS	1.757	2.082	1.912	1.454	1.626	1.643	0.800	0.600	0.159
STD ERROR OF SKWENESS	0.403	0.463	0.403	0.403	0.403	0.403	0.403	0.403	0.403
SERIAL CORR COEFF	-0.114	-0.056	-0.037	0.015	-0.005	0.161	0.167	0.209	0.091
COEFF OF VARIATION	0.424	0.423	0.389	0.364	0.334	0.269	0.235	0.229	0.212
MEAN LOGS	4.197	4.122	4.008	3.897	3.814	3.733	3.688	3.652	3.602
STD DEVIATION LOGS	0.171	0.163	0.151	0.144	0.134	0.110	0.102	0.100	0.095
SKWENESS LOGS	0.178	0.290	0.312	0.200	0.210	0.156	-0.233	-0.227	-0.377
STD ERR SKWENESS LOGS	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403	0.403
SER CORR COEFF LOGS	-0.159	-0.109	-0.079	0.016	-0.014	0.173	0.169	0.194	0.101
COEFF OF VAR LOGS	0.041	0.040	0.038	0.037	0.035	0.029	0.028	0.027	0.026

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1925-1958)

0.99	6610.9	5977.6	4916.3	3832.4	3329.1	3096.7	2709.1	2522.7	2284.4	6786.2	6827.8
0.95	8384.8	7360.5	5939.8	4662.4	3992.2	3613.9	3259.7	3024.2	2730.1	9079.1	9100.8
0.90	9558.2	8217.1	6611.6	5196.7	4415.3	3933.4	3585.3	3319.5	2999.5	10612.5	10622.2
0.80	11246.2	9599.6	7573.3	5948.7	5006.5	4368.3	4009.9	3704.1	3343.3	12830.6	12852.8
0.50	15542.7	12993.0	10007.6	7994.3	6006.6	5376.1	4917.5	4524.6	4055.6	18494.8	18469.4
0.20	21839.3	18044.8	13566.8	10372.8	8413.4	6677.9	5953.2	5459.0	4823.6	26748.5	26737.0
0.10	26264.8	21651.2	16072.9	12120.5	9734.9	7507.7	6545.5	5924.8	5241.9	32482.2	32509.9
0.04	32141.2	26508.6	19413.6	14379.4	11428.0	8530.9	7215.1	6596.8	40110.2	39997.4	40110.2
0.02	36723.8	30348.1	22031.1	16101.0	12708.9	9274.7	7668.2	7004.1	5993.9	45778.4	45981.0
0.01	41481.1	34379.3	24760.9	17857.2	14008.3	10019.9	8089.2	7383.2	6262.4	51708.4	52023.4

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1956-1974)		SYSTEMATIC RECORD	
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
1956	420.0	12-11-1955		2.5007	2.5007
1958	240.0	12-26-1957		0.1560	0.1560
1959	279.0	11-12-1958		0.045	0.599
1960	203.0	11-28-1960			
1961	307.0	11-24-1960			
1962	215.0	3-25-1962			
1963	476.0	11-20-1962			
1964	460.0	1-25-1964			
1965	482.0	11-30-1964			
1966	242.0	3-9-1966			
1967	345.0	1-28-1967			
1968	186.0	10-27-1967			
1969	327.0	11-11-1968			
1970	245.0	11-18-1970			
1971	298.0	1-19-1971			
1972	724.0	1-20-1972			
1973	257.0	12-21-1972			
1974	376.0	1-15-1974			
			ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1956-1974)		
			0.99	139.0	161.2
			0.95	176.3	187.6
			0.90	200.3	205.8
			0.80	234.0	232.8
			0.50	315.9	305.7
			0.20	428.2	422.2
			0.10	502.8	510.5
			0.04	597.4	635.6
			0.02	668.1	739.2
			0.01	739.2	852.1

STATION 14219000 CANYON CREEK NEAR AMBOY, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1922	186	242	1332	2191	235	562	427	290	187	137	43.1	66.6	493
1923	186	242	1332	2191	235	562	427	290	187	137	43.1	66.6	493
1924	64.3	212	922	539	1030	229	286	124	56.1	35.0	40.1	23.6	295
1925	332	982	912	1351	1268	429	418	247	203	31.1	34.1	40.3	517
1926	22.8	238	825	451	1031	306	162	284	122	38.8	31.9	23.2	303
1927	477	706	663	791	999	483	349	417	288	81.3	38.5	235	457
1928	538	1289	418	849	280	896	676	359	103	95.2	40.5	31.2	485
1929	265	452	527	399	217	596	611	391	270	80.9	38.7	31.2	485
1930	27.6	26.7	496	255	1337	392	245	311	167	50.1	37.8	32.4	324
1931	50.0	238	238	588	366	887	665	136	147	86.5	30.6	26.5	274
1932	290	782	582	771	649	1611	720	370	209	84.0	32.8	34.3	289
1933	98.6	1076	948	996	438	997	577	687	660	43.3	64.4	227	512
1934	610	475	2770	1537	273	643	321	201	58.0	163	22.0	20.9	587

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1922-1934)

MEAN	246.8	559.9	886.1	893.2	676.9	669.2	454.7	318.1	205.8	79.0	38.4	73.4	424.5
MAXIMUM	610.0	1289.0	2770.0	2191.0	1337.0	1611.0	720.0	687.0	660.0	163.0	64.4	235.0	587.0
MINIMUM	22.8	26.7	238.0	255.0	217.0	229.0	162.0	124.0	56.1	35.0	22.0	20.9	274.0
STD DEVIATION	207.82	402.18	661.95	556.93	428.62	382.07	188.83	149.90	160.78	39.78	9.80	80.26	119.17
SKENNESS	0.566	0.537	2.353	1.268	0.360	1.400	0.027	1.179	2.256	0.915	1.308	1.498	-0.070
STD ERR SKEW	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR COEFF	-0.077	0.020	0.437	-0.105	0.010	0.446	0.153	-0.032	-0.312	-0.299	-0.250	0.002	0.160
COEFF OF VAR	0.842	0.718	0.747	0.824	0.633	0.571	0.415	0.571	0.781	0.504	0.255	1.093	0.281
MEAN LOGS	2.181	2.591	2.866	2.878	2.739	2.766	2.618	2.559	2.218	1.848	1.572	1.677	2.611
STD DEV LOGS	0.505	0.505	0.269	0.265	0.305	0.237	0.204	0.208	0.298	0.220	0.107	0.388	0.168
SKENNESS LOGS	-0.462	-1.425	0.406	0.031	-0.028	0.111	-0.598	-0.292	0.150	0.002	0.057	1.121	-0.253
STD ERR SKEW LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR LOGS	-0.820	0.111	0.502	0.045	-0.014	0.435	0.064	-0.019	-0.489	-0.327	-0.330	-0.080	0.110
COEFF OF VAR LOGS	0.232	0.179	0.094	0.092	0.111	0.086	0.078	0.085	0.134	0.119	0.068	0.231	0.049
% OF AVE FLOW	4.8	11.0	17.4	17.5	13.3	13.1	8.9	6.2	4.0	1.5	0.8	1.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1922-1934)

0.99	6.9	11.8	209.7	185.0	105.6	171.7	114.0	85.1	36.1	21.7	21.3	12.4	196.1
0.95	19.5	49.3	286.2	278.0	171.9	242.3	178.6	125.8	55.1	30.6	25.0	15.3	247.2
0.90	32.6	94.1	342.8	345.9	222.5	292.2	222.4	153.5	69.4	36.4	27.3	17.8	278.4
0.80	59.0	184.9	432.3	451.1	303.9	367.9	285.0	193.6	92.3	46.0	30.3	22.3	320.2
0.50	165.8	498.2	703.7	752.3	549.5	577.9	434.5	294.3	164.2	70.4	37.2	40.4	413.1
0.20	410.6	945.7	1215.5	1265.2	989.2	920.6	620.0	435.7	292.3	107.6	45.8	42.3	524.6
0.10	628.4	1176.7	1657.4	1655.2	1345.2	1181.1	728.4	525.6	401.5	134.7	51.2	157.6	590.6
0.04	955.5	1384.3	2351.1	2211.4	1857.3	1547.3	849.7	632.2	567.6	170.8	51.2	302.4	667.1
0.02	1229.4	1489.5	2978.3	2670.6	2288.6	1846.7	929.9	713.1	712.7	199.1	62.3	482.6	719.9
0.01	1523.8	1564.1	3710.7	3166.1	2760.2	2168.7	1002.5	790.9	877.2	228.6	66.8	758.7	769.6

STATION 14219000 CANYON CREEK NEAR AMBOY, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1924	19.0	19.0	19.0	21.0	22.0	27.0	37.0	43.0	93.0
1925	25.0	26.0	26.0	27.0	28.0	31.0	33.0	41.0	79.0
1926	17.0	17.0	17.0	18.0	21.0	22.0	25.0	29.0	82.0
1927	23.0	24.0	24.0	25.0	29.0	38.0	45.0	83.0	136.0
1928	33.0	34.0	34.0	35.0	40.0	56.0	92.0	147.0	234.0
1929	23.0	24.0	24.0	26.0	31.0	34.0	52.0	64.0	124.0
1930	25.0	25.0	25.0	26.0	26.0	27.0	29.0	29.0	71.0
1931	24.0	24.0	24.0	25.0	26.0	27.0	32.0	37.0	85.0
1932	26.0	26.0	27.0	27.0	28.0	33.0	38.0	67.0	89.0
1933	19.0	19.0	20.0	21.0	24.0	31.0	39.0	56.0	137.0
1934	45.0	45.0	45.0	47.0	54.0	71.0	127.0	166.0	351.0

LOWEST MEAN FLOW STATISTICS (YEARS 1924-1934)

MEAN	25.4	25.7	25.9	27.1	29.9	36.1	49.7	69.3	134.6
MAXIMUM	45.0	45.0	45.0	47.0	54.0	71.0	127.0	166.0	351.0
MINIMUM	17.0	17.0	17.0	18.0	21.0	22.0	25.0	29.0	71.0
STANDARD DEVIATION	7.80	7.85	7.78	7.92	9.48	14.60	31.50	46.44	85.44
SKEWNESS	1.773	1.626	1.617	1.764	1.931	1.772	1.935	1.427	2.007
STD ERROR OF SKEWNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	-0.394	-0.391	-0.357	-0.328	-0.111	0.069	0.104	0.168	0.298
COEFF OF VARIATION	0.308	0.305	0.300	0.292	0.317	0.404	0.633	0.670	0.635
MEAN LOGS	1.389	1.395	1.398	1.419	1.460	1.532	1.639	1.766	2.072
STD DEVIATION LOGS	0.118	0.119	0.117	0.112	0.118	0.149	0.217	0.257	0.217
SKEWNESS LOGS	1.059	0.900	0.888	1.041	1.364	1.228	1.279	0.665	1.284
STD ERR SKEWNESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SER CORR COEFF LOGS	-0.398	-0.402	-0.361	-0.328	-0.102	0.101	0.204	0.248	0.412
COEFF OF VAR LOGS	0.085	0.085	0.084	0.079	0.081	0.097	0.133	0.146	0.105

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1924-1934)

0.99	56.1	55.7	55.4	57.7	69.6	100.5	215.7	306.0	584.1
0.98	49.0	49.1	49.0	50.9	59.8	83.9	164.7	240.1	445.7
0.96	42.7	43.1	43.1	44.6	51.3	69.6	124.8	185.8	337.7
0.90	35.2	35.8	35.9	37.1	41.4	53.8	85.1	128.3	230.3
0.80	30.0	30.6	30.8	31.9	35.0	43.6	62.5	93.3	169.1
0.50	23.3	23.8	24.0	25.1	27.2	31.8	39.3	54.7	106.3
0.20	19.4	19.6	19.9	21.0	23.0	25.5	28.6	35.1	77.5
0.10	18.1	18.1	18.4	19.6	21.7	23.5	25.5	28.9	69.2
0.05	17.2	17.1	17.4	18.7	20.9	22.3	23.7	25.0	64.4
0.02	16.5	16.2	16.4	17.9	20.3	21.3	22.3	21.5	60.6
0.01	16.1	15.8	16.0	17.5	20.0	20.9	21.7	19.7	58.8

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1924-1934)

P95	P90	P75	P70	P50	P25	P10
26.0	30.0	61.0	92.0	230.0	490.0	1000.0

STATION 14219000 CANYON CREEK NEAR AMBOY, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1923	8000.	6600.	5250.	4600.	3310.	1820.	1360.	1150.	856.	9500. 12/24/22
1924	4350.	3010.	2280.	1650.	1110.	850.	840.	715.	544.	4350. 12/06/23
1925	4570.	3650.	3210.	2360.	1740.	1420.	1220.	1140.	903.	5560. 02/03/25
1926	3690.	2600.	1640.	1170.	1000.	745.	761.	658.	507.	5120. 02/06/26
1927	3580.	2720.	1800.	1220.	980.	911.	853.	814.	680.	5890. 02/01/27
1928	6860.	4570.	2920.	2080.	1430.	1050.	860.	775.	748.	10000. 11/25/27
1929	2200.	1720.	1320.	959.	699.	610.	548.	490.	486.	3140. 04/14/29
1930	2500.	2000.	1830.	1750.	1270.	833.	694.	620.	504.	4350. 02/07/30
1931	7290.	4360.	2520.	1610.	1200.	848.	715.	633.	503.	9370. 03/31/31
1932	4540.	3440.	2210.	2050.	1790.	1350.	1050.	985.	875.	5340. 02/26/32
1933	3170.	2700.	2410.	1950.	1790.	1350.	1050.	985.	844.	3690. 06/08/33
1934	9280.	6560.	5780.	3950.	2980.	2210.	1690.	1410.	1090.	11700. 12/21/33

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1923-1934)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	5002.5	3660.8	2764.2	2112.4	1581.6	1151.3	968.2	855.1	711.5	
MAXIMUM	9280.0	6600.0	5780.0	4600.0	3310.0	2210.0	1690.0	1410.0	1090.0	
MINIMUM	2200.0	1720.0	1320.0	959.0	699.0	610.0	548.0	490.0	486.0	
STANDARD DEVIATION	2266.49	1603.71	1394.01	1098.34	797.22	475.26	322.70	269.21	203.16	
SKEWNESS	0.668	0.946	1.465	1.503	1.424	1.206	1.055	0.773	0.356	
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	
SERIAL CORR COEFF	-0.351	-0.281	-0.081	-0.084	-0.115	-0.092	-0.176	-0.048	-0.069	
COEFF OF VARIATION	0.459	0.438	0.504	0.520	0.504	0.413	0.333	0.315	0.286	
MEAN LOGS	3.657	3.528	3.399	3.280	3.156	3.031	2.966	2.913	2.836	
STD DEVIATION LOGS	0.200	0.183	0.192	0.200	0.195	0.165	0.137	0.133	0.124	
SKEWNESS LOGS	0.065	0.232	0.743	0.617	0.603	0.559	0.386	0.212	0.079	
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	
SER CORR COEFF LOGS	-0.274	-0.196	-0.059	-0.076	-0.101	-0.014	0.236	0.081	0.051	
COEFF OF VAR LOGS	0.055	0.052	0.057	0.061	0.062	0.054	0.046	0.046	0.044	
										3.7759 0.1863 0.0490

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1923-1934)

0.99	1589.2	1356.7	1143.6	805.6	615.7	519.9	485.5	420.9	357.8	2235.1	2391.6
0.95	2146.6	1731.9	1344.8	975.7	744.2	614.3	570.6	503.9	430.6	2965.6	3047.6
0.90	2524.4	1984.2	1490.6	1097.0	835.3	679.2	626.2	556.8	475.9	3452.7	3491.3
0.80	3077.5	2352.5	1716.8	1283.1	974.4	775.7	705.5	630.7	537.9	4155.9	4141.9
0.50	4519.7	3314.9	2375.7	1816.4	1309.7	1036.9	905.3	809.8	682.7	5947.7	5858.1
0.20	6685.1	4780.1	3551.7	2749.1	2052.5	1457.2	1195.6	1055.7	871.1	8554.5	8507.9
0.10	8226.4	5842.8	4284.2	3511.1	2604.3	1777.6	1399.1	1220.3	991.6	10365.2	10452.6
0.04	10285.8	7289.9	6020.8	4658.9	3428.5	2233.4	1669.6	1431.0	1140.4	12739.5	13127.2
0.02	11897.1	8444.0	7363.4	5662.4	4143.2	2612.0	1881.2	1590.3	1249.2	14567.4	15270.0
0.01	13572.0	9663.4	8867.4	6805.5	4952.2	3025.9	2101.7	1751.8	1356.8	16443.8	17569.1

STATION 14219500 LEWIS RIVER NEAR AMBOY, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1911	2500	8400	4800	2588	1724	3113	3781	6411	4084	1587	853	1205	3423
1912	1028	4952	3696	7433	7636	2512	3387	5582	3499	1700	1587	2385	3756
1913	2389	7862	4493	5370	6159	4317	6159	5752	6191	2097	1782	2207	4531
1914	2609	5453	3607	11140	5215	6281	6418	5502	3316	1739	1151	1751	4509
1915	3494	5918	2565	3853	3828	4392	5442	3049	2012	1279	1918	1769	3116
1916	1344	6170	7922	3595	7700	9125	7107	7451	7411	5497	1317	1343	5554
1917	969	3836	3368	3570	3348	2706	6640	7425	7896	4003	1321	1098	3841
1918	852	1077	19130	9815	6459	5101	5101	3409	1977	1187	979	805	4673
1919	1420	4083	6608	9186	4677	5200	7244	6339	4233	2187	1247	1157	4467
1920	1307	5240	5387	5571	3158	4006	4946	4068	3895	1760	1100	4123	3707
1921	7466	6063	8108	8542	7296	7215	6024	5926	4631	2146	1309	1213	5491
1922	2700	6898	8765	2289	2307	2682	5111	7982	6203	1848	1250	1277	4109
1923	1846	2080	6303	13100	2308	3684	5826	5075	3390	1999	1144	913	3996
1924	1217	1825	5290	4105	9994	2800	2842	2882	1288	912	807	760	2865
1925	2093	7576	5527	8208	10410	3964	5343	4955	3166	1493	1040	876	4509
1926	781	1800	5935	3565	7599	4072	2918	2917	1573	1022	1874	1288	2834
1927	3800	5761	5847	6335	7396	4308	4437	6254	5295	2032	1155	1929	4524
1928	4017	9985	4820	6827	3543	8265	6997	6543	2572	1715	1055	857	4769
1929	1986	3581	4019	2938	1716	4190	5392	6083	4179	1630	999	772	3131
1930	763	807	3891	2435	9546	4226				1127	844		
1931	891	1678	2131	4774	4908	7438	7434						

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1911-1931)

MEAN	2165.3	4811.7	5817.7	5961.9	5459.2	4744.6	5426.4	5502.5	4039.0	1993.0	1177.1	1373.4	4095.0
MAXIMUM	7466.0	9985.0	19130.0	13100.0	10410.0	19125.0	7434.0	7962.0	7896.0	5497.0	2157.0	4123.0	5553.0
MINIMUM	763.0	807.0	2131.0	2289.0	1716.0	2512.0	2842.0	2852.0	1288.0	912.0	807.0	739.0	2834.0
STD DEVIATION	1574.32	2601.38	3514.69	3092.62	2753.54	1887.08	1404.47	1588.73	1882.42	1082.37	335.89	810.42	799.43
SKENESS	2.080	0.081	2.887	0.761	0.328	1.008	-0.448	-0.443	0.562	2.220	1.602	2.321	0.068
STD ERR SKEW	0.501	0.501	0.501	0.501	0.501	0.501	0.512	0.524	0.524	0.512	0.512	0.512	0.524
SER CORR COEFF	0.087	0.102	-0.001	-0.299	-0.081	-0.194	0.077	-0.113	-0.041	0.174	0.061	0.087	-0.408
COEFF OF VAR	0.727	0.541	0.604	0.519	0.504	0.398	0.259	0.289	0.466	0.543	0.285	0.590	0.195
MEAN LOGS	3.250	3.597	3.714	3.719	3.677	3.646	3.718	3.720	3.558	3.255	3.057	3.087	3.604
STD DEV LOGS	0.271	0.309	0.203	0.228	0.245	0.163	0.126	0.143	0.219	0.189	0.110	0.200	0.087
SKENESS LOGS	0.469	-0.876	0.713	0.043	-0.382	0.359	-0.915	-0.840	-0.425	0.942	0.927	1.093	-0.296
STD ERR SKEW LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.512	0.524	0.524	0.512	0.512	0.512	0.524
SER CORR LOGS	0.166	0.195	0.097	-0.256	-0.146	-0.132	0.093	-0.140	-0.110	0.060	0.067	0.229	-0.392
COEFF OF VAR LOGS	0.083	0.086	0.055	0.061	0.067	0.045	0.034	0.038	0.062	0.058	0.036	0.065	0.024
% OF AVE FLOW	4.5	9.9	12.0	12.3	11.3	9.8	11.2	11.4	8.3	4.1	2.4	2.8	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1911-1931)

0.99	518.2	487.0	2229.9	1573.0	1091.0	2045.1	2203.5	2012.5	955.0	885.6	750.4	605.5	2415.1
0.95	697.4	1056.5	2861.4	2266.1	1770.3	2488.6	3040.8	2861.4	1487.0	1005.6	809.4	676.4	2844.6
0.90	830.5	1525.1	2974.8	2682.7	2286.1	2784.7	3540.3	3383.2	1855.3	1096.5	851.9	733.0	3091.7
0.80	1042.4	2283.2	3462.7	3367.1	2991.7	3214.5	4181.8	4069.4	2393.1	1241.7	916.7	826.4	3407.3
0.50	1693.0	4383.0	4894.9	5221.7	4923.0	4330.1	5463.2	5495.5	3741.7	1682.8	1095.7	1125.5	4059.1
0.20	2945.8	7259.7	7484.4	8141.4	7699.2	6020.7	7605.3	6955.8	5561.6	2510.5	1383.9	1724.2	4768.5
0.10	4049.0	8981.6	9659.7	10291.2	9538.6	7246.5	7297.0	7684.0	6710.8	3225.1	1601.1	2268.3	5159.3
0.04	5812.1	10850.8	13016.0	13234.4	11816.5	8919.2	7863.8	8406.6	8084.3	4353.5	1906.1	3166.5	5589.0
0.02	7432.5	12036.3	16015.1	15583.6	13466.3	10257.3	8189.4	8835.5	9049.3	5383.9	2156.3	4020.6	5872.8
0.01	9351.6	13062.8	19493.8	18061.9	15070.3	11676.0	8453.5	9192.3	9966.4	6601.3	2426.9	5064.2	6131.5

STATION 14219500 LEWIS RIVER NEAR AMBOY, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1912	700.0	700.0	735.0	775.0	842.0	967.0	1030.0	1080.0	2160.0
1913	990.0	990.0	1030.0	1080.0	1240.0	1570.0	1760.0	1830.0	2770.0
1914	1350.0	1420.0	1430.0	1510.0	1730.0	1980.0	2100.0	2290.0	3090.0
1915	910.0	910.0	939.0	984.0	1040.0	1190.0	1510.0	1760.0	2730.0
1916	700.0	700.0	710.0	725.0	765.0	817.0	880.0	997.0	1560.0
1917	840.0	840.0	845.0	880.0	950.0	1130.0	1430.0	1840.0	2530.0
1918	735.0	735.0	760.0	783.0	814.0	903.0	966.0	1070.0	2390.0
1919	730.0	730.0	740.0	763.0	803.0	877.0	929.0	1000.0	1520.0
1920	1020.0	1020.0	1020.0	1040.0	1160.0	1200.0	1230.0	1440.0	2330.0
1921	920.0	947.0	979.0	1050.0	1070.0	1170.0	1810.0	2360.0	3300.0
1922	880.0	901.0	938.0	1000.0	1110.0	1180.0	1290.0	1540.0	2630.0
1923	940.0	973.0	1000.0	1060.0	1230.0	1250.0	1270.0	1500.0	1770.0
1924	780.0	780.0	806.0	845.0	899.0	976.0	1050.0	1090.0	1700.0
1925	660.0	660.0	660.0	666.0	690.0	761.0	816.0	918.0	1360.0
1926	750.0	750.0	750.0	750.0	760.0	804.0	859.0	952.0	1520.0
1927	720.0	720.0	747.0	776.0	845.0	868.0	967.0	1150.0	1710.0
1928	1020.0	1020.0	1040.0	1060.0	1140.0	1380.0	1620.0	2270.0	3210.0
1929	754.0	767.0	772.0	788.0	854.0	937.0	1140.0	1330.0	1920.0
1930	720.0	720.0	726.0	735.0	752.0	764.0	779.0	815.0	1360.0

LOWEST MEAN FLOW STATISTICS (YEARS 1912-1930)

MEAN	849.4	857.0	876.2	909.1	983.9	1090.7	1233.5	1433.3	2187.4
MAXIMUM	1350.0	1420.0	1450.0	1510.0	1730.0	1980.0	2100.0	2300.0	3300.0
MINIMUM	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
STANDARD DEVIATION	165.25	182.04	187.43	200.96	250.46	309.33	379.66	497.85	644.31
SKEWNESS	1.497	1.700	1.629	1.480	1.503	1.460	0.828	0.690	0.322
STD ERROR OF SKEWNESS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SERIAL CORR COEFF	0.190	0.200	0.250	0.300	0.313	0.346	0.288	0.130	0.237
COEFF OF VARIATION	0.199	0.212	0.214	0.221	0.255	0.284	0.308	0.347	0.295
MEAN LOGS	2.922	2.925	2.934	2.950	2.981	3.023	3.073	3.133	3.322
STD DEVIATION LOGS	0.079	0.083	0.084	0.088	0.100	0.112	0.128	0.146	0.129
SKEWNESS LOGS	0.996	1.105	1.031	0.875	0.842	0.795	0.405	0.309	0.022
STD ERR SKEWNESS LOGS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SER CORR COEFF LOGS	0.194	0.214	0.268	0.321	0.344	0.346	0.279	0.171	0.264
COEFF OF VAR LOGS	0.027	0.028	0.029	0.030	0.034	0.037	0.042	0.047	0.039

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1912-1930)

	P95	P90	P75	P70	P50	P25	P10
0.99	1450.6	1521.1	1551.7	1616.5	1882.1	2216.0	2553.0
0.98	1328.9	1381.3	1411.7	1474.4	1677.1	1980.6	2300.0
0.96	1213.2	1250.3	1279.8	1339.2	1522.9	1760.3	2055.9
0.90	1067.2	1087.8	1115.2	1168.2	1305.2	1487.4	1741.5
0.80	959.5	970.4	995.2	1041.4	1146.0	1289.4	1503.1
0.50	810.8	812.6	832.0	865.0	927.5	1020.2	1159.5
0.20	714.9	715.0	728.9	749.0	785.6	846.8	919.9
0.10	679.7	680.5	691.5	705.2	732.7	781.9	823.9
0.05	656.5	658.4	667.2	675.8	697.0	738.2	756.3
0.02	635.7	639.2	645.7	648.8	664.2	697.9	720.2
0.01	624.5	629.2	634.2	633.8	646.0	675.4	690.5

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1912-1930)

	P95	P90	P75	P70	P50	P25	P10
860.0	1000.0	1600.0	1900.0	3200.0	5300.0	8000.0	

STATION 14219500 LEWIS RIVER NEAR AMBOY, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	PEAK MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30										ANNUAL PEAK-FLOW DATA	
	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW(CFS)	DATE	REG.(R)
1911	11400.	10200.	8400.	8400.	8400.	6600.	5330.	4600.	4100.	35600.	01/13/12	
1912	22300.	18500.	13500.	9930.	7600.	6030.	6260.	5120.	5120.	30800.	11/13/12	
1913	21100.	18000.	15600.	11800.	8060.	6780.	6510.	5920.	5540.	47600.	01/05/14	
1914	42800.	35600.	23700.	15000.	11600.	8600.	7620.	7350.	6630.	20500.	04/02/15	
1915	15200.	13500.	10400.	7720.	6470.	5060.	4560.	4420.	4450.	50600.	12/21/15	
1916	23900.	20200.	13800.	11200.	9580.	8810.	8540.	8070.	7480.	12400.	11/29/16	
1917	11100.	9860.	9270.	8440.	8110.	7840.	7460.	7110.	6570.	79300.	12/18/17	
1918	68100.	54400.	40300.	30900.	23400.	15800.	12000.	10500.	8190.	51800.	01/23/19	
1919	41600.	32000.	24600.	16900.	11000.	8070.	7220.	7110.	6580.	28400.	01/26/20	
1920	19900.	15600.	12900.	8750.	6080.	5940.	5380.	5000.	4720.	41600.	12/30/20	
1921	38600.	25500.	23600.	16900.	12000.	10100.	8770.	8230.	7530.	36800.	12/12/21	
1922	32000.	25300.	18500.	15400.	12900.	8470.	6940.	5600.	5340.	55000.	01/07/23	
1923	47000.	40600.	30200.	22900.	17400.	10100.	7790.	7250.	6340.	26700.	01/31/24	
1924	23900.	20500.	17100.	14800.	10600.	7080.	6520.	5670.	4700.	41000.	02/03/25	
1925	35600.	30200.	24700.	17500.	12600.	9230.	8300.	7900.	6810.	21300.	02/06/26	
1926	19900.	16100.	12300.	8740.	7610.	5770.	5700.	5250.	4450.	25000.	10/16/26	
1927	21800.	17500.	13900.	11200.	8200.	7440.	6820.	6590.	6040.	60600.	11/25/27	
1928	47000.	29400.	20800.	16200.	11900.	8650.	7450.	6720.	7090.	13000.	12/10/28	
1929	11900.	9900.	7510.	6960.	6540.	6000.	5500.	5010.	4170.	19400.	02/07/30	
1930										41600.	03/31/31	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1912-1931)

MEAN	29215.8	23324.2	17951.6	13665.3	10610.5	8102.1	7064.2	6522.6	5823.7	W R C ESTIMATE	SYSTEMATIC RECORD
MAXIMUM	68100.0	54400.0	40300.0	30900.0	23400.0	15800.0	12000.0	10500.0	8190.0		
MINIMUM	11100.0	9860.0	7510.0	5960.0	5080.0	5060.0	4560.0	4420.0	4100.0		
STANDARD DEVIATION	15201.69	11607.54	8374.62	5980.47	4173.21	2348.68	1670.07	1512.74	1254.82		
SKEWNESS	0.934	1.145	1.094	1.831	1.803	1.950	1.305	0.864	0.273		
STD ERROR OF SKEWNESS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524		
SERIAL CORR COEFF	-0.229	-0.187	-0.097	-0.029	-0.056	-0.147	-0.170	-0.281	-0.448		
COEFF OF VARIATION	0.520	0.498	0.467	0.438	0.393	0.290	0.236	0.232	0.215		
MEAN LOGS	4.410	4.320	4.212	4.101	4.000	3.894	3.839	3.804	3.756	4.5194	4.5194
STD DEVIATION LOGS	0.228	0.210	0.196	0.174	0.149	0.111	0.097	0.097	0.094	0.2175	0.2175
SERIAL CORR LOGS	-0.030	0.090	0.113	0.453	0.771	0.823	0.857	0.877	0.915	0.0580	0.0580
STD ERR SKEWNESS LOGS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524		
SER CORR COEFF LOGS	-0.277	-0.248	-0.113	-0.050	-0.077	-0.195	-0.218	-0.332	-0.450		
COEFF OF VAR LOGS	0.052	0.049	0.047	0.042	0.037	0.029	0.025	0.026	0.025		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1912-1931)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
MEAN	7504.7	7013.9	5905.7	5700.1	5482.6	5047.1	4433.2	3956.1	3452.4	10536.9
STD	10807.0	9558.2	7856.3	6915.2	6191.9	5500.5	4934.4	4484.3	3994.9	8915.1
SERIAL CORR	13112.6	11303.2	9176.1	7743.6	6694.0	5818.0	5255.1	4811.8	4319.1	14630.0
STD ERR	16556.4	13883.1	11106.9	8968.2	7454.9	6292.5	5700.4	5258.8	4747.8	17459.1
SER CORR	25791.0	20733.8	16150.9	12251.2	9567.5	7568.4	6292.5	5700.4	5258.8	21663.7
STD VAR	40026.1	31284.3	23768.5	17465.2	13063.2	9565.3	8259.4	7661.0	6832.5	32907.1
SER VAR	50289.0	39950.1	29229.5	21395.9	15782.1	11041.6	8259.4	7661.0	6832.5	50330.9
STD LOGS	64076.7	49360.4	36576.7	26933.2	19713.1	13088.9	10514.7	9623.2	8327.3	63023.6
SER LOGS	74888.2	57621.5	42364.1	31493.3	23026.9	17472.8	14424.9	12222.3	9443.1	82792.6
COEFF OF VAR	86127.9	66304.9	48414.6	36439.5	26693.7	16513.7	12445.5	11222.3	9443.1	93959.4
COEFF OF VAR LOGS										108337.6

STATION 14219800 SPEELYAI CREEK NEAR COUGAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1959	158	177	141	83.4	218	146	192	151	86.8	16.8	6.60	88.3	
1960	64.6	249	90.2	185	340	244	127	102	28.8	7.03	14.7	14.1	110
1961	66.2	118	260	136	136	122	150	102	22.2	7.00	3.92	5.57	118
1962	87.7	321	159	96.5	163	108	186	98.3	15.9	8.82	15.3	15.4	93.8
1963	52.7	247	139	291	124	144	144	107	72.7	18.7	9.15	7.94	105
1964	48.4	199	299	257	165	88.2	99.6	63.1	20.4	28.4	34.5	21.0	116
1965	6.74	88.8	109	250	111	213	147	79.9	25.0	7.07	4.85	3.56	104
1966	44.8	130	284	320	148	124	102	91.3	34.8	29.8	7.38	7.08	89.6
1967	95.2	84.7	190	171	340	127	170.7	35.5	81.5	11.5	49.0	49.3	108
1968	120	195	204	149	65.2	129	176	132	44.9	23.9	7.67	42.0	108
1969	93.1	82.7	163	321	163	95.7	94.9	61.0	12.9	6.03	2.83	9.16	92.0
1970	60.2	147	157	342	188	180	147	151	87.5	30.7	9.48	40.9	133
1971	74.2	190	237	285	374	357	153	127	28.1	7.39	4.23	26.3	148
1972	11.3	101	237	121	57.2	94.8	55.0	44.4	40.9	19.4	5.90	28.3	68.3
1973	55.9	264	319	350	196	189	189	130	81.3	40.4	10.1	4.63	155
1974	3.08	124	265	313	165	125	84.9	105	22.4	12.4	19.5	17.3	105
1975	117	205	393	265	166	115	126	83.3	37.9	24.7	20.1	9.02	130
1976	12.3	27.7	39.9	37.1	60.7	166	97.4	67.2	65.9	8.65	11.0	55.9	54.0
1977	47.5	289	378	156	112	61.8	121	90.7	13.0	10.1	4.68	14.2	72.4
1978	14.3	69.8	126	37.2	243	180	102	69.1					
1979													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1959-1979)

MEAN	61.7	165.5	208.4	208.3	176.8	152.3	127.4	93.2	42.4	16.4	12.2	23.1	106.2
MAXIMUM	158.0	321.0	393.0	350.0	374.0	357.0	192.0	151.0	87.5	40.4	49.0	88.3	155.0
MINIMUM	3.1	27.7	39.9	37.1	57.2	61.8	55.0	35.5	12.9	6.0	2.8	2.7	54.0
STD DEVIATION	41.78	80.85	95.04	103.07	89.90	67.69	39.75	32.95	26.50	10.13	11.52	22.13	25.40
SKWENESS	0.496	0.258	0.347	-0.227	0.908	1.583	0.099	0.299	0.711	0.897	2.203	1.614	-0.078
STD ERR SKEW	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.524
SER CORR COEFF	0.028	-0.366	-0.466	0.222	-0.242	-0.245	-0.407	-0.303	-0.351	-0.325	-0.206	-0.085	-0.217
COEFF OF VAR	0.678	0.489	0.456	0.495	0.509	0.444	0.312	0.353	0.625	0.618	0.942	0.957	0.239
MEAN LOGS	1.631	2.157	2.267	2.243	2.193	2.148	2.083	1.941	1.545	1.138	0.955	1.180	2.013
STD DEV LOGS	0.460	0.260	0.237	0.297	0.230	0.175	0.146	0.168	0.277	0.263	0.330	0.424	0.113
SKWENESS LOGS	-1.179	-1.025	-1.072	-1.178	-0.325	0.342	-0.591	-0.620	0.101	0.292	0.615	-0.003	-0.852
STD ERR SKEW LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.524
SER CORR LOGS	-0.144	-0.403	-0.485	0.114	-0.281	-0.343	-0.417	-0.369	-0.359	-0.348	-0.202	-0.063	-0.150
COEFF OF VAR LOGS	0.282	0.120	0.104	0.104	0.105	0.082	0.070	0.087	0.179	0.132	0.346	0.359	0.056
% OF AVE FLOW	4.8	12.9	16.2	16.2	13.7	11.8	9.9	7.2	3.3	1.3	1.0	1.8	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1959-1979)

0.99	1.5	23.3	34.7	20.5	40.0	60.9	48.1	29.9	8.3	3.8	2.2	1.6	48.2
0.95	5.7	46.6	66.0	47.5	62.2	75.4	66.2	43.5	12.5	5.3	3.0	3.0	63.8
0.90	10.3	64.4	89.0	70.0	77.7	85.2	77.4	52.2	15.6	6.4	3.6	4.3	72.8
0.80	19.6	91.4	122.8	105.8	100.8	99.6	92.4	64.1	20.6	8.2	4.7	6.7	84.3
0.50	52.4	156.6	203.3	199.6	160.3	137.3	125.1	90.8	34.7	13.5	8.3	15.1	106.9
0.20	104.6	238.6	293.5	312.0	245.0	195.7	161.7	121.6	59.8	22.6	16.6	34.4	128.7
0.10	135.7	280.7	338.9	369.2	301.1	238.7	181.7	138.6	80.0	30.4	24.8	52.9	149.3
0.04	167.8	322.7	382.7	423.6	370.7	298.0	203.3	157.1	109.5	42.0	39.6	83.5	159.2
0.02	186.6	347.2	407.5	453.6	421.5	346.0	217.1	169.0	134.6	52.2	54.6	112.2	155.2
0.01	201.6	367.0	427.3	476.9	471.1	397.2	229.4	179.5	162.2	63.8	74.0	146.3	160.1

STATION 14219800 SPEELYAI CREEK NEAR COUGAR, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1961	3.6	3.8	4.1	4.1	4.5	7.1	12.0	13.0	43.0
1962	2.7	2.7	2.9	2.9	3.4	4.7	5.1	7.2	27.0
1963	5.7	5.8	6.2	6.2	8.3	11.0	11.0	15.0	33.0
1964	4.9	5.1	5.5	5.7	7.1	7.7	8.9	11.0	31.0
1965	14.0	15.0	16.0	17.0	18.0	23.0	28.0	33.0	48.0
1966	2.7	2.8	2.9	3.0	3.5	4.1	4.5	5.4	17.0
1967	5.4	5.4	5.5	5.6	6.1	6.8	7.7	14.0	27.0
1968	1.8	1.8	1.9	2.0	2.5	3.2	4.9	10.0	32.0
1969	4.8	4.9	5.3	5.7	7.2	11.0	30.0	35.0	46.0
1970	3.6	3.7	3.9	4.2	5.1	8.1	18.0	28.0	47.0
1971	2.0	2.1	2.2	2.2	2.7	4.0	5.4	6.7	23.0
1972	7.2	7.3	7.7	8.5	9.4	19.0	24.0	34.0	62.0
1973	3.1	3.2	3.3	3.5	3.9	4.3	6.5	12.0	28.0
1974	3.2	3.3	3.4	3.9	4.5	6.0	16.0	22.0	30.0
1975	2.1	2.1	2.3	2.4	2.8	3.6	5.1	11.0	35.0
1976	5.0	5.0	5.3	5.7	6.6	11.0	15.0	17.0	39.0
1977	6.1	6.1	6.3	6.4	6.8	8.9	13.0	16.0	20.0
1978	2.8	2.9	3.0	3.2	4.0	7.1	15.0	26.0	40.0

LOWEST MEAN FLOW STATISTICS (YEARS 1961-1978)

MEAN	4.5	4.6	4.9	5.1	5.9	8.4	12.8	17.6	34.9
MAXIMUM	14.0	15.0	16.0	17.0	18.0	23.0	30.0	35.0	62.0
MINIMUM	1.8	1.8	1.9	2.0	2.5	3.2	4.5	5.4	17.0
STANDARD DEVIATION	2.84	3.02	3.22	3.44	3.63	5.30	8.00	9.71	11.35
SKENNESS	2.373	2.556	2.622	2.609	2.308	1.714	0.958	0.699	0.626
STD ERROR OF SKENNESS	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536
SERIAL CORR COEFF	-0.185	-0.161	-0.150	-0.168	-0.148	-0.333	-0.345	-0.336	-0.363
COEFF OF VARIATION	0.633	0.656	0.663	0.672	0.615	0.633	0.626	0.553	0.325
MEAN LOGS	0.591	0.602	0.624	0.645	0.714	0.856	1.027	1.180	1.521
STD DEVIATION LOGS	0.224	0.226	0.226	0.229	0.220	0.240	0.272	0.288	0.183
SKENNESS LOGS	0.659	0.714	0.761	0.734	0.658	0.515	0.129	-0.063	-0.185
STD ERR SKENNESS LOGS	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536
SER CORR COEFF LOGS	-0.285	-0.264	-0.258	-0.288	-0.253	-0.399	-0.421	-0.410	-0.388
COEFF OF VAR LOGS	0.379	0.376	0.362	0.356	0.308	0.280	0.265	0.210	0.094

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1961-1978)

	P99	P98	P96	P90	P75	P70	P50	P25	P10
0.99	16.5	17.5	18.7	19.9	21.3	31.8	48.5	55.6	68.4
0.98	13.4	14.0	14.9	15.9	17.3	25.8	40.2	47.9	63.2
0.96	10.7	11.2	11.8	12.5	13.9	20.6	32.8	40.6	57.9
0.90	7.8	8.0	8.4	8.9	10.1	14.9	24.0	31.3	50.3
0.80	5.9	6.0	6.3	6.7	7.7	11.2	18.0	24.5	43.9
0.50	3.7	3.8	3.9	4.1	4.9	6.8	10.5	15.2	33.5
0.20	2.5	2.6	2.7	2.8	3.4	4.5	6.3	9.4	25.2
0.10	2.1	2.2	2.3	2.4	2.8	3.7	4.8	7.3	21.6
0.05	1.9	1.9	2.0	2.1	2.5	3.2	3.9	5.9	18.9
0.02	1.6	1.7	1.8	1.9	2.2	2.7	3.1	4.6	16.3
0.01	1.5	1.6	1.7	1.7	2.0	2.5	2.6	3.9	14.7

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1961-1978)

P95	P90	P75	P70	P50	P25	P10
4.4	6.4	18.0	25.0	62.0	140.0	250.0

STATION 14219800 SPEELYAI CREEK NEAR COUGAR, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW(CFS)	DATE	REG. (R)
1960	860.	689.	490.	338.	259.	191.	194.	185.	167.	1260.	11/23/59	
1961	1190.	785.	527.	429.	343.	292.	259.	236.	208.	1830.	11/24/60	
1962	670.	554.	379.	168.	228.	228.	157.	168.	157.	911.	12/20/61	
1963	1300.	1050.	672.	554.	388.	269.	218.	187.	178.	3600.	11/20/62	
1964	1620.	964.	629.	425.	304.	231.	232.	206.	181.	2240.	01/25/64	
1965	1330.	1100.	753.	488.	361.	264.	277.	237.	184.	2150.	11/30/64	
1966	1070.	669.	444.	381.	267.	190.	195.	188.	157.	1270.	03/09/66	
1967	1530.	1040.	595.	436.	324.	303.	263.	227.	188.	1910.	12/13/66	
1968	1140.	811.	728.	416.	333.	254.	233.	206.	172.	1330.	02/19/68	
1969	717.	672.	441.	292.	247.	233.	209.	170.	152.	1410.	12/03/68	
1970	1020.	843.	694.	570.	373.	267.	224.	191.	154.	1360.	01/19/70	
1971	1140.	734.	562.	495.	369.	288.	253.	235.	199.	1500.	01/19/71	
1972	2120.	1410.	826.	650.	541.	433.	351.	309.	252.	3100.	01/20/72	
1973	990.	799.	609.	425.	276.	188.	157.	134.	112.	1500.	12/21/72	
1974	1570.	1220.	751.	518.	404.	350.	331.	293.	258.	2050.	01/15/74	
1975	1350.	1060.	712.	467.	375.	304.	260.	235.	191.	1820.	01/14/75	
1976	1610.	1490.	1000.	610.	403.	355.	317.	275.	222.	2490.	12/01/75	
1977	445.	353.	249.	236.	179.	143.	117.	109.	85.	562.	03/07/77	
1978										2630.	12/02/77	
1979	964.	752.	506.	347.	321.	211.	175.	148.	129.	1410.	03/05/79	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1960-1979)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKENNESS	STD ERROR OF SKENNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	STD ERR SKENNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	1191.4	894.5	614.9	445.1	334.3	262.8	234.7	207.3	176.8						
	2120.0	1490.0	1000.0	650.0	541.0	433.0	351.0	309.0	258.0						
	445.0	353.0	249.0	236.0	179.0	143.0	117.0	109.0	85.0						
	397.27	286.23	168.04	106.85	77.96	69.20	59.19	52.14	43.15						
	0.323	0.434	0.126	0.074	0.570	0.439	0.187	0.172	-0.055						
	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524						
	-0.193	-0.217	-0.116	-0.200	-0.233	-0.235	-0.278	-0.199	-0.222						
	0.333	0.320	0.273	0.240	0.233	0.263	0.252	0.252	0.244						
	3.051	2.929	2.772	2.636	2.513	2.406	2.357	2.303	2.234						
	0.159	0.148	0.132	0.110	0.104	0.115	0.116	0.115	0.116						
	-0.783	-0.623	-1.070	-0.593	-0.447	-0.138	-0.609	-0.511	-0.937						
	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524						
	-0.070	-0.192	-0.197	-0.091	-0.221	-0.244	-0.235	-0.168	-0.173						
	0.052	0.050	0.047	0.042	0.041	0.048	0.049	0.050	0.052						
										3.2242	3.2242	0.1850	0.0520	3.2242	0.1850
										0.0520	-0.5470			-0.5470	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1960-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	391.8	574.1	689.3	844.2	1178.1	1537.3	1723.6	1913.9	2030.0	2128.5
	331.2	460.4	540.7	647.9	879.8	1136.8	1275.7	1423.6	1517.6	1600.2
	233.5	333.6	393.8	471.1	623.1	764.2	827.9	885.8	917.4	941.8
	215.1	274.1	308.6	352.8	443.2	537.3	586.4	637.5	669.6	697.6
	173.0	213.8	237.6	268.2	331.4	399.4	436.1	475.6	501.2	524.1
	134.1	163.2	180.7	204.1	256.0	318.2	355.3	398.7	428.9	457.6
	109.0	140.8	159.6	183.8	233.5	285.6	312.8	341.2	358.9	374.4
	98.6	125.6	141.6	162.3	205.4	251.8	276.8	303.5	320.6	335.8
	77.4	104.2	119.7	137.5	178.5	215.1	232.2	248.4	257.5	264.9
	632.3	836.9	973.1	1169.6	1669.5	2395.2	2898.6	3558.2	4065.5	4586.1
	526.4	783.4	952.7	1189.6	1741.6	2413.6	2803.7	3240.8	3530.9	3794.6

STATION 14220500 LEWIS RIVER AT ARIEL, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1909													
1910	1510									3095	1402	1107	
1922	1869										1250	1300	
1923	1209										1126	840	
1924	2387										1070	914	
1925	871	1983	6275	4680	11970	2921	2949	2923	1294	913		822	3199
1926	2095	8693	6759	9969	12700	4621	5701	5174	3243	1516		949	5174
1927	4493	6705	8103	4395	9724	4828	2948	3077	1584	1056		1392	3387
1928	4284	7490	6915	7490	8407	4673	4667	6357	5464	2018		2007	5009
1929	2337	12310	5920	7241	3897	9358	9065	7275	2830	1788		933	5498
1929	2337	3964	4659	3445	1942	4975	6184	6726	4420	1723		807	3528
1930	815	838	4503	2763	11260	4603	4716	3846	2331	1723		770	3155
1931	933	1790	2306	5266	4769	7014	8922	1984	183	121		794	2440
1932	1944	5222	5016	6491	5951	12330	8666	7280	5570	2571		1966	5395
1933	2141	8760	7506	8161	3538	7161	6266	8530	10330	4306		2294	5910
1934	5448	5221	28350	16730	4838	7139	4244	2842	1746	1245		2579	6903
1935	1865	11180	8529	6686	6047	4753	4679	6148	4107	2093		2544	5012
1936	2881	2134	3125	8200	3911	5444	5212	7112	4837	2134		1787	4102
1937	2729	1063	2526	3206	3022	3929	10200	7447	7691	2491		1605	2547
1938	2532	9062	10920	8333	3991	6347	8170	6207	3254	1593		2372	4030
1939	2558	2869	4691	7192	5550	5167	5374	4371	2968	1834		2081	5345
1940	2427	2390	5177	4599	10070	8427	4837	4305	1564	901		1281	3900
1941	2247	3415	5378	5614	3459	2797	2362	3319	1900	1118		2948	2976
1942	3145	4145	10710	3501	4980	3565	3454	3880	3986	1682		1178	3783
1943	1553	8982	8694	4822	6381	6014	9726	5208	4522	2271		1875	5092
1944	2144	3587	3477	3610	4582	3666	3747	3734	2598	1031		1382	2858
1945	2083	3373	3062	6517	7698	5308	5192	8241	3150	1398		991	1388
1946	1682	6449	8999	8872	6052	6661	5986	7036	5588	3754		1415	5304
1947	2473	8206	15070	5863	7949	5367	5937	3246	2371	1554		1017	5026
1948	7319	8127	5835	8045	6060	4617	5806	8032	5215	1990		1479	5299
1949	2203	5982	6766	2806	5488	6819	7110	9591	4686	2294		1123	4664
1950	2079	7698	7243	7295	9369	11200	8774	7866	8007	3928		1334	6361
1951	5223	10100	11930	8283	10550	4773	5427	6615	3573	1687		1503	5879
1952	6846	6250	8160	3456	7909	5160	4913	6931	3822	1938		792	4736
1953	696	920	704	16630	11060	5562	4390	4156	5156	2748		2597	4641
1954	3807	4504	11750	8442	8068	7239	6841	5795	5156	3896		1450	5770
1955	4286	4781	5715	6050	5266	3107	5611	4547	7714	2449		1484	4594
1956	6187	12470	12370	9932	6556	6342	7134	9008	7700	3911		2049	7065
1957	4198	6707	7323	5375	4174	8346	7372	5028	2644	1087		969	4542
1958	2462	5030	7028	8980	10780	6595	6308	5140	3105	1291		1012	4843

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1925	760.0	760.0	764.0	765.0	782.0	818.0	855.0	953.0	1410.0
1926	810.0	826.0	827.0	836.0	855.0	877.0	918.0	1000.0	1610.0
1927	794.0	794.0	817.0	855.0	946.0	955.0	1030.0	1220.0	1800.0
1928	1050.0	1060.0	1070.0	1090.0	1180.0	1420.0	1650.0	2370.0	3360.0
1929	770.0	777.0	808.0	876.0	930.0	990.0	1190.0	1460.0	2110.0
1930	740.0	740.0	740.0	762.0	780.0	809.0	815.0	849.0	1440.0
1931	715.0	721.0	731.0	742.0	761.0	801.0	842.0	901.0	1230.0
1932	1.0	37.0	84.0	106.0	111.0	128.0	153.0	212.0	716.0
1933	597.0	982.0	1530.0	1680.0	1690.0	1830.0	1950.0	2040.0	3350.0
1934	555.0	998.0	1340.0	1400.0	1500.0	1890.0	2240.0	3050.0	4750.0
1935	333.0	712.0	892.0	993.0	1170.0	1350.0	1520.0	1750.0	2010.0
1936	266.0	919.0	1320.0	1420.0	1520.0	1740.0	2080.0	2190.0	2380.0
1937	757.0	866.0	942.0	1000.0	1040.0	1190.0	2010.0	1980.0	2080.0
1938	910.0	1250.0	1440.0	1480.0	1540.0	1790.0	2090.0	2200.0	3580.0
1939	431.0	982.0	1070.0	1220.0	1270.0	1540.0	1710.0	1910.0	2250.0
1940	705.0	873.0	1190.0	1260.0	1320.0	1510.0	1770.0	1940.0	2110.0
1941	654.0	967.0	790.0	847.0	884.0	961.0	1040.0	1180.0	1590.0
1942	730.0	925.0	860.0	886.0	905.0	1100.0	1350.0	1760.0	2130.0
1943	608.0	760.0	869.0	966.0	1060.0	1190.0	1280.0	1360.0	2200.0
1944	458.0	776.0	1130.0	1210.0	1310.0	1430.0	1640.0	1860.0	2430.0
1945	500.0	642.0	767.0	795.0	816.0	886.0	1050.0	1300.0	1860.0
1946	488.0	584.0	849.0	881.0	928.0	1130.0	1230.0	1330.0	2230.0
1947	474.0	641.0	936.0	1010.0	1080.0	1150.0	1370.0	1980.0	3210.0
1948	640.0	647.0	817.0	859.0	959.0	1180.0	1320.0	1590.0	2360.0
1949	591.0	620.0	904.0	907.0	1020.0	1190.0	1450.0	1650.0	2860.0
1950	568.0	586.0	861.0	932.0	977.0	1130.0	1370.0	1630.0	2690.0
1951	668.0	742.0	1120.0	1240.0	1300.0	1530.0	2050.0	2790.0	4540.0
1952	730.0	761.0	766.0	771.0	1160.0	1320.0	1450.0	1950.0	3280.0
1953	630.0	643.0	664.0	678.0	694.0	739.0	744.0	774.0	898.0
1954	639.0	714.0	910.0	1200.0	1390.0	1600.0	2110.0	2520.0	3250.0
1955	750.0	750.0	1000.0	1160.0	1320.0	1430.0	2010.0	2740.0	3610.0
1956	804.0	854.0	892.0	1070.0	1320.0	1500.0	2510.0	3380.0	4300.0
1957	800.0	900.0	1020.0	1420.0	1470.0	1780.0	2320.0	2870.0	4010.0
1958	680.0	687.0	774.0	887.0	953.0	1030.0	1090.0	1350.0	2100.0

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HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1924	2750.0	2470.0	2140.0	1780.0	1450.0	844.0	771.0	662.0	536.0	2980.0 01/31/24
1925	3840.0	3456.0	2976.0	2140.0	1536.0	1126.0	1016.0	949.0	805.0	4400.0 02/06/25
1926	2550.0	2120.0	1670.0	1140.0	976.0	741.0	750.0	670.0	544.0	2650.0 02/06/26
1927	2300.0	2140.0	1840.0	1410.0	973.0	807.0	870.0	764.0	682.0	2780.0 10/16/26
1928	5160.0	3420.0	2580.0	2080.0	1490.0	1020.0	878.0	794.0	637.0	6260.0 11/25/27
1929	1410.0	1110.0	823.0	785.0	747.0	673.0	624.0	563.0	476.0	1640.0 12/10/28
1930	1870.0	1640.0	1400.0	1350.0	1080.0	770.0	671.0	600.0	529.0	2150.0 02/14/30
1931	3020.0	2760.0	1970.0	1400.0	1140.0	840.0	739.0	665.0	521.0	3060.0 04/01/31
1932	3640.0	2760.0	1810.0	1580.0	1370.0	1170.0	1040.0	925.0	793.0	4170.0 02/26/32
1933	3030.0	2340.0	1890.0	1310.0	1130.0	976.0	847.0	747.0	710.0	3470.0 01/08/33
1934	11400.0	4560.0	5960.0	4120.0	3120.0	2340.0	1740.0	1480.0	1170.0	12400.0 12/22/33
1935	3240.0	3000.0	2210.0	1380.0	1150.0	995.0	887.0	815.0	699.0	3800.0 11/06/34
1936	2570.0	2420.0	1820.0	1290.0	1040.0	882.0	607.0	592.0	582.0	3410.0 01/12/36
1937	3400.0	2870.0	1960.0	1350.0	1040.0	882.0	850.0	740.0	593.0	4910.0 04/14/37
1938	5140.0	4030.0	2630.0	1580.0	1270.0	1120.0	981.0	844.0	810.0	6150.0 12/30/37
1939	1920.0	1670.0	1220.0	923.0	751.0	662.0	606.0	590.0	539.0	2460.0 02/14/39
1940	2530.0	2140.0	1810.0	1240.0	1200.0	957.0	800.0	760.0	621.0	3690.0 02/06/40
1941	2110.0	1300.0	954.0	782.0	606.0	583.0	517.0	460.0	398.0	2920.0 11/29/40
1942	3760.0	2720.0	2000.0	1320.0	1090.0	756.0	661.0	587.0	507.0	4060.0 12/19/41
1943	4490.0	2950.0	2140.0	1460.0	1170.0	946.0	807.0	726.0	576.0	4170.0 11/23/42
1944	1040.0	865.0	675.0	526.0	456.0	415.0	400.0	397.0	381.0	1870.0 02/06/44
1945	3320.0	2490.0	1730.0	1120.0	934.0	729.0	675.0	668.0	600.0	4280.0 02/07/45
1946	3400.0	2950.0	2140.0	1690.0	1170.0	986.0	876.0	824.0	754.0	3950.0 12/28/45
1947	6060.0	5170.0	3980.0	2490.0	1930.0	1200.0	1090.0	966.0	809.0	6730.0 12/13/46
1948	2630.0	2160.0	1700.0	1280.0	1060.0	867.0	850.0	745.0	675.0	3080.0 01/07/48
1949	2190.0	1720.0	1290.0	1260.0	1070.0	867.0	829.0	762.0	665.0	2620.0 02/23/49
1950	3610.0	2770.0	1930.0	1850.0	1410.0	1150.0	1010.0	971.0	899.0	4400.0 11/27/49
1951	3660.0	3010.0	2310.0	1490.0	1240.0	1120.0	1130.0	1050.0	861.0	4020.0 12/23/50
1952	2300.0	1770.0	1370.0	1020.0	846.0	795.0	716.0	678.0	630.0	2490.0 10/23/51
1953	3880.0	3780.0	3040.0	2640.0	2170.0	1400.0	1140.0	948.0	785.0	4780.0 01/17/53
1954	2730.0	2260.0	1750.0	1490.0	1210.0	1020.0	940.0	894.0	816.0	4700.0 12/09/53
1955	1480.0	1390.0	935.0	776.0	623.0	608.0	557.0	539.0	2020.0	06/11/55
1956	3450.0	2850.0	2200.0	1600.0	1270.0	1180.0	1060.0	922.0	4910.0	12/12/55
1957	1560.0	1430.0	1180.0	911.0	872.0	790.0	711.0	667.0	2710.0	03/09/57
1958	1590.0	1470.0	1310.0	1190.0	1130.0	990.0	911.0	839.0	1830.0	02/12/58

STATION 14220500 LEWIS RIVER AT ARIEL, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1959	2000	5944	3645	9463	6807	4715	5501	6186	4672	1615	1032	3258	4548
1960	6555	6641	7543	5984	6887	5774	6944	7547	4812	1884	1032	4106	5458
1961	2440	9276	7471	7398	15940	9245	6089	6773	3707	1385	1056	2487	6032
1962	2721	5717	8408	7845	5989	6073	2941	4687	3208	1440	1114	9474	4295
1963	3745	10580	8085	7507	4158	4234	7047	4758	1944	1510	976	958	4624
1964	2944	9035	7970	9224	8237	3758	3758	2661	3203	2817	1988	1613	5171
1965	3082	7575	13220	10060	7087	4983	4139	4431	3187	1178	1050	1635	5130
1966	1018	4195	7088	7778	6386	7033	5124	3546	3454	2040	1801	982	4194
1967	2575	5185	11280	10590	9145	8275	5578	3254	808	806	791	983	4924
1968	4610	7611	7290	7511	11490	6416	5928	2033	5112	1301	2050	2505	5288
1969	6369	9425	9146	9781	5394	8620	4874	7829	4814	2088	1065	1769	5400
1970	5515	5914	7082	11290	8495	8620	4874	2725	794	780	772	847	4798
1971	3083	6528	9525	10940	9819	8030	6413	4224	6543	4082	1794	3520	6184
1972	3408	6370	9179	9770	10240	15310	5698	8630	5429	2290	1317	2360	6666
1973	3991	4605	9223	9721	6044	2341	2201	1246	1712	2271	834	838	3749
1974	2919	10630	13350	14850	10380	8097	7112	6396	8936	4086	1755	1346	7470
1975	3437	5078	8996	11460	8779	8748	3239	2287	3443	2013	1444	2752	5126
1976	3824	8774	15570	10830	8471	7439	3379	2915	3328	1929	1437	2095	5834
1977	4012	3770	2477	5105	795	832	1419	3735	3687	1076	1196	2946	5512
1978	3012	10030	18730	9161	7009	3258	1787	3995	2730	1555	1696	3189	5512
1979	1583	4248	6819	5339	3639	5890	3212	3790	1736	1817	1049	1801	3402

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1950-1979)

MEAN	3468.7	7006.2	9147.5	9043.2	7780.1	6505.9	4589.4	4459.4	3679.0	1903.0	1291.0	2067.8	5066.7
MAXIMUM	6555.0	10630.0	18730.0	14850.0	15940.0	15310.0	7112.0	8630.0	8936.0	4086.0	2050.0	4106.0	7470.0
MINIMUM	1018.0	3770.0	2477.0	3639.0	795.0	832.0	1419.0	1246.0	794.0	780.0	772.0	838.0	2598.0
STD DEVIATION	1403.95	2208.10	3692.15	2460.73	3054.60	3084.68	1753.25	2044.49	1917.74	882.76	407.18	966.90	1098.79
SKEWNESS	0.737	0.266	0.861	-0.086	0.403	0.737	-0.212	0.578	0.877	1.395	0.555	0.449	-0.100
STD ERR SKEW	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR COEFF	0.106	-0.421	-0.546	0.218	-0.119	-0.108	0.114	-0.203	-0.257	-0.039	-0.442	0.294	-0.339
COEFF OF VAR	0.405	0.315	0.404	0.272	0.393	0.474	0.382	0.458	0.521	0.464	0.315	0.468	0.217
MEAN LOGS	3.504	3.824	3.925	3.938	3.843	3.753	3.624	3.603	3.500	3.240	3.091	3.267	3.694
STD DEV LOGS	0.189	0.141	0.192	0.135	0.253	0.267	0.199	0.213	0.265	0.188	0.134	0.216	0.102
SKEWNESS LOGS	-0.691	-0.123	-0.939	-1.180	-2.651	-1.589	-0.932	-0.425	-0.908	0.161	0.214	-0.202	-0.951
STD ERR SKEW LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR LOGS	0.103	-0.426	-0.544	0.131	-0.066	-0.037	0.255	-0.304	-0.324	-0.100	-0.423	0.236	-0.333
COEFF OF VAR LOGS	0.054	0.037	0.049	0.034	0.066	0.071	0.055	0.059	0.076	0.058	0.044	0.066	0.028
% OF AVE FLOW	5.7	11.5	15.0	14.8	12.8	10.7	7.5	7.3	6.0	3.1	2.1	3.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1959-1979)

0.99	938.0	3049.9	2248.0	3284.1	713.7	708.8	1075.0	1101.6	517.2	666.8	629.9	538.4	2447.7
0.95	1449.3	3872.8	3684.9	4807.4	2156.1	1696.3	1790.5	1693.1	1014.5	808.6	755.3	791.8	3186.8
0.90	1788.8	4387.3	4650.9	5729.1	3398.4	2499.9	2277.2	2098.9	1394.9	1004.3	835.4	966.1	3608.0
0.80	2263.7	5090.4	5998.0	6910.9	5234.9	3732.2	2962.1	2687.3	1977.2	1202.1	947.4	1221.7	4131.5
0.50	3355.2	6716.0	9006.3	9210.4	8644.8	6606.0	4511.4	4147.8	3463.6	1716.8	1219.2	1879.3	5127.9
0.20	4633.9	8778.1	12270.0	11273.5	10391.0	9349.0	6217.3	6095.3	5327.9	2492.5	1593.8	2822.9	6040.3
0.10	5343.9	10059.5	13926.8	12165.2	10679.5	10433.9	7092.3	7315.4	6367.0	3049.2	1845.0	3459.5	6457.7
0.04	6107.2	11600.7	15666.4	13944.0	10775.8	11255.4	7963.9	8766.1	7455.9	3798.7	2167.2	4267.7	6846.8
0.02	6593.7	12700.5	16528.6	13350.6	10792.9	11615.8	8476.2	9781.3	8125.1	4392.5	2411.1	4689.3	7065.4
0.01	7021.2	13764.7	17317.9	13654.5	10797.9	11845.3	8901.8	10743.2	8689.0	5013.9	2658.8	5468.8	7239.7

STATION 14220500 LEWIS RIVER AT ARIEL, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1960	701.0	707.0	711.0	755.0	1010.0	1260.0	1740.0	2530.0	3640.0
1961	638.0	648.0	658.0	688.0	688.0	2080.0	2200.0	3500.0	
1962	734.0	800.0	839.0	903.0	1050.0	1190.0	1430.0	1890.0	2780.0
1963	652.0	654.0	696.0	725.0	906.0	1016.0	1280.0	1650.0	2360.0
1964	667.0	667.0	678.0	777.0	846.0	962.0	1310.0	2180.0	
1965	870.0	1000.0	1290.0	1390.0	1530.0	1770.0	1990.0	2300.0	2510.0
1966	643.0	799.0	843.0	885.0	1010.0	1110.0	1210.0	1220.0	1920.0
1967	804.0	815.0	831.0	918.0	978.0	1330.0	1440.0	1740.0	2390.0
1968	719.0	728.0	737.0	763.0	770.0	796.0	794.0	820.0	1780.0
1969	752.0	773.0	792.0	833.0	1160.0	1330.0	1920.0	2330.0	2870.0
1970	766.0	771.0	792.0	811.0	980.0	1190.0	1570.0	2340.0	3450.0
1971	678.0	689.0	708.0	716.0	740.0	760.0	764.0	785.0	1400.0
1972	753.0	775.0	890.0	1100.0	1740.0	2420.0	2680.0	3120.0	3880.0
1973	792.0	826.0	974.0	1000.0	1150.0	1280.0	1830.0	2390.0	3290.0
1974	784.0	787.0	807.0	825.0	834.0	836.0	1110.0	1430.0	1460.0
1975	813.0	822.0	921.0	941.0	1340.0	1500.0	1980.0	2430.0	3850.0
1976	706.0	722.0	740.0	1020.0	1060.0	1490.0	1900.0	2190.0	2400.0
1977	668.0	683.0	707.0	759.0	772.0	828.0	1770.0	2150.0	2410.0
1978	776.0	779.0	783.0	894.0	894.0	1010.0	1430.0	1680.0	2340.0
1979	808.0	824.0	838.0	857.0	1210.0	1460.0	1800.0	2000.0	2310.0

LOWEST MEAN FLOW STATISTICS (YEARS 1960-1979)

MEAN	736.0	763.6	812.1	872.8	1033.4	1244.6	1593.4	1925.2	2636.0
MAXIMUM	870.0	1000.0	1290.0	1390.0	1740.0	2420.0	2680.0	3120.0	3880.0
MINIMUM	638.0	648.0	658.0	688.0	688.0	760.0	764.0	785.0	1400.0
STANDARD DEVIATION	65.81	81.54	140.38	164.19	267.77	387.26	470.19	596.32	752.50
SKEWNESS	0.135	0.988	2.188	1.776	1.191	1.427	0.122	-0.326	0.203
STD ERROR OF SKEWNESS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SERIAL CORR COEFF	-0.194	-0.023	-0.048	-0.035	-0.212	-0.301	-0.245	-0.266	-0.234
COEFF OF VARIATION	0.089	0.107	0.173	0.188	0.259	0.311	0.295	0.310	0.285
MEAN LOGS	2.865	2.881	2.904	2.935	3.002	3.077	3.182	3.260	3.403
STD DEVIATION LOGS	0.039	0.045	0.067	0.074	0.105	0.125	0.139	0.159	0.129
SKEWNESS LOGS	-0.004	0.573	1.553	1.195	0.599	0.425	-0.689	-1.105	-0.352
STD ERR SKEWNESS LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF LOGS	-0.158	0.003	-0.020	-0.013	-0.239	-0.348	-0.266	-0.300	-0.319
COEFF OF VAR LOGS	0.014	0.016	0.023	0.025	0.035	0.041	0.044	0.049	0.038

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1960-1979)

	P95	P90	P75	P70	P50	P25	P10
0.99	902.6	1008.5	1344.5	1469.4	1951.9	2553.0	3163.9
0.98	880.9	968.5	1226.5	1344.5	1774.1	2301.7	2601.4
0.96	857.4	927.8	1117.2	1226.8	1603.0	2059.3	2458.0
0.90	822.2	871.5	984.4	1080.5	1383.5	1747.3	2272.0
0.80	790.5	825.4	891.0	974.4	1217.7	1510.9	2004.3
0.50	733.2	733.2	772.4	832.1	980.2	1170.5	1578.9
0.20	680.0	695.1	707.3	745.0	816.4	933.4	1180.8
0.10	653.7	670.5	687.5	714.8	751.5	838.4	992.4
0.05	632.6	652.5	676.4	695.9	706.2	771.5	849.6
0.02	610.0	634.6	668.3	679.8	706.7	704.1	708.1
0.01	595.3	623.9	664.7	671.7	637.6	668.8	616.3

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1960-1979)

	P95	P90	P75	P70	P50	P25	P10
770.0	840.0	1600.0	2000.0	4300.0	7700.0	9700.0	

STATION 14220500 LEWIS RIVER AT ARIEL, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1959	25600.	19600.	16800.	12600.	10300.	8170.	7100.	6810.	6220.	32800. 01/24/59 R
1960	12400.	12300.	10300.	8850.	8100.	7740.	7160.	6880.	6800.	21400. 10/12/59 R
1961	29400.	25000.	20500.	18900.	15700.	10700.	10500.	9260.	8800.	48200. 11/24/60 R
1962	11800.	11600.	9980.	9980.	9140.	8300.	7560.	7270.	6290.	11900. 12/20/61 R
1963	57500.	34400.	24500.	18600.	13600.	10500.	9070.	7770.	7130.	75500. 11/20/62 R
1964	14100.	12500.	11000.	10300.	9490.	9130.	8950.	8780.	7830.	17700. 01/25/64 R
1965	40300.	30200.	21500.	15300.	13300.	11400.	10500.	9610.	7870.	44000. 12/22/64 R
1966	10800.	10200.	9010.	8790.	8100.	7500.	7380.	7260.	6310.	11900. 08/01/66 R
1967	41200.	34300.	21100.	15400.	11500.	11300.	10500.	9880.	8470.	50500. 12/13/66 R
1968	26300.	23400.	19500.	13500.	11500.	9570.	8730.	8440.	7810.	31100. 02/23/68 R
1969	20300.	16800.	13900.	11500.	10400.	9860.	9570.	8950.	7220.	21000. 11/11/68 R
1970	33900.	26200.	21200.	15900.	12200.	10400.	9560.	8980.	7830.	41800. 01/23/70 R
1971	21000.	16200.	13500.	12400.	11000.	10400.	10100.	9640.	8610.	23300. 01/25/71 R
1972	34900.	28500.	20900.	20000.	16600.	13300.	12000.	11300.	9850.	36400. 03/13/72 R
1973	16600.	14000.	13500.	11900.	10900.	9550.	8600.	7570.	5990.	18000. 12/24/72 R
1974	55400.	44100.	30200.	20700.	16100.	14700.	13600.	12500.	10800.	59600. 01/15/74 R
1975	20600.	16700.	15900.	13700.	11900.	10800.	10100.	9630.	7920.	22400. 01/14/75 R
1976	57200.	43000.	32600.	22200.	15800.	13500.	11900.	9240.	8240.	64500. 12/04/75 R
1977	9700.	8440.	7440.	5780.	5220.	4210.	3800.	3890.	2850.	11800. 12/02/76 R
1978	52100.	44500.	30200.	28400.	15200.	15000.	12800.	11400.	8510.	71900. 12/02/77 R
1979	11000.	9990.	9500.	9180.	7650.	6550.	5310.	5430.	5000.	11800. 11/15/78 R

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1957-1979)

W R C
ESTIMATE SYSTEMATIC
RECORD

MEAN	28671.4	22949.0	17807.1	14470.5	11890.5	10203.8	9285.2	8742.4	7514.8	
MAXIMUM	57500.0	44500.0	32600.0	28400.0	21200.0	15000.0	13600.0	12500.0	10800.0	
MINIMUM	9700.0	8440.0	7440.0	5780.0	5220.0	4210.0	3800.0	3890.0	2850.0	
STANDARD DEVIATION	16394.04	11786.15	7374.82	5445.68	3692.82	2684.81	2391.02	2104.87	1756.84	
SKEWNESS	0.620	0.622	0.532	0.804	0.640	-0.101	-0.369	-0.371	-0.664	
STD ERROR OF SKEWNESS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	
SERIAL CORR COEFF	-0.744	-0.757	-0.719	-0.700	-0.672	-0.590	-0.493	-0.459	-0.391	
COEFF OF VARIATION	0.572	0.514	0.414	0.376	0.311	0.263	0.258	0.241	0.234	
MEAN LOGS	4.386	4.305	4.214	4.131	4.055	3.992	3.951	3.928	3.862	
STD DEVIATION LOGS	-0.026	0.029	0.186	0.164	0.138	0.128	0.129	0.118	0.123	
SKEWNESS LOGS	-0.026	0.019	-0.123	-0.149	-0.346	-1.084	-1.294	-1.193	-1.861	
STD ERR SKEWNESS LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	
SER CORR COEFF LOGS	-0.798	-0.819	-0.755	-0.735	-0.677	-0.549	-0.455	-0.427	-0.334	
COEFF OF VAR LOGS	0.059	0.053	0.044	0.040	0.034	0.032	0.033	0.030	0.032	

4.4623
0.2717
-0.0530
-0.0530

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1979)

0.99	5965.2	5968.7	5830.6	5387.1	5001.1	3974.4	3444.4	3594.4	2680.8	6601.1
0.95	9037.5	8508.1	7989.2	7152.6	6531.9	5632.8	5045.6	5033.4	4149.2	10263.8
0.90	11266.7	10284.0	9417.6	8288.7	7475.3	6623.1	6004.1	5876.0	5017.8	12959.1
0.80	14700.7	12945.0	11457.0	9874.9	8742.3	7886.9	7218.2	6932.5	6080.9	17153.4
0.50	24386.8	20139.8	16510.6	13662.9	11557.7	9552.5	9516.5	8925.1	7891.4	29154.3
0.20	40308.3	31405.3	23500.7	18654.4	14884.7	12613.8	11474.8	10653.7	9095.8	49166.5
0.10	52341.3	39651.8	28125.6	21837.5	16827.3	13624.0	12275.0	11384.5	9455.6	64410.8
0.04	60800.9	50880.5	33940.1	25732.0	19033.5	14536.2	12939.5	12014.3	9570.4	85707.4
0.02	82594.8	59796.1	38244.6	28549.1	20529.2	15029.9	13269.2	12339.5	9757.2	102945.0
0.01	96556.5	69160.9	42524.6	31301.4	21918.1	15410.4	13504.9	12580.6	9800.3	121289.1

STATION 14221500 CEDAR CREEK NEAR ARIEL, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1951	151	262	456	237	347	251	134	55.1	34.5	16.0	10.7	13.5	164
1952	9.82	13.3	105	735	417	214	150	122	149	21.0	13.9	10.7	164
1953	36.0	191	654	498	426	209	192	57.7	19.9	37.3	21.3	14.3	165
1954	31.7	171	278	311	323	251	363	113	42.9	52.5	24.6	19.1	203
1955	23.9	132	448	269	212	268	222	200	46.2	18.3	16.6	25.3	162
1961	33.5	388	304	208	302	207	329	153	45.1	22.8	16.7	14.7	154
1962	30.7	258	269	695	263	339	142	174	45.1	28.9	16.5	14.9	169
1964	33.1	164	592	612	329	115	77.7	95.4	67.3	37.5	23.4	21.9	187
1965	9.88	49.4	187	523	227	350	100	41.4	30.7	13.0	10.3	5.22	171
1966	29.6	154	480	584	330	253	207	85.6	24.3	26.5	9.28	9.40	130
1967	40.8	77.3	309	298	442	183	144	166	100	12.0	5.79	5.18	181
1968	171	349	536	487	336	191	108	81.1	68.3	26.8	34.4	49.8	146
1969										51.1	15.1	29.5	201

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1951-1969)

MEAN	50.1	184.1	384.8	454.7	329.5	235.9	180.7	101.1	60.4	28.4	16.3	17.3	169.4
MAXIMUM	171.0	388.0	654.0	735.0	442.0	350.0	363.0	200.0	149.0	52.5	34.4	49.8	203.0
MINIMUM	9.8	13.3	105.0	208.0	212.0	115.0	77.7	41.4	24.3	12.0	5.8	5.2	130.0
STD DEVIATION	52.84	114.12	168.12	184.22	73.55	65.29	88.49	49.02	34.58	12.85	7.58	11.76	21.35
SKWENESS	1.932	0.369	-0.002	0.066	-0.004	0.221	1.128	0.660	1.540	0.661	0.982	1.747	-0.023
STD ERR SKEW	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.616	0.597	0.597	0.597	0.637
SER CORR COEFF	-0.130	-0.158	-0.778	-0.027	0.269	-0.577	0.276	0.416	0.035	0.176	-0.133	0.086	-0.395
COEFF OF VAR	1.055	0.620	0.437	0.405	0.223	0.277	0.490	0.485	0.573	0.452	0.464	0.679	0.126
MEAN LOGS	1.537	2.142	2.537	2.621	2.507	2.356	2.213	1.959	1.725	1.411	1.170	1.158	2.266
STD DEV LOGS	0.373	0.410	0.430	0.192	0.101	0.129	0.201	0.207	0.225	0.202	0.203	0.275	0.056
SKWENESS LOGS	0.580	-1.528	-0.997	-0.315	-0.440	-0.753	0.312	0.156	0.452	-0.111	-0.161	0.092	-0.346
STD ERR SKEW LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.616	0.597	0.597	0.597	0.637
SER CORR LOGS	-0.290	-0.267	-0.701	0.004	0.223	-0.581	0.386	0.334	0.130	0.077	-0.044	-0.003	-0.387
COEFF OF VAR LOGS	0.242	0.191	0.091	0.073	0.040	0.055	0.091	0.106	0.130	0.143	0.174	0.237	0.025
% OF AVE FLOW	2.5	9.0	18.8	22.3	16.1	11.5	8.8	4.9	3.0	1.4	0.8	0.8	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1951-1969)

0.99	6.8	5.9	69.8	135.3	173.8	97.4	62.1	31.8	19.0	8.4	4.7	3.4	120.9
0.95	9.8	21.9	127.8	194.8	213.5	132.1	79.8	42.5	24.3	11.8	6.7	5.2	134.6
0.90	12.3	35.5	169.6	234.4	236.6	153.0	92.0	49.9	28.2	11.2	8.1	6.4	142.1
0.80	16.5	72.6	230.8	290.7	266.2	180.0	110.2	60.8	34.1	17.5	10.0	8.4	151.4
0.50	31.7	174.6	375.7	427.8	327.2	235.7	159.6	89.9	51.0	28.0	15.0	14.2	169.4
0.20	68.5	301.4	540.7	609.2	392.6	292.7	239.1	135.3	80.7	38.2	22.0	24.4	187.6
0.10	107.6	360.1	625.9	723.6	427.8	321.6	229.5	168.7	105.0	46.5	26.7	32.5	197.1
0.04	181.0	408.5	710.2	861.2	465.7	350.8	384.9	214.7	141.4	57.1	32.7	44.4	207.1
0.02	258.6	431.3	759.3	959.0	490.3	368.5	455.4	251.6	173.1	65.1	37.1	54.3	213.5
0.01	361.9	446.5	799.2	1052.8	512.3	383.4	531.9	290.7	209.0	73.1	41.5	65.3	219.2

STATION 14221500 CEDAR CREEK NEAR ARIEL, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1953	7.2	7.4	8.1	8.7	8.9	9.9	11.0	12.0	17.0
1954	12.0	12.0	12.0	12.0	14.0	18.0	21.0	26.0	59.0
1955	15.0	15.0	15.0	15.0	18.0	20.0	24.0	29.0	42.0
1963	10.0	10.0	10.0	11.0	13.0	15.0	17.0	21.0	41.0
1964	12.0	12.0	12.0	13.0	14.0	15.0	16.0	20.0	44.0
1965	15.0	16.0	18.0	19.0	21.0	22.0	25.0	28.0	42.0
1966	3.8	3.9	4.1	4.2	4.9	6.8	8.3	9.4	18.0
1967	6.4	6.7	6.7	7.6	8.2	9.0	10.0	15.0	23.0
1968	4.0	4.1	4.3	4.6	5.0	5.4	7.4	10.0	27.0
1969	10.0	10.0	11.0	12.0	16.0	26.0	36.0	43.0	61.0

LOWEST MEAN FLOW STATISTICS (YEARS 1953-1969)

MEAN	9.5	9.7	10.1	10.7	12.3	14.7	17.6	21.3	37.4
MAXIMUM	15.0	16.0	18.0	19.0	21.0	26.0	36.0	43.0	61.0
MINIMUM	3.8	3.9	4.1	4.2	4.9	5.4	7.4	9.4	17.0
STANDARD DEVIATION	4.10	4.19	4.47	4.59	5.42	6.87	9.07	10.51	15.74
SKEWNESS	-0.096	0.016	0.243	0.177	0.002	0.176	0.820	0.810	0.137
STD ERROR OF SKEWNESS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SERIAL CORR COEFF	0.178	0.127	0.042	0.008	-0.023	-0.158	-0.221	-0.267	-0.073
COEFF OF VARIATION	0.430	0.431	0.441	0.428	0.441	0.467	0.516	0.493	0.421
MEAN LOGS	0.936	0.944	0.961	0.987	1.044	1.118	1.192	1.281	1.534
STD DEVIATION LOGS	0.218	0.216	0.216	0.213	0.222	0.228	0.228	0.219	0.201
SKEWNESS LOGS	-0.681	-0.647	-0.567	-0.702	-0.646	-0.470	0.017	-0.051	-0.397
STD ERR SKEWNESS LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SER CORR COEFF LOGS	0.155	0.116	0.072	0.012	0.003	-0.071	-0.102	-0.214	-0.007
COEFF OF VAR LOGS	0.233	0.228	0.224	0.216	0.213	0.204	0.191	0.171	0.131

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1953-1969)

0.99	21.5	22.0	23.5	23.5	28.4	37.1	53.1	60.4	87.5
0.98	19.9	20.4	21.7	21.9	26.3	33.7	45.9	53.0	79.9
0.96	18.2	18.6	19.7	20.1	23.9	30.1	39.1	45.7	71.9
0.90	15.6	15.9	16.6	17.4	20.4	24.9	30.5	36.3	60.4
0.80	13.2	13.4	14.0	14.8	17.2	20.6	24.2	29.2	50.8
0.50	9.1	9.3	9.6	10.3	11.7	13.7	15.5	19.2	35.2
0.20	5.8	5.9	6.1	6.6	7.4	8.6	10.0	12.5	23.4
0.10	4.4	4.5	4.7	5.1	5.6	6.6	8.0	10.0	18.6
0.05	3.5	3.6	3.8	4.0	4.4	5.2	6.6	8.3	15.2
0.02	2.6	2.7	2.9	3.0	3.3	3.9	5.3	6.7	12.0
0.01	2.1	2.2	2.4	2.4	2.7	3.2	4.6	5.8	10.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1953-1969)

P95	P90	P75	P70	P50	P25	P10
9.5	13.0	27.0	35.0	89.0	240.0	420.0

STATION 14221500 CEDAR CREEK NEAR ARIEL, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30										
YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (H)
1952	1050.	911.	774.	564.	468.	369.	374.	341.	294.	1120. 02/04/52
1953	1420.	1310.	1240.	1090.	889.	577.	459.	381.	297.	1720. 01/22/53
1954	1520.	1360.	1210.	900.	678.	581.	530.	473.	361.	1900. 12/09/53
1955	1090.	934.	686.	460.	378.	350.	323.	324.	289.	1240. 02/08/55
1962	1130.	974.	902.	701.	531.	384.	322.	311.	272.	1190. 12/24/61
1963	1910.	1220.	941.	789.	554.	401.	348.	312.	301.	2230. 11/20/62
1964	1700.	1440.	1080.	955.	715.	512.	452.	406.	330.	2210. 01/25/64
1965	2170.	2000.	1470.	930.	635.	597.	535.	439.	316.	2210. 01/29/65
1966	1090.	981.	860.	773.	618.	423.	399.	333.	241.	1220. 01/05/66
1967	1080.	1020.	780.	651.	595.	545.	469.	415.	338.	1300. 01/13/67
1968	998.	876.	671.	444.	435.	368.	350.	308.	242.	1110. 02/04/68
1969	1400.	1260.	1070.	775.	613.	543.	470.	432.	348.	1560. 01/07/69

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1952-1969)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	1379.8	1190.5	973.7	752.7	592.4	470.8	419.2	372.9	302.4	
MAXIMUM	2170.0	2000.0	1470.0	1090.0	889.0	577.0	535.0	473.0	361.0	
MINIMUM	998.0	876.0	671.0	444.0	378.0	350.0	322.0	308.0	241.0	
STANDARD DEVIATION	381.92	320.36	245.80	195.92	136.41	96.29	76.53	58.44	38.55	
SKWENESS	0.970	1.522	0.645	-0.094	0.1545	0.047	0.159	0.1360	-0.1227	
STD ERROR OF SKWENESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	
SERIAL CORR COEFF	0.181	0.094	0.017	0.062	-0.082	-0.187	-0.007	-0.231	-0.539	
COEFF OF VARIATION	0.277	0.269	0.252	0.266	0.230	0.204	0.183	0.157	0.127	
MEAN LOGS	3.126	3.063	2.976	2.861	2.762	2.664	2.616	2.567	2.477	3.1840
STD DEVIATION LOGS	0.113	0.106	0.107	0.124	0.100	0.090	0.080	0.067	0.057	0.1213
SKWENESS LOGS	0.660	0.948	0.243	-0.567	-0.136	-0.047	-0.025	0.235	-0.454	0.0610
STD ERR SKWENESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	
SER CORR COEFF LOGS	0.196	0.097	0.015	0.028	-0.096	-0.186	0.034	-0.212	-0.530	
COEFF OF VAR LOGS	0.036	0.035	0.036	0.043	0.036	0.034	0.031	0.026	0.023	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1952-1969)

0.99	829.2	778.5	557.1	334.0	329.9	283.0	268.3	264.2	212.2	811.0	852.3
0.95	919.7	835.5	641.8	436.8	391.8	327.4	304.8	288.9	238.3	971.1	991.0
0.90	980.6	876.7	694.6	498.2	428.5	353.6	326.1	303.7	252.5	1070.6	1079.6
0.80	1069.3	939.6	767.1	578.3	476.7	388.0	353.8	323.2	269.9	1206.3	1203.6
0.50	1298.6	1113.5	937.1	746.3	581.2	462.5	413.2	366.6	303.1	1521.9	1505.0
0.20	1842.1	1392.9	1161.1	927.1	703.4	550.0	482.0	419.3	350.4	1930.4	1922.2
0.10	1886.2	1602.6	1306.3	1023.7	774.9	601.6	522.2	451.4	352.1	2190.5	2203.5
0.04	2220.9	1896.1	1487.8	1126.3	857.3	661.5	568.6	489.7	369.2	2510.8	2565.9
0.02	2484.9	2135.9	1622.2	1191.5	914.0	703.1	600.6	516.9	379.9	2744.7	2841.7
0.01	2763.2	2394.5	1756.3	1249.1	967.5	742.6	630.9	543.2	389.2	2975.4	3122.9

STATION 14222500 EAST FORK LEWIS RIVER NEAR HEISSON, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1930	54.2	54.8	1013	615	2126	731	455	557	334	109	65.6	59.7	505
1931	145	488	437	1030	672	1480	1202	198	282	141	62.8	77.3	515
1932	514	1343	1082	1477	1141	2432	1339	542	282	203	61.3	50.4	858
1933	191	1803	1738	1778	887	1645	949	1254	914	203	95.8	365	986
1934	925	886	3957	2156	424	894	541	328	113	71.7	48.5	58.1	876
1935	1981	1839	1383	1383	834	1045	902	440	163	99.4	57.2	48.2	780
1936	73.9	285	622	2184	919	1153	710	648	592	189	81.5	67.4	628
1937	63.6	53.7	1279	324	1172	1531	1818	657	761	195	97.9	116	668
1938	295	2180	2222	1402	938	1431	1341	473	155	70.4	49.7	46.4	883
1939	156	957	1191	1409	1495	1199	551	241	352	146	66.7	68.8	648
1940	192	257	1532	674	1461	1309	819	587	117	72.4	47.4	60.3	648
1941	257	851	911	1009	471	405	312	520	276	112	103	555	482
1942	579	834	2067	601	1131	614	488	770	659	237	100	60.3	675
1943	145	2252	1918	950	1724	1078	1243	527	367	149	84.8	53.3	866
1944	337	421	768	608	812	695	830	408	422	119	66.1	83.9	462
1945	95.2	383	556	1446	1413	1289	1105	1068	259	94.7	58.6	162	657
1946	127	1523	1312	1486	1325	1334	717	407	311	248	85.7	68.7	742
1947	511	1709	2294	1241	1262	732	976	219	379	170	83.2	105	803
1948	1104	1617	1014	1441	1332	947	1032	996	267	126	86.6	143	840
1949	355	1407	1812	365	1684	1274	839	777	169	95.2	60.1	75.5	736
1950	316	1005	1349	1593	2169	1818	1298	708	331	119	65.0	63.8	895
1951	801	1884	1808	2101	1531	1000	728	452	178	81.1	51.8	79.0	888
1952	1318	1027	1664	749	1398	973	900	523	225	145	63.0	47.0	751
1953	40.1	55.7	863	3460	1532	1036	697	778	503	138	121	82.0	757
1954	254	1155	2390	1606	1637	817	953	325	607	266	113	102	863
1955	299	935	1149	953	1115	760	1489	950	523	292	116	120	722
1956	1118	2189	2249	1952	801	1921	1196	601	375	135	127	87.4	1065
1957	632	813	1551	450	1229	1613	1037	371	247	104	75.2	49.5	678
1958	142	564	1888	1495	1693	643	1286	279	181	110	54.3	72.5	694
1959	203	1765	1440	1891	940	1071	937	750	571	169	75.6	425	852
1960	1045	1016	899	594	1458	1048	1284	1098	361	115	90.3	95.0	756
1961	298	2019	743	1212	2636	1788	914	840	186	79.5	50.9	74.0	890
1962	376	850	1716	1071	826	1063	1088	770	313	101	124	97.9	700
1963	378	850	936	615	1188	879	1341	812	192	192	91.4	83.7	694
1964	225	1482	947	2524	1904	1142	817	694	528	167	138	147	801
1965	198	963	2501	2357	1259	492	609	385	145	69.4	61.3	47.6	757
1966	77.6	506	760	1804	806	1493	854	394	170	205	65.1	59.5	600
1967	241	840	1753	2247	1143	1061	727	522	217	75.7	43.9	42.3	743
1968	671	574	1553	1190	2107	858	617	357	564	124	278	384	768
1969	962	1449	1667	1683	833	983	973	816	501	270	87.9	190	869
1970	506	718	1291	2596	1418	701	719	606	165	76.6	49.1	98.3	743
1971	350	983	1615	2888	1393	1485	1011	694	415	185	73.8	209	941
1972	371	1259	1990	2571	2303	2129	1062	686	240	106	58.7	141	1074
1973	81.6	617	1805	1100	444	794	499	370	326	157	69.3	132	535
1974	337	2112	2400	2344	1602	1666	1285	804	499	240	88.9	54.8	1117
1975	50.0	637	1745	2390	1195	1076	622	752	233	124	139	120	757
1976	564	1298	2539	1901	1121	966	925	534	290	150	137	85.7	877
1977	84.2	160	288	310	394	1298	762	699	512	108	95.9	288	417
1978	376	1777	2782	1062	1019	521	872	839	337	139	113	200	835
1979	104	546	1084	303	1772	1169	721	587	148	122	69.2	129	555

STATION 14222500 EAST FORK LEWIS RIVER NEAR HEISSON, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1930-1979)

MEAN	382.2	1083.3	1534.6	1449.8	1279.8	1149.2	927.4	612.3	343.9	162.2	85.0	122.6	757.0
MAXIMUM	1318.0	2552.0	3557.0	3460.0	2636.0	2432.0	1818.0	1254.0	914.0	292.0	278.0	555.0	1117.0
MINIMUM	40.1	53.7	288.0	303.0	394.0	405.0	312.0	198.0	113.0	69.4	43.9	42.3	417.0
STD DEVIATION	318.94	625.31	696.20	747.59	509.10	427.82	301.93	236.72	178.60	57.21	38.22	106.54	155.31
SKWENESS	1.292	0.208	0.780	0.410	0.516	0.772	0.447	0.439	1.040	0.914	2.807	2.464	-0.010
STD ERR SKEW	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SER CORR SKEW	0.105	-0.218	-0.145	0.149	-0.096	0.066	0.028	-0.052	-0.098	-0.073	0.040	-0.096	-0.071
COEFF OF VAR	0.834	0.577	0.454	0.516	0.398	0.372	0.326	0.387	0.519	0.402	0.450	0.869	0.205
MEAN LOGS	2.428	2.916	3.137	3.091	3.070	3.031	2.943	2.752	2.481	2.120	1.898	1.988	2.870
STD DEV LOGS	0.390	0.397	0.221	0.269	0.189	0.165	0.150	0.183	0.222	0.168	0.158	0.271	0.094
SKWENESS LOGS	-0.231	-1.640	-0.774	-0.720	-0.637	-0.270	-0.559	-0.541	0.050	0.205	0.847	1.063	-0.622
STD ERR SKEW LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SER CORR LOGS	0.032	-0.057	-0.149	0.026	-0.088	0.011	0.037	-0.034	-0.113	-0.150	0.089	-0.037	-0.057
COEFF OF VAR LOGS	0.161	0.136	0.070	0.087	0.062	0.054	0.051	0.066	0.089	0.079	0.083	0.136	0.033
% OF AVE FLOW	4.2	11.9	16.8	15.9	14.0	12.6	10.2	6.7	3.8	1.6	0.9	1.3	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1979)

0.99	28.5	36.4	317.6	213.5	350.3	411.7	341.4	180.5	94.0	56.9	42.7	37.1	406.5
0.95	57.8	136.4	539.1	399.8	535.7	558.9	472.6	266.9	131.7	71.5	48.0	43.4	501.3
0.90	83.0	244.9	694.7	541.1	658.7	653.4	554.4	323.7	157.8	81.1	51.9	48.5	555.3
0.80	127.3	447.0	920.5	758.3	831.1	784.4	664.5	402.8	196.8	95.0	58.0	57.2	623.1
0.50	277.2	1045.8	1462.9	1328.6	1230.5	1091.8	906.1	586.7	301.6	130.2	75.2	87.3	757.3
0.20	575.1	1736.2	2119.7	2097.1	1706.9	1483.4	1180.6	810.0	465.1	181.9	104.8	155.4	891.6
0.10	826.2	2029.9	2487.2	2560.8	1976.6	1724.9	1332.6	939.6	584.6	218.3	128.6	224.8	959.6
0.04	1198.9	2255.4	2880.3	3083.7	2271.6	2011.8	1497.9	1084.8	747.5	266.7	163.8	351.7	1059.1
0.02	1513.2	2353.7	3128.4	3428.3	2462.8	2213.8	1604.9	1181.2	877.0	304.6	194.3	484.2	1071.9
0.01	1856.2	2415.3	3344.0	3737.6	2633.2	2406.8	1700.6	1268.9	1013.3	343.9	228.6	659.2	1108.8

STATION 14222500 EAST FORK LEWIS RIVER NEAR HEISSON, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1931	50.0	50.0	52.0	56.0	57.0	61.0	71.0	92.0	184.0
1932	50.0	51.0	52.0	54.0	57.0	66.0	78.0	123.0	157.0
1933	42.0	43.0	44.0	45.0	48.0	52.0	60.0	77.0	189.0
1934	53.0	54.0	57.0	63.0	82.0	107.0	174.0	236.0	554.0
1935	35.0	35.0	38.0	39.0	43.0	50.0	55.0	62.0	125.0
1936	35.0	36.0	37.0	41.0	47.0	48.0	55.0	62.0	117.0
1937	47.0	47.0	47.0	50.0	53.0	56.0	60.0	65.0	155.0
1938	64.0	65.0	68.0	74.0	84.0	106.0	111.0	161.0	329.0
1939	37.0	37.0	38.0	38.0	46.0	48.0	52.0	69.0	154.0
1940	51.0	53.0	54.0	56.0	64.0	68.0	80.0	105.0	172.0
1941	39.0	41.0	42.0	42.0	44.0	50.0	57.0	67.0	160.0
1942	55.0	57.0	59.0	62.0	70.0	101.0	157.0	249.0	312.0
1943	51.0	51.0	53.0	56.0	58.0	61.0	77.0	116.0	318.0
1944	45.0	45.0	45.0	45.0	47.0	61.0	73.0	113.0	235.0
1945	45.0	45.0	46.0	52.0	57.0	70.0	81.0	89.0	178.0
1946	47.0	48.0	49.0	54.0	57.0	72.0	100.0	103.0	279.0
1947	54.0	56.0	58.0	61.0	66.0	69.0	83.0	144.0	235.0
1948	62.0	63.0	65.0	68.0	76.0	93.0	113.0	179.0	262.0
1949	52.0	53.0	54.0	55.0	68.0	82.0	101.0	147.0	266.0
1950	43.0	45.0	45.0	47.0	51.0	67.0	75.0	91.0	179.0
1951	38.0	40.0	42.0	43.0	46.0	60.0	76.0	128.0	302.0
1952	32.0	33.0	34.0	36.0	42.0	48.0	60.0	89.0	246.0
1953	32.0	33.0	34.0	36.0	41.0	41.0	47.0	51.0	93.0
1954	56.0	57.0	58.0	62.0	78.0	99.0	111.0	144.0	284.0
1955	70.0	73.0	74.0	79.0	99.0	101.0	127.0	181.0	276.0
1956	61.0	61.0	64.0	67.0	81.0	114.0	154.0	226.0	474.0
1957	71.0	73.0	76.0	79.0	85.0	96.0	103.0	142.0	301.0
1958	42.0	42.0	44.0	47.0	49.0	62.0	73.0	88.0	145.0
1959	41.0	43.0	45.0	48.0	49.0	60.0	69.0	94.0	143.0
1960	60.0	64.0	67.0	69.0	73.0	111.0	161.0	283.0	429.0
1961	59.0	61.0	63.0	66.0	73.0	92.0	93.0	116.0	321.0
1962	42.0	42.0	44.0	45.0	48.0	61.0	64.0	81.0	202.0
1963	48.0	50.0	52.0	59.0	77.0	101.0	103.0	132.0	250.0
1964	59.0	60.0	62.0	67.0	71.0	80.0	87.0	120.0	239.0
1965	82.0	84.0	95.0	100.0	128.0	135.0	168.0	160.0	261.0
1966	41.0	42.0	43.0	44.0	47.0	53.0	56.0	64.0	129.0
1967	44.0	44.0	50.0	54.0	58.0	59.0	65.0	105.0	167.0
1968	30.0	31.0	32.0	35.0	39.0	42.0	53.0	88.0	219.0
1969	60.0	61.0	64.0	70.0	83.0	123.0	209.0	261.0	357.0
1970	52.0	52.0	55.0	59.0	65.0	91.0	171.0	248.0	367.0
1971	39.0	40.0	42.0	43.0	47.0	60.0	72.0	81.0	193.0
1972	59.0	61.0	63.0	68.0	73.0	121.0	139.0	186.0	320.0
1973	47.0	48.0	48.0	50.0	55.0	62.0	90.0	95.0	184.0
1974	49.0	51.0	52.0	61.0	63.0	71.0	106.0	154.0	223.0
1975	39.0	41.0	42.0	43.0	44.0	51.0	61.0	90.0	231.0
1976	58.0	59.0	62.0	66.0	76.0	112.0	122.0	143.0	292.0
1977	54.0	54.0	56.0	61.0	66.0	79.0	98.0	108.0	132.0
1978	46.0	48.0	49.0	52.0	52.0	92.0	127.0	188.0	334.0
1979	68.0	69.0	73.0	80.0	93.0	117.0	135.0	136.0	223.0

STATION 14222500 EAST FORK LEWIS RIVER NEAR HEISSON, WASH.

LOWEST MEAN FLOW STATISTICS (YEARS 1931-1979)

MEAN	49.7	50.9	52.8	56.1	62.9	77.2	95.8	129.2	242.6
MAXIMUM	82.0	84.0	95.0	100.0	128.0	135.0	209.0	283.0	554.0
MINIMUM	30.0	31.0	32.0	35.0	36.0	41.0	47.0	51.0	93.0
STANDARD DEVIATION	11.16	11.45	12.47	13.57	17.95	24.99	38.32	57.86	94.63
SKENNESS	0.527	0.570	0.868	0.738	1.34	0.523	0.984	1.025	1.014
STD ERROR OF SKENNESS	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340
SERIAL CORR COEFF	0.105	0.095	0.060	0.006	0.003	-0.058	-0.015	-0.070	-0.064
COEFF OF VARIATION	0.224	0.225	0.236	0.242	0.285	0.324	0.400	0.448	0.390
MEAN LOGS	1.686	1.596	1.711	1.737	1.783	1.866	1.950	2.072	2.354
STD DEVIATION LOGS	0.097	0.097	0.100	0.103	0.117	0.139	0.164	0.185	0.167
SKENNESS LOGS	-0.040	0.005	0.162	0.108	0.341	0.125	0.345	0.226	-0.037
STD ERR SKENNESS LOGS	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340
SER CORR COEFF LOGS	0.118	0.110	0.072	0.011	-0.005	-0.031	-0.020	-0.075	-0.031
COEFF OF VAR LOGS	0.058	0.057	0.058	0.059	0.066	0.075	0.084	0.089	0.071

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1931-1979)

0.99	81.1	83.6	90.1	96.5	121.4	159.3	235.8	341.1	545.8
0.98	76.5	78.6	84.0	90.0	110.7	144.8	207.2	297.8	492.9
0.96	71.6	73.4	77.8	83.3	100.2	130.4	180.1	256.9	440.0
0.90	64.6	66.1	69.3	74.1	86.4	111.1	146.3	205.6	368.8
0.80	58.6	59.9	62.3	66.5	75.6	95.9	121.5	168.0	312.2
0.50	48.6	49.6	51.1	54.3	59.7	72.9	87.2	116.1	226.4
0.20	40.2	41.1	42.4	44.6	48.1	55.9	64.6	82.1	163.6
0.10	36.4	37.3	38.5	40.3	43.4	48.9	55.8	69.1	137.9
0.05	33.5	34.4	35.7	37.2	40.0	43.8	49.8	60.3	119.7
0.02	30.5	31.4	32.8	34.0	36.6	38.8	44.1	51.9	101.9
0.01	28.6	29.5	31.0	32.0	34.6	35.9	40.8	47.0	91.5

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1931-1979)

P95	P90	P75	P70	P50	P25	P10
54.0	66.0	130.0	180.0	460.0	980.0	1800.0

STATION 14222500 EAST FORK LEWIS RIVER NEAR HEISSON, WASH.									
HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30									
YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1930	4540.	2930.	2780.	2670.	2030.	1380.	1260.	1130.	918.
1931	12300.	7540.	4430.	2810.	2080.	1470.	1220.	1100.	885.
1932	7350.	5500.	3500.	2960.	2640.	2130.	1750.	1680.	1500.
1933	6610.	4960.	4070.	3440.	2600.	2060.	1790.	1570.	1470.
1934	13500.	11100.	8360.	5400.	4240.	3500.	2400.	2070.	1610.
1935	6940.	5650.	4210.	2820.	2020.	1920.	1740.	1570.	1370.
1936	5940.	5130.	3740.	3420.	2370.	1580.	1460.	1290.	1070.
1937	6350.	5300.	3450.	2400.	1990.	1790.	1560.	1300.	1130.
1938	10600.	8400.	5740.	3430.	2480.	2320.	1980.	1750.	1590.
1939	6340.	4680.	3310.	2120.	1850.	1530.	1410.	1320.	1120.
1940	6030.	4450.	3730.	2770.	2390.	1770.	1580.	1450.	1180.
1941	5420.	3410.	2150.	1450.	1140.	1080.	939.	841.	679.
1942	8280.	5710.	4110.	2690.	2120.	1490.	1360.	1190.	971.
1943	10200.	6230.	4430.	3160.	2640.	2130.	1890.	1720.	1520.
1944	3460.	2760.	1870.	1170.	841.	776.	781.	734.	699.
1945	5240.	4230.	3070.	2360.	1710.	1430.	1410.	1350.	1140.
1946	6000.	4130.	3110.	2520.	1890.	1650.	1550.	1480.	1280.
1947	9900.	8170.	6390.	3880.	3320.	2130.	1960.	1700.	1400.
1948	5920.	4300.	3350.	2460.	1910.	1440.	1560.	1350.	1270.
1949	9000.	4900.	3520.	2860.	2480.	1640.	1390.	1390.	1270.
1950	7610.	5930.	4060.	3360.	2690.	2220.	1980.	1840.	1570.
1951	5180.	4130.	3330.	2610.	2300.	2110.	2080.	1910.	1540.
1952	6170.	4470.	3890.	2540.	1790.	1470.	1410.	1370.	1200.
1953	7820.	6830.	5500.	4500.	3890.	2530.	2030.	1710.	1370.
1954	7290.	4930.	4240.	3240.	2750.	2120.	1960.	1850.	1450.
1955	5620.	4540.	2870.	1800.	1590.	1300.	1240.	1150.	1120.
1956	7280.	6370.	4120.	3080.	2860.	2470.	2240.	1920.	1770.
1957	5410.	4340.	3460.	2620.	1970.	1570.	1290.	1310.	1160.
1958	5220.	3740.	2910.	2540.	1910.	1860.	1690.	1460.	1260.
1959	4700.	3740.	2770.	2320.	1940.	1710.	1760.	1550.	1360.
1960	4230.	3290.	2440.	2060.	1650.	1280.	1300.	1250.	1100.
1961	8500.	5840.	4430.	3510.	2880.	2180.	1880.	1820.	1580.
1962	4680.	4220.	3500.	2610.	2060.	1570.	1320.	1240.	1140.
1963	9760.	5330.	3870.	3060.	2130.	1460.	1260.	1130.	1160.
1964	10500.	6700.	4350.	3400.	2480.	1780.	1680.	1470.	1290.
1965	10200.	9440.	6410.	3790.	2680.	2340.	2210.	1830.	1370.
1966	6350.	4120.	3120.	2810.	2060.	1430.	1440.	1320.	1060.
1967	6550.	4890.	3270.	2610.	2270.	2040.	1750.	1570.	1320.
1968	7720.	5150.	3870.	2360.	2070.	1670.	1610.	1420.	1190.
1969	8730.	6920.	4630.	2940.	2180.	1940.	1750.	1450.	1310.
1970	6750.	5510.	5130.	4410.	3070.	2200.	1830.	1530.	1250.
1971	6780.	5470.	4350.	4000.	3060.	2320.	2010.	1870.	1590.
1972	15600.	10700.	6370.	4320.	3180.	2800.	2400.	2350.	1880.
1973	7260.	5590.	4610.	3310.	2240.	1520.	1240.	1090.	883.
1974	8490.	6630.	4540.	3470.	2770.	2490.	2440.	2230.	1900.
1975	8140.	6390.	4390.	3250.	2670.	2130.	1850.	1640.	1360.
1976	8310.	6590.	5720.	3940.	2610.	2390.	2010.	1740.	1490.
1977	4500.	2270.	1760.	1340.	1080.	940.	864.	684.	3390.
1978	12100.	7450.	4760.	4450.	3420.	2340.	1920.	1690.	1350.
1979	5630.	4300.	3330.	2420.	2210.	1460.	1220.	1100.	958.
ANNUAL PEAK-FLOW DATA									
	FLOW (CFS)		DATE		REG. (R)				
	6000.	12/14/29	6000.	03/31/31	885.	15500.	03/05/32	8740.	01/08/33
	7860.	12/22/33	15600.	12/21/34	10500.	7670.	01/12/36	9260.	12/23/36
	11400.	12/29/37	8450.	02/14/39	7670.	1180.	12/15/39	7670.	11/29/40
	9920.	12/19/41	12800.	11/23/42	730.	9710.	02/06/44	9500.	11/21/45
	11900.	12/11/46	14000.	02/17/49	8990.	6690.	12/23/50	7380.	02/04/52
	9350.	01/18/53	12400.	12/09/53	7930.	10200.	12/11/55	6960.	03/07/57
	6110.	04/20/58	5960.	11/18/58	5540.	10/11/59	11900.	11/24/60	7240.
	12600.	11/22/62	13400.	01/25/64	13500.	8240.	03/09/66	7190.	12/13/66
	9140.	02/19/68	10100.	01/05/69	8840.	01/22/70	9040.	01/19/71	19200.
	19200.	01/20/72	9160.	12/21/72	11000.	01/15/74	8910.	01/14/75	11700.
	3390.	03/07/77	19300.	12/02/77	8140.	02/07/79			

STATION 14222500 EAST FORK LEWIS RIVER NEAR HEISSON, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1930-1979)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	7420.0	5509.2	4026.4	3000.2	2339.0	1852.9	1656.4	1493.9	1274.9	
MAXIMUM	15600.0	11100.0	8360.0	5400.0	4240.0	3150.0	2490.0	2350.0	1900.0	
MINIMUM	2500.0	2270.0	1760.0	1170.0	841.0	776.0	781.0	734.0	679.0	
STANDARD DEVIATION	2569.33	1836.63	1241.29	820.98	639.86	473.82	389.97	340.14	279.09	
SKENNESS	0.972	1.101	1.029	0.446	0.520	0.277	0.056	0.148	-0.070	
STD ERROR OF SKENNESS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	
SERIAL CORR COEFF	-0.155	-0.100	-0.030	0.015	-0.067	-0.099	-0.141	-0.132	-0.115	
COEFF OF VARIATION	0.346	0.333	0.308	0.274	0.274	0.256	0.235	0.228	0.219	
MEAN LOGS	3.846	3.719	3.585	3.460	3.352	3.253	3.207	3.163	3.094	
STD DEVIATION LOGS	0.150	0.140	0.132	0.125	0.126	0.116	0.108	0.104	0.102	3.9636
SKENNESS LOGS	-0.226	0.0	-0.169	-0.657	-0.760	-0.534	-0.608	-0.587	-0.787	0.1461
STD ERR SKENNESS LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	-0.1890
SER CORR COEFF LOGS	-0.155	-0.100	-0.031	-0.006	-0.061	-0.103	-0.137	-0.131	-0.096	
COEFF OF VAR LOGS	0.039	0.038	0.037	0.036	0.038	0.036	0.034	0.033	0.033	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1979)

0.99	2973.7	2471.6	1826.7	1288.0	981.3	866.2	807.4	753.1	630.4	4190.1
0.95	3895.4	3079.3	2300.9	1711.7	1323.8	1110.8	1026.6	946.1	806.4	5280.7
0.90	4475.3	3462.2	2593.3	1965.3	1528.4	1255.7	1154.5	1057.9	907.2	5972.0
0.80	5269.4	3990.1	2988.3	2294.9	1793.0	1443.5	1317.9	1200.3	1033.8	6929.6
0.50	7100.2	5234.6	3882.7	2978.4	2333.5	1834.5	1649.8	1488.5	1281.2	9202.7
0.20	9393.7	6867.2	4984.3	3696.8	2883.9	2254.2	1992.9	1785.7	1520.1	12208.2
0.10	10796.3	7914.1	5652.4	4070.6	3160.8	2478.6	2170.4	1939.7	1636.0	14145.7
0.04	12457.5	9206.9	6441.1	4458.1	3439.3	2717.6	2354.6	2099.8	1749.7	16546.4
0.02	13624.9	10152.2	6994.7	4698.6	3607.3	2870.2	2469.5	2199.9	1816.9	17726.7
0.01	14740.2	11085.2	7523.6	4907.1	3749.2	3005.3	2569.2	2287.2	1872.8	20046.7

4013.0
5195.7
5937.7
6952.6
9202.7
12238.0
14145.7
16546.4
17726.7
19187.9

STATION 14222700 EAST FK LEWIS R THIR NR WOOLAND, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1967)			W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKEWNESS LOGS	ESTIMATE		
1950	51.0	12-28-1949				1.5666	10.7	1.5443
1951	36.0	12-23-1950				0.2431	15.1	0.2127
1952	20.0	0- 0-1952				0.161	18.6	-0.097
1953	14.0	1-22-1953					22.9	
1954	45.0	1-22-1954					36.3	
1955	56.0	12-30-1954					58.8	
1956	192.0	12-11-1955					76.2	
1957	32.0	2-26-1957					101.3	
1958	21.0	12-19-1957					122.1	
1959	26.0	1- 9-1959		0.99			144.9	
1960	44.0	3-29-1960		0.95				10.8
1961	96.0	11-24-1960		0.90				15.4
1962	17.0	2-17-1962		0.80				18.6
1963	34.0	2- 3-1963		0.50				22.9
1964	48.0	1-25-1964		0.20				35.3
1965	54.0	12-22-1964		0.10				53.0
1966	39.0	3- 9-1966		0.04				65.2
1967	32.0	1-28-1967		0.02				81.2
				0.01				93.3
								105.6

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1950-1967)

0.99	10.7
0.95	15.1
0.90	18.6
0.80	22.9
0.50	36.3
0.20	58.8
0.10	76.2
0.04	101.3
0.02	122.1
0.01	144.9

STATION 14222930 FOSSIL CREEK NR COUGAR, WASH.

ANNUAL PEAK FLOW DATA		
WATER YEAR	FLOW(CFS)	DATE
1969	807.0	11-11-1968
1970	912.0	1-14-1970
1972	1430.0	1-20-1972
1973	937.0	12-21-1972
1974	1650.0	1-15-1974

STATION 14222970 SPRING CREEK NEAR COUGAR, WASH.

ANNUAL PEAK FLOW DATA		
WATER YEAR	FLOW(CFS)	DATE
1970	224.0	1-27-1970
1971	226.0	1-20-1971
1972	350.0	1-21-1972
1973	238.0	12-21-1972
1974	344.0	1-16-1974
1975	189.0	1-14-1975
1976	288.0	12- 1-1975
1977	88.0	3- 7-1977

STATION 14222980 KALAMA RIVER BELOW FALLS NEAR COUGAR, WASH.

ANNUAL PEAK FLOW DATA		
WATER YEAR	FLOW(CFS)	DATE
1970	1500.0	1-14-1970
1971	1850.0	12- 7-1970
1972	2650.0	1-20-1972
1973	2500.0	12-21-1972
1974	2750.0	1-15-1974
1975	1440.0	1-14-1975
1976	2390.0	12- 4-1975
1978	2100.0	12- 2-1977

STATION 14223000 KALAMA RIVER NEAR KALAMA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1911	314	1431	1145	2835	1789	1725	1637	1425	1235	356	248	345	
1912			2037							542	325	599	
1913													
1916													
1917	275	940	1283	1423	1311	1215	2237	1620	1378	710	356	293	1083
1918	233	402	3933	2592	2290	1667	1335	698	389	281	238	194	1185
1919	404	1318	1890	2601	1852	1899	1689	1065	691	391	310	286	1197
1920	351	1252	1466	1214	902	1086	1616	789	653	330	202	211	920
1921	2010	1614	2719	2926	2606	2278	1820	1441	926	521	311	344	1623
1922	775	2205	2289	759	1150	1398	1855	1868	1030	390	320	359	1165
1923	498	525	1864	3515	776	1198	1655	1868	598	419	249	211	983
1924	284	350	1253	1264	766	788	700	763	574	207	195	205	677
1925	990	2249	1837	2778	3174	1261	1233	749	565	306	239	208	1286
1926	193	689	1875	1164	2506	1045	534	726	398	261	246	329	820
1927	1104	1604	1768	2197	2487	1355	1145	1258	790	380	273	512	1232
1928	1086	2400	1325	1871	934	2157	2211	1123	458	376	252	220	1201
1929	485	894	1193	1056	603	1296	1545	919	682	340	244	200	789
1930	187	175	1188	722	2565	1145	814	781	472	281	203	181	714
1931	230	488	573	1479	1171	1819	1758	527	461	315	211	212	768
1932	725	1532	1779	2084	1500	2965	2086	1237	837	504	318	293	1322

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1911-1932)

MEAN	596.7	1180.5	1745.4	1910.6	1756.9	1546.9	1478.4	1012.0	696.3	383.9	263.3	343.4	1060.3
MAXIMUM	2010.0	2400.0	3933.0	3515.0	3174.0	2965.0	2237.0	1668.0	1378.0	710.0	356.0	1211.0	1623.0
MINIMUM	187.0	175.0	573.0	722.0	603.0	788.0	534.0	415.0	274.0	207.0	195.0	181.0	677.0
STD DEVIATION	480.60	700.61	737.15	852.23	778.33	547.68	503.82	378.80	306.27	121.26	48.76	237.18	263.35
STANDARD ERROR	1.784	0.303	1.504	0.257	0.132	1.158	-0.317	0.320	0.873	1.201	0.355	3.035	0.255
SKEWNESS	0.550	0.550	0.536	0.550	0.550	0.550	0.550	0.550	0.550	0.536	-0.536	0.534	0.564
SER CORR COEFF	0.028	-0.044	0.037	-0.495	-0.001	0.056	0.211	0.184	0.227	0.114	0.048	0.045	-0.075
COEFF OF VAR	0.805	0.593	0.422	0.446	0.443	0.354	0.341	0.374	0.440	0.161	0.185	0.691	0.2448
MEAN LOGS	2.667	2.977	3.208	3.236	3.198	3.166	3.140	2.975	2.804	2.586	2.414	2.478	3.013
STD DEV LOGS	0.307	0.325	0.179	-0.309	0.212	0.144	0.176	0.172	0.189	0.129	0.080	0.205	0.110
SKEWNESS LOGS	0.523	-0.747	-0.309	-0.337	-0.440	0.357	-1.050	-0.331	0.015	0.350	0.108	1.576	-0.189
STD ERR SKEW LOGS	0.550	0.550	0.536	0.550	0.550	0.550	0.550	0.550	0.550	0.536	0.536	0.524	0.564
SER CORR LOGS	0.041	0.060	0.103	-0.411	-0.034	0.069	0.208	0.166	0.089	0.090	0.036	0.224	-0.037
COEFF OF VAR LOGS	0.115	0.109	0.056	0.065	0.067	0.046	0.056	0.056	0.067	0.050	0.033	0.083	0.037
% OF AVE FLOW	4.6	9.1	13.5	14.8	13.6	12.0	11.4	7.8	5.4	3.0	2.0	2.7	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1911-1932)

0.99	118.1	112.2	564.4	491.3	424.8	878.7	399.8	341.6	232.4	199.1	171.4	169.6	550.3
0.95	162.8	241.7	792.1	738.5	658.8	739.3	842.5	561.2	311.9	232.8	192.6	178.5	688.8
0.90	197.1	349.7	940.9	907.6	820.0	971.6	801.4	561.2	364.9	254.6	205.2	187.4	739.7
0.80	253.5	527.3	1149.9	1153.1	1054.4	1103.5	1018.0	681.4	441.6	285.4	221.8	204.1	833.3
0.50	436.8	1040.2	1648.6	1768.6	1637.4	1437.4	1480.7	964.0	636.6	361.5	258.3	267.0	1037.0
0.20	821.2	1799.7	2293.6	2609.2	2415.0	1437.4	1949.9	1322.4	919.1	469.2	302.2	414.5	1277.2
0.10	1184.3	2283.8	2694.2	3149.9	2901.4	2269.1	2173.6	1541.6	1114.4	543.1	328.7	564.1	1417.5
0.04	1800.5	2846.3	3171.6	3808.3	3478.4	2727.8	2384.0	1799.6	1369.1	639.8	360.1	834.9	1578.9
0.02	2397.7	3224.5	3507.9	4279.8	3881.1	3087.5	2501.7	1979.5	1564.1	714.4	382.2	1115.3	1689.8
0.01	3136.1	3567.9	3829.0	4735.2	4261.8	3463.1	2594.4	2149.9	1763.6	791.1	403.5	1483.7	1794.0

STATION 14223000 KALAMA RIVER NEAR KALAMA, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1918	205.0	205.0	205.0	211.0	229.0	260.0	286.0	309.0	538.0
1919	175.0	177.0	178.0	181.0	191.0	213.0	226.0	246.0	360.0
1920	228.0	229.0	231.0	238.0	284.0	297.0	307.0	330.0	512.0
1921	166.0	173.0	180.0	183.0	196.0	226.0	326.0	421.0	794.0
1922	227.0	230.0	243.0	263.0	280.0	312.0	330.0	402.0	636.0
1923	271.0	277.0	298.0	298.0	318.0	334.0	335.0	358.0	440.0
1924	190.0	192.0	198.0	203.0	208.0	217.0	238.0	244.0	342.0
1925	158.0	161.0	162.0	164.0	169.0	185.0	195.0	217.0	296.0
1926	173.0	173.0	175.0	177.0	190.0	197.0	207.0	223.0	334.0
1927	207.0	207.0	211.0	221.0	231.0	241.0	258.0	302.0	409.0
1928	246.0	250.0	254.0	258.0	273.0	310.0	354.0	470.0	676.0
1929	197.0	197.0	200.0	205.0	220.0	234.0	271.0	315.0	481.0
1930	156.0	158.0	160.0	168.0	171.0	178.0	183.0	194.0	287.0
1931	165.0	166.0	168.0	176.0	180.0	187.0	197.0	215.0	299.0
1932	182.0	182.0	185.0	190.0	198.0	209.0	217.0	270.0	354.0

LOWEST MEAN FLOW STATISTICS (YEARS 1918-1932)

MEAN	196.4	198.5	202.2	209.1	222.5	240.0	262.0	301.1	445.9
MAXIMUM	271.0	277.0	283.0	298.0	318.0	334.0	354.0	470.0	794.0
MINIMUM	156.0	158.0	160.0	164.0	169.0	178.0	183.0	194.0	287.0
STANDARD DEVIATION	34.24	34.88	36.35	39.57	46.11	51.09	57.99	83.12	154.49
SKEWNESS	0.804	0.934	0.907	0.966	0.800	0.644	0.196	0.641	1.067
STD ERROR OF SKEWNESS	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580
SERIAL CORR COEFF	0.136	0.169	0.226	0.235	0.161	0.260	0.467	0.419	0.425
COEFF OF VARIATION	0.174	0.176	0.180	0.189	0.207	0.213	0.221	0.276	0.347
MEAN LOGS	2.287	2.292	2.300	2.314	2.339	2.371	2.408	2.464	2.627
STD DEVIATION LOGS	0.073	0.073	0.075	0.078	0.086	0.090	0.097	0.117	0.139
SKEWNESS LOGS	0.536	0.656	0.629	0.692	0.548	0.416	-0.007	0.244	0.634
STD ERR SKEWNESS LOGS	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580
SER CORR COEFF LOGS	0.144	0.187	0.240	0.236	0.181	0.300	0.486	0.449	0.479
COEFF OF VAR LOGS	0.032	0.032	0.032	0.034	0.037	0.038	0.040	0.048	0.053

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1918-1932)

0.99	305.5	312.8	321.1	341.5	374.6	404.3	429.8	571.5	1032.8
0.98	286.5	292.1	299.7	317.0	347.0	375.5	404.6	523.9	907.7
0.96	267.5	271.8	278.5	292.9	319.9	346.9	378.2	476.7	791.6
0.90	242.1	244.8	250.5	261.5	284.1	308.6	340.7	413.6	649.3
0.80	221.8	223.7	228.6	237.3	256.1	278.2	308.9	363.6	547.2
0.50	190.9	192.3	195.8	201.6	214.5	231.9	256.1	287.7	409.9
0.20	161.8	164.6	172.1	176.5	184.2	197.2	212.2	231.2	322.2
0.10	158.1	160.3	162.4	166.4	171.8	182.5	192.3	207.5	289.1
0.05	151.2	153.8	155.5	159.3	163.0	172.0	177.3	190.3	266.8
0.02	144.3	147.5	148.8	152.5	154.3	161.4	161.7	173.3	245.9
0.01	140.2	143.8	144.9	148.6	149.2	155.1	152.1	163.1	234.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1918-1932)

P95	P90	P75	P70	P50	P25	P10
200.0	220.0	320.0	380.0	720.0	1400.0	2300.0

STATION 14223000 KALAMA RIVER NEAR KALAMA, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (R)
1912										5210. 11/19/11
1913										5770. 12/29/12
1917	4400.	3640.	3020.	2580.	2300.	2040.	1840.	1630.	1530.	4430. 01/05/17
1918	10700.	8490.	7550.	5560.	4690.	3680.	2960.	2660.	2080.	11700. 12/18/17
1919	9100.	7140.	6490.	4620.	3260.	2570.	2290.	2090.	1880.	10700. 01/23/19
1920	5770.	3840.	3220.	2290.	1620.	1490.	1310.	1260.	1260.	5770. 12/24/19
1921	9900.	7160.	6550.	5050.	3830.	3120.	2900.	2680.	2420.	11500. 12/30/20
1922	6360.	6160.	5180.	4510.	3580.	2620.	1870.	1680.	1680.	8370. 12/12/21
1923	9700.	7780.	6290.	5660.	4620.	2830.	2250.	1990.	1570.	12300. 01/06/23
1924	6660.	5160.	4240.	3320.	2450.	1780.	1620.	1400.	1120.	7470. 01/31/24
1925	8640.	7620.	6420.	4930.	3780.	2950.	2580.	2540.	2130.	9200. 02/03/25
1926	5980.	5260.	3570.	2610.	2480.	1880.	1850.	1810.	1310.	5980. 12/21/25
1927	6280.	5480.	4250.	3080.	2430.	2370.	2200.	2110.	1800.	6580. 02/01/27
1928	10300.	7210.	5070.	3800.	2850.	2360.	1940.	1830.	1880.	13200. 11/25/27
1929	4270.	3010.	2740.	2080.	1700.	1450.	1280.	1170.	1140.	5490. 12/10/28
1930	4930.	3630.	3130.	2950.	2460.	1800.	1530.	1430.	1200.	6510. 12/14/29
1931	8550.	6420.	4110.	3060.	2520.	1990.	1740.	1570.	1230.	10900. 03/31/31
1932	8010.	5610.	3800.	3490.	3200.	2770.	2320.	2270.	2020.	8730. 02/26/32
1933										7650. 12/02/32
1934										42000. 12/ /33
1936										10300. 01/12/36
1937										10100. 01/14/37
1938										9100. 12/29/37
1939										4930. 02/15/39
1940										6210. 12/15/39
1941										4400. 01/18/41
1942										8730. 12/19/41
1943										7740. 11/23/42
1944										6210. 12/03/43
1945										8190. 02/07/45
1947										10300. 12/11/46

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1912-1947)

W R C SYSTEMATIC
ESTIMATE RECORD

	MEAN	7471.9	5850.6	4726.9	3724.4	2985.6	2343.7	2030.0	1876.9	1640.6
MAXIMUM		10700.0	8490.0	7550.0	5660.0	4690.0	3680.0	2960.0	2680.0	2420.0
MINIMUM		4270.0	3010.0	2740.0	2080.0	1620.0	1450.0	1280.0	1170.0	1120.0
STANDARD DEVIATION		2149.95	1681.57	1522.27	1175.85	921.78	622.11	505.87	478.35	406.72
SKENNESS		-0.009	-0.243	0.426	0.344	0.483	0.453	0.386	0.420	0.280
STD. ERROR OF SKENNESS		0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SERIAL CORR. COEFF.		-0.403	-0.240	-0.089	-0.061	-0.088	-0.221	-0.232	-0.294	-0.237
COEFF. OF VARIATION		0.288	0.287	0.322	0.316	0.309	0.265	0.249	0.255	0.242
MEAN LOGS		3.855	3.748	3.653	3.550	3.455	3.356	3.295	3.260	3.202
STD. DEVIATION LOGS		0.132	0.137	0.140	0.139	0.136	0.116	0.109	0.110	0.109
SKENNESS LOGS		-0.345	-0.650	0.081	-0.024	-0.121	-0.057	-0.095	0.057	-0.008
STD. ERR. SKENNESS LOGS		0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SER. CORR. COEFF. LOGS		-0.340	-0.162	-0.079	-0.084	-0.107	-0.213	-0.200	-0.253	-0.204
COEFF. OF VAR. LOGS		0.034	0.037	0.038	0.039	0.039	0.035	0.033	0.034	0.034

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1912-1947)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
MEAN	3274.4	4226.5	5181.8	6376.6	9584.6	14931.2	23421.8	37421.8	57421.8	87421.8
STD. DEVIATION	2149.95	1681.57	1522.27	1175.85	921.78	622.11	505.87	478.35	406.72	340.6
SKENNESS	-0.009	-0.243	0.426	0.344	0.483	0.453	0.386	0.420	0.280	0.230
STD. ERROR OF SKENNESS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SERIAL CORR. COEFF.	-0.403	-0.240	-0.089	-0.061	-0.088	-0.221	-0.232	-0.294	-0.237	-0.230
COEFF. OF VARIATION	0.288	0.287	0.322	0.316	0.309	0.265	0.249	0.255	0.242	0.230
MEAN LOGS	3.855	3.748	3.653	3.550	3.455	3.356	3.295	3.260	3.202	3.130
STD. DEVIATION LOGS	0.132	0.137	0.140	0.139	0.136	0.116	0.109	0.110	0.109	0.109
SKENNESS LOGS	-0.345	-0.650	0.081	-0.024	-0.121	-0.057	-0.095	0.057	-0.008	-0.008
STD. ERR. SKENNESS LOGS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SER. CORR. COEFF. LOGS	-0.340	-0.162	-0.079	-0.084	-0.107	-0.213	-0.200	-0.253	-0.204	-0.204
COEFF. OF VAR. LOGS	0.034	0.037	0.038	0.039	0.039	0.035	0.033	0.034	0.034	0.034

ANNUAL PEAK-FLOW DATA

FLOW (CFS) DATE REG. (R)

5210. 11/19/11

5770. 12/29/12

4430. 01/05/17

11700. 12/18/17

10700. 01/23/19

5770. 12/24/19

11500. 12/30/20

8370. 12/12/21

12300. 01/06/23

7470. 01/31/24

9200. 02/03/25

5980. 12/21/25

6580. 02/01/27

13200. 11/25/27

5490. 12/10/28

6510. 12/14/29

10900. 03/31/31

8730. 02/26/32

7650. 12/02/32

42000. 12/ /33

10300. 01/12/36

10100. 01/14/37

9100. 12/29/37

4930. 02/15/39

6210. 12/15/39

4400. 01/18/41

8730. 12/19/41

7740. 11/23/42

6210. 12/03/43

8190. 02/07/45

10300. 12/11/46

4930.5

5134.5

5345.4

5752.3

7307.6

10932.5

14549.3

20985.0

27535.1

36015.1

STATION 14223500 KALAMA RIVER BELOW ITALIAN CR NEAR KALAMA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1947	797	2111	3460	1612	2059	1196	1301	503	507	336	253	312	1198
1948	1689	2279	1548	2079	1862	1394	1617	1720	714	335	253	312	1326
1949	631	1619	2287	624	2428	1895	1347	1432	611	366	258	251	1137
1950	451	1487	1848	1936	3019	2895	2040	1435	1075	524	328	250	1429
1951	1136	2405	2639	2736	2511	1337	1277	903	440	289	227	259	1340
1952	1734	1473	2286	1112	2102	1356	1430	1103	577	377	278	232	1171
1953	199	245	1330	4546	2289	1463	1132	1229	925	464	348	308	1204
1954	615	1478	3198	2303	2963	1412	1535	863	991	613	358	306	1377
1955	496	1354	1662	1491	1715	1477	1828	1208	1117	661	382	381	1109
1956	1600	2904	3472	3077	1282	2622	1861	1343	850	478	379	332	1688
1957	908	1065	1947	767	1637	2228	1423	791	487	324	273	191	1001
1958	361	985	2477	2296	2639	1193	1822	722	519	324	223	194	1137
1959	328	2242	1925	3175	1539	1507	1958	1128	941	429	281	737	1317
1960	1305	1597	1621	1006	2224	1486	1945	1522	672	351	297	297	1191
1961	585	2556	1277	2117	3801	3055	1687	1401	561	341	263	249	1475
1962	605	1000	2345	1140	1786	1302	1475	993	550	319	317	304	1001
1963	995	2483	1647	1150	1766	1285	1979	1159	430	399	279	255	1148
1964	516	2082	1437	2960	1766	1285	1979	1159	430	399	279	255	1148
1965	418	1331	3108	2929	1838	1612	1287	1032	908	409	425	353	1208
1966	303	795	1070	2225	1286	2331	877	691	412	284	256	224	1110
1967	483	1161	3012	3190	1775	1700	1353	933	504	448	257	250	981
1968	980	847	1952	1900	2999	1657	1108	1092	674	343	246	206	1267
1969	1285	1908	2529	1851	1503	1307	1559	1312	1017	386	627	646	1235
1970	874	963	1751	3266	2186	1303	1058	849	373	498	313	459	1283
1971	664	1187	2605	3859	1976	2358	1687	1426	995	261	217	260	1110
1972	855	1885	2491	3183	2900	3567	1888	1423	737	633	370	562	1526
1973	278	1144	2401	1553	847	1187	804	655	501	424	306	467	1575
1974	573	2997	3634	3652	2660	2890	2263	1362	1263	340	247	389	864
1975	274	1128	2330	3287	1969	1701	1082	1344	609	826	445	309	1902
1976										366	317	321	1226

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1947-1976)

MEAN	756.5	1610.7	2251.3	2321.4	2091.8	1773.1	1500.4	1115.6	716.8	420.8	314.0	332.4	1263.3
MAXIMUM	1734.0	2997.0	3634.0	4546.0	3801.0	3567.0	2263.0	1720.0	1263.0	826.0	627.0	737.0	1902.0
MINIMUM	199.0	245.0	1070.0	624.0	847.0	973.0	804.0	503.0	373.0	261.0	217.0	191.0	864.0
STD DEVIATION	433.95	681.00	700.39	995.24	656.34	677.94	361.54	305.70	243.67	128.01	84.04	130.94	227.14
SKWENESS	0.927	0.339	0.346	0.195	0.4545	1.184	0.071	-0.150	0.534	1.538	2.015	1.719	0.985
STD ERR SKEW	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434
SER CORR COEFF	-0.001	-0.170	-0.414	-0.084	-0.183	-0.128	-0.267	-0.095	-0.118	-0.065	-0.134	0.012	-0.391
COEFF OF VAR	0.574	0.423	0.311	0.429	0.314	0.382	0.241	0.274	0.340	0.304	0.268	0.394	0.180
MEAN LOGS	2.810	3.161	3.331	3.320	3.299	3.222	3.163	3.030	2.831	2.608	2.485	2.495	3.095
STD DEV LOGS	0.252	0.222	0.140	0.216	0.141	0.150	0.110	0.130	0.147	0.118	0.101	0.146	0.075
SKWENESS LOGS	-0.056	-1.371	-0.235	-0.725	-0.368	0.700	-0.480	-0.678	0.101	0.852	1.078	0.916	0.338
STD ERR SKEW LOGS	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434
SER CORR LOGS	0.007	-0.086	-0.407	-0.124	-0.194	-0.154	-0.245	-0.150	-0.128	-0.105	-0.134	0.045	-0.419
COEFF OF VAR LOGS	0.090	0.070	0.042	0.065	0.043	0.046	0.035	0.043	0.052	0.045	0.041	0.059	0.024
% OF AVE FLOW	5.0	10.6	14.8	15.3	13.8	11.7	9.9	7.3	4.7	2.8	2.1	2.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1947-1976)

0.99	163.2	275.6	961.1	509.8	860.2	894.4	740.3	461.5	316.8	256.1	213.4	179.5	881.9
0.95	246.1	540.4	1238.5	844.6	1132.9	1020.7	930.4	621.8	392.8	279.6	226.0	198.7	959.5
0.90	305.7	732.8	1410.6	1077.2	1301.5	1108.7	1042.1	718.5	441.5	296.3	235.5	212.8	1007.9
0.80	396.7	1009.8	1643.9	1412.9	1528.1	1240.9	1186.3	844.8	509.6	321.4	250.4	234.6	1074.3
0.50	649.3	1623.3	2172.1	2216.7	2032.0	1602.4	1486.1	1107.9	674.5	390.0	292.9	227.4	1229.4
0.20	1054.8	2219.5	2819.5	3195.7	2627.0	2190.1	1809.1	1395.1	900.0	499.6	363.4	405.4	1432.1
0.10	1355.8	2475.6	3209.0	3749.9	2972.2	2641.1	1983.3	1539.2	1049.8	582.0	417.3	491.6	1562.5
0.04	1766.5	2689.7	3665.0	4350.5	3363.7	3286.2	2170.4	1678.2	1240.2	697.5	493.6	619.0	1724.5
0.02	2093.7	2794.8	3982.3	4734.6	3628.1	3848.6	2391.0	1770.5	1383.0	792.1	556.5	728.5	1843.8
0.01	2437.6	2868.8	4283.2	5072.4	3872.9	4416.2	2398.6	1850.1	1526.9	894.5	624.9	851.5	1962.4

STATION 14223500 KALAMA RIVER BELOW ITALIAN CR NEAR KALAMA, WASH

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1948	223.0	223.0	226.0	232.0	243.0	277.0	296.0	349.0	483.0
1949	234.0	234.0	240.0	243.0	263.0	289.0	329.0	414.0	565.0
1950	208.0	210.0	214.0	216.0	229.0	252.0	281.0	319.0	468.0
1951	204.0	207.0	211.0	218.0	240.0	281.0	341.0	471.0	747.0
1952	189.0	193.0	193.0	195.0	205.0	219.0	244.0	292.0	557.0
1953	174.0	177.0	183.0	193.0	196.0	204.0	224.0	237.0	315.0
1954	266.0	266.0	268.0	273.0	300.0	322.0	369.0	426.0	608.0
1955	226.0	232.0	247.0	268.0	297.0	311.0	355.0	413.0	574.0
1956	258.0	258.0	269.0	285.0	314.0	374.0	449.0	581.0	831.0
1957	285.0	287.0	292.0	310.0	322.0	349.0	374.0	431.0	651.0
1958	170.0	170.0	175.0	181.0	190.0	222.0	251.0	279.0	371.0
1959	155.0	157.0	166.0	179.0	188.0	199.0	227.0	263.0	370.0
1960	241.0	249.0	257.0	259.0	274.0	335.0	419.0	564.0	744.0
1961	230.0	243.0	239.0	259.0	272.0	307.0	310.0	330.0	582.0
1962	205.0	205.0	209.0	217.0	225.0	250.0	268.0	312.0	452.0
1963	220.0	223.0	229.0	244.0	261.0	290.0	302.0	356.0	537.0
1964	220.0	223.0	229.0	244.0	261.0	290.0	302.0	356.0	537.0
1965	304.0	306.0	319.0	336.0	347.0	362.0	370.0	384.0	484.0
1966	215.0	215.0	215.0	219.0	224.0	237.0	247.0	266.0	353.0
1967	231.0	232.0	236.0	240.0	247.0	251.0	264.0	321.0	430.0
1968	190.0	193.0	195.0	198.0	205.0	225.0	262.0	340.0	546.0
1969	290.0	290.0	295.0	304.0	322.0	378.0	509.0	553.0	707.0
1970	236.0	240.0	241.0	248.0	267.0	311.0	414.0	501.0	627.0
1971	196.0	199.0	203.0	207.0	215.0	230.0	241.0	254.0	411.0
1972	320.0	322.0	330.0	345.0	368.0	429.0	468.0	563.0	791.0
1973	242.0	243.0	248.0	254.0	304.0	349.0	349.0	363.0	441.0
1974	209.0	212.0	215.0	224.0	230.0	246.0	314.0	360.0	441.0
1975	247.0	249.0	253.0	256.0	264.0	284.0	325.0	396.0	663.0

LOWEST MEAN FLOW STATISTICS (YEARS 1948-1975)

MEAN	228.1	230.3	235.5	244.2	258.0	285.5	324.5	380.6	549.4
MAXIMUM	320.0	322.0	330.0	345.0	368.0	429.0	509.0	581.0	931.0
MINIMUM	155.0	157.0	166.0	179.0	188.0	199.0	224.0	237.0	315.0
STANDARD DEVIATION	39.58	39.38	40.61	43.27	47.26	57.91	76.44	100.47	136.36
SKEWNESS	-0.595	-0.482	-0.578	-0.683	-0.521	-0.537	-0.740	-0.664	-0.301
STD ERROR OF SKEWNESS	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
SERIAL CORR COEFF	-0.072	-0.076	-0.074	-0.048	-0.083	-0.045	-0.011	-0.114	-0.060
COEFF OF VARIATION	0.114	0.111	0.172	0.177	0.183	0.203	0.236	0.264	0.248
MEAN LOGS	2.352	2.356	2.366	2.381	2.405	2.447	2.500	2.567	2.727
STD DEVIATION LOGS	0.075	0.074	0.074	0.075	0.078	0.086	0.099	0.111	0.110
SKEWNESS LOGS	0.033	0.007	0.149	0.290	0.168	0.202	0.355	0.248	-0.197
STD ERR SKEWNESS LOGS	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
SER CORR COEFF LOGS	-0.030	-0.034	-0.036	-0.034	-0.033	-0.031	-0.017	-0.120	-0.057
COEFF OF VAR LOGS	0.032	0.031	0.031	0.031	0.033	0.035	0.040	0.043	0.040

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1948-1975)

	0.99	0.98	0.96	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
0.99	337.1	337.5	337.5	351.1	373.0	395.1	458.0	569.8	701.4	925.8	
0.98	321.3	322.2	322.2	333.5	352.2	373.8	430.4	526.7	645.7	872.6	
0.96	304.6	305.9	305.9	315.2	331.1	351.9	402.1	483.9	590.0	815.8	
0.90	280.6	282.4	282.4	289.4	301.7	321.0	362.8	426.6	515.2	733.1	
0.80	259.9	262.0	262.0	267.5	277.5	295.1	330.3	381.2	455.8	661.0	
0.50	224.7	227.1	227.1	231.2	238.7	252.7	278.2	312.1	364.7	537.4	
0.20	194.5	196.8	196.8	201.1	207.7	217.9	236.5	260.4	296.2	431.8	
0.10	180.5	182.7	182.7	187.3	194.1	202.3	218.1	238.6	267.2	383.3	
0.05	169.7	171.8	171.8	176.9	183.9	190.4	204.3	222.8	246.2	346.6	
0.02	158.4	160.3	160.3	166.1	173.5	178.2	190.2	207.1	225.2	308.5	
0.01	151.3	153.0	153.0	159.4	167.1	170.7	181.6	197.7	212.6	285.1	

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1948-1975)

	P95	P90	P75	P70	P50	P25	P10
240.0	270.0	410.0	490.0	930.0	1600.0	2700.0	

STATION 14223500 KALAMA RIVER BELOW ITALIAN CR NEAR KALAMA, WASH

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG. (R)
1947	12600.	11300.	8630.	5620.	4510.	2900.	2730.	2390.	1990.	14400. 12/13/46
1948	6710.	5000.	4250.	3250.	2630.	2050.	2220.	1940.	1840.	7460. 01/07/48
1949	7600.	6350.	5000.	3910.	2950.	2240.	2040.	1880.	1790.	9300. 02/17/49
1950	10400.	8050.	5490.	4940.	3870.	3090.	2810.	2600.	2260.	11600. 02/24/50
1951	8050.	6370.	5110.	3500.	3230.	2900.	2910.	2650.	2180.	8660. 02/11/51
1952	7980.	5810.	4830.	3400.	2520.	2010.	1960.	1880.	2000.	9140. 02/04/52
1953	8540.	7870.	7090.	5880.	5100.	3450.	2780.	2440.	2000.	9660. 01/18/53
1954	9580.	7270.	5920.	4330.	3510.	2870.	2820.	2620.	2150.	16000. 12/09/53
1955	7330.	5170.	3510.	2430.	1960.	1850.	1810.	1600.	1560.	9140. 02/08/55
1956	9180.	7820.	5490.	4470.	4100.	3630.	3260.	2830.	2600.	12100. 12/11/55
1957	7260.	6110.	4310.	3760.	2840.	2710.	2470.	2180.	1920.	8310. 02/26/57
1958	5740.	4620.	3960.	3460.	2840.	2710.	2470.	2180.	1920.	8080. 12/19/57
1959	7960.	5650.	4720.	3480.	2600.	2540.	2280.	2030.	2030.	8850. 01/24/59
1960	6270.	5040.	3760.	3020.	2450.	1870.	1840.	1710.	1690.	6990. 11/23/59
1961	7980.	6210.	5640.	4480.	3870.	3420.	3020.	2750.	2470.	10300. 11/20/60
1962	5940.	4710.	4410.	3370.	2660.	2060.	1810.	1670.	1540.	7130. 12/21/61
1963	12400.	7710.	5590.	4320.	3100.	2300.	2020.	1800.	1770.	16600. 11/20/62
1964	10600.	7240.	4980.	4120.	3110.	2370.	2250.	2040.	1810.	13900. 01/25/64
1965	10600.	9260.	6880.	4440.	3280.	2880.	2820.	2410.	1850.	11900. 12/23/64
1966	7900.	5760.	4280.	3270.	2400.	1910.	2010.	1890.	1560.	8830. 03/09/66
1967	11300.	7740.	5130.	4400.	3250.	3120.	2690.	2440.	2070.	12600. 12/13/66
1968	7280.	5800.	3420.	2970.	2460.	2280.	2120.	1780.	1780.	8770. 02/04/68
1969	5910.	5200.	4000.	3250.	2520.	2330.	1960.	1810.	1810.	8670. 12/03/68
1970	7630.	5870.	5470.	5290.	3790.	3340.	2900.	2750.	2340.	8670. 01/14/70
1971	8950.	7590.	5390.	4080.	3400.	2850.	2750.	2340.	2340.	11200. 01/25/71
1972	13800.	11200.	7310.	5140.	4370.	3770.	3350.	3130.	2660.	17900. 01/20/72
1973	8350.	6840.	5380.	4240.	2930.	2050.	1740.	1530.	1330.	10300. 12/21/72
1974	11400.	9850.	6820.	4580.	4210.	3800.	3680.	3400.	3020.	13600. 01/15/74
1975	10100.	7890.	5920.	4310.	3600.	2910.	2660.	2390.	2020.	11400. 01/14/75
1976										15800. 12/04/75
1977										3990. 03/09/77
1978										16900. 12/02/77
1979										8820. 02/07/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1947-1979)

	W R C ESTIMATE	SYSTEMATIC RECORD
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MEAN	8804.8	6914.5	5333.4	4140.3	3313.8	2696.2	2481.4	2253.1	1966.9
MAXIMUM	13800.0	11300.0	8630.0	5680.0	5100.0	3800.0	3680.0	3400.0	3020.0
MINIMUM	5740.0	4620.0	3510.0	2430.0	1960.0	1850.0	1740.0	1550.0	1330.0
STANDARD DEVIATION	2129.08	1779.00	1166.34	865.98	729.55	596.76	512.31	463.91	380.08
SKWENESS	0.629	1.029	0.892	0.242	0.519	0.307	0.369	0.558	0.941
STD ERROR OF SKWENESS	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434
SERIAL CORR COEFF	0.030	0.010	-0.080	-0.033	-0.025	-0.359	-0.428	-0.347	-0.414
COEFF OF VARIATION	0.242	0.219	0.209	0.209	0.220	0.221	0.206	0.206	0.193
MEAN LOGS	3.933	3.827	3.718	3.608	3.510	3.420	3.386	3.344	3.286
STD DEVIATION LOGS	0.103	0.105	0.091	0.092	0.095	0.096	0.090	0.088	0.080
SKWENESS LOGS	0.192	0.513	0.308	-0.197	0.010	0.005	0.013	0.155	0.435
STD ERR SKWENESS LOGS	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434
SER CORR COEFF LOGS	0.053	0.030	-0.080	-0.061	-0.261	-0.388	-0.456	-0.384	-0.463
COEFF OF VAR LOGS	0.026	0.027	0.025	0.026	0.027	0.028	0.026	0.026	0.024

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1947-1979)

0.99	5109.2	4193.3	3354.3	2397.3	1949.7	1572.0	1507.0	1410.5	1334.9	0.0	4491.9
0.95	5883.1	4685.2	3762.5	2824.2	2260.9	1827.9	1732.5	1596.9	1461.8	6524.2	5932.1
0.90	6359.8	5004.7	4015.3	3073.5	2447.0	1981.1	1866.5	1709.4	1541.3	7195.2	6815.2
0.80	7007.3	5457.1	4360.0	3396.4	2639.3	2184.0	2043.1	1859.7	1650.7	8122.3	7952.9
0.50	8503.1	6577.5	5162.1	4080.5	3236.3	2632.5	2429.9	2197.0	1908.1	10325.9	10587.4
0.20	10429.0	8163.6	6206.1	4854.4	3992.3	3175.9	2891.7	2614.8	2248.0	13270.4	13523.6
0.10	11653.9	9251.3	6876.1	5295.1	4287.0	3500.2	3167.9	2872.5	2468.4	15196.8	15196.8
0.04	13162.7	10672.3	7707.7	5792.7	4753.0	3885.6	3492.2	3182.7	2743.9	17619.1	17050.0
0.02	14265.9	11766.7	8319.9	6129.1	5081.0	4157.0	3719.6	3404.9	2948.1	19421.6	18278.0
0.01	15356.1	12893.2	8928.3	6441.7	5395.7	4417.4	3937.0	3621.2	3152.0	21226.5	19398.7

STATION 14223800 COLUMBIA RIVER TRIBUTARY AT CARROLLS, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1970)			M R C SYSTEMATIC	
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	ESTIMATE	RECORD	
1950	55.0	12-28-1949			1.7180	1.7180	
1951	58.0	12-23-1950			0.1483	0.1483	
1952	55.0	2- 3-1952			0.122	0.371	
1953	34.0	1-18-1953					
1954	80.0	12- 9-1953					
1955	50.0	2- 8-1955					
1956	112.0	12-11-1955					
1957	29.0	12- 9-1956					
1958	53.0	12-19-1957					
1959	38.0	1-24-1959					
1960	44.0	11-21-1959					
1961	50.0	11-20-1960					
1962	32.0	12-21-1961					
1963	75.0	2- 3-1963					
1964	89.0	1-25-1964					
1965	69.0	12-22-1964					
1966	44.0	1- 3-1966					
1967	48.0	12- 4-1966					
1968	38.0	2- 4-1968					
1969	59.0	12- 3-1968					
1970	50.0	1-18-1970					

STATION 14224000 OHANAPECOSH RIVER NEAR LEWIS, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)											
YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	ANNUAL
1907											
1908	100	372	571	243	204	650	736	883	1511	1359	584
1909	160	474	223	468	303	273	402	927	1699	822	511
1910	110	1953	615	448	319	1034	1096	1594	1095	566	764
1911	532	870	343	154	82.5	216	379	758	1358	656	479
1912	120	469	352	561	521	186	428	1302	1418	520	522
1913	142	684	340					1122	1891	1198	230

STATION 14224000 OHANAPECOSH RIVER NEAR LEWIS, WASH.

ANNUAL PEAK FLOW DATA	
WATER YEAR	FLOW(CFS) DATE
1908	3730.0 3-16-1908
1909	3060.0 6- 2-1909
1910	7500.0 11-23-1909
1911	2930.0 11- 7-1910
1912	2300.0 5-15-1912

STATION 14224500 CLEAR FK COWLITZ RIVER NR PACKWOOD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1907													
1908	63.5	156	258	130	101	315	265	307	461	394	125	89.1	221
1909	85.8	154	87.4	194	119	95.5	132	280	468	220	83.0	66.1	165
1910	61.6	768	296	192	169	517	434	585	387	211	101	74.4	316
1911	252	391	215	133	82.3	129	194	360	528	243	96.5	110	228
1912	72.4	355	193	277	288	113	164	537	542	252	143	159	257
1913	100	311	204					547	873	489	192	158	
1930											72.8	53.9	
1931	65.5	81.5	75.3	203	183	216	308	483	248	100	57.7	51.3	173
1932	89.2	175	146	165	177	331	344	544	616	299	118	74.8	257
1933	106	549	301	242	86.7	128	218	414	862	534	209	158	388
1934	387	380	1230	646	271	496	441	334	212	115	66.4	54.7	318
1935	246	500	280	254	276	166	168	455	582	274	108	68.6	281
1936	52.7	50.8	77.2	154	83.0	197	357	690	566	209	93.2	63.4	216
1937	47.6	36.5	156	63.6	69.1	152	284	531	755	306	101	81.9	216
1938	91.7	427	355	309	128	152	414	587	502	196	86.8	58.2	276
1939	92.6	153	274	231	99.2	194	365	514	372	213	86.9	63.8	222
1940	70.0	88.0	300	164	250	276	258	348	169	80.4	55.6	49.7	176
1941	63.1	129	202	150	105	118	180	236	144	64.5	47.3	101	128
1942	180	230	391	120	108	112	251	312	324	184	76.0	53.3	196
1950										593	204		109

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1907-1950)

MEAN	118.1	274.2	280.1	213.6	152.8	218.1	281.0	448.0	478.4	261.9	106.2	83.8	237.3
MAXIMUM	387.0	768.0	1230.0	646.0	288.0	517.0	441.0	690.0	873.0	593.0	209.0	159.0	388.0
MINIMUM	47.6	36.5	75.3	63.6	69.1	95.5	132.0	236.0	149.0	64.5	47.3	49.7	128.0
STD DEVIATION	90.66	200.09	254.28	127.79	75.50	129.41	98.84	128.24	216.84	148.37	47.54	35.97	65.13
SKEDNESS	2.003	0.927	3.336	2.581	0.803	1.416	0.220	0.003	0.260	0.917	1.149	1.274	0.594
STD ERR SKEW	0.536	0.536	0.536	0.550	0.550	0.550	0.550	0.536	0.536	0.524	0.512	0.501	0.550
SER CORR COEFF	0.177	0.099	0.071	0.119	-0.073	-0.401	-0.325	0.313	0.453	-0.153	0.026	0.163	0.338
COEFF OF VAR	0.767	0.730	0.908	0.598	0.494	0.593	0.352	0.286	0.453	0.566	0.468	0.429	0.274
MEAN LOGS	1.988	2.310	2.347	2.276	2.137	2.279	2.422	2.633	2.829	2.348	1.889	1.891	2.360
STD DEV LOGS	0.256	0.370	0.286	0.214	0.205	0.226	0.161	0.132	0.129	0.264	0.181	0.165	0.120
SKEDNESS LOGS	1.146	-0.444	0.462	0.344	0.383	0.693	-0.270	-0.409	-0.702	-0.403	0.352	0.816	-0.147
STD ERR SKEW LOGS	0.536	0.536	0.536	0.550	0.550	0.550	0.550	0.536	0.536	0.524	0.512	0.501	0.550
SER CORR LOGS	0.112	0.177	0.136	0.043	-0.099	-0.450	-0.309	0.369	0.196	0.006	0.114	0.087	0.320
COEFF OF VAR LOGS	0.129	0.160	0.122	0.094	0.096	0.099	0.067	0.050	0.087	0.112	0.091	0.087	0.051
% OF AVE FLOW	4.1	9.4	9.6	7.3	5.2	7.5	9.6	15.4	16.4	9.0	3.6	2.9	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1907-1950)

0.99	40.5	21.5	60.4	68.0	52.2	74.2	103.6	193.6	96.3	45.5	41.2	40.5	117.0
0.95	46.2	45.6	82.8	88.3	66.5	90.6	139.6	252.1	163.5	77.0	51.3	46.1	143.8
0.90	51.0	66.4	99.6	102.5	76.5	102.7	162.6	287.8	211.1	100.3	58.1	50.1	160.1
0.80	59.1	102.2	126.7	124.0	91.5	121.8	194.4	335.2	281.0	135.9	68.2	56.2	181.9
0.50	87.2	217.2	211.6	183.7	133.0	179.0	268.5	438.6	452.8	232.3	95.1	73.9	230.6
0.20	150.5	422.5	379.3	283.2	201.8	286.6	362.2	557.3	668.9	374.8	137.2	104.5	289.5
0.10	214.4	578.3	530.2	360.9	255.4	379.7	419.7	624.6	794.2	470.9	168.5	129.2	324.8
0.04	330.8	788.5	775.4	473.5	332.9	527.3	487.7	699.5	932.4	590.8	212.2	166.0	366.1
0.02	451.6	950.7	1004.2	568.3	398.0	662.4	535.5	749.4	1022.1	678.3	247.8	197.9	395.0
0.01	610.5	1115.4	1278.1	672.9	469.8	821.9	581.0	795.0	1101.9	763.6	286.1	233.9	422.5

STATION 14224500 CLEAR FK COWLITZ RIVER NR PACKWOOD, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1909	53.0	53.0	53.0	55.0	61.0	71.0	85.0	97.0	115.0
1910	49.0	49.0	51.0	54.0	61.0	62.0	68.0	99.0	194.0
1911	61.0	63.0	66.0	69.0	73.0	86.0	113.0	140.0	191.0
1912	56.0	56.0	57.0	61.0	70.0	89.0	89.0	108.0	165.0
1932	40.0	40.0	40.0	42.0	47.0	49.0	54.0	67.0	100.0
1933	59.0	59.0	61.0	62.0	67.0	80.0	99.0	134.0	227.0
1934	91.0	93.0	99.0	116.0	129.0	149.0	199.0	280.0	397.0
1935	44.0	35.0	38.0	39.0	42.0	50.0	59.0	77.0	154.0
1936	33.0	35.0	40.0	44.0	45.0	50.0	55.0	60.0	79.0
1937	30.0	30.0	31.0	32.0	36.0	40.0	46.0	56.0	72.0
1938	56.0	57.0	58.0	60.0	64.0	79.0	88.0	117.0	214.0
1939	50.0	51.0	52.0	53.0	56.0	66.0	78.0	93.0	143.0
1940	52.0	53.0	53.0	55.0	59.0	64.0	70.0	76.0	129.0
1941	42.0	42.0	43.0	46.0	48.0	50.0	54.0	59.0	85.0
1942	42.0	43.0	44.0	44.0	46.0	54.0	70.0	86.0	126.0

LOWEST MEAN FLOW STATISTICS (YEARS 1909-1942)

MEAN	49.9	50.6	52.4	55.5	60.3	69.3	81.8	103.3	159.4
MAXIMUM	91.0	93.0	99.0	116.0	129.0	149.0	199.0	280.0	397.0
MINIMUM	30.0	30.0	31.0	32.0	36.0	40.0	46.0	56.0	72.0
STANDARD DEVIATION	14.98	15.26	16.07	19.47	21.95	26.65	37.47	55.43	91.81
SKEWNESS	1.316	1.404	1.718	2.247	2.313	2.013	2.382	2.534	1.805
STD ERROR OF SKEWNESS	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580
SERIAL CORR COEFF	0.051	0.023	0.001	-0.049	-0.021	-0.007	0.023	0.098	0.186
COEFF OF VARIATION	0.300	0.302	0.307	0.351	0.364	0.385	0.458	0.537	0.513
MEAN LOGS	1.681	1.688	1.703	1.724	1.759	1.817	1.882	1.973	2.158
STD DEVIATION LOGS	0.123	0.122	0.120	0.129	0.132	0.143	0.160	0.181	0.198
SKEWNESS LOGS	0.311	0.384	0.659	1.006	1.126	0.940	1.179	1.169	0.432
STD ERR SKEWNESS LOGS	0.560	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580
SER CORR COEFF LOGS	0.127	0.086	0.030	-0.027	0.031	0.023	0.054	0.176	0.207
COEFF OF VAR LOGS	0.073	0.073	0.071	0.075	0.075	0.079	0.085	0.092	0.092

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1909-1942)

	P95	P90	P75	P70	P50	P25	P10
0.99	98.9	101.4	109.2	130.4	147.5	174.8	241.3
0.98	89.9	91.9	97.6	113.0	126.4	149.9	194.4
0.96	81.1	82.6	86.6	97.4	107.8	127.7	163.8
0.90	69.6	70.6	72.9	79.0	86.4	101.8	124.7
0.80	60.6	61.3	62.9	66.4	72.0	84.3	99.8
0.50	47.3	47.8	49.0	50.5	54.3	62.3	71.0
0.20	37.7	38.3	39.8	41.2	44.4	49.5	55.8
0.10	33.7	34.4	36.3	41.1	45.1	49.5	51.0
0.05	30.9	31.7	33.9	39.1	42.2	48.1	55.7
0.02	28.1	29.0	31.6	34.1	37.3	45.7	62.8
0.01	26.5	27.4	30.3	33.1	36.4	44.4	50.9

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1909-1942)

P95	P90	P75	P70	P50	P25	P10
51.0	60.0	87.0	97.0	150.0	310.0	520.0

STATION 14224500 CLEAR FK COMLITZ RIVER NR PACKWOOD, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-FLOW DATA DATE	REG. (R)
1908	1840.	1430.	858.	560.	516.	446.	409.	377.	313.	1840.	03/15/08	
1909	860.	765.	634.	561.	489.	384.	330.	277.	230.	958.	06/02/09	
1910	3740.	2200.	1600.	1200.	792.	559.	511.	485.	419.	3740.	11/23/09	
1911	1350.	960.	755.	627.	543.	445.	392.	337.	261.	1220.	06/15/11	
1912	1700.	1220.	809.	681.	660.	552.	452.	379.	333.	1220.	05/28/13	
1913										1680.	01/05/14	
1914										1320.	11/03/14	
1915										1330.	06/15/16	
1916										1330.	06/16/17	
1917										1050.	03/31/31	
1931	803.	723.	688.	603.	503.	401.	365.	319.	277.	2270.	02/26/32	
1932	940.	929.	848.	720.	617.	582.	519.	480.	391.	2830.	11/13/32	
1933	1970.	1420.	1190.	1040.	877.	747.	613.	528.	399.	8030.	12/22/33	
1934	5700.	4240.	2460.	1950.	1350.	975.	779.	700.	602.	2900.	10/25/34	
1935	2110.	1610.	1100.	872.	710.	524.	446.	376.	336.	1290.	06/08/36	
1936	1020.	943.	813.	732.	651.	565.	474.	355.	355.	1410.	04/14/37	
1937	1200.	1090.	910.	786.	755.	652.	520.	430.	355.	2600.	04/18/38	
1938	1960.	1380.	922.	728.	651.	604.	520.	422.	299.	1160.	05/29/39	
1939	948.	820.	694.	554.	518.	462.	370.	269.	269.	1410.	12/15/39	
1940	949.	859.	599.	430.	354.	312.	297.	289.	259.	1610.	11/29/40	
1941	1030.	650.	461.	358.	256.	209.	191.	171.	174.	4020.	11/23/42	
1942	672.	613.	544.	434.	393.	334.	306.	270.	218.	1350.	06/29/50	
1943												
1950												

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1908-1950)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	STD ERROR OF SKEWNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	STD ERR SKEWNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	1694.8	5700.0	672.0	1276.18	0.550	0.084	0.753	3.151	0.248	0.550	0.125	0.079	3.2551	3.2551
	1245.4	4240.0	613.0	867.34	0.550	0.129	0.672	3.051	0.211	0.550	0.216	0.069	0.2289	0.2289
	934.4	2460.0	461.0	476.82	0.550	0.227	0.510	2.932	0.175	0.550	0.367	0.060	0.0	0.0
	755.1	1950.0	359.0	375.14	0.550	0.326	0.419	2.840	0.177	0.550	0.510	0.059	0.2289	0.2289
	625.1	1350.0	256.0	246.25	0.550	0.419	0.394	2.767	0.164	0.550	0.590	0.054	0.0	0.0
	519.9	975.0	209.0	181.71	0.550	0.523	0.310	2.690	0.158	0.550	0.547	0.054	0.0	0.0
	451.9	779.0	191.0	139.98	0.550	0.523	0.310	2.634	0.144	0.550	0.547	0.054	0.0	0.0
	396.8	700.0	171.0	122.29	0.550	0.523	0.310	2.578	0.140	0.550	0.547	0.054	0.0	0.0
	328.6	602.0	171.0	97.37	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	1.161	1.161	1.161	1.161	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.401	0.401	0.401	0.401	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.550	0.550	0.550	0.550	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.376	0.376	0.376	0.376	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.296	0.296	0.296	0.296	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	2.500	2.500	2.500	2.500	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.140	0.140	0.140	0.140	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.024	0.024	0.024	0.024	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.584	0.584	0.584	0.584	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.024	0.024	0.024	0.024	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.550	0.550	0.550	0.550	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.547	0.547	0.547	0.547	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0
	0.054	0.054	0.054	0.054	0.550	0.523	0.310	2.500	0.125	0.550	0.547	0.054	0.0	0.0

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1908-1950)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	586.0	676.0	748.8	871.3	1281.4	2171.7	3043.5	4582.5	6138.5	8139.3
	576.4	627.1	671.1	748.2	1013.9	1593.0	2154.6	3135.5	4118.0	5372.5
	467.8	512.9	548.9	608.2	794.5	1154.4	1470.4	1975.4	2441.8	2997.8
	348.0	396.5	432.2	488.2	652.9	948.6	1194.8	1571.8	1906.5	2292.9
	238.0	311.8	359.4	426.1	587.3	804.2	945.3	1121.1	1250.2	1376.2
	185.4	232.3	277.1	334.8	446.5	669.2	763.8	863.6	940.1	1004.3
	170.4	236.4	277.1	334.8	446.5	669.2	763.8	863.6	940.1	1004.3
	155.9	212.0	246.5	292.3	390.7	571.8	638.3	708.0	751.6	789.6
	162.9	197.4	218.9	248.1	315.7	499.7	558.8	622.1	662.6	698.4
	528.0	756.2	915.7	1154.6	1799.1	2803.3	3534.7	4526.1	5308.9	6130.2
	879.7	960.2	1031.5	1158.0	1605.4	2620.8	3641.9	5486.4	7392.4	9891.5

STATION 14225500 LAKE CREEK NEAR PACKWOOD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1912	47.1	109	81.9	96.3	119	58.7	59.1	159	244	139	97.4	75.4	107
1913	50.1	72.9	63.0	86.5	64.7	60.2	69.7	160	316	215	110	75.4	112
1914	75.0	70.2	57.1	101	55.7	83.8	109	154	152	125	70.5	59.9	93.0
1915	63.9	137	55.3	42.1	34.3	38.0	86.1	83.8	95.5	90.9	69.4	51.4	70.7
1916	46.5	94.9	53.9	53.9	78.4	121	98.6	119	260	270	134	80.2	124
1917	40.0	54.0	53.6	45.7	54.6	42.4	48.9	119	299	316	124	76.4	106
1918	47.0	41.6	326	174	105	54.2	71.8	115	255	151	86.6	52.2	124
1919	66.2	69.8	104	122	44.6	83.1	83.1	161	169	152	70.1	49.8	96.4
1920	31.9	66.4	70.5	107	69.7	45.0	45.5	103	182	164	85.8	84.7	88.0
1921	108	102	77.0	135	113	118	94.1	182	305	208	120	63.7	136
1922	57.6	127	217	53.1	36.6	34.2	38.1	136	245	116	74.0	67.4	101
1923	43.5	43.8	64.9	223	57.5	46.9	112	169	199	195	79.0	50.5	107
1924	55.5	49.8	79.0	69.8	154	50.7	50.7	169	139	97.5	58.3	39.4	84.8
1930	39.3	35.2	36.0	49.4	60.9	60.9	90.7	175	140	70.3	45.0	40.4	70.3
1931	41.4	45.5	40.6	56.9	53.0	107	101	176	236	174	83.5	54.8	97.5
1932	58.6	230	118	85.0	50.2	51.5	60.5	128	301	114	114	75.1	125
1933	147	135	365	201	85.5	128	154	134	98.5	66.2	47.7	39.2	134
1934	68.5	138	106	89.1	87.8	53.7	52.7	133	213	135	65.1	45.3	98.8
1935	31.4	26.2	28.4	60.2	35.6	55.0	109	257	237	135	51.3	43.5	86.8
1936	31.0	21.5	49.4	32.9	31.2	40.1	71.6	161	309	172	51.3	43.5	86.8
1937	42.9	115	114	91.5	48.8	50.3	115	196	208	121	50.5	35.5	86.5
1938	44.0	52.0	81.6	74.7	49.0	53.3	103	173	162	136	60.4	44.3	86.3
1939	39.4	45.5	98.0	78.7	85.2	82.8	90.8	156	121	70.1	43.7	34.2	78.9
1940	34.6	39.0	70.9	51.8	40.7	35.9	47.7	99.5	95.3	62.5	39.0	59.9	56.5
1941	93.5	90.1	144	53.9	48.2	43.4	70.0	116	164	140	46.1	31.2	87.0
1942	28.6	131	91.1	72.2	74.2	99.9	91.9	154	324	278	122	62.2	130
1943	61.5	122	184	96.8	151	65.4	104	190	181	126	61.3	49.0	123
1951	122	152	81.4	37.9	57.9	42.7	91.9	175	169	145	64.8	37.1	91.5
1952	19.3	23.2	26.7	145	139	54.4	67.3	147	170	200	89.0	45.9	94.5
1953	56.5	77.3	157	81.3	86.5	72.1	84.7						
1954													
1959													
1960	189	197	104	47.7	65.6	52.4	94.7	147	221	125	66.3	51.8	113
1961	55.5	138	76.4	108	159	89.0	94.8	159	285	147	71.0	55.1	119
1962	57.3	60.9	92.6	138	70.5	46.5	121	111	178	147	92.7	47.2	97.0
1963	56.7	153	128	61.6	108	59.7	70.1	117	158	96.3	68.7	45.0	93.2

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1912-1963)

MEAN	62.1	89.0	104.0	88.9	76.2	63.2	83.9	150.4	207.0	151.1	76.6	55.4	100.5
MAXIMUM	189.0	230.0	365.0	223.0	154.0	128.0	154.0	257.0	324.0	316.0	134.0	124.0	136.0
MINIMUM	28.6	21.5	26.7	32.9	31.2	34.2	38.1	83.8	67.9	62.5	39.0	31.2	56.5
STD DEVIATION	35.40	51.12	74.21	45.83	35.66	25.52	25.52	33.67	67.96	61.47	25.76	18.47	19.24
SKEWNESS	2.022	0.842	2.254	1.331	1.005	1.291	0.292	0.610	0.150	0.892	0.685	1.679	0.007
STD ERR SKEW	0.398	0.403	0.403	0.403	0.403	0.403	0.403	0.409	0.409	0.409	0.409	0.398	0.409
SER CORR COEFF	0.022	0.190	-0.027	-0.073	-0.077	-0.344	-0.368	0.107	0.126	0.073	0.247	0.100	0.237
COEFF OF VAR	0.570	0.575	0.713	0.515	0.668	0.404	0.305	0.224	0.326	0.407	0.336	0.333	0.191
MEAN LOGS	1.742	1.875	1.938	1.900	1.839	1.772	1.903	2.078	2.291	2.177	1.861	1.724	1.994
STD DEV LOGS	0.200	0.266	0.257	0.207	0.194	0.156	0.141	0.098	0.153	0.177	0.144	0.129	0.087
SKEWNESS LOGS	0.884	-0.258	0.355	0.303	0.232	0.736	-0.466	-0.280	-0.446	-0.130	0.104	0.650	-0.554
STD ERR SKEW LOGS	0.398	0.403	0.403	0.403	0.403	0.403	0.403	0.409	0.409	0.409	0.409	0.398	0.409
SER CORR LOGS	0.026	0.215	0.030	-0.041	-0.352	-0.352	-0.352	0.111	0.157	0.073	0.300	0.151	0.263
COEFF OF VAR LOGS	0.115	0.142	0.132	0.109	0.105	0.086	0.074	0.045	0.067	0.042	0.075	0.075	0.043
% OF AVE FLOW	5.1	7.4	8.6	7.4	6.3	5.2	6.9	12.5	17.1	12.5	6.3	4.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1912-1963)

0.99	25.6	16.1	25.6	29.2	26.4	31.2	33.7	82.8	77.0	52.1	34.5	30.6	57.3
0.95	29.5	26.2	35.0	37.9	34.2	35.7	45.1	99.5	105.2	70.4	42.5	34.5	69.1
0.90	32.5	33.7	41.8	43.9	39.5	38.8	52.1	109.2	122.9	82.4	47.7	37.1	75.7
0.80	37.3	45.2	52.4	52.9	47.3	43.5	61.5	121.8	146.9	99.4	54.9	41.0	84.1
0.50	51.7	77.0	83.8	77.5	67.9	56.6	82.0	148.4	200.7	140.9	72.2	51.3	100.5
0.20	78.9	126.5	140.8	117.5	100.0	78.4	105.5	178.0	264.3	197.2	95.7	67.1	117.1
0.10	102.5	161.6	188.5	148.1	123.6	95.4	118.8	194.7	300.9	234.0	111.3	78.7	125.6
0.04	140.0	207.5	261.3	191.5	156.1	120.1	133.5	213.3	342.1	279.7	131.1	94.7	134.4
0.02	174.4	242.5	325.6	227.6	182.3	140.9	143.1	225.7	369.6	313.3	107.6	107.6	139.9
0.01	215.2	278.0	399.1	266.8	210.2	164.1	151.9	237.2	394.8	346.4	160.7	121.4	144.6

STATION 14225500 LAKE CREEK NEAR PACKWOOD, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1913	45.0	46.0	48.0	49.0	49.0	54.0	61.0	64.0	66.0
1914	46.0	47.0	48.0	49.0	54.0	62.0	67.0	68.0	71.0
1915	33.0	33.0	33.0	33.0	33.0	35.0	38.0	42.0	62.0
1916	36.0	37.0	38.0	40.0	44.0	48.0	55.0	61.0	68.0
1917	35.0	35.0	35.0	35.0	35.0	38.0	47.0	48.0	48.0
1918	38.0	38.0	38.0	39.0	40.0	42.0	50.0	62.0	125.0
1919	38.0	39.0	39.0	40.0	44.0	54.0	63.0	68.0	77.0
1920	30.0	30.0	30.0	31.0	32.0	37.0	45.0	49.0	63.0
1921	38.0	40.0	40.0	43.0	46.0	74.0	84.0	88.0	97.0
1922	33.0	33.0	33.0	34.0	35.0	35.0	41.0	81.0	88.0
1923	32.0	33.0	33.0	35.0	42.0	42.0	67.0	49.0	67.0
1924	33.0	34.0	34.0	35.0	39.0	47.0	51.0	57.0	64.0
1925	30.0	30.0	30.0	32.0	34.0	40.0	41.0	41.0	45.0
1932	44.0	44.0	44.0	45.0	48.0	51.0	63.0	76.0	98.0
1933	51.0	51.0	52.0	53.0	60.0	75.0	101.0	114.0	151.0
1934	26.0	26.0	26.0	27.0	30.0	36.0	40.0	48.0	76.0
1936	23.0	24.0	24.0	26.0	28.0	28.0	28.0	32.0	38.0
1937	20.0	20.0	20.0	20.0	21.0	25.0	29.0	33.0	34.0
1938	27.0	27.0	28.0	30.0	34.0	42.0	50.0	61.0	76.0
1939	29.0	29.0	29.0	33.0	35.0	40.0	42.0	45.0	56.0
1940	29.0	29.0	30.0	34.0	36.0	39.0	42.0	45.0	60.0
1941	20.0	22.0	24.0	26.0	28.0	33.0	34.0	36.0	45.0
1942	34.0	34.0	34.0	36.0	38.0	46.0	67.0	63.0	67.0
1951	41.0	42.0	44.0	48.0	58.0	84.0	99.0	109.0	121.0
1952	31.0	32.0	33.0	35.0	37.0	47.0	45.0	53.0	69.0
1953	18.0	18.0	19.0	19.0	22.0	25.0	26.0	28.0	45.0
1954	33.0	34.0	35.0	37.0	40.0	51.0	54.0	65.0	82.0
1961	42.0	42.0	43.0	45.0	47.0	52.0	57.0	67.0	82.0
1962	40.0	41.0	43.0	43.0	45.0	52.0	58.0	77.0	82.0
1963	39.0	39.0	41.0	44.0	47.0	52.0	55.0	72.0	89.0

LOWEST MEAN FLOW STATISTICS (YEARS 1913-1963)

MEAN	33.4	34.0	34.8	36.5	39.4	46.5	51.9	59.4	73.4
MAXIMUM	51.0	51.0	52.0	53.0	60.0	84.0	101.0	114.0	151.0
MINIMUM	18.0	18.0	18.0	19.0	21.0	25.0	26.0	28.0	34.0
STANDARD DEVIATION	8.06	8.00	8.30	8.45	9.66	13.92	17.99	20.33	26.01
SKEWNESS	0.096	0.053	0.033	-0.080	0.177	0.903	1.301	0.971	1.442
STD. ERROR OF SKEWNESS	0.427	0.427	0.427	0.427	0.427	0.427	0.427	0.427	0.427
SERIAL CORR. COEFF	0.362	0.362	0.341	0.274	0.159	-0.008	0.017	0.104	0.110
COEFF. OF VARIATION	0.241	0.235	0.239	0.232	0.245	0.299	0.347	0.342	0.354
MEAN LOGS	1.510	1.519	1.529	1.550	1.582	1.649	1.693	1.750	1.841
STD. DEVIATION LOGS	0.111	0.108	0.110	0.108	0.112	0.127	0.141	0.146	0.148
SKEWNESS LOGS	-0.525	-0.561	-0.600	-0.724	-0.479	-0.003	0.275	-0.006	0.069
STD. ERR. SKEWNESS LOGS	0.427	0.427	0.427	0.427	0.427	0.427	0.427	0.427	0.427
SER. CORR. COEFF. LOGS	0.345	0.348	0.332	0.267	0.189	0.059	0.089	0.126	0.143
COEFF. OF VAR. LOGS	0.073	0.071	0.072	0.070	0.071	0.077	0.083	0.083	0.080

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1913-1963)

0.99	53.0	52.9	54.4	55.3	63.3	88.2	111.6	122.5	156.0
0.98	50.7	50.8	52.2	53.5	60.5	81.4	100.4	111.9	141.5
0.96	48.1	48.4	49.8	51.2	57.2	74.5	89.4	101.1	127.0
0.90	44.1	44.6	45.8	47.5	52.2	65.0	75.2	86.4	107.7
0.80	40.3	40.9	42.0	43.9	47.6	57.1	64.4	74.6	92.3
0.50	33.1	33.8	34.6	36.5	39.0	44.6	48.5	56.3	69.1
0.20	26.4	27.1	27.6	29.1	31.0	34.8	37.4	42.4	52.0
0.10	23.1	23.7	24.1	25.4	27.2	30.6	32.9	36.6	45.0
0.05	20.6	21.1	21.4	22.5	24.2	27.5	29.7	32.4	39.9
0.02	17.9	18.4	18.6	19.4	21.1	24.4	26.6	28.2	34.9
0.01	16.3	16.7	16.8	17.5	19.2	22.5	24.8	25.8	32.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1913-1963)

P95	P90	P75	P70	P50	P25	P10
34.0	39.0	50.0	54.0	74.0	130.0	200.0

STATION 14225500 LAKE CREEK NEAR PACKWOOD, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	DATE	REG. (R)
1912	324.	317.	296.	268.	244.	213.	185.	163.	130.	324.	06/08/12	
1913	452.	437.	399.	342.	316.	273.	237.	203.	158.	465.	06/03/13	
1914	229.	217.	196.	187.	169.	159.	147.	137.	116.	229.	01/07/14	
1915	247.	223.	181.	175.	137.	103.	91.	90.	80.	247.	11/14/14	
1916	562.	509.	415.	339.	329.	269.	229.	205.	174.	582.	06/18/16	
1917	482.	430.	400.	374.	365.	311.	255.	218.	164.	506.	06/17/17	
1918	600.	600.	600.	588.	392.	269.	208.	168.	159.			
1919	389.	352.	266.	215.	185.	179.	163.	144.	119.	419.	01/23/19	
1920	248.	243.	230.	212.	207.	175.	155.	136.	111.	272.	07/05/20	
1921	430.	405.	375.	340.	307.	274.	238.	211.	176.	452.	06/08/21	
1922	609.	541.	409.	322.	286.	203.	168.	145.	113.	631.	12/12/21	
1923	521.	488.	421.	327.	237.	202.	189.	170.	141.	521.	01/09/23	
1924	278.	268.	253.	232.	193.	160.	137.	118.	112.	278.	05/14/24	
1931	238.	234.	221.	205.	175.	160.	136.	121.	101.	241.	03/14/31	
1932	354.	338.	305.	277.	256.	219.	197.	174.	148.	366.	06/15/32	
1933	770.	620.	473.	358.	303.	272.	229.	196.	151.	815.	11/17/32	
1934	1300.	1010.	674.	531.	396.	293.	241.	220.	185.	1400.	12/22/33	
1935	450.	304.	270.	247.	215.	186.	162.	138.	115.	517.	11/05/34	
1936	493.	425.	347.	300.	287.	250.	218.	182.	136.	512.	06/08/36	
1937	511.	484.	411.	355.	316.	251.	216.	183.	138.	529.	06/21/37	
1938	379.	332.	310.	258.	232.	202.	190.	163.	124.	423.	04/19/38	
1939	352.	308.	234.	195.	178.	172.	159.	145.	116.	365.	05/29/39	
1940	226.	202.	181.	164.	156.	140.	124.	113.	104.	234.	12/17/39	
1941	153.	144.	128.	124.	109.	99.	87.	77.	67.	157.	05/25/41	
1942	300.	271.	232.	192.	188.	171.	142.	125.	97.	308.	12/20/41	
1950	495.	473.	442.	392.	361.	305.	261.	223.	180.	548.	11/27/49	
1951	530.	468.	331.	230.	197.	193.	169.	152.	136.	548.	02/11/51	
1952	271.	260.	233.	225.	212.	187.	170.	149.	115.	276.	05/20/52	
1953	436.	357.	297.	259.	210.	188.	175.	156.	135.	448.	02/01/53	
1954	855.	738.	508.	307.	222.	195.	166.	148.	119.	379.	12/20/53	
1960										1000.	11/23/59	
1961	461.	444.	367.	306.	287.	237.	199.	173.	155.	468.	06/18/61	
1962	447.	360.	271.	213.	183.	164.	148.	143.	116.	464.	01/08/62	
1963	758.	625.	386.	257.	209.	149.	128.	114.	101.	1040.	11/20/62	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1912-1963)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	459.1	406.9	335.2	282.3	244.2	206.8	179.4	157.7	130.1			
MAXIMUM	1300.0	1010.0	674.0	588.0	396.0	311.0	261.0	223.0	185.0			
MINIMUM	153.0	144.0	128.0	124.0	109.0	99.0	87.0	77.0	67.0			
STANDARD DEVIATION	223.88	176.72	121.64	98.33	74.49	55.42	44.62	36.93	28.63			
SKEWNESS	1.826	1.364	0.791	1.277	0.452	0.167	-0.038	-0.001	0.106			
STD ERROR OF SKEWNESS	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409			
SERIAL CORR COEFF	0.292	0.195	0.205	0.194	0.228	0.240	0.189	0.145	0.055			
COEFF OF VARIATION	0.488	0.434	0.363	0.348	0.305	0.268	0.234	0.220	0.220			
MEAN LOGS	2.619	2.573	2.498	2.427	2.368	2.299	2.239	2.185	2.103			
STD DEVIATION LOGS	0.194	0.180	0.159	0.143	0.135	0.123	0.116	0.109	0.100			
SKEWNESS LOGS	0.144	0.038	-0.196	0.172	-0.182	-0.510	-0.713	-0.679	-0.540			
STD ERR SKEWNESS LOGS	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409			
SER CORR COEFF LOGS	0.375	0.292	0.299	0.294	0.268	0.261	0.225	0.189	0.106			
COEFF OF VAR LOGS	0.074	0.070	0.064	0.059	0.057	0.053	0.052	0.050	0.048			
										2.6353		2.6353
										0.2050		0.2050
										0.0360		0.0360

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1912-1963)

0.99	154.7	144.2	127.2	129.7	108.7	93.0	81.2	75.9	67.9	145.8		161.9
0.95	203.7	190.0	168.6	158.3	137.8	120.5	106.5	97.4	84.1	199.7		208.3
0.90	236.6	220.3	195.3	176.6	155.8	137.0	121.4	109.6	93.5	236.3		240.5
0.80	285.1	263.7	232.0	202.3	180.2	158.6	140.5	125.7	105.4	290.1		288.6
0.50	411.6	373.2	318.3	265.1	235.5	203.9	179.1	157.6	129.5	430.6		420.7
0.20	603.2	530.1	429.5	351.9	303.7	253.9	218.4	189.8	154.6	641.9		636.3
0.10	741.1	637.8	499.0	410.3	345.1	280.9	238.2	206.1	167.7	792.1		802.1
0.04	927.5	777.8	582.6	485.3	393.9	310.0	258.4	222.7	181.4	992.3		1038.7
0.02	1074.9	884.7	642.3	542.2	428.1	328.8	270.6	232.9	190.1	1148.5		1235.6
0.01	1229.5	993.8	699.8	599.9	460.8	345.6	281.0	241.5	197.7	1310.6		1450.7

STATION 14225500 LAKE CREEK NEAR PACKWOOD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1964	15.0	57.8	75.5	85.3	55.1	44.1	50.6	57.5	182	73.5	17.3	10.2	60.2
1965	10.6	10.4	13.2	49.8	29.9	11.9	12.0	15.1	20.4	11.5	10.6	6.45	16.8
1966	5.58	5.65	5.30	5.34	5.16	5.23	5.23	5.67	7.65	5.79	5.67	5.39	6.32
1967	5.67	5.02	4.81	5.30	4.86	4.86	4.60	11.0	41.6	12.4	5.12	4.87	9.15
1968	12.8	14.4	4.57	4.63	5.44	4.96	4.65	4.76	5.77	4.60	5.58	5.46	6.46
1969	6.06	5.57	5.26	5.18	5.17	5.43	5.61	43.5	50.9	5.01	5.31	5.49	12.4
1970	5.54	6.38	4.83	5.67	5.76	5.48	6.17	5.56	8.57	5.76	5.78	5.73	5.96
1971	5.07	5.04	5.06	5.11	4.78	4.82	4.81	11.3	17.2	26.0	32.7	5.46	10.7
1972	4.41	4.03	3.75	4.13	4.97	6.28	5.04	5.31	95.1	23.8	3.76	5.14	6.27
1973	15.4	5.25	7.73	4.95	5.19	5.22	5.31	5.35	125	23.4	5.33	5.59	18.2
1974	6.41	6.71	5.90	20.5	4.76	4.76	4.94	5.11	32.4	42.4	5.15	5.20	10.7
1975	5.69	5.49	5.50	5.62	5.00	4.88	4.35	3.82	5.75	4.81	5.19	8.71	13.7
1976	17.0	5.62	90.7	6.15	6.39	3.74	4.08	5.61	6.07	4.04	4.51	4.01	6.43
1977	16.4	16.4	5.25	5.26	3.81	3.79	5.22	5.12	6.07	6.98	7.23	5.84	18.5
1978	5.52	5.17	160	4.16	3.72	3.63	3.54	3.68	4.14	5.22	5.40	5.28	4.36
1979	4.61	3.39	4.13	4.40	4.96	3.63	3.54	3.68	4.14	5.22	5.40	5.28	4.36

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1964-1979)

MEAN	8.9	10.1	25.1	13.8	9.7	7.7	8.4	13.1	38.2	16.3	8.1	5.9	13.7
MAXIMUM	17.0	57.8	160.0	85.3	55.1	44.1	50.6	57.5	182.0	73.5	32.7	10.2	60.2
MINIMUM	4.4	3.4	3.8	4.1	3.7	3.6	3.5	3.7	3.9	4.0	3.8	4.0	4.4
STD DEVIATION	4.77	13.22	44.69	22.28	13.63	9.89	11.82	15.82	52.15	18.79	7.33	1.50	13.67
SKWENESS	0.783	3.529	2.363	2.773	3.024	3.768	3.708	2.304	1.893	2.236	2.965	2.084	3.141
STD ERR SKEW	0.564	0.564	0.564	0.564	0.564	0.564	0.580	0.580	0.564	0.564	0.564	0.564	0.580
SER CORR COEFF	0.063	0.195	-0.171	0.793	0.887	0.932	0.947	0.033	-0.184	0.068	-0.081	-0.123	0.181
COEFF OF VAR	0.538	1.303	1.781	1.610	1.407	1.280	1.401	1.207	1.365	1.154	0.902	0.255	0.995
MEAN LOGS	0.893	0.859	0.978	0.879	0.809	0.764	0.782	0.935	1.234	1.016	0.823	0.760	1.028
STD DEV LOGS	0.219	0.303	0.532	0.400	0.321	0.264	0.264	0.365	0.562	0.397	0.242	0.095	0.287
SKWENESS LOGS	0.586	2.037	1.635	2.021	2.461	2.852	2.922	1.310	0.552	0.882	2.061	1.493	1.194
STD ERR SKEW LOGS	0.564	0.564	0.564	0.564	0.564	0.564	0.580	0.580	0.564	0.564	0.564	0.564	0.580
SER CORR LOGS	0.065	0.188	-0.137	0.574	0.759	0.864	0.851	0.167	-0.114	0.151	-0.047	-0.198	-0.136
COEFF OF VAR LOGS	0.246	0.352	0.544	0.455	0.397	0.345	0.359	0.390	0.456	0.390	0.294	0.125	0.279
% OF AVE FLOW	5.4	6.1	15.2	8.4	5.9	4.7	5.1	7.9	23.1	9.8	4.9	3.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1979)

0.99	3.0	3.7	2.2	3.1	3.5	3.8	3.9	2.7	1.4	2.3	3.9	4.4	4.1
0.95	3.7	3.8	2.5	3.2	3.6	3.8	3.9	3.1	2.5	3.0	4.0	4.5	4.7
0.90	4.3	3.9	2.8	3.3	3.6	3.8	3.9	3.5	3.6	3.6	4.1	4.6	5.2
0.80	5.1	4.2	3.5	3.7	3.8	3.9	4.0	4.3	5.7	4.8	4.3	4.8	6.1
0.50	7.4	5.8	6.9	5.7	4.9	4.6	4.7	7.2	15.2	9.1	5.6	5.5	9.4
0.20	11.7	11.0	21.6	13.2	9.5	7.6	8.0	15.7	48.6	21.0	9.3	6.7	17.3
0.10	15.3	17.9	48.3	26.1	16.3	12.0	13.1	26.5	95.5	35.3	13.7	7.7	25.8
0.04	20.8	34.0	135.2	58.7	34.2	23.1	26.4	50.7	207.6	65.4	23.0	9.2	42.2
0.02	25.6	55.4	290.0	111.5	60.8	38.7	46.0	53.4	353.4	101.0	34.0	10.5	60.2
0.01	31.3	90.3	616.5	212.1	109.0	65.6	81.4	128.4	582.5	153.1	50.4	11.9	85.0

STATION 14225500 LAKE CREEK NEAR PACKWOOD, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1965	8.4	9.1	9.4	9.8	10.0	10.0	10.0	10.0	12.0
1966	5.0	5.0	5.0	5.1	5.1	5.2	5.2	5.3	5.4
1967	4.3	4.3	4.4	4.4	4.6	4.8	5.0	4.9	5.1
1968	3.7	3.8	4.3	4.4	4.4	4.5	4.6	4.8	7.7
1969	3.9	3.9	4.0	4.2	4.6	4.7	5.0	4.9	5.1
1970	3.9	3.9	4.1	4.4	4.7	5.1	5.3	5.3	5.4
1971	4.6	4.6	4.7	4.7	4.8	4.8	4.9	4.9	5.0
1972	3.5	3.5	3.6	3.7	3.7	3.9	3.9	4.0	4.4
1974	4.6	4.6	4.6	4.6	4.7	4.8	5.1	5.2	5.2
1975	2.3	3.2	4.0	4.5	4.9	4.9	5.2	5.3	5.4
1976	3.7	3.8	3.8	3.9	4.0	5.0	5.5	8.3	16.0
1977	2.0	2.6	3.2	3.2	3.3	3.6	4.3	4.5	5.4
1978	2.8	3.0	3.1	3.2	3.6	3.7	3.9	4.1	4.3
1979	3.0	3.0	3.0	3.2	3.4	3.5	3.9	4.0	4.2

LOWEST MEAN FLOW STATISTICS (YEARS 1965-1979)

MEAN	4.0	4.2	4.4	4.5	4.7	4.9	5.1	5.4	6.5
MAXIMUM	8.4	9.1	9.4	9.8	10.0	10.0	10.0	10.0	16.0
MINIMUM	2.0	2.6	3.0	3.2	3.3	3.5	3.9	4.0	4.2
STANDARD DEVIATION	1.54	1.58	1.57	1.63	1.64	1.58	1.51	1.69	3.39
SKEWNESS	1.779	2.571	2.800	2.873	2.900	2.857	2.873	2.107	2.285
STD ERROR OF SKEWNESS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SERIAL CORR COEFF	0.461	0.564	0.615	0.622	0.624	0.467	0.328	0.083	-0.077
COEFF OF VARIATION	0.388	0.379	0.359	0.361	0.348	0.323	0.294	0.314	0.523
MEAN LOGS	0.574	0.598	0.622	0.637	0.655	0.674	0.697	0.716	0.774
STD DEVIATION LOGS	0.153	0.132	0.122	0.122	0.117	0.111	0.102	0.113	0.170
SKEWNESS LOGS	0.349	1.488	1.821	1.885	1.960	1.916	2.050	1.661	1.832
STD ERR SKEWNESS LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR COEFF LOGS	0.359	0.534	0.649	0.660	0.555	0.500	0.363	0.148	-0.015
COEFF OF VAR LOGS	0.267	0.220	0.196	0.191	0.179	0.164	0.146	0.158	0.220

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1965-1979)

	9.3	10.9	11.2	11.7	11.9	11.7	11.6	12.7	23.5
0.99	8.2	9.1	9.3	9.7	9.9	9.9	9.9	10.8	18.2
0.98	7.2	7.6	7.8	8.0	8.2	8.3	8.4	9.2	14.0
0.96	5.9	5.9	6.1	6.3	6.4	6.6	6.7	7.3	9.9
0.90	5.0	4.9	5.0	5.2	5.3	5.5	5.7	6.2	7.6
0.80	3.7	3.7	3.9	4.0	4.2	4.4	4.6	4.9	5.3
0.50	2.8	3.1	3.4	3.5	3.7	3.9	4.2	4.2	4.4
0.20	2.4	2.9	3.2	3.3	3.5	3.7	4.1	4.0	4.1
0.10	2.2	2.8	3.2	3.3	3.5	3.7	4.0	3.9	4.0
0.05	1.9	2.7	3.1	3.2	3.5	3.6	4.0	3.9	3.9
0.02	1.8	2.7	3.1	3.2	3.4	3.6	4.0	3.8	3.9
0.01	1.8	2.7	3.1	3.2	3.4	3.6	4.0	3.8	3.9

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED *PM* PERCENT OF THE TIME (YEARS 1965-1979)

	P95	P90	P75	P70	P50	P25	P10
	3.7	4.2	4.8	4.9	5.5	6.7	20.0

STATION 14225500 LAKE CREEK NEAR PACKWOOD, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-FLW DATA REG. (R)
1964	400.	346.	290.	252.	182.	137.	107.	92.	81.	440.	06/05/64 R
1965	665.	503.	244.	123.	69.	41.	31.	26.	23.	850.	01/30/65 R
1966	47.	47.	39.	21.	14.	11.	9.	8.	7.	48.	05/09/66 R
1967	188.	143.	100.	73.	47.	30.	22.	18.	13.	204.	06/22/67 R
1968	46.	45.	43.	39.	23.	14.	11.	9.	8.	47.	11/02/67 R
1969	162.	144.	120.	102.	86.	48.	34.	27.	19.	171.	06/05/69 R
1970	37.	28.	18.	11.	9.	7.	7.	7.	6.	45.	06/07/70 R
1971	204.	192.	140.	91.	54.	36.	28.	22.	16.	220.	08/02/71 R
1972										308.	05/30/72 R
1973	20.	20.	19.	19.	16.	10.	10.	8.	7.	36.	07/10/73 R
1974	302.	287.	272.	197.	132.	75.	51.	40.	30.	315.	06/15/74 R
1975	208.	198.	160.	82.	50.	38.	27.	22.	16.	216.	07/09/75 R
1976	777.	656.	370.	181.	94.	53.	39.	31.	22.	888.	12/03/75 R
1977	34.	34.	34.	25.	20.	17.	13.	11.	9.	35.	11/07/76 R
1978	1220.	926.	469.	318.	166.	85.	59.	45.	31.	1690.	12/02/77 R
1979	14.	11.	8.	6.	6.	6.	5.	5.	5.	30.	02/15/79 R

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1964-1979)

	W R C ESTIMATE	SYSTEMATIC RECORD
MEAN	288.3	2.2212
MAXIMUM	1220.0	0.5643
MINIMUM	14.0	0.1510
STANDARD DEVIATION	347.75	
SKENNESS	1.716	
STD ERROR OF SKENNESS	0.580	
SERIAL CORR COEFF	-0.336	
COEFF OF VARIATION	1.206	
MEAN LOGS	2.125	
STD DEVIATION LOGS	0.608	
SKENNESS LOGS	-0.082	
STD ERR SKENNESS LOGS	0.580	
SER CORR COEFF LOGS	-0.531	
COEFF OF VAR LOGS	0.286	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1979)

	0.99	0.95	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01
MEAN	4.7	4.1	3.3	2.6	2.6	2.7	2.9	3.0	3.3	3.4	3.6	3.8	4.1	4.4
MAXIMUM	12.9	11.6	9.8	7.4	6.3	5.5	5.2	4.9	4.7	4.5	4.3	4.1	3.9	3.7
MINIMUM	21.9	19.9	17.0	12.5	9.9	8.0	7.1	6.5	6.2	6.0	5.8	5.6	5.4	5.2
STANDARD DEVIATION	41.3	37.7	31.9	22.9	16.8	12.4	10.3	9.0	8.5	8.2	8.0	7.8	7.6	7.4
SKENNESS	135.9	122.1	96.2	65.9	43.2	28.2	21.4	17.6	15.4	13.4	11.4	10.4	9.4	8.4
STD ERROR OF SKENNESS	435.1	372.2	255.6	167.9	102.6	61.9	44.6	35.6	32.7	29.7	26.7	23.7	20.7	17.7
SERIAL CORR COEFF	791.0	650.9	405.8	260.9	156.2	92.3	69.7	52.4	49.7	46.7	43.7	40.7	37.7	34.7
COEFF OF VARIATION	1484.1	1160.4	641.4	403.5	238.8	140.1	99.5	79.9	73.9	66.9	60.9	53.9	46.9	39.9
MEAN LOGS	2218.7	1669.7	845.9	525.0	310.4	182.5	130.2	105.6	86.5	73.5	60.5	47.5	34.5	21.5
STD DEVIATION LOGS	3176.3	2301.6	1071.9	657.3	389.6	230.7	166.0	136.4	116.3	96.3	81.3	66.3	51.3	36.3

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1907													
1908	52.9	81.2	151	96.9	69.8	215	132	143	245	306	105	73.5	138
1909	52.5	69.6	69.5	111	79.0	62.4	62.0	105	273	168	82.8	55.5	99.6
1910	51.4	306	160	81.3	70.0	247	171	239	170	117	66.3	61.8	144
1911	99.0	184	116	91.0	51.0	51.0	62.1	117	244	171	72.0	72.0	110
1912	42.4	147	95.8	149	174	64.8	59.9	155	280	150	101	78.4	124
1913	86.7	92.0	75.7	149	80.8	121	152	195	179	147	80.8	72.2	120
1914													
1915													
1916													
1917													
1918	68.4	178	158	84.6	149	95.2	106	137	171	105	95.7	57.1	114
1919													
1920													
1921													
1922													
1923													
1924													
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LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1909	40.0	40.0	40.0	41.0	46.0	52.0	58.0	60.0	73.0
1910	40.0	42.0	44.0	45.0	51.0	56.0	64.0	85.0	120.0
1911	36.0	36.0	36.0	37.0	43.0	51.0	59.0	73.0	94.0
1912	36.0	36.0	37.0	39.0	41.0	52.0	58.0	72.0	93.0

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW (CFS)	DATE	REG. (K)
1908	1440.	1090.	625.	370.	329.	260.	233.	213.	192.	1440.	03/15/08	
1909	411.	347.	328.	304.	273.	226.	183.	158.	127.	428.	06/02/09	
1910	905.	794.	590.	491.	336.	235.	219.	209.	182.	905.	11/24/09	
1911	393.	349.	280.	249.	209.	180.	180.	154.	124.	393.	11/11/10	
1912	464.	411.	331.	298.	281.	232.	200.	176.	152.	464.	11/19/11	
1913					1913					502.	06/03/13	
1914	358.	335.	293.	234.	213.	192.	184.	170.	151.	358.	01/07/14	
1915					1915					358.	11/14/14	
1963	792.	667.	434.	305.	487.	178.	161.	145.	129.	1280.	11/20/62	

STATION 14226000 LAKE CREEK AT MOUTH, NEAR PACKWOOD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1964	20.9	84.5	105	132	90.5	73.7	88.2	87.8	208	90.6	30.2	18.8	85.7
1965	22.9	32.3	92.6	137	82.2	40.6	35.8	39.9	42.9	26.4	19.7	13.1	48.7
1966	11.2	14.4	18.8	34.4	23.5	42.4	40.5	38.3	26.5	18.5	14.2	11.3	24.5
1967	10.5	15.7	44.6	69.4	46.9	29.1	21.0	29.4	61.0	26.5	13.4	10.9	31.5
1968	24.6	35.6	43.5	43.8	67.5	41.0	31.5	20.5	20.1	14.2	13.5	14.9	30.7
1969	25.4	44.0	52.7	60.6	26.2	38.7	38.7	70.1	75.4	18.4	13.9	12.8	39.5
1970	14.5	18.0	27.3	67.9	52.0	35.9	33.3	23.5	23.5	16.0	12.4	11.3	27.8
1971	11.2	24.1	35.2	72.7	59.6	38.4	41.1	52.8	49.7	48.0	14.2	14.2	40.9
1972	13.4	25.6	41.6	70.5	84.6	106	53.7	87.4	138	49.1	18.7	18.9	58.8
1973	25.1	21.2	62.7	52.0	27.4	24.4	19.5	18.8	17.2	14.8	12.5	12.4	25.8
1974	13.3	41.1	62.7	103	53.8	48.1	52.0	49.6	177	49.4	19.9	14.9	57.0
1975	12.4	20.5	50.1	91.2	51.3	46.5	28.2	32.3	57.0	55.5	16.6	13.8	39.6
1976	25.6	36.4	183	73.4	42.8	33.8	41.8	39.5	33.0	23.5	18.1	17.9	47.6
1977	24.0	28.0	17.6	20.8	17.5	27.4	26.7	25.2	21.9	15.5	13.2	16.2	21.2

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1964-1977)

MEAN	18.2	31.5	59.8	74.5	51.8	44.4	39.4	43.9	68.0	33.3	18.6	14.4	41.4
MAXIMUM	25.6	84.5	183.0	137.0	90.5	106.0	88.2	87.8	208.0	90.6	44.0	18.9	85.7
MINIMUM	10.5	14.4	17.6	20.8	17.5	24.4	19.5	18.8	17.2	14.2	12.4	10.9	21.2
STD DEVIATION	5.26	17.87	43.33	33.41	23.44	21.37	17.30	23.16	61.70	22.28	8.71	2.71	17.41
SKWENESS	0.018	2.155	1.972	0.586	0.206	0.597	0.597	0.986	1.459	0.597	2.293	0.597	1.280
SER CORR COEFF	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
COEFF OF VAR	0.049	0.028	-0.166	0.194	-0.036	-0.250	-0.322	-0.313	-0.296	0.052	-0.053	0.054	-0.037
MEAN LOGS	1.235	1.449	1.691	1.820	1.667	1.614	1.563	1.590	1.699	1.465	1.238	1.151	1.585
STD DEV LOGS	0.157	0.205	0.278	0.222	0.222	0.167	0.170	0.219	0.355	0.261	0.158	0.081	0.170
SKWENESS LOGS	-0.104	0.732	0.271	-0.726	-0.537	1.252	0.470	0.294	0.546	0.586	1.575	0.255	0.386
SER CORR LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
COEFF OF VAR LOGS	0.009	0.009	-0.239	0.066	-0.140	-0.324	-0.395	-0.411	-0.423	0.064	-0.020	0.090	-0.131
% OF AVE FLOW	3.7	5.3	12.0	14.8	10.4	8.9	7.9	8.8	13.7	6.7	3.7	2.9	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1977)

0.99	7.2	12.1	12.6	15.6	11.6	23.8	16.9	13.4	10.2	9.0	11.1	9.5	17.3
0.95	9.4	14.5	18.1	26.2	18.6	25.7	20.3	17.7	14.6	11.6	11.6	10.6	21.1
0.90	10.8	16.1	22.1	33.6	23.6	27.2	22.7	20.8	18.2	13.5	12.0	11.2	23.7
0.80	12.7	18.8	28.5	44.3	30.7	29.7	26.2	25.3	24.3	16.7	12.8	12.1	27.5
0.50	17.3	26.6	47.7	70.1	48.6	38.0	35.5	38.0	45.4	26.3	15.8	14.0	37.5
0.20	23.3	40.8	83.3	101.9	72.0	54.3	50.2	59.0	94.4	45.1	22.2	16.5	52.9
0.10	27.1	52.8	113.3	119.9	86.2	68.8	61.4	75.4	144.6	61.9	28.1	18.0	64.4
0.04	31.9	71.5	159.3	139.5	102.8	92.1	77.0	99.0	235.9	89.1	38.0	19.9	80.2
0.02	35.3	88.2	200.0	152.1	114.0	113.7	89.9	118.7	329.8	114.5	47.5	21.2	93.0
0.01	38.6	107.8	240.5	163.1	124.5	139.7	103.8	140.4	451.8	145.0	59.2	22.6	106.7

STATION 14226000 LAKE CREEK AT MOUTH, NEAR PACKWOOD, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1965	17.0	18.0	18.0	18.0	19.0	21.0	21.0	25.0	42.0
1966	11.0	11.0	11.0	11.0	11.0	12.0	13.0	14.0	17.0
1967	7.8	8.5	8.5	8.8	9.8	11.0	11.0	12.0	16.0
1968	9.8	9.9	10.0	10.0	11.0	11.0	12.0	18.0	25.0
1969	13.0	13.0	13.0	13.0	13.0	13.0	14.0	15.0	18.0
1970	11.0	11.0	12.0	12.0	13.0	13.0	14.0	15.0	17.0
1971	9.5	9.5	9.5	9.9	10.0	11.0	12.0	12.0	15.0
1972	11.0	11.0	12.0	12.0	12.0	14.0	15.0	18.0	31.0
1973	13.0	13.0	14.0	15.0	15.0	18.0	21.0	21.0	30.0
1974	10.0	11.0	12.0	12.0	12.0	12.0	12.0	13.0	15.0
1975	10.0	11.0	11.0	11.0	12.0	13.0	15.0	17.0	26.0
1976	12.0	12.0	13.0	13.0	14.0	17.0	17.0	17.0	33.0
1977	15.0	15.0	15.0	16.0	16.0	18.0	19.0	20.0	21.0

LOWEST MEAN FLOW STATISTICS (YEARS 1965-1977)

MEAN	11.5	11.8	12.1	12.4	12.9	14.0	15.1	16.9	23.5
MAXIMUM	17.0	18.0	18.0	18.0	19.0	21.0	21.0	25.0	42.0
MINIMUM	7.8	8.5	8.5	8.8	9.8	11.0	11.0	12.0	15.0
STANDARD DEVIATION	2.47	2.49	2.51	2.60	2.58	3.16	3.43	3.90	8.47
SKEWNESS	0.887	1.325	1.032	0.835	1.115	1.159	0.774	0.525	0.879
STD ERROR OF SKEWNESS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SERIAL CORR COEFF	0.064	0.050	0.013	0.082	0.005	0.032	0.033	-0.093	-0.134
COEFF OF VARIATION	0.214	0.211	0.208	0.209	0.200	0.226	0.227	0.231	0.360
MEAN LOGS	1.054	1.065	1.074	1.086	1.103	1.137	1.169	1.218	1.348
STD DEVIATION LOGS	0.090	0.085	0.086	0.088	0.082	0.091	0.095	0.099	0.149
SKEWNESS LOGS	0.354	0.776	0.474	0.405	0.682	0.875	0.518	0.123	0.434
STD ERR SKEWNESS LOGS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SER CORR COEFF LOGS	0.087	0.092	0.056	0.134	0.048	0.075	0.072	-0.093	-0.129
COEFF OF VAR LOGS	0.085	0.080	0.080	0.081	0.074	0.080	0.081	0.081	0.110

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1965-1977)

0.99	19.3	20.4	20.1	20.7	21.6	25.4	26.5	28.7	55.0
0.98	17.9	18.8	18.7	19.3	20.0	23.1	24.4	26.8	48.6
0.96	16.6	17.2	17.3	17.8	18.4	20.9	22.4	24.9	42.5
0.90	14.8	15.1	15.4	15.9	16.3	18.1	19.7	22.2	35.0
0.80	13.4	13.5	13.9	14.4	14.7	16.1	17.6	20.0	29.4
0.50	11.2	11.3	11.7	12.0	12.4	13.3	14.5	16.4	21.7
0.20	9.5	9.8	10.0	10.3	10.8	11.5	12.2	13.6	16.6
0.10	8.8	9.2	9.3	9.5	10.1	10.8	11.3	12.4	14.6
0.05	8.2	8.8	8.8	9.0	9.7	10.3	10.7	11.4	13.3
0.02	7.7	8.5	8.3	8.4	9.2	9.9	10.0	10.5	12.0
0.01	7.4	8.2	8.0	8.1	9.0	9.6	9.7	9.9	11.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1965-1977)

P95	P90	P75	P70	P50	P25	P10
12.0	14.0	18.0	20.0	29.0	48.0	79.0

STATION 14226000 LAKE CREEK AT MOUTH, NEAR PACKWOOD, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1964	438.	374.	312.	275.	208.	161.	134.	121.	114.	472. 06/05/64 R
1965	1040.	792.	461.	257.	161.	123.	105.	91.	72.	1350. 01/30/65 R
1966	83.	72.	65.	54.	50.	45.	41.	37.	34.	86. 01/14/66 R
1967	222.	171.	126.	95.	71.	62.	54.	48.	43.	242. 06/22/67 R
1968	160.	127.	109.	81.	68.	57.	54.	50.	45.	177. 02/19/68 R
1969	241.	214.	159.	130.	113.	76.	65.	55.	52.	292. 01/05/69 R
1970	190.	157.	137.	107.	81.	63.	54.	48.	40.	203. 01/19/70 R
1971	214.	196.	144.	101.	84.	66.	58.	54.	52.	300. 01/19/71 R
1972	380.	339.	256.	248.	164.	116.	95.	102.	92.	514. 01/20/72 R
1973	194.	158.	143.	105.	83.	69.	49.	43.	36.	253. 12/21/72 R
1974	393.	378.	355.	255.	184.	120.	96.	85.	83.	435. 01/15/74 R
1975	226.	194.	164.	138.	94.	78.	70.	61.	55.	253. 01/18/75 R
1976	1130.	986.	576.	318.	187.	131.	102.	86.	70.	1470. 12/04/75 R
1977	51.	45.	44.	35.	30.	27.	27.	25.	23.	57. 03/27/77 R

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1964-1977)

W R C SYSTEMATIC
ESTIMATE RECORD

MEAN	354.4	300.2	217.2	157.1	112.7	84.6	71.7	64.7	57.9
MAXIMUM	1130.0	986.0	576.0	318.0	208.0	161.0	134.0	121.0	114.0
MINIMUM	51.0	45.0	44.0	35.0	30.0	27.0	27.0	25.0	23.0
STANDARD DEVIATION	328.58	271.66	155.82	92.93	56.99	38.63	29.96	27.64	25.33
SKENNESS	1.813	1.780	1.226	0.496	0.399	0.556	0.612	0.669	0.870
STD ERROR OF SKENNESS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SERIAL CORR COEFF	-0.263	-0.279	-0.254	-0.202	-0.191	-0.093	-0.029	-0.073	-0.099
COEFF OF VARIATION	0.927	0.905	0.717	0.592	0.506	0.456	0.418	0.427	0.437
MEAN LOGS	2.407	2.538	2.236	2.116	1.994	1.883	1.819	1.774	1.725
STD DEVIATION LOGS	0.364	0.362	0.312	0.287	0.244	0.211	0.188	0.189	0.189
SKENNESS LOGS	0.095	0.081	-0.065	-0.362	-0.472	-0.380	-0.256	-0.133	-0.023
STD ERR SKENNESS LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR COEFF LOGS	-0.450	-0.430	-0.319	-0.243	-0.233	-0.206	-0.164	-0.172	-0.178
COEFF OF VAR LOGS	0.151	0.155	0.140	0.135	0.122	0.112	0.103	0.106	0.109

2.4785
0.3861
0.1100

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1977)

0.99	34.5	32.9	31.3	23.7	22.1	21.6	22.2	20.7	19.2	40.9
0.95	65.8	56.3	52.1	41.4	36.6	32.7	31.4	28.6	25.9	71.7
0.90	88.0	75.3	68.3	57.9	47.0	40.3	37.5	33.8	30.4	97.4
0.80	125.6	107.5	94.3	76.1	62.6	51.4	46.1	41.3	36.9	141.8
0.50	251.8	215.1	173.7	135.9	103.0	78.7	67.2	60.0	53.2	296.1
0.20	514.4	437.2	316.3	229.5	159.4	115.6	95.4	85.9	76.6	632.8
0.10	752.9	637.6	430.8	295.4	195.6	139.0	113.3	103.0	92.6	949.9
0.04	1136.6	957.9	597.1	380.5	239.1	167.0	135.3	124.7	113.3	1475.3
0.02	1487.8	1249.3	735.9	444.3	269.7	186.9	151.0	140.7	129.0	1968.2
0.01	1899.5	1589.3	887.0	508.0	298.8	205.9	166.3	156.6	145.0	2557.6

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1911	390	1588	1023	1645	1548	577	1937	2677	3102	1745	731	653	
1912	509	3633	849	1017	1011	821	1528	2875	3983	1398	916	976	
1913	599	1588	849	1017	1011	821	1528	2875	3983	1398	916	976	1538
1915	983	3633	584	597	573	1034	2082	1220	1091	809	721	451	1146
1916	873	1373	1475	764	1902	2681	2130	3015	4964	4691	1837	772	2207
1917	397	614	584	614	905	477	1165	2907	5119	1837	987	760	1648
1919	790	1922	2771	783	711	1633	2699	3032	2200	987	510	1588	
1920	298	201	706	512	2228	1185	2295	2152	2136	1121	616	381	1147
1931	1931	599	684	1650	1121	2088	1901	3047	1862	860	564	381	1193
1932	543	1211	1053	1183	1521	2088	1901	3047	1862	860	564	381	1193
1933	646	3390	1543	1438	396	796	1460	2562	3907	2400	929	505	1701
1934	2586	1939	6025	3572	1499	3157	2662	2229	1351	4265	1684	939	2034
1935	1901	3205	1679	1709	1617	954	1172	2368	3004	1868	789	600	1862
1936	411	401	603	1318	614	1270	2393	3447	3322	1859	752	504	1518
1937	405	326	913	364	396	1081	1884	3204	4898	1963	756	551	1398
1938	601	2708	2002	1606	688	938	2572	3319	2879	1159	553	451	1625
1939	441	804	1601	1384	658	1173	1620	3401	2593	1648	545	467	1423
1940	400	576	2037	1134	1639	1753	1620	2443	1408	772	759	397	1227
1941	499	921	1270	971	689	811	1161	1589	1134	752	522	745	923
1942	1092	1411	2278	761	753	700	1482	1976	2506	1389	677	425	1290
1943	330	2167	1666	1036	944	1122	2555	2729	3495	2509	806	522	1657
1944	435	574	1272	758	944	939	1200	2071	1802	862	504	586	987
1945	520	773	941	1882	1668	854	1045	3340	2243	1214	605	753	1318
1946	999	1167	1621	1395	982	1154	1948	4232	4054	2770	995	569	1829
1947	966	1912	3058	1324	1581	1413	2203	3338	2453	1229	674	646	1734
1948	2451	2295	1750	1270	1110	974	1249	3337	5041	1844	860	572	1896
1949	933	1192	832	479	810	1270	2166	5609	4386	2750	1027	614	1811
1950	1001	3077	1532	1421	1514	1950	1757	2937	4902	1344	700	2191	
1951	1905	2966	3429	1462	2499	996	2133	3169	2985	1491	657	510	2011
1952	1671	1386	1240	487	1207	736	2273	3410	2885	1796	730	386	1516
1953	327	196	319	3651	2009	816	1422	2748	2884	2880	1050	597	1575
1954	613	1296	2587	1170	1892	1141	1625	3367	3822	3699	1478	795	1943
1955	894	1822	1105	951	951	951	1010	2791	5128	3028	1095	648	1660
1956	2683	3532	2716	1475	634	931	2456	4371	4324	3451	1204	688	2411
1957	960	1355	2919	728	1032	1557	1950	3750	2683	1149	638	518	1608
1958	490	358	1374	1545	1816	826	1603	3874	2717	1153	691	485	1430
1959	817	3726	3073	2374	832	945	2100	2307	3724	740	1527	2025	
1960	2513	3138	1936	831	1432	1158	1745	2720	3747	1452	676	1837	
1961	788	2991	1467	2129	3113	1566	1799	2895	4283	1832	898	518	2019
1962	707	1010	1896	2166	1179	687	2466	1954	2936	914	607	1526	
1963	890	2537	1276	927	2608	964	1430	2144	2947	1053	668	508	1477
1964	450	1348	1278	1494	941	709	1085	2144	4769	3438	1321	731	1657
1965	917	1269	2593	2232	1677	979	2036	2308	2841	1562	840	447	1641
1966	445	1795	795	711	785	923	1787	3307	2458	1521	671	501	1182
1967	576	1006	1619	1569	1293	837	707	2810	4637	2002	771	526	1578
1968	1626	1490	1824	2166	2960	1426	925	2051	2649	1088	876	1052	1672
1969	1210	2295	1314	1834	537	813	1700	4161	3281	1070	570	632	1623
1970	680	800	976	2060	1324	1039	942	2209	3318	1383	618	525	1322
1971	461	1463	1221	1817	2083	841	1226	3665	3752	1585	678	1885	
1972	535	1164	1019	1375	2322	3436	1542	4226	4917	3535	1444	2201	
1973	528	834	2450	1663	560	644	936	2096	1492	1040	518	525	1155
1974	648	1858	2165	4104	1306	1281	1819	3234	6085	1599	1599	743	2368
1975	364	700	1966	2671	1057	1152	688	2662	4143	2679	1186	612	1661
1976	836	2181	4731	2195	1026	652	1311	3401	3086	2876	1414	728	2044
1977	412	646	550	862	682	718	1870	1548	1982	639	721	826	936
1978	560	3105	4510	1107	901	1145	1220	1918	2468	1494	695	809	1665
1979	412	729	1054	467	961	1692	1081	2591	1914	970	498	474	1080

STATION 14226500 COMLITZ RIVER AT PACKWOOD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1911-1979)

MEAN	851.3	1586.3	1754.2	1479.9	1270.2	1147.8	1658.8	2914.1	3319.6	2029.9	899.7	623.3	1633.7
MAXIMUM	2683.0	3726.0	6025.0	4104.0	3113.0	3436.0	2682.0	5209.0	6085.0	4818.0	1837.0	1527.0	2411.0
MINIMUM	298.0	196.0	319.0	364.0	396.0	477.0	668.0	1220.0	1091.0	639.0	498.0	381.0	923.0
STD DEVIATION	606.33	993.71	1087.27	799.56	641.54	581.23	518.61	799.50	1200.33	1089.11	341.42	193.34	365.02
SKEWNESS	1.814	0.696	1.762	1.264	1.003	2.277	0.064	0.498	0.134	0.900	1.112	2.070	0.072
STD ERR SKEW	0.319	0.322	0.319	0.319	0.319	0.319	0.319	0.319	0.319	0.316	0.316	0.316	0.322
SER CORR COEFF	0.221	0.058	-0.120	0.050	-0.074	-0.193	0.051	0.163	0.033	0.148	0.186	-0.082	0.102
COEFF OF VAR	0.712	0.626	0.620	0.540	0.505	0.506	0.310	0.274	0.362	0.537	0.379	0.310	0.223
MEAN LOGS	2.850	3.105	3.172	3.110	3.051	3.020	3.197	3.448	3.489	3.248	2.927	2.778	3.202
STD DEV LOGS	0.251	0.310	0.254	0.235	0.217	0.177	0.146	0.123	0.175	0.229	0.150	0.118	0.101
SKEWNESS LOGS	0.780	-0.536	-0.077	-0.205	-0.018	0.852	-0.528	-0.407	-0.664	0.117	0.605	0.760	-0.453
STD ERR SKEW LOGS	0.319	0.322	0.319	0.319	0.319	0.319	0.319	0.319	0.319	0.316	0.316	0.316	0.322
SER CORR LOGS	0.274	0.091	-0.087	-0.014	-0.060	-0.188	0.085	0.158	0.044	0.073	0.207	-0.036	0.107
COEFF OF VAR LOGS	0.088	0.100	0.080	0.076	0.071	0.059	0.046	0.036	0.050	0.071	0.051	0.042	0.032
% OF AVE FLOW	4.4	8.1	9.0	7.6	6.5	5.9	8.5	14.9	17.0	10.4	4.6	3.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1911-1979)

0.99	258.0	183.9	369.4	336.6	349.3	525.0	634.6	1336.3	996.3	543.5	442.0	371.7	856.7
0.95	316.1	356.8	561.4	512.3	493.1	599.3	865.8	1708.5	1484.9	757.3	511.2	409.8	1054.6
0.90	360.2	494.6	699.7	636.2	592.3	653.9	1009.1	1932.3	1802.1	907.3	558.5	436.1	1169.5
0.80	431.6	716.9	911.2	821.5	739.1	739.2	1201.3	2226.9	2239.4	1133.2	628.7	475.2	1316.9
0.50	657.0	1357.0	1497.8	1312.4	1127.1	999.2	1621.7	2859.7	3225.2	1733.1	816.7	579.5	1620.2
0.20	1111.6	2347.3	2436.3	2042.6	1715.3	1435.8	2099.7	3573.8	4361.1	2751.9	1114.4	741.7	1944.3
0.10	1530.7	3021.3	3128.6	2547.7	2134.4	1806.3	2365.5	3973.9	4987.7	3503.8	1338.3	861.4	2118.6
0.04	2230.8	3858.7	4072.1	3200.3	2693.2	2371.9	2655.9	4416.4	5660.6	4553.7	1653.3	1027.0	2305.7
0.02	2902.9	4461.3	4819.8	3692.9	3128.7	2872.6	2844.9	4709.0	6089.7	5407.2	1912.5	1161.0	2426.4
0.01	3729.5	5041.0	5602.5	4188.9	3579.4	3449.2	3014.7	4975.5	6467.7	6321.3	2193.6	1304.6	2534.2

STATION 14226500 COWLITZ RIVER AT PACKWOOD, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1913	355.0	358.0	372.0	391.0	450.0	574.0	743.0	856.0	938.0
1916	360.0	360.0	392.0	435.0	431.0	514.0	583.0	644.0	833.0
1917	323.0	330.0	343.0	366.0	390.0	493.0	532.0	549.0	592.0
1931	225.0	237.0	251.0	321.0	321.0	363.0	415.0	495.0	583.0
1932	208.0	235.0	241.0	249.0	292.0	359.0	432.0	544.0	753.0
1933	309.0	312.0	329.0	342.0	398.0	540.0	681.0	989.0	1320.0
1934	421.0	454.0	520.0	671.0	793.0	918.0	1480.0	1710.0	2640.0
1935	240.0	242.0	255.0	269.0	317.0	420.0	497.0	600.0	1070.0
1936	280.0	284.0	292.0	316.0	341.0	394.0	435.0	489.0	653.0
1937	258.0	267.0	277.0	280.0	298.0	352.0	386.0	439.0	485.0
1938	313.0	319.0	330.0	346.0	394.0	519.0	611.0	803.0	1330.0
1939	294.0	298.0	308.0	358.0	413.0	440.0	477.0	550.0	831.0
1940	253.0	272.0	295.0	327.0	359.0	411.0	475.0	545.0	896.0
1941	194.0	206.0	218.0	275.0	343.0	412.0	473.0	495.0	717.0
1942	385.0	416.0	452.0	468.0	523.0	600.0	662.0	767.0	937.0
1943	211.0	221.0	236.0	251.0	267.0	346.0	455.0	615.0	1040.0
1944	305.0	317.0	333.0	376.0	402.0	468.0	508.0	572.0	717.0
1945	411.0	425.0	435.0	459.0	494.0	541.0	535.0	559.0	678.0
1946	447.0	467.0	485.0	497.0	517.0	655.0	728.0	841.0	943.0
1947	362.0	367.0	382.0	400.0	441.0	570.0	772.0	949.0	1420.0
1948	466.0	516.0	550.0	585.0	628.0	654.0	816.0	1080.0	1510.0
1949	365.0	370.0	373.0	381.0	409.0	478.0	701.0	745.0	760.0
1950	390.0	405.0	431.0	582.0	671.0	803.0	1040.0	1410.0	1410.0
1951	400.0	412.0	500.0	591.0	630.0	1000.0	1370.0	1570.0	1980.0
1952	312.0	325.0	349.0	356.0	404.0	558.0	733.0	854.0	983.0
1953	144.0	149.0	156.0	167.0	189.0	228.0	274.0	303.0	547.0
1954	418.0	426.0	458.0	498.0	588.0	602.0	659.0	809.0	1210.0
1955	394.0	403.0	429.0	442.0	468.0	713.0	794.0	869.0	1030.0
1956	410.0	411.0	441.0	515.0	547.0	715.0	1020.0	1440.0	1940.0
1957	427.0	435.0	440.0	442.0	469.0	697.0	919.0	1030.0	1210.0
1958	274.0	290.0	323.0	352.0	395.0	463.0	511.0	585.0	766.0
1959	356.0	390.0	419.0	452.0	476.0	552.0	657.0	750.0	1580.0
1960	450.0	455.0	484.0	515.0	621.0	994.0	1320.0	1750.0	1750.0
1961	399.0	411.0	416.0	455.0	480.0	517.0	608.0	826.0	1310.0
1962	330.0	336.0	353.0	363.0	404.0	592.0	676.0	768.0	1090.0
1963	405.0	423.0	464.0	524.0	585.0	680.0	757.0	890.0	1320.0
1964	242.0	247.0	263.0	301.0	367.0	446.0	528.0	608.0	980.0
1965	570.0	587.0	607.0	653.0	709.0	823.0	1000.0	1360.0	1360.0
1966	290.0	296.0	315.0	358.0	409.0	438.0	531.0	599.0	612.0
1967	205.0	213.0	229.0	298.0	407.0	454.0	561.0	653.0	1010.0
1968	380.0	430.0	454.0	487.0	514.0	599.0	720.0	1250.0	1250.0
1969	420.0	422.0	429.0	443.0	467.0	579.0	899.0	1010.0	1290.0
1970	358.0	353.0	353.0	427.0	484.0	588.0	618.0	658.0	729.0
1971	291.0	305.0	339.0	396.0	433.0	466.0	514.0	596.0	859.0
1972	274.0	286.0	344.0	379.0	399.0	560.0	766.0	820.0	953.0
1973	318.0	327.0	355.0	391.0	502.0	606.0	723.0	766.0	1120.0
1974	290.0	293.0	327.0	353.0	459.0	481.0	562.0	687.0	1080.0
1975	230.0	233.0	257.0	278.0	325.0	402.0	574.0	704.0	1260.0
1976	363.0	375.0	426.0	456.0	493.0	674.0	850.0	1110.0	1890.0
1977	290.0	295.0	306.0	346.0	398.0	512.0	671.0	842.0	1639.0
1978	316.0	323.0	352.0	379.0	507.0	668.0	677.0	671.0	1030.0
1979	290.0	297.0	308.0	326.0	385.0	543.0	615.0	649.0	678.0

STATION 14226500 COMLITZ RIVER AT PACRWOOD, WASH.

LOWEST MEAN FLOW STATISTICS (YEARS 1913-1979)

MEAN	330.8	342.8	366.6	398.2	450.0	554.4	665.8	788.9	1084.8
MAXIMUM	570.0	587.0	607.0	671.0	793.0	1000.0	1480.0	1710.0	2640.0
MINIMUM	144.0	149.0	156.0	167.0	189.0	228.0	274.0	303.0	485.0
STANDARD DEVIATION	82.92	86.62	93.08	102.04	113.27	154.11	220.51	283.48	426.46
SKWENESS	0.189	0.268	0.189	0.512	0.594	0.901	1.582	1.293	1.298
STD ERROR OF SKWENESS	0.330	0.330	0.330	0.330	0.330	0.330	0.330	0.330	0.330
SERIAL CORR. COEFF	0.070	0.025	-0.023	-0.075	-0.091	0.055	0.143	0.193	0.148
CDEFF OF VARIATION	0.251	0.253	0.254	0.256	0.252	0.278	0.331	0.359	0.393
MEAN LOGS	2.505	2.521	2.550	2.586	2.640	2.728	2.803	2.872	3.006
STD DEVIATION LOGS	0.115	0.115	0.116	0.114	0.112	0.120	0.133	0.146	0.160
SKWENESS LOGS	-0.582	-0.500	-0.548	-0.398	-0.424	-0.176	0.257	0.237	0.251
STD ERR SKWENESS LOGS	0.330	0.330	0.330	0.330	0.330	0.330	0.330	0.330	0.330
SER CORR COEFF LOGS	0.059	0.017	-0.016	-0.044	-0.051	0.078	0.182	0.205	0.168
COEFF OF VAR LOGS	0.046	0.046	0.046	0.044	0.042	0.044	0.047	0.051	0.053

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1913-1979)

0.99	529.0	556.4	592.6	656.9	731.6	978.0	1368.5	1724.5	2552.5
0.98	506.6	530.8	566.4	623.9	696.5	916.0	1239.4	1548.6	2286.0
0.96	481.0	502.2	536.7	587.6	657.5	850.5	1112.7	1377.4	1980.7
0.90	440.5	457.6	489.9	532.5	598.0	756.1	946.4	1154.8	1638.6
0.80	401.8	416.1	445.9	482.4	543.4	675.0	817.6	984.2	1374.0
0.50	328.4	339.1	363.2	392.1	444.0	538.7	626.9	735.6	997.8
0.20	258.9	267.9	285.8	311.0	353.7	425.0	489.6	560.2	740.6
0.10	225.1	233.8	248.5	272.7	310.7	373.7	433.4	499.4	639.1
0.05	199.0	207.5	219.7	243.4	277.6	335.3	393.3	439.4	568.3
0.02	171.6	180.0	189.6	212.9	243.0	295.9	354.0	390.7	500.2
0.01	154.7	163.0	171.1	194.0	221.6	271.9	330.7	362.1	460.7

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS, EXCEEDED *MPH PERCENT OF THE TIME (YEARS 1913-1979)

P95	P90	P75	P70	P50	P25	P10
390.0	470.0	670.0	740.0	1100.0	2100.0	3500.0

STATION 14226500 COWLITZ RIVER AT PACKWOOD, WASH.											
HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30											
YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW(CFS)	DATE REG.(R)
1912										14000.	11/19/11
1913	6520.	6020.	5310.	5020.	4310.	3610.	3150.	2790.	2160.	6520.	06/03/13
1914										13100.	01/05/14
1915	13400.	11500.	8150.	5520.	3630.	2340.	1740.	1460.	1410.	13000.	11/03/14
1916	11600.	9280.	7610.	6070.	5930.	4870.	4240.	3750.	3310.	13000.	07/02/16
1917	8440.	7970.	7110.	6320.	6220.	5230.	4360.	3650.	2700.	9400.	06/17/17
1918										28800.	12/18/17
1919	16000.	11900.	8470.	5150.	3500.	3020.	2660.	2410.	2100.	16100.	01/22/19
1920										8380.	12/24/19
1930	4690.	4120.	3290.	2590.	2540.	2330.	2280.	2050.	1830.	5070.	02/20/30
1931	6410.	4830.	4420.	3850.	3180.	2610.	2330.	2060.	1830.	7440.	01/28/31
1932	12400.	8610.	5210.	4460.	4080.	3570.	3180.	2960.	2560.	16100.	02/26/32
1933	13000.	8650.	6960.	5830.	5230.	4900.	4120.	3580.	2680.	20500.	11/13/32
1934	24200.	19100.	11400.	9380.	6640.	5020.	4000.	3740.	3320.	36600.	12/21/33
1935	17100.	12300.	7590.	6570.	4460.	3460.	2980.	2520.	2210.	26500.	11/05/34
1936	8110.	7230.	5860.	4950.	4460.	4400.	3820.	3150.	2410.	9560.	06/07/36
1937	8280.	7280.	6230.	5280.	4900.	4110.	3560.	3010.	2300.	9220.	04/14/37
1938	12600.	9110.	5910.	4310.	3440.	3010.	2510.	2040.	2040.	15700.	06/18/38
1939	9040.	6590.	4680.	3730.	3430.	3010.	2750.	2540.	1950.	11700.	05/29/39
1940	6530.	5790.	3950.	2830.	2440.	2080.	1940.	1910.	1800.	9420.	12/15/39
1941	6740.	4270.	2960.	2190.	1650.	1440.	1310.	1190.	1140.	9150.	11/29/40
1942	7130.	5840.	3950.	2950.	2880.	2370.	2070.	1850.	1470.	10100.	12/02/41
1943	14600.	8500.	5300.	4150.	4000.	3520.	3110.	2910.	2240.	20300.	11/23/42
1944	9940.	5340.	3120.	2280.	2160.	1960.	1710.	1550.	1300.	14100.	12/03/43
1945	8910.	5690.	4480.	3700.	3390.	2830.	2370.	1990.	1880.	14100.	01/07/45
1946	9420.	7870.	5270.	4810.	4490.	4210.	3840.	3310.	2550.	14900.	12/28/45
1947	13600.	11500.	8160.	5020.	4060.	3090.	2720.	2440.	2200.	19000.	12/11/46
1948	10700.	8230.	7060.	6320.	5690.	4320.	3460.	2910.	2270.	18800.	10/19/47
1949	8990.	8800.	8130.	6440.	5910.	4890.	4260.	3710.	2850.	9850.	05/13/49
1950	15300.	10500.	8130.	5500.	5200.	4600.	4020.	3410.	2910.	22900.	11/27/49
1951	10900.	9500.	6100.	4180.	3810.	3220.	2890.	2690.	2400.	12400.	02/09/51
1952	5590.	5280.	4630.	4390.	4140.	3330.	3020.	2640.	2060.	6410.	06/04/52
1953	8660.	7090.	5390.	5040.	4570.	3110.	2980.	2590.	2420.	12500.	01/31/53
1954	6700.	6330.	5380.	4820.	4650.	3990.	3710.	3230.	2590.	10900.	12/09/53
1955	9240.	9120.	8300.	6280.	5180.	4400.	3730.	3060.	2290.	10100.	06/10/55
1956	9990.	7810.	6830.	6270.	5460.	4840.	4320.	3810.	2880.	15900.	12/11/55
1957	8770.	7570.	6170.	4670.	3760.	3330.	2850.	2570.	2140.	9940.	12/10/56
1958	6580.	6360.	6200.	5120.	4150.	3340.	2850.	2370.	2090.	7240.	05/25/58
1959	10300.	7100.	6020.	4580.	4370.	3530.	3120.	2580.	2230.	15400.	12/03/58
1960	20500.	13400.	9260.	5340.	3990.	3330.	2760.	2580.	2100.	34300.	11/23/59
1961	7000.	6670.	5770.	4760.	4530.	3680.	3110.	2750.	2660.	19050.	11/17/60
1962	7580.	6190.	5070.	3980.	3200.	2510.	2500.	2300.	1950.	12700.	04/06/62
1963	18900.	11200.	6440.	4290.	3550.	2440.	2290.	2050.	1810.	32100.	11/20/62
1964	7380.	6530.	6140.	5530.	4930.	4350.	3630.	3000.	2280.	8340.	06/05/64
1965	12300.	10700.	6640.	4000.	3130.	2880.	2600.	2230.	2100.	16700.	12/23/64
1966	7690.	6380.	5270.	3650.	3100.	2740.	2440.	2250.	1740.	8470.	05/06/66
1967	9500.	7170.	6490.	5490.	4660.	4020.	3190.	2590.	2100.	11500.	12/13/66
1968	12100.	7830.	6500.	4330.	3000.	2730.	2460.	2170.	2130.	20000.	10/21/67
1969	10000.	7630.	5530.	5110.	4980.	3810.	3090.	2620.	2080.	12600.	11/11/68
1970	8470.	6010.	5180.	4020.	3460.	2860.	2330.	1980.	1910.	10800.	01/23/70
1971	10600.	6030.	5250.	4520.	4030.	3930.	3790.	3280.	2600.	12900.	11/24/70
1972	11500.	8400.	7080.	6870.	5680.	4820.	4300.	3640.	3420.	12000.	02/28/72
1973	13700.	9350.	6520.	4340.	3220.	2140.	1720.	1520.	1510.	18200.	12/21/72
1974	17800.	14800.	10200.	7200.	6170.	5030.	4390.	3760.	3170.	23900.	01/15/74
1975	12500.	8500.	6050.	5120.	4410.	3820.	3210.	2700.	2270.	16500.	12/21/74
1976	21000.	19700.	12500.	7460.	4900.	3580.	3150.	2750.	2240.	30600.	12/04/75
1977	3980.	3750.	3230.	2680.	2120.	1870.	1740.	1490.	1250.	5840.	01/18/77
1978	27700.	16100.	10400.	7630.	5920.	3880.	2970.	2450.	2010.	36200.	12/02/77
1979	5570.	4900.	3600.	3220.	2810.	2380.	1970.	1880.	1560.	6200.	03/06/79

STATION 14226500 COMLITZ RIVER AT PACKWOOD, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1912-1979)										W R C		SYSTEMATIC RECORD
										ESTIMATE		
MEAN	11020.9	8440.4	6306.0	4111.1	4188.5	3478.0	3019.5	2634.4	2207.5			
MAXIMUM	27700.0	19700.0	12500.0	9380.0	6640.0	5230.0	4390.0	3810.0	3420.0			
MINIMUM	3980.0	3750.0	2960.0	2190.0	1650.0	1440.0	1310.0	1190.0	1140.0			
STANDARD DEVIATION	4858.68	3365.72	2001.95	1407.95	1141.33	936.84	792.06	662.74	506.89			
SKENNESS	1.386	1.557	0.876	0.505	0.322	0.019	-0.013	0.005	0.300			
STD ERROR OF SKEWNESS	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322			
SERIAL CORR COEFF	-0.158	-0.090	0.032	0.214	0.160	0.171	0.144	0.121	0.134			
COEFF OF VARIATION	0.441	0.399	0.317	0.287	0.272	0.269	0.262	0.252	0.230			
MEAN LOGS	4.006	3.898	3.779	3.673	3.605	3.524	3.464	3.406	3.332		4.1254	
STD DEVIATION LOGS	0.177	0.155	0.137	0.130	0.128	0.126	0.123	0.117	0.103		0.2062	
SKENNESS LOGS	0.264	0.458	-0.127	-0.500	-0.710	-0.581	-0.618	-0.636	-0.459		0.2990	
STD ERR SKEWNESS LOGS	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322	0.322			
SER CORR COEFF LOGS	-0.193	-0.093	0.112	0.266	0.194	0.183	0.138	0.102	0.145			
COEFF OF VAR LOGS	0.044	0.040	0.036	0.035	0.036	0.036	0.035	0.034	0.031			
HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1912-1979)												
0.99	4259.0	3879.9	2802.6	2105.3	1741.7	1514.1	1331.8	1202.8	1141.7	4638.9	4915.1	
0.95	5358.5	4609.6	3538.1	2766.6	2347.9	1992.3	1749.9	1564.9	1411.9	6228.9	6378.4	
0.90	6094.9	5099.7	3995.6	3167.1	2712.1	2279.1	1999.2	1778.7	1569.3	7317.4	7390.5	
0.80	7166.5	5814.7	4618.5	3695.5	3185.9	2653.7	2322.9	2054.4	1771.4	8920.4	8904.0	
0.50	9955.0	7687.0	6049.2	4627.1	4165.7	3440.0	2995.3	2620.2	2188.2	13206.4	13036.5	
0.20	14183.0	10562.1	7848.8	6086.5	5184.4	4286.3	3706.7	3209.5	2634.4	19837.3	19738.2	
0.10	17242.7	12671.3	8960.1	6779.3	5707.1	4737.7	4080.3	3515.1	2874.4	24689.4	24855.5	
0.04	21405.6	15579.1	10290.3	7531.9	6241.9	5215.8	4471.0	3831.8	3132.2	31324.3	32119.7	
0.02	24723.9	17427.6	11235.9	8020.7	6569.7	5519.0	4715.9	4028.8	3298.3	36625.3	38129.1	
0.01	28230.2	20437.3	12148.3	8459.2	6850.2	5785.9	4929.4	4199.5	3446.8	44229.2	44666.5	

STATION 14226800 SKATE CREEK TRIBUTARY NEAR PACKWOOD, WASH.

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1959-1977)		W R C	SYSTEMATIC
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS STANDARD DEVIATION LOGS SKEWNESS LOGS	ESTIMATE	RECORD
1959	43.0	1-24-1959		1.7886	1.7886
1960	130.0	11-22-1959		0.2110	0.2110
1961	35.0	6- 2-1961		0.0	0.655
1962	44.0	12- 0-1961			
1963	102.0	11-19-1962			
1964	33.0	6-16-1964			
1965	105.0	12-22-1964			
1966	52.0	5- 5-1966			
1967	53.0	6-19-1967		19.9	25.2
1968	85.0	12-25-1967	0.99	27.6	30.6
1969	50.0	5-19-1969	0.95	33.0	34.5
1970	39.0	4- 9-1970	0.90	40.8	40.5
1971	40.0	1-19-1971	0.50	61.5	58.3
1972	48.0	5-29-1972	0.20	92.5	90.4
1973	56.0	12-21-1972	0.10	114.5	117.3
1974	139.0	1-15-1974	0.04	143.8	158.8
1975	70.0	1-14-1975	0.02	166.7	195.8
1976	147.0	12- 3-1975	0.01	190.3	238.7
1977	45.0	3-27-1977			

STATION 14226900 SKATE CREEK TRIB NO.2 NEAR PACKWOOD, WASH.

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1959-1979)		W R C	SYSTEMATIC
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS STANDARD DEVIATION LOGS SKEWNESS LOGS	ESTIMATE	RECORD
1959	130.0	1-24-1959		2.0592	2.0592
1960	167.0	11-22-1959		0.2501	0.2501
1961	74.0	11- 0-1960		0.0	1.439
1962	61.0	12- 0-1961			
1963	163.0	11-19-1962			
1964	53.0	6- 4-1964			
1965	142.0	12-22-1964			
1966	70.0	5- 5-1966			
1967	110.0	12-13-1966	0.99	30.0	54.4
1968	109.0	2-19-1968	0.95	44.5	59.0
1969	88.0	1- 5-1969	0.90	54.8	63.2
1970	91.0	1-18-1970	0.80	70.6	71.1
1971	87.0	1-19-1971	0.50	114.6	100.3
1972	104.0	1-20-1972	0.20	186.1	171.4
1973	114.0	12-21-1972	0.10	239.7	247.3
1974	542.0	1-15-1974	0.04	314.0	391.8
1975	109.0	1-14-1975	0.02	373.9	548.8
1976	371.0	12- 2-1977	0.01	437.4	763.8
1978					
1979	73.0	2- 7-1979			

STATION 14230000 JOHNSON CREEK NEAR PACKWOOD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1908	44.8	88.2	239	136	104	278	266	298	439	333	95.0	54.9	198
1909	64.3	102	89.4	196	131	117	128	245	445	177	74.3	53.9	152
1910	53.9	533	250	153	110	534	380	425	250	121	54.7	41.1	243
1911	123	335	200	124	74.9	126	180	314	433	169	62.5	57.4	183
1912	48.3	210	158	331	328	111	159	409	432	169	81.4	94.6	210
1913	65.3	182	138	213	164	153	326	478	687	327	108	70.2	242
1914	119	141	110	234	107	233	273	360	309	160	64.0	55.3	183
1919	60.2	98.2	205	370	118	112	125	249	282	150	58.1	141	147
1920	37.6	168	169	196	144	102	125	249	462	204	79.8	64.1	247
1921	230	165	244	328	318	276	230	366	462	126	58.6	44.5	197
1922	55.9	165	692	83.7	53.2	40.7	119	402	513	255	105	45.5	225
1923	39.1	58.8	128	651	136	146	327	409	392	255	40.1	28.6	152
1924	59.4	77.3	199	179	357	123	139	379	181	115	63.5	48.2	216
1947	68.5	202	571	197	203	201	284	390	247	115	81.1	62.1	224
1948	216	321	184	185	160	118	151	425	623	170			

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1908-1948)

MEAN	85.7	185.8	238.4	238.4	167.2	178.0	220.5	367.8	406.8	181.9	73.3	61.5	201.4
MAXIMUM	230.0	533.0	692.0	651.0	557.0	534.0	380.0	478.0	687.0	333.0	108.0	141.0	247.0
MINIMUM	37.6	58.8	89.4	83.7	53.2	40.7	119.0	245.0	181.0	69.9	40.1	28.6	147.0
STD DEVIATION	61.10	126.26	168.16	139.21	93.96	118.94	88.46	68.44	144.08	76.24	19.70	27.56	34.38
SKWENESS	1.755	1.700	2.100	2.031	1.126	2.096	0.396	-0.593	0.338	0.965	0.382	2.066	-0.333
STD ERR SKEW	0.580	0.580	0.580	0.580	0.580	0.580	0.597	0.597	0.597	0.597	0.265	0.130	0.597
SER CORR COEFF	-0.256	0.312	-0.118	-0.340	-0.148	-0.305	-0.608	0.083	-0.060	-0.155	-0.265	0.130	-0.434
COEFF OF VAR	0.713	0.679	0.705	0.584	0.562	0.668	0.401	0.180	0.354	0.419	0.269	0.448	0.171
MEAN LOGS	1.857	2.191	2.307	2.323	2.164	2.178	2.310	2.558	2.582	2.225	1.850	1.757	2.298
STD DEV LOGS	0.247	0.263	0.238	0.217	0.232	0.256	0.178	0.088	0.164	0.180	0.119	0.165	0.078
SKWENESS LOGS	1.104	0.409	1.019	0.494	0.174	0.059	0.061	-0.921	-0.425	-0.119	-0.226	0.773	-0.553
STD ERR SKEW LOGS	0.580	0.580	0.580	0.580	0.580	0.580	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR LOGS	-0.283	0.382	-0.111	-0.486	-0.157	-0.380	-0.653	0.085	0.015	-0.122	-0.268	0.259	-0.411
COEFF OF VAR LOGS	0.133	0.120	0.103	0.093	0.107	0.117	0.077	0.034	0.063	0.081	0.064	0.094	0.034
% OF AVE FLOW	3.6	7.7	9.9	9.9	7.0	7.4	9.2	15.3	16.9	7.6	3.0	2.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1908-1948)

0.99	30.4	45.7	85.6	74.2	45.0	39.5	80.4	198.5	141.7	61.6	35.8	29.4	122.1
0.95	34.8	61.9	94.0	99.9	62.2	57.9	105.0	248.2	197.1	83.7	44.4	33.7	144.3
0.90	38.4	73.8	109.6	114.7	74.3	71.2	121.3	275.8	232.5	98.2	49.6	36.7	156.6
0.80	44.4	92.6	127.2	137.3	92.7	91.7	144.6	309.6	281.1	118.8	56.4	41.3	171.9
0.50	64.9	149.0	185.0	202.0	143.8	149.8	203.4	372.5	392.4	169.4	71.6	54.5	201.8
0.20	109.8	254.4	306.5	315.1	227.9	247.0	287.7	429.1	527.5	238.9	89.4	77.0	231.3
0.10	154.1	344.6	422.2	407.3	292.6	322.2	345.7	454.9	606.8	284.6	99.9	94.9	246.3
0.04	232.7	485.3	621.6	545.5	384.5	428.7	471.2	697.3	978.9	341.8	112.0	121.5	261.6
0.02	312.6	611.8	818.6	665.8	460.4	516.8	475.1	492.4	758.5	384.1	120.2	144.3	271.2
0.01	415.9	758.9	1067.3	802.3	542.8	611.9	531.2	503.3	815.2	425.9	128.0	170.0	279.4

STATION 14230000 JOHNSON CREEK NEAR PACKWOOD, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1909	42.0	42.0	42.0	45.0	48.0	58.0	66.0	75.0	94.0
1910	37.0	40.0	45.0	47.0	53.0	54.0	59.0	85.0	173.0
1911	33.0	33.0	34.0	36.0	41.0	48.0	69.0	82.0	144.0
1912	36.0	36.0	38.0	42.0	47.0	52.0	54.0	66.0	109.0
1913	51.0	51.0	51.0	51.0	58.0	71.0	78.0	90.0	120.0
1914	50.0	50.0	50.0	52.0	59.0	75.0	78.0	107.0	128.0
1920	32.0	32.0	32.0	34.0	37.0	46.0	51.0	62.0	90.0
1921	44.0	45.0	47.0	49.0	53.0	71.0	109.0	131.0	150.0
1922	32.0	37.0	39.0	39.0	40.0	47.0	59.0	72.0	166.0
1923	27.0	27.0	28.0	29.0	33.0	44.0	44.0	46.0	70.0
1924	31.0	32.0	34.0	35.0	38.0	51.0	51.0	68.0	107.0
1948	41.0	42.0	43.0	45.0	48.0	55.0	65.0	87.0	157.0

LOWEST MEAN FLOW STATISTICS (YEARS 1909-1948)

MEAN	38.0	38.9	40.3	42.0	46.3	55.6	66.8	80.9	125.7
MAXIMUM	51.0	51.0	51.0	52.0	59.0	75.0	109.0	131.0	173.0
MINIMUM	27.0	27.0	28.0	29.0	33.0	39.0	44.0	46.0	70.0
STANDARD DEVIATION	7.66	7.45	7.34	7.39	8.50	11.25	12.14	22.17	32.77
SKEWNESS	0.483	0.216	-0.080	-0.283	0.045	0.613	1.214	0.888	-0.118
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SERIAL CORR COEFF	0.186	0.109	0.005	0.044	0.109	0.025	-0.183	-0.211	-0.235
COEFF OF VARIATION	0.202	0.191	0.182	0.176	0.184	0.202	0.288	0.274	0.261
MEAN LOGS	1.572	1.583	1.598	1.617	1.658	1.737	1.810	1.894	2.085
STD DEVIATION LOGS	0.086	0.084	0.082	0.080	0.081	0.086	0.116	0.117	0.121
SKEWNESS LOGS	0.183	-0.126	-0.366	-0.543	-0.206	0.279	0.725	0.003	-0.551
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR COEFF LOGS	0.190	0.100	0.001	0.054	0.117	0.027	-0.153	-0.150	-0.243
COEFF OF VAR LOGS	0.055	0.053	0.051	0.049	0.049	0.050	0.064	0.062	0.058

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1909-1948)

0.99	60.9	58.9	58.3	58.9	68.4	90.1	137.4	146.5	207.1
0.98	57.3	56.2	56.1	57.1	65.5	84.4	122.8	136.1	197.6
0.96	53.5	53.2	53.7	55.0	62.3	78.6	109.1	125.4	186.9
0.90	48.3	48.9	50.0	51.7	57.6	70.7	92.0	110.5	170.0
0.80	44.0	45.1	46.5	48.4	53.4	64.3	79.6	98.2	154.2
0.50	37.1	38.4	40.1	42.1	45.8	54.1	62.5	78.3	124.6
0.20	31.5	32.6	34.0	35.7	39.0	46.1	51.4	62.4	97.1
0.10	29.0	29.8	30.9	32.4	35.7	42.6	47.1	55.4	84.0
0.05	27.2	27.6	28.6	29.8	33.1	40.1	44.3	50.3	73.9
0.02	25.3	25.4	26.0	27.0	30.4	37.5	41.6	45.0	63.4
0.01	24.1	24.0	24.3	25.1	28.6	35.9	40.1	41.9	57.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1909-1948)

P95	P90	P75	P70	P50	P25	P10
41.0	49.0	74.0	87.0	140.0	260.0	440.0

STATION 1423000 JOHNSON CREEK NEAR PACKWOOD, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	DATE	REG. (R)
1908	1510.	1050.	724.	539.	483.	407.	384.	355.	288.	1510.	03/15/08	
1909	770.	757.	610.	536.	472.	348.	294.	251.	220.	770.	06/02/09	
1910	1830.	1550.	1100.	884.	594.	460.	449.	404.	350.	1830.	11/22/09	
1911	1030.	857.	586.	523.	449.	375.	322.	285.	217.	1030.	11/10/10	
1912	810.	703.	615.	539.	490.	432.	343.	295.	301.	810.	05/20/12	
1913	1120.	1080.	934.	848.	722.	607.	531.	460.	357.	1120.	06/02/13	
1914										820.	01/07/14	
1919	1980.	1450.	1060.	678.	409.	344.	316.	280.	268.	2500.	01/23/19	
1920	597.	462.	373.	314.	288.	274.	236.	204.	191.	760.	12/24/19	
1921	1560.	1490.	1090.	695.	533.	424.	370.	339.	343.	1560.	12/31/20	
1922	2800.	2100.	1480.	1070.	762.	462.	358.	293.	242.	2540.	11/30/21	
1923	2540.	2360.	1770.	1120.	724.	434.	384.	353.	349.	2610.	01/06/23	
1924	740.	652.	576.	504.	385.	290.	247.	251.	232.	969.	01/31/24	
1947	2400.	2270.	1640.	946.	642.	416.	355.	311.	312.	2990.	12/11/46	
1948	1080.	993.	841.	813.	736.	535.	421.	346.	278.	1270.	05/27/48	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1908-1948)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	1483.4	1269.6	957.1	714.9	549.2	414.9	357.9	316.2	282.0			
MAXIMUM	2800.0	2360.0	1770.0	1120.0	762.0	607.0	531.0	460.0	357.0			
MINIMUM	597.0	462.0	373.0	314.0	288.0	274.0	236.0	204.0	191.0			
STANDARD DEVIATION	726.66	619.39	427.81	236.14	149.41	86.98	77.59	66.24	55.76			
SKWENESS	0.565	0.650	0.692	0.227	0.015	0.456	0.515	0.533	-0.083			
STD ERROR OF SKWENESS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597			
SERIAL CORR COEFF	-0.134	-0.132	-0.078	0.033	0.065	-0.080	-0.255	-0.372	-0.600			
COEFF OF VARIATION	0.490	0.488	0.447	0.333	0.272	0.214	0.217	0.209	0.198			
MEAN LOGS	3.121	3.055	2.940	2.830	2.724	2.609	2.544	2.491	2.442			
STD DEVIATION LOGS	0.219	0.217	0.197	0.154	0.125	0.094	0.095	0.091	0.089			
SKWENESS LOGS	0.011	-0.049	-0.052	-0.465	-0.482	-0.152	-0.133	-0.065	-0.326			
STD ERR SKWENESS LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597			
SER CORR COEFF LOGS	-0.267	-0.237	-0.159	-0.019	0.063	-0.064	-0.240	-0.356	-0.580			
COEFF OF VAR LOGS	0.070	0.071	0.067	0.054	0.046	0.036	0.037	0.036	0.036			
										3.1381	3.1381	
										0.2122	0.2122	
										0.0	0.3120	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1908-1948)

0.99	412.0	348.8	299.0	263.3	245.0	239.9	206.6	188.6	163.9	440.9	493.7	
0.95	579.0	495.6	411.4	361.7	317.8	282.1	242.8	218.9	194.3	615.1	643.9	
0.90	694.4	596.7	487.0	423.5	361.6	306.9	264.1	236.7	211.7	734.7	748.4	
0.80	865.7	746.0	596.4	507.4	419.2	339.2	292.0	260.1	233.9	910.9	905.8	
0.50	1321.1	1138.7	875.3	695.2	541.7	408.3	351.8	310.6	279.8	1374.3	1339.9	
0.20	2018.9	1728.3	1277.4	916.2	677.4	487.7	421.1	369.7	329.4	2073.6	2054.7	
0.10	2521.3	2144.6	1553.2	1042.8	752.0	533.5	461.3	404.5	356.6	2571.0	2607.4	
0.04	3196.8	2695.1	1909.9	1184.5	833.1	585.8	507.4	444.8	386.3	3399.8	3399.8	
0.02	3727.4	3120.7	2180.9	1278.8	885.9	621.5	539.0	472.6	405.8	3749.7	4061.2	
0.01	4280.2	3558.6	2455.9	1364.9	933.3	655.0	568.7	499.0	423.6	4284.1	4785.7	

STATION 14231100 MILLER C AT RANDE, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1970)		W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	ESTIMATE		
1950	89.0	2-24-1950			1.9166		1.8984
1951	83.0	2-10-1951			0.1147		0.1626
1952	79.0	3-25-1952			0.0		-1.721
1953	83.0	1-23-1953					
1954	105.0	12- 9-1953					
1955	69.0	2- 8-1955					
1956	105.0	12-11-1955					
1957	70.0	12- 9-1956					
1958	81.0	2-24-1958	0.99		--		21.7
1959	113.0	11-12-1958	0.95		53.4		37.8
1960	133.0	11-20-1959	0.90		58.8		48.2
1961	100.0	2-21-1961	0.80		66.1		61.9
1962	74.0	4- 6-1962	0.50		82.5		87.6
1963	112.0	11-20-1962	0.20		103.1		107.0
1964	57.0	1-25-1964	0.10		115.8		113.6
1965	120.0	1-28-1965	0.04		131.0		118.0
1966	23.0	3- 9-1966	0.02		142.0		119.7
1967	65.0	12-13-1966	0.01		152.6		120.8
1968	54.0	2-19-1968					
1969	72.0	1- 4-1969					
1970	71.0	1-18-1970					

STATION 14231700 CHAMBERS CR NR PACKWOOD, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1966-1975)		W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	ESTIMATE		
1966	242.0	5- 5-1966			2.3638		2.3638
1967	177.0	5-21-1967			0.1366		0.1366
1968	167.0	10-27-1967			0.0		1.191
1969	248.0	11-11-1968					
1970	179.0	4- 9-1970					
1971	192.0	1-18-1971					
1972	251.0	5-29-1972					
1973	322.0	12-21-1972					
1974	455.0	1-15-1974					
1975	194.0	1-18-1975					

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1966-1975)			ANNUAL PEAK FLOW STATISTICS (YEARS 1951-1963)		W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	ESTIMATE		
1951	2940.0	2- 9-1951	0.99		111.2		146.2
1952	3080.0	12- 1-1951	0.95		137.8		156.2
1953	4150.0	1-12-1953	0.90		154.5		164.2
1954	2500.0	12- 9-1953	0.80		177.4		177.2
1955	1730.0	11-19-1954	0.50		231.1		217.5
1956	2820.0	12-22-1955	0.20		301.1		291.1
1957	3340.0	2-26-1957	0.10		345.8		352.3
1958	2610.0	2-25-1958	0.04		400.8		445.3
1959	2170.0	1- 0-1959	0.02		440.9		527.2
1960	1790.0	11-23-1959	0.01		480.3		621.0
1961	2600.0	11-24-1960					
1962	1510.0	4- 6-1962					
1963	4030.0	11-20-1962					

STATION 14232000 NIGGERHEAD CREEK NEAR RANDE, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1951-1963)		W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	ESTIMATE		
1951	2940.0	2- 9-1951			3.4146		3.4146
1952	3080.0	12- 1-1951			0.1350		0.1350
1953	4150.0	1-12-1953			0.0		-0.243
1954	2500.0	12- 9-1953					
1955	1730.0	11-19-1954					
1956	2820.0	12-22-1955					
1957	3340.0	2-26-1957					
1958	2610.0	2-25-1958					
1959	2170.0	1- 0-1959					
1960	1790.0	11-23-1959					
1961	2600.0	11-24-1960					
1962	1510.0	4- 6-1962					
1963	4030.0	11-20-1962					

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1951-1963)			ANNUAL PEAK FLOW STATISTICS (YEARS 1951-1963)		W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	ESTIMATE		
1951	2940.0	2- 9-1951	0.99		1260.9		1193.6
1952	3080.0	12- 1-1951	0.95		1558.3		1526.7
1953	4150.0	1-12-1953	0.90		1744.5		1732.0
1954	2500.0	12- 9-1953	0.80		2000.1		2008.8
1955	1730.0	11-19-1954	0.50		2597.9		2630.7
1956	2820.0	12-22-1955	0.20		3374.4		3384.5
1957	3340.0	2-26-1957	0.10		3868.7		3834.3
1958	2610.0	2-25-1958	0.04		4475.9		4357.6
1959	2170.0	1- 0-1959	0.02		4917.9		4719.9
1960	1790.0	11-23-1959	0.01		5352.6		5062.1
1961	2600.0	11-24-1960					
1962	1510.0	4- 6-1962					
1963	4030.0	11-20-1962					

STATION 14232500 CISPUS RIVER NEAR RANDE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1912													
1930	308	265	942	551	2141	1180	1921	1543	1104	609	394	311	930
1931	327	398	416	1055	1163	1293	2102	1961	967	620	413	340	919
1932	471	908	939	1024	995	1293	2143	3137	2683	1162	554	371	1361
1933	453	2935	1582	1320	601	1008	1613	2696	4319	2013	843	611	1667
1934	1248	1497	5567	1357	1517	2273	2804	1390	880	605	408	306	1797
1935	861	2567	1734	1357	1444	913	1263	2665	2229	960	532	344	1403
1936	266	294	454	1253	596	1123	2466	3674	2728	955	546	391	1230
1937	319	262	850	396	328	1154	2415	3143	3221	1261	529	460	1198
1938	414	2062	2317	2025	833	1234	2378	2964	2021	796	470	378	1494
1939	374	697	1251	1232	754	1308	2105	2456	1559	836	448	348	1116
1940	306	320	1782	1153	1785	1948	1832	1805	840	501	388	331	1081
1941	362	671	1248	1001	788	844	1021	1331	784	505	374	485	785
1942	786	1091	2581	816	902	721	1531	1594	1468	793	469	349	1093
1943	298	1783	1555	1148	1115	1359	3252	2439	2194	1305	647	428	1458
1944	449	573	804	634	779	761	1208	1651	1059	537	374	369	766
1945	331	527	702	1145	1435	917	1196	2783	1582	707	420	393	1009
1946	334	976	1693	1712	971	1187	1856	3872	2873	1649	661	431	1522
1947	641	1764	3548	1306	2127	1370	1692	1907	1176	680	458	409	1419
1948	1579	1896	1424	1465	1052	1007	1413	3175	3455	1097	628	502	1558
1949	673	1004	913	564	981	1453	2220	4292	2458	1191	632	484	1407
1950	534	1359	1152	1189	1660	2021	1779	2894	3772	1975	796	520	1635
1951	1204	2451	2948	1514	2458	976	2030	2745	1788	875	538	407	1655
1952	1135	1300	1523	659	1216	841	2152	2656	1724	934	510	374	1251
1953	289	251	350	2893	1773	883	1435	2453	2239	1472	646	443	1258
1954	486	1038	2299	1370	1906	1345	1821	2981	2873	2046	918	583	1637
1955	619	1227	1073	900	999	600	1196	2128	3521	1598	700	470	1251
1956	1418	2586	3043	1608	782	1074	2488	4166	3346	1812	761	499	1969
1957	623	1003	1806	1908	721	1751	1826	2756	1301	663	461	363	1207
1958	377	543	1178	1409	1992	998	1700	2736	1496	682	475	368	1157
1959	444	2084	1901	2285	946	900	1552	2050	1915	849	488	614	1337
1960	1367	1768	1299	795	1459	1208	1794	2301	2042	851	533	424	1317
1961	468	1591	997	1638	2904	1747	1646	2584	2244	907	534	433	1463
1962	483	829	1485	1634	1077	729	2126	1768	1855	923	527	386	1151
1963	816	2271	1703	787	2182	957	1632	1857	1129	604	442	371	1220
1964	407	1198	1089	1388	1061	747	1206	2195	3493	1611	777	582	1303
1965	619	855	2366	2149	1873	1187	2120	2122	1808	828	552	400	1404
1966	375	636	706	876	596	1122	2077	2913	1928	1063	526	387	1103
1967	384	872	2218	1747	1353	1053	871	2634	2897	1056	546	399	1328
1968	919	1125	1378	1763	3187	1541	1044	1722	1748	704	622	697	1363
1969	1043	2446	1530	1748	725	882	1801	3555	2253	874	519	463	1490
1970	607	838	1299	2584	1735	1280	1051	2040	2043	771	470	400	1258
1971	447	1143	1673	1899	2012	1048	1496	3741	3274	2310	964	618	1717
1972	544	963	972	1631	2279	4118	1827	4047	3575	1924	912	757	1963
1973	513	882	2316	1727	752	820	993	1549	1039	608	424	395	1005
1974	465	1806	2282	3559	1219	1440	2025	2995	5111	2520	1075	679	2102
1975	429	750	1703	2307	1233	1283	794	2171	3115	1609	687	518	1432
1976	606	1713	3668	2168	1010	785	1411	3199	2161	1476	768	499	1627
1977	381	386	392	441	445	586	1534	1615	1515	499	399	456	720
1978	458	1833	4130	1195	1096	1122	1365	1968	1568	819	528	594	1393
1979	381	433	687	420	1113	1622	1282	2523	1225	655	436	391	930

STATION 14232500 CISPUS RIVER NEAR RANDE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1912-1979)

MEAN	592.8	1213.4	1669.4	1438.4	1331.1	1233.1	1714.1	2559.8	2190.0	1086.0	574.4	450.6	1337.2
MAXIMUM	1579.0	2935.0	5567.0	3759.0	3187.0	4118.0	3252.0	4292.0	5111.0	2520.0	1075.0	757.0	2102.0
MINIMUM	266.0	251.0	350.0	396.0	328.0	586.0	794.0	1331.0	784.0	490.0	374.0	306.0	720.0
STD DEVIATION	324.69	710.57	1019.42	732.04	627.90	561.22	488.79	753.84	980.58	517.28	166.40	105.12	303.79
SKEWNESS	1.551	0.617	1.621	1.177	0.937	3.025	0.423	0.448	0.761	1.071	1.177	1.093	0.247
STD ERR SKEW	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SER CORR COEFF	0.150	-0.056	-0.195	0.078	-0.031	-0.148	-0.016	0.083	0.051	0.134	0.132	0.061	0.052
COEFF OF VAR	0.548	0.586	0.611	0.509	0.472	0.455	0.285	0.294	0.448	0.476	0.290	0.233	0.227
MEAN LOGS	2.722	3.000	3.149	3.103	3.077	3.060	3.216	3.389	3.297	2.993	2.743	2.643	3.115
STD DEV LOGS	0.201	0.290	0.260	0.226	0.208	0.156	0.129	0.130	0.199	0.192	0.115	0.094	0.102
SKEWNESS LOGS	0.807	-0.459	-0.241	-0.304	-0.227	0.900	-0.402	-0.128	-0.144	0.427	0.657	0.666	-0.450
STD ERR SKEW LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SER CORR LOGS	0.201	0.048	-0.193	0.007	0.049	-0.133	-0.012	0.088	0.086	0.116	0.141	0.090	0.067
COEFF OF VAR LOGS	0.074	0.097	0.083	0.073	0.068	0.051	0.040	0.038	0.060	0.064	0.042	0.036	0.033
% OF AVE FLOW	3.7	7.6	10.4	9.0	8.3	7.7	10.7	15.9	13.6	6.8	3.6	2.8	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1912-1979)

0.99	237.4	169.3	314.8	337.1	362.6	632.6	755.6	1189.0	650.5	405.4	339.7	295.5	697.1
0.95	278.0	307.4	505.9	516.7	527.9	706.4	977.2	1483.4	916.1	504.1	377.8	322.0	859.5
0.90	308.0	413.5	645.3	641.8	640.3	760.6	1111.8	1664.9	1094.7	572.3	403.5	339.7	954.0
0.80	365.3	581.0	858.8	825.5	803.6	845.0	1290.1	1910.2	1352.9	674.2	441.0	365.1	1075.3
0.50	496.3	1051.5	1444.7	1302.3	1216.4	1088.9	1677.2	2467.5	2004.3	952.8	538.1	429.4	1325.5
0.20	756.8	1770.1	2349.1	1976.7	1794.9	1513.9	2119.9	3158.8	2923.5	1407.8	684.1	522.6	1593.6
0.10	979.4	2261.0	2988.8	2423.3	2177.8	1857.8	2370.4	3581.3	3539.3	1758.4	789.0	587.4	1738.1
0.04	1327.9	2877.1	3826.3	2979.3	2656.7	2371.5	2649.2	4083.4	4319.9	2261.0	931.4	673.0	1893.4
0.02	1643.8	3326.2	4464.4	3385.1	3008.6	2817.5	2834.6	4438.2	4901.2	2680.9	1044.6	739.4	1993.7
0.01	2014.3	3763.7	5110.9	3782.7	3355.9	3322.9	3004.1	4779.0	5481.5	3141.8	1164.3	808.2	2083.5

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1931	261.0	262.0	266.0	273.0	299.0	312.0	325.0	355.0	391.0
1932	261.0	261.0	262.0	268.0	299.0	325.0	366.0	436.0	573.0
1933	296.0	297.0	305.0	316.0	335.0	389.0	455.0	598.0	1150.0
1934	450.0	466.0	489.0	524.0	564.0	600.0	761.0	1040.0	1640.0
1935	226.0	226.0	233.0	250.0	257.0	306.0	347.0	430.0	703.0
1936	205.0	208.0	212.0	222.0	241.0	281.0	299.0	325.0	469.0
1937	235.0	237.0	239.0	245.0	258.0	281.0	308.0	344.0	427.0
1938	343.0	343.0	349.0	366.0	391.0	420.0	454.0	556.0	1080.0
1939	309.0	310.0	319.0	334.0	357.0	372.0	404.0	464.0	660.0
1940	471.0	476.0	482.0	287.0	295.0	313.0	322.0	348.0	591.0
1941	254.0	259.0	270.0	291.0	299.0	325.0	354.0	390.0	500.0
1942	340.0	343.0	347.0	361.0	372.0	419.0	449.0	512.0	669.0
1943	239.0	249.0	256.0	263.0	278.0	314.0	365.0	447.0	760.0
1944	346.0	355.0	358.0	366.0	376.0	417.0	482.0	518.0	584.0
1945	297.0	298.0	301.0	303.0	331.0	350.0	356.0	389.0	467.0
1946	293.0	299.0	300.0	303.0	316.0	357.0	379.0	440.0	673.0
1947	349.0	351.0	352.0	365.0	377.0	434.0	544.0	636.0	1310.0
1948	383.0	385.0	385.0	395.0	408.0	429.0	479.0	577.0	997.0
1949	452.0	456.0	459.0	472.0	497.0	552.0	585.0	633.0	698.0
1950	377.0	382.0	397.0	409.0	461.0	489.0	524.0	612.0	824.0
1951	427.0	427.0	438.0	465.0	497.0	609.0	762.0	1030.0	1560.0
1952	362.0	366.0	376.0	384.0	399.0	470.0	556.0	699.0	917.0
1953	206.0	212.0	218.0	229.0	247.0	285.0	293.0	314.0	423.0
1954	358.0	362.0	373.0	395.0	433.0	457.0	487.0	562.0	1030.0
1955	422.0	431.0	441.0	464.0	522.0	583.0	627.0	774.0	876.0
1956	375.0	375.0	375.0	439.0	460.0	531.0	754.0	992.0	1570.0
1957	394.0	396.0	404.0	413.0	442.0	515.0	612.0	712.0	868.0
1958	300.0	305.0	313.0	328.0	336.0	356.0	379.0	424.0	558.0
1959	310.0	312.0	320.0	331.0	357.0	396.0	423.0	474.0	914.0
1960	394.0	405.0	426.0	438.0	466.0	512.0	609.0	776.0	1020.0
1961	333.0	335.0	350.0	378.0	396.0	420.0	464.0	531.0	799.0
1962	374.0	374.0	384.0	386.0	401.0	445.0	481.0	523.0	723.0
1963	317.0	319.0	327.0	340.0	367.0	436.0	548.0	611.0	946.0
1964	270.0	275.0	286.0	290.0	311.0	352.0	389.0	446.0	688.0
1965	509.0	516.0	524.0	551.0	582.0	599.0	611.0	670.0	1070.0
1966	334.0	335.0	342.0	355.0	375.0	383.0	429.0	477.0	565.0
1967	289.0	292.0	294.0	306.0	338.0	375.0	404.0	478.0	846.0
1968	353.0	357.0	359.0	372.0	398.0	465.0	522.0	688.0	864.0
1969	454.0	471.0	487.0	500.0	532.0	610.0	642.0	729.0	1050.0
1970	350.0	358.0	384.0	392.0	429.0	489.0	524.0	585.0	745.0
1971	340.0	347.0	350.0	358.0	375.0	398.0	435.0	482.0	808.0
1972	415.0	421.0	431.0	439.0	481.0	567.0	641.0	752.0	884.0
1973	440.0	445.0	453.0	455.0	496.0	627.0	686.0	726.0	1090.0
1974	306.0	308.0	308.0	339.0	366.0	373.0	405.0	453.0	727.0
1975	363.0	366.0	370.0	381.0	395.0	468.0	560.0	671.0	1070.0
1976	433.0	442.0	451.0	462.0	471.0	524.0	581.0	751.0	1370.0
1977	334.0	337.0	342.0	351.0	361.0	377.0	380.0	392.0	424.0
1978	315.0	319.0	319.0	354.0	386.0	409.0	419.0	440.0	781.0
1979	328.0	335.0	343.0	348.0	369.0	401.0	465.0	479.0	502.0

LOWEST MEAN FLOW STATISTICS (YEARS 1931-1979)

MEAN	338.6	343.0	351.1	364.4	387.5	430.3	482.2	565.5	833.3
MAXIMUM	509.0	516.0	524.0	551.0	582.0	627.0	761.0	1040.0	1640.0
MINIMUM	265.0	268.0	272.0	282.0	291.0	265.0	293.0	314.0	391.0
STANDARD DEVIATION	69.58	71.10	73.18	76.69	85.10	96.01	123.27	174.38	304.94
SKWENESS	0.167	0.228	0.231	0.291	0.337	0.375	0.542	0.975	0.855
STD ERROR OF SKWENESS	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340
SERIAL CORR COEFF	0.166	0.156	0.166	0.170	0.196	0.227	0.224	0.235	0.073
COEFF OF VARIATION	0.205	0.207	0.208	0.210	0.210	0.228	0.256	0.308	0.366
MEAN LOGS	2.520	2.526	2.536	2.552	2.578	2.623	2.670	2.734	2.893
STD DEVIATION LOGS	0.092	0.092	0.093	0.093	0.094	0.099	0.110	0.128	0.156
SKWENESS LOGS	-0.342	-0.282	-0.274	-0.213	-0.146	-0.043	0.090	0.274	0.019
STD ERR SKWENESS LOGS	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340
SER CORR COEFF LOGS	0.209	0.205	0.219	0.225	0.244	0.255	0.249	0.261	0.094
COEFF DF VAR LOGS	0.036	0.036	0.036	0.036	0.037	0.038	0.041	0.047	0.054

STATION 14232500 CISPUS RIVER NEAR RANDLE, WASH.

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1931-1979)

0.99	513.7	525.9	540.1	566.9	612.7	708.7	855.5	1138.4	1817.6
0.98	491.8	502.2	515.5	539.6	581.2	667.2	794.9	1033.6	1645.3
0.96	467.6	476.3	488.6	510.1	547.5	623.7	733.1	930.8	1473.1
0.90	430.7	437.3	448.3	466.4	498.3	561.6	647.6	795.4	1242.0
0.80	397.0	402.1	412.0	427.6	455.2	508.7	577.4	690.3	1058.9
0.50	335.5	339.0	346.9	359.2	380.8	420.1	465.5	534.3	781.3
0.20	278.6	281.8	288.1	298.5	316.2	346.2	377.3	421.4	577.4
0.10	251.1	254.4	260.0	269.8	286.0	312.6	338.8	375.0	493.3
0.05	229.6	233.0	238.2	247.6	262.9	287.2	310.3	341.9	433.3
0.02	206.7	210.5	215.1	224.2	238.7	260.9	281.4	309.3	374.6
0.01	192.3	196.2	200.6	209.6	223.6	244.7	263.9	290.0	340.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1931-1979)

P95	P90	P75	P70	P50	P25	P10
340.0	390.0	570.0	640.0	980.0	1800.0	2700.0

STATION 14232500 CISPUS RIVER NEAR RANDLE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30										ANNUAL PEAK-FLOW DATA		
YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW (CFS)	DATE	REG. (R)
1911										6400.	11/10/10	
1912										4110.	01/25/12	
1930	4620.	4080.	3190.	2570.	2090.	1810.	1760.	1700.	1430.	4820.	02/20/30	
1931	5560.	4570.	3290.	2670.	2210.	2160.	1930.	1710.	1440.	6610.	03/31/31	
1932	4940.	4450.	4060.	3650.	3200.	2960.	2590.	2550.	2030.	5260.	02/26/32	
1933	7450.	6570.	6000.	5300.	4550.	3590.	3160.	2680.	2080.	8080.	06/09/33	
1934	19000.	15300.	10200.	7980.	6250.	4860.	3780.	3410.	2840.	20000.	12/22/33	
1935	9130.	8720.	5970.	3740.	2870.	2490.	1720.	1870.	1710.	11900.	11/05/34	
1936	5600.	5130.	4590.	4000.	3870.	3660.	3050.	2520.	1940.	6190.	06/07/36	
1937	7840.	6910.	4990.	3490.	3250.	3210.	3020.	2560.	1950.	11400.	04/14/37	
1938	8600.	7320.	5070.	3580.	3070.	2960.	2480.	2160.	2040.	10900.	12/29/37	
1939	3480.	3430.	3130.	2590.	2620.	2340.	2160.	1940.	1580.	3640.	05/15/39	
1940	6430.	5310.	3810.	2710.	2170.	1980.	1860.	1740.	1720.	7120.	12/16/39	
1941	2880.	2590.	2130.	1660.	1350.	1180.	1040.	1010.	1050.	3110.	11/29/40	
1942	6600.	5670.	4590.	3270.	2630.	1910.	1580.	1370.	1370.	13200.	11/23/42	
1943	10500.	7060.	4530.	3570.	3420.	2950.	2170.	2460.	1950.	2460.	12/03/43	
1944	2250.	2200.	2020.	1830.	1660.	1480.	1320.	1190.	1020.	8240.	02/08/45	
1945	6000.	3870.	3540.	3290.	2850.	2260.	1870.	1650.	1520.	6870.	12/24/45	
1946	6430.	5110.	4400.	4220.	3970.	3480.	3070.	2590.	2140.	11500.	12/14/46	
1947	10700.	9950.	8080.	5350.	4200.	2800.	2520.	2270.	2090.	6650.	05/27/48	
1948	6650.	6220.	5290.	4830.	4270.	3360.	2770.	2320.	1930.	7790.	05/13/49	
1949	7500.	7310.	6770.	5290.	4340.	3650.	3050.	2650.	2120.	7800.	11/27/49	
1950	6050.	4750.	3460.	3950.	3920.	3580.	2970.	2630.	2390.	10100.	02/11/51	
1951	8130.	7080.	5390.	3550.	3210.	2720.	2570.	2410.	2180.	8540.	12/01/51	
1952	6440.	4620.	3590.	3130.	2810.	2550.	2210.	1940.	1590.	8050.	01/11/53	
1953	6500.	5210.	4550.	4260.	3540.	2500.	2260.	1930.	2010.	6680.	12/09/53	
1954	5170.	4850.	4240.	3610.	3210.	3050.	2720.	2460.	2160.	8360.	06/11/55	
1955	6930.	6720.	5660.	4460.	3580.	2690.	2440.	2130.	1670.	9770.	12/22/55	
1956	8220.	7150.	6180.	5340.	4530.	3910.	3490.	3030.	2320.	8750.	02/26/57	
1957	7040.	5270.	3880.	3480.	2840.	2350.	2250.	2080.	1730.	4840.	04/20/58	
1958	4430.	4050.	3540.	3170.	2770.	2440.	2000.	1900.	1740.	5320.	01/12/59	
1959	4880.	3960.	3320.	2660.	2370.	2110.	2160.	1840.	1670.	6630.	11/23/59	
1960	7090.	5620.	4110.	2740.	2310.	2190.	2190.	1900.	1630.	8860.	11/24/60	
1961	4370.	4090.	3480.	3220.	2900.	2470.	2190.	2230.	2110.	4840.	04/07/62	
1962	4370.	3510.	2780.	2520.	2240.	2010.	1930.	1690.	1580.	14100.	11/20/62	
1963	10900.	7320.	5760.	4030.	3050.	2080.	1970.	1760.	1670.	5150.	06/05/64	
1964	4900.	4510.	4370.	4030.	3600.	2960.	2430.	2120.	1990.	10200.	01/30/65	
1965	9520.	8220.	5590.	3680.	2660.	2450.	2150.	1970.	1900.	7500.	05/06/66	
1966	6430.	5630.	4890.	3590.	2960.	2610.	2330.	2040.	1620.	11200.	12/13/66	
1967	8960.	6360.	4390.	3540.	3220.	2800.	2190.	1920.	1760.	8290.	02/19/68	
1968	7340.	6550.	6230.	4290.	3200.	2610.	2290.	2000.	1900.	8260.	11/11/68	
1969	6600.	5540.	4740.	3860.	3590.	3060.	2570.	2210.	1840.	10200.	01/23/70	
1970	8980.	6620.	5600.	4210.	3600.	2280.	1960.	1740.	1810.	9730.	12/07/70	
1971	8110.	5550.	4620.	4090.	3810.	3540.	3140.	2740.	2370.	11700.	02/28/72	
1972	9700.	8140.	6480.	5420.	4790.	3880.	3420.	3540.	3060.	14000.	12/21/72	
1973	9850.	8110.	5840.	4000.	2980.	2070.	1680.	1450.	1400.	21700.	01/15/74	
1974	17600.	15200.	9650.	6040.	5200.	4110.	3590.	3200.	2870.	8100.	12/21/74	
1975	6720.	5230.	4610.	3930.	3560.	3070.	2510.	2090.	2000.	17300.	12/04/75	
1976	13600.	11600.	8230.	5470.	3710.	2880.	2550.	2190.	2050.	3240.	06/04/77	
1977	2990.	2960.	2610.	2250.	1830.	1780.	1570.	1320.	1040.	21200.	12/02/77	
1978	14800.	11000.	6490.	4750.	3040.	2430.	2090.	1740.	1400.	4080.	03/07/79	
1979	3760.	3420.	3020.	2650.	2630.	2040.	1850.					

STATION 14232500 CISPUS RIVER NEAR RANDLE, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1911-1979)

	W R C ESTIMATE	SYSTEMATIC RECORD
MEAN		
MINIMUM	7451.2	6217.8
MAXIMUM	19000.0	15300.0
STANDARD DEVIATION	2250.0	2200.0
STANDARD DEVIATION	3389.10	2724.20
SKENNESS	1.492	1.618
STD ERROR OF SKENNESS	0.337	0.337
SERIAL CORR COEFF	-0.101	-0.005
COEFF OF VARIATION	0.455	0.438
MEAN LOGS	3.833	3.758
STD DEVIATION LOGS	0.188	0.174
SKENNESS LOGS	-0.063	0.199
STD ERR SKENNESS LOGS	0.337	0.337
SER CORR COEFF LOGS	-0.146	-0.024
COEFF OF VAR LOGS	0.049	0.046

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1911-1979)

	W R C ESTIMATE	SYSTEMATIC RECORD
0.99	2437.9	2394.0
0.95	3314.0	3036.0
0.90	3896.5	3462.6
0.80	4732.7	4078.6
0.50	6831.3	5658.2
0.20	9797.4	7998.1
0.10	11799.7	9657.7
0.04	14360.4	11877.6
0.02	16286.0	13620.2
0.01	18225.1	15438.7

	W R C ESTIMATE	SYSTEMATIC RECORD
MEAN	7451.2	6217.8
MINIMUM	19000.0	15300.0
MAXIMUM	2250.0	2200.0
STANDARD DEVIATION	3389.10	2724.20
SKENNESS	1.492	1.618
STD ERROR OF SKENNESS	0.337	0.337
SERIAL CORR COEFF	-0.101	-0.005
COEFF OF VARIATION	0.455	0.438
MEAN LOGS	3.833	3.758
STD DEVIATION LOGS	0.188	0.174
SKENNESS LOGS	-0.063	0.199
STD ERR SKENNESS LOGS	0.337	0.337
SER CORR COEFF LOGS	-0.146	-0.024
COEFF OF VAR LOGS	0.049	0.046

STATION 14233200 QUARTZ CREEK NR KOSMOS, WASH.

	W R C ESTIMATE	SYSTEMATIC RECORD
MEAN LOGS	1.9601	1.9601
STANDARD DEVIATION LOGS	0.1591	0.1591
SKENNESS LOGS	0.006	0.636
ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1965-1975)		
0.99	39.0	46.3
0.95	50.0	53.7
0.90	57.1	58.9
0.80	67.0	66.6
0.50	91.2	87.8
0.20	124.2	122.1
0.10	145.9	148.5
0.04	173.3	186.3
0.02	193.8	217.8
0.01	214.2	252.5

STATION 14233+00 COWLITZ RIVER NR HANDLE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1968	3695	4317	5532	6650	10570	5204	3693	5802	6603	2569	2061	2802	4934
1969	4185	8171	5630	6671	2489	3296	6241	11630	7768	2926	1527	1559	5188
1970	2324	2784	4125	8792	6165	4338	3877	6752	7173	2952	1504	1387	4339
1971	1438	4280	5320	7841	7986	3893	5080	12030	10370	8180	3262	1902	5955
1972	1628	3790	4370	6804	8493	14510	6236	12700	11430	7147	3217	2554	6908
1973	1565	2944	8329	5908	2371	2691	3164	5459	4119	2323	1402	1302	3480
1974	1620	6185	8105	13820	5434	5455	6886	8967	16130	9580	3705	1849	7236
1975	1076	2299	6261	9494	4472	4656	2656	8417	10070	6277	2413	1655	4992
1976	2184	6221	13560	8571	4101	2962	4792	10030	7037	5745	2963	1745	6014
1977	1141	1580	1528	2057	1815	2502	5186	4952	5031	1729	1515	1962	2580
1978	1572	8138	16520	4360	3662	3655	4363	6226	5553	3124	1801	2217	5112
1979	1275	1964	3507	1640	4319	5946	4437	9325	4602	2494	1386	1357	3434

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1968-1979)

MEAN	1975.2	4389.4	7065.6	6884.0	5156.4	4925.7	4717.6	8440.8	7990.5	4503.8	2229.7	1857.6	5014.3
MAXIMUM	4185.0	8171.0	16520.0	13820.0	10570.0	14510.0	6886.0	12700.0	16130.0	8580.0	3705.0	2802.0	7236.0
MINIMUM	1076.0	1580.0	1528.0	1640.0	1815.0	2502.0	2656.0	4952.0	4119.0	1729.0	1386.0	1302.0	2580.0
STD DEVIATION	993.94	2298.60	4588.19	3310.47	2698.42	3215.54	1290.15	2693.32	3474.46	2501.65	848.99	471.23	1404.09
SKEWNESS	1.544	0.590	1.443	0.272	0.756	2.759	0.159	0.319	1.199	0.599	0.594	0.824	-0.106
STD ERR SKEW	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR COEFF	0.624	-0.733	-0.569	0.329	-0.068	-0.216	-0.735	-0.217	-0.042	0.110	-0.080	-0.336	-0.405
COEFF OF VAR	0.503	0.524	0.649	0.481	0.323	0.653	0.273	0.319	0.435	0.555	0.381	0.254	0.280
MEAN LOGS	3.635	3.585	3.770	3.776	3.656	3.639	3.658	3.906	3.868	3.592	3.320	3.257	3.683
STD DEV LOGS	0.187	0.238	0.279	0.269	0.235	0.205	0.124	0.141	0.177	0.236	0.161	0.106	0.132
SKEWNESS LOGS	0.976	-0.084	-0.237	-1.174	-0.128	1.489	-0.374	-0.027	0.391	0.236	0.350	0.410	-0.705
STD ERR SKEW LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR LOGS	0.487	-0.790	-0.696	0.350	-0.137	-0.265	-0.700	-0.241	-0.055	0.071	-0.083	-0.346	-0.388
COEFF OF VAR LOGS	0.057	0.066	0.074	0.071	0.064	0.056	0.034	0.036	0.046	0.067	0.049	0.033	0.036
% OF AVE FLOW	3.3	7.3	11.7	11.4	8.6	8.2	7.8	14.0	13.3	7.5	3.7	3.1	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1968-1979)

0.99	901.9	1040.8	1179.6	855.3	1219.5	2401.4	2168.5	3758.0	3223.6	1175.0	970.9	1103.4	2035.7
0.95	1017.3	1543.2	1960.5	1831.7	1821.2	2550.5	2766.0	4707.1	3967.3	1621.1	1180.7	1246.9	2767.1
0.90	1105.4	1898.2	2544.3	2600.8	2691.4	2691.4	3126.5	5304.5	4472.0	1938.6	1320.4	1338.5	3209.3
0.80	1246.9	2432.2	3456.4	3783.7	2880.6	2949.9	3602.5	6127.0	5215.3	2428.2	1522.8	1466.4	3787.5
0.50	1679.0	3875.6	6039.7	6719.0	4582.2	3890.4	4631.7	8059.7	7194.0	3819.9	2046.1	1776.7	4992.1
0.20	2493.9	6108.9	10181.8	10066.1	7170.8	6030.3	5807.2	10302.7	6198.8	2834.5	2203.9	2203.9	6255.8
0.10	3199.7	7716.1	13191.8	11722.0	9003.9	8158.2	6473.1	12187.2	12623.8	3403.6	2490.8	2490.8	6908.5
0.04	4317.2	9866.7	17208.7	13271.9	11422.6	11950.0	7216.3	14162.2	15866.6	4177.2	2859.4	2859.4	7579.1
0.02	5339.9	11544.6	20318.4	14119.8	13285.6	15817.8	7711.9	15599.8	19515.1	13169.9	4794.0	3139.3	7991.7
0.01	6550.5	13280.8	23505.4	14770.9	15193.0	20834.9	8166.4	17013.4	21369.7	15748.7	5446.2	3424.1	8345.7

STATION 14233400 COMLITZ RIVER NW RANDE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1969	1250.0	1310.0	1400.0	1460.0	1650.0	2050.0	2330.0	2730.0	3800.0
1970	986.0	1040.0	1130.0	1130.0	1250.0	1540.0	1790.0	1960.0	2460.0
1971	937.0	1020.0	1070.0	1170.0	1270.0	1310.0	1430.0	1620.0	2760.0
1972	1040.0	1070.0	1140.0	1170.0	1330.0	1720.0	2080.0	2570.0	3360.0
1973	1140.0	1170.0	1220.0	1240.0	1470.0	2030.0	2220.0	2420.0	3780.0
1974	940.0	962.0	1050.0	1080.0	1110.0	1220.0	1350.0	1620.0	2670.0
1975	909.0	921.0	952.0	968.0	1020.0	1200.0	1530.0	1980.0	3610.0
1976	1200.0	1220.0	1260.0	1340.0	1410.0	1730.0	1980.0	2700.0	4780.0
1977	935.0	948.0	960.0	1030.0	1130.0	1330.0	1340.0	1440.0	1650.0
1978	1060.0	1070.0	1120.0	1200.0	1460.0	1570.0	1640.0	1660.0	2740.0
1979	1020.0	1040.0	1060.0	1080.0	1190.0	1570.0	1720.0	1790.0	2050.0

LOWEST MEAN FLOW STATISTICS (YEARS 1969-1979)

MEAN	1037.9	1069.2	1123.8	1169.4	1299.1	1570.0	1764.5	2044.5	3060.0
MAXIMUM	1250.0	1310.0	1400.0	1460.0	1650.0	2050.0	2330.0	2730.0	4780.0
MINIMUM	909.0	921.0	952.0	968.0	1020.0	1200.0	1340.0	1440.0	1650.0
STANDARD DEVIATION	114.96	120.70	131.59	140.36	186.79	295.91	347.89	476.07	901.64
SKEWNESS	0.767	0.800	0.762	0.763	0.356	0.427	0.338	0.400	0.315
STD ERROR OF SKEWNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	-0.412	-0.386	-0.289	-0.444	-0.305	-0.143	-0.126	-0.138	-0.174
COEFF OF VARIATION	0.111	0.113	0.117	0.120	0.144	0.188	0.197	0.233	0.295
MEAN LOGS	3.014	3.027	3.048	3.065	3.110	3.149	3.239	3.300	3.468
STD DEVIATION LOGS	0.047	0.048	0.050	0.051	0.062	0.081	0.085	0.100	0.133
SKEWNESS LOGS	0.638	0.603	0.484	0.479	0.082	0.157	0.117	0.215	-0.360
STD ERR SKEWNESS LOGS	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561
SER CORR COEFF LOGS	-0.396	-0.368	-0.279	-0.424	-0.289	-0.131	-0.153	-0.129	-0.189
COEFF OF VAR LOGS	0.016	0.016	0.016	0.017	0.020	0.025	0.026	0.030	0.038

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1969-1979)

0.99	1394.4	1439.5	1516.7	1589.4	1810.9	2437.5	2783.6	3534.7	5519.0
0.98	1334.0	1378.1	1453.6	1521.9	1737.5	2302.9	2626.4	3286.7	5185.8
0.96	1273.8	1315.8	1389.0	1452.8	1660.0	2163.8	2463.8	3035.9	4425.0
0.90	1191.5	1230.4	1299.4	1357.1	1547.9	1968.6	2234.8	2693.3	4289.3
0.80	1124.8	1160.8	1225.4	1278.1	1450.9	1805.2	2042.7	2415.5	3814.8
0.50	1020.6	1051.6	1106.8	1151.6	1284.5	1537.6	1727.2	1979.1	2990.6
0.20	941.2	967.6	1012.9	1051.5	1140.4	1318.8	1468.4	1640.6	2284.4
0.10	907.6	931.9	971.8	1007.7	1072.8	1220.5	1351.8	1494.2	1963.3
0.05	883.4	906.0	941.4	975.4	1020.5	1146.4	1263.9	1386.4	1722.7
0.02	859.6	880.3	910.7	942.7	1005.9	1069.9	1173.2	1277.4	1477.7
0.01	845.5	865.0	892.1	922.9	930.6	1022.7	1117.2	1211.4	1329.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1969-1979)

	P95	P90	P75	P70	P50	P25	P10
1200.0	1400.0	2200.0	2400.0	3700.0	6200.0	10000.0	

STATION 14233400 COWLITZ RIVER NR RANDLE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

ANNUAL PEAK-FLOW DATA

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW(CFS)	DATE	REG. (R)
1949										24100.	05/13/49	
1950										27600.	11/27/49	
1951										33800.	02/11/51	
1952										18000.	12/01/51	
1953										25600.	02/01/53	
1954										24800.	12/10/53	
1955										24300.	06/11/55	
1956										33200.	12/12/55	
1957										22300.	12/12/56	
1958										20500.	04/20/58	
1959										23500.	11/13/58	
1960										47500.	11/24/59	
1961										22700.	02/22/61	
1962										22800.	04/07/62	
1963										41000.	11/20/62	
1964										18100.	06/05/64	
1965										45000.	01/30/65	
1966										21400.	05/06/66	
1967										29500.	12/13/66	
1968										27900.	02/20/68	
1969										26400.	01/05/69	
1970										28600.	01/23/70	
1971										26200.	01/20/71	
1972										34000.	01/21/72	
1973										35200.	12/21/72	
1974										65800.	01/16/74	
1975										27200.	12/21/74	
1976										73300.	12/04/75	
1977										9800.	04/26/77	
1978										89300.	12/03/77	
1979										15400.	03/07/79	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1979)

M R C SYSTEMATIC
ESTIMATE RECORD

MEAN	34315.8	27844.2	20992.5	16135.0	12559.2	9863.3	8509.2	7607.5	6916.7			
MAXIMUM	74100.0	54500.0	38200.0	26500.0	19600.0	12800.0	11300.0	11800.0	10500.0			
MINIMUM	9390.0	9130.0	8110.0	7000.0	5910.0	5600.0	5100.0	4440.0	3620.0			
STANDARD DEVIATION	20816.48	15214.90	9081.20	5907.14	3832.11	2494.48	2128.24	2137.50	1995.18			
SKEWNESS	1.043	0.948	0.632	0.410	0.203	-0.336	-0.209	0.438	0.307			
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637			
SERIAL CORR COEFF	-0.640	-0.615	-0.591	-0.802	-0.814	-0.682	-0.584	-0.473	-0.286			
COEFF OF VARIATION	0.607	0.546	0.433	0.366	0.305	0.253	0.250	0.281	0.288			
MEAN LOGS	4.465	4.388	4.283	4.179	4.079	3.980	3.916	3.865	3.823			
STD DEVIATION LOGS	-0.005	0.063	0.197	0.169	0.142	0.119	0.116	0.124	0.131			
SKEWNESS LOGS	-0.005	0.063	-0.325	-0.452	-0.620	-0.659	-0.512	-0.161	-0.436			
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637			
SER CORR COEFF LOGS	-0.740	-0.701	-0.728	-0.789	-0.753	-0.644	-0.575	-0.514	-0.300			
COEFF OF VAR LOGS	0.058	0.053	0.046	0.040	0.035	0.030	0.030	0.032	0.034			

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1949-1979)

0.99	7218.0	7174.3	6015.9	5401.0	4455.1	4436.3	4023.2	3650.3	2998.4	10225.5	12101.2	
0.95	10876.1	10189.9	8761.5	7625.6	6459.2	5812.9	5136.7	4527.6	3910.8	13739.9	14747.4	
0.90	13530.2	12311.7	10600.0	9055.1	7768.2	6828.1	5796.2	5063.3	4465.4	16107.4	16610.7	
0.80	17622.0	15511.0	13229.2	11027.2	9242.3	7679.8	6551.5	5781.5	5200.3	19553.9	19440.9	
0.50	29196.3	24276.5	19670.1	15559.0	12401.4	9837.0	8436.9	7389.2	6791.7	28456.6	27408.2	
0.20	48336.5	38298.7	28448.4	21064.9	15866.4	12075.9	9342.7	8599.7	8599.7	41644.6	40984.7	
0.10	62891.8	48761.4	33677.4	24294.3	17728.4	13231.1	11399.8	10161.7	9614.7	50931.0	51835.6	
0.04	83254.2	63239.9	40222.3	27963.8	19703.6	14422.2	12509.3	11894.0	11736.7	67881.8	67881.8	
0.02	99779.7	74906.1	44873.6	30438.2	20955.3	15159.2	13221.2	12856.1	11477.5	72787.9	81675.5	
0.01	117419.4	87306.7	49342.4	32720.6	22054.7	15795.2	13854.3	13772.0	12151.0	82661.2	97172.4	

STATION 14233500 COMLITZ RIVER NEAR KOSMOS, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1948	5045	7510	5121	5139	4007	3251	4207	9995	11700	4323	2248	1481	5333
1949	2449	4008	4196	1947	3618	5656	7497	13760	8735	4739	2227	1623	5045
1950	2291	6146	4912	4744	5934	7679	6747	9090	12750	7582	2925	1669	6009
1951	4275	8589	10550	5828	9486	3783	6791	8443	5957	3008	1607	1199	5744
1952	4209	4386	5179	2087	5014	2958	7007	9597	7119	3508	1685	1117	4300
1953	844	648	1100	11230	7720	3116	4715	7615	7199	5433	2179	1385	4409
1954	1576	3571	9416	5076	7136	4716	5999	9431	9274	7177	3091	1904	5691
1955	2179	4397	3639	3535	4251	2270	4184	7030	12440	6800	2709	1688	4584
1956	5604	10470	10900	5857	2720	4129	8670	13560	11080	6775	2564	1581	7005
1957	2491	4024	8987	2568	3959	6302	6302	9420	5189	2402	1501	1159	4545
1958	1171	1949	4860	5643	7084	3385	6106	9609	5626	2377	1517	1157	4199
1959	1835	10370	8984	9302	3611	3574	6301	7215	7620	3805	1677	2881	5601
1960	6302	9007	5966	2702	5597	4339	6201	8160	7729	3191	1716	1383	5187
1961	1742	7401	4452	6354	11000	6132	5852	8375	8565	3465	1805	1309	5490
1962	1661	2884	6066	6640	3888	2522	7642	5783	6423	3598	1976	1360	4202
1963	2495	7690	6676	3138	7563	3354	5458	5926	4156	2297	1515	1203	4259
1964	1291	4283	4270	5890	4029	3064	4538	7255	11770	6732	2994	1902	4830
1965	2347	3191	10260	8546	7574	4070	6527	6716	6256	3070	1748	1156	5110
1966	1118	2198	2613	3261	2310	4314	7146	8930	6251	3772	1704	1268	3747
1967	1398	3173	8031	7341	5531	3631	2894	8201	10050	4029	1767	1262	4774
1968	3695	4341	5562	6706	10450	5182	3640	5701	6495	2526	2021	2712	4895

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1948-1968)

MEAN	2667.5	5249.3	6273.4	5406.4	5832.5	4169.2	5916.2	8514.9	8148.8	4314.7	2056.0	1542.8	4998.5
MAXIMUM	6302.0	10470.0	10900.0	11230.0	11000.0	7679.0	8670.0	13760.0	12750.0	7582.0	3091.0	2881.0	7005.0
MINIMUM	844.0	648.0	1100.0	1947.0	2310.0	2270.0	2894.0	5701.0	4156.0	2297.0	1501.0	1117.0	3747.0
STD DEVIATION	1570.33	2827.18	2731.25	2446.38	2483.61	1376.74	1440.22	2125.80	2592.95	1733.45	516.46	480.60	761.07
SKWENESS	1.056	0.488	0.216	0.570	0.651	1.038	-0.364	1.179	0.478	0.727	0.874	1.839	0.770
STD ERR SKEW	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR COEFF	-0.063	0.104	-0.422	-0.367	-0.188	0.002	-0.074	0.221	0.002	0.184	0.183	-0.177	-0.102
COEFF OF VAR	0.589	0.539	0.435	0.452	0.426	0.330	0.243	0.250	0.318	0.402	0.251	0.312	0.152
MEAN LOGS	3.359	3.646	3.748	3.687	3.728	3.599	3.758	3.918	3.890	3.603	3.301	3.172	3.454
STD DEV LOGS	0.245	0.286	0.233	0.212	0.188	0.135	0.118	0.102	0.138	0.169	0.103	0.115	0.064
SKWENESS LOGS	0.233	-1.111	-1.322	-0.380	-0.063	0.364	-0.958	0.466	0.038	0.291	0.625	1.300	0.350
STD ERR SKEW LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR LOGS	-0.013	0.097	-0.356	-0.397	-0.155	-0.033	0.024	0.270	-0.001	0.150	0.196	-0.151	-0.078
COEFF OF VAR LOGS	0.079	0.062	0.062	0.058	0.050	0.038	0.031	0.026	0.036	0.047	0.031	0.036	0.017
% OF AVE FLOW	4.4	8.7	10.4	9.0	9.7	6.9	9.8	14.2	13.6	7.2	3.4	2.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1948-1968)

0.99	679.1	576.0	989.6	1364.9	1919.0	2093.3	2541.6	5205.2	3737.0	1766.5	1287.0	1029.8	3640.9
0.95	940.7	1268.7	1985.6	2072.9	2607.6	2462.8	3447.7	5823.5	4617.3	2149.5	1419.1	1079.3	3936.9
0.90	1128.0	1829.0	2726.7	2557.7	3065.3	2703.3	3982.5	6220.4	5172.3	2471.3	1506.6	1120.7	4116.6
0.80	1415.8	2710.9	3809.9	3261.0	3722.3	3045.3	4657.8	6777.5	5938.4	2879.7	1632.5	1189.9	4357.8
0.50	2238.1	4988.9	8279.3	5014.7	5370.5	3900.6	5971.5	8137.4	7751.2	3935.4	1951.3	1405.8	4903.2
0.20	3649.3	7739.2	8777.9	7381.6	7699.3	5131.8	7218.3	10025.5	10145.8	5523.3	2415.0	1799.3	5584.7
0.10	4771.7	9169.3	9890.5	8884.4	9270.9	5988.4	7794.3	11300.9	11692.2	6666.0	2739.7	2121.1	6007.9
0.04	6413.4	10562.0	10847.7	10693.2	11280.3	7120.5	8335.1	12947.7	13613.5	8214.7	3169.7	2601.5	6519.8
0.02	7805.1	11352.7	11331.1	11974.1	12791.3	8001.1	8640.3	14202.8	15026.6	9445.5	3505.4	3017.1	6888.4
0.01	9347.0	11978.1	11678.8	13199.7	14312.5	8914.5	8884.1	15484.3	16427.7	10743.1	3854.6	3486.2	7248.2

STATION 14233500 COMLITZ RIVER NEAR KDSMDS, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1949	1110.0	1140.0	1280.0	1320.0	1460.0	1770.0	1960.0	2220.0	2650.0
1950	1140.0	1170.0	1250.0	1350.0	1550.0	1710.0	1960.0	2320.0	3400.0
1951	1270.0	1310.0	1380.0	1470.0	1570.0	2100.0	2770.0	3570.0	5570.0
1952	1000.0	1020.0	1080.0	1110.0	1160.0	1390.0	1800.0	2340.0	3090.0
1953	532.0	535.0	549.0	580.0	630.0	712.0	815.0	923.0	1370.0
1954	1100.0	1110.0	1170.0	1240.0	1390.0	1480.0	1580.0	1860.0	3520.0
1955	1290.0	1310.0	1350.0	1450.0	1670.0	1980.0	2120.0	2610.0	3100.0
1956	1220.0	1230.0	1320.0	1490.0	1640.0	1940.0	2860.0	3960.0	5730.0
1957	1230.0	1240.0	1260.0	1320.0	1420.0	1690.0	2180.0	2650.0	3620.0
1958	851.0	860.0	920.0	956.0	1010.0	1110.0	1210.0	1390.0	1990.0
1959	980.0	994.0	1000.0	1040.0	1130.0	1260.0	1490.0	1650.0	3550.0
1960	1340.0	1390.0	1400.0	1430.0	1560.0	2020.0	2580.0	3350.0	4470.0
1961	1060.0	1070.0	1100.0	1200.0	1230.0	1370.0	1520.0	1900.0	3270.0
1962	930.0	944.0	976.0	985.0	1080.0	1400.0	1580.0	1770.0	2580.0
1963	1140.0	1150.0	1180.0	1230.0	1320.0	1530.0	1880.0	2120.0	3270.0
1964	805.0	818.0	842.0	871.0	963.0	1120.0	1300.0	1520.0	2380.0
1965	1620.0	1650.0	1680.0	1800.0	1900.0	2110.0	2430.0	4220.0	6890.0
1966	900.0	910.0	934.0	995.0	1090.0	1120.0	1290.0	1500.0	2920.0
1967	750.0	765.0	798.0	878.0	1070.0	1180.0	1380.0	1630.0	3200.0
1968	1090.0	1100.0	1140.0	1160.0	1260.0	1450.0	1700.0	2450.0	3260.0

LOWEST MEAN FLOW STATISTICS (YEARS 1949-1968)

MEAN	1067.9	1085.8	1130.4	1193.9	1305.1	1522.1	1804.2	2208.1	3292.5
MAXIMUM	1620.0	1650.0	1680.0	1800.0	1900.0	2110.0	2960.0	3960.0	5730.0
MINIMUM	532.0	535.0	549.0	580.0	630.0	712.0	815.0	923.0	1370.0
STANDARD DEVIATION	240.19	247.50	255.23	277.51	300.04	386.24	531.09	763.63	1098.89
SKEWNESS	-0.027	-0.008	-0.191	-0.064	-0.140	-0.864	0.417	0.748	0.873
STD ERROR OF SKEWNESS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SERIAL CORR COEFF	-0.158	-0.153	-0.121	-0.070	-0.006	0.0	0.096	0.113	-0.092
COEFF OF VARIATION	0.225	0.228	0.226	0.232	0.230	0.254	0.294	0.346	0.334
MEAN LOGS	3.017	3.024	3.041	3.065	3.104	3.168	3.238	3.319	3.494
STD DEVIATION LOGS	0.106	0.107	0.108	0.110	0.109	0.119	0.133	0.152	0.150
SKEWNESS LOGS	-0.945	-0.937	-1.054	-0.922	-0.956	-0.780	-0.423	-0.211	-0.428
STD ERR SKEWNESS LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF LOGS	-0.118	-0.111	-0.092	-0.055	-0.008	0.010	0.073	0.084	-0.119
COEFF OF VAR LOGS	0.035	0.035	0.035	0.036	0.035	0.038	0.041	0.046	0.043

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1949-1968)

0.99	1546.4	1581.7	1616.9	1757.7	1905.1	2379.8	3198.4	4449.2	6238.5
0.98	1507.5	1541.0	1581.5	1710.5	1856.5	2296.2	3016.5	4104.2	5841.1
0.96	1458.8	1490.1	1535.8	1651.8	1795.7	2196.6	2817.1	3744.5	5408.6
0.90	1372.5	1400.2	1451.7	1548.8	1687.5	2029.9	2516.4	3235.1	4763.2
0.80	1280.3	1304.5	1358.6	1439.7	1571.7	1862.5	2245.6	2807.3	4189.9
0.50	1080.1	1097.7	1148.2	1205.9	1320.2	1524.7	1766.3	2112.4	3196.0
0.20	863.4	874.9	912.9	956.4	1048.4	1186.8	1347.6	1562.3	2354.4
0.10	750.4	759.2	788.6	827.6	907.2	1019.0	1155.2	1325.0	1978.2
0.05	660.0	666.8	688.7	725.1	794.6	888.2	1010.4	1152.1	1700.2
0.02	563.2	568.1	581.9	616.1	674.5	751.3	862.7	980.5	1421.8
0.01	502.4	506.2	514.9	548.0	599.4	666.7	773.0	878.4	1255.7

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1949-1968)

P95	P90	P75	P70	P50	P25	P10
1200.0	1400.0	2200.0	2500.0	4000.0	6600.0	9800.0

STATION 14233500 COWLITZ RIVER NEAR KOSMOS, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	DATE	REG. (R)
1948	21000.	19700.	16800.	15500.	13900.	11100.	9110.	7630.	6400.	24100.	05/13/49	
1949	23700.	23100.	21300.	16800.	13900.	12000.	10200.	9050.	7410.	27600.	11/27/49	
1950	23800.	21100.	15700.	13300.	13000.	12000.	10000.	9090.	8380.	33800.	02/11/51	
1951	32300.	30700.	22000.	13900.	11700.	9650.	9670.	8740.	7830.	18900.	02/01/51	
1952	16000.	13800.	11100.	10400.	9350.	8400.	7280.	6490.	5510.	25600.	12/10/53	
1953	24400.	20200.	17500.	16100.	14600.	9500.	7410.	7100.	7140.	24800.	06/11/55	
1954	22800.	18100.	14500.	12700.	10200.	8830.	8070.	7260.	6160.	24300.	12/12/55	
1955	23700.	23200.	20400.	15300.	12500.	10500.	8880.	7690.	8040.	23200.	12/12/56	
1956	30600.	24800.	21100.	18100.	15100.	12900.	11600.	10300.	8040.	22300.	04/20/58	
1957	20900.	20300.	17400.	14300.	9650.	8100.	7780.	7310.	6520.	23500.	11/13/58	
1958	18900.	17000.	13500.	11700.	9820.	8760.	7210.	6710.	6350.	23500.	11/24/59	
1959	21900.	18500.	15500.	13500.	12000.	10200.	8950.	8240.	7260.	23700.	02/22/61	
1960	40700.	34400.	24500.	14900.	11100.	8310.	7710.	6690.	6120.	22800.	04/07/62	
1961	20800.	17300.	13400.	11900.	10800.	8820.	8010.	7870.	7660.	41000.	06/05/64	
1962	21100.	16200.	12400.	10900.	9430.	8690.	6970.	5910.	5760.	45000.	05/06/66	
1963	34400.	28700.	19700.	13900.	11200.	7730.	7160.	6380.	5900.	21400.	12/13/66	
1964	17400.	15500.	15200.	13800.	12200.	10400.	8680.	7620.	6370.	28000.	02/19/68	
1965	42500.	37200.	25100.	15800.	11000.	9550.	8940.	7910.	7290.			
1966	19900.	17700.	15000.	11000.	9970.	8090.	7550.	6890.	5510.			
1967	23800.	20300.	14500.	11400.	10400.	9510.	7520.	6540.	6330.			
1968	25500.	22800.	20900.	14500.	10500.	8990.	8060.	7090.	6660.			

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1968)

	MEAN	25052.4	21933.3	17500.0	13795.2	11496.2	9580.5	8481.9	7596.2	6755.2	W R C	SYSTEMATIC
MAXIMUM	42500.0	37200.0	31000.0	25100.0	18100.0	15100.0	12900.0	11600.0	10300.0	8380.0	ESTIMATE	RECORD
MINIMUM	16000.0	13800.0	11100.0	10100.0	9070.0	6890.0	6670.0	5910.0	5510.0	5510.0		
STANDARD DEVIATION	7122.68	6195.59	3976.68	2086.02	1789.79	1530.63	1259.17	1068.07	833.71			
SKEWNESS	1.319	1.184	0.374	0.127	0.582	0.500	0.764	0.784	0.280			
STD ERROR OF SKEWNESS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501			
SERIAL CORR COEFF	-0.465	-0.466	-0.367	0.018	0.052	0.323	0.210	0.184	-0.104			
COEFF OF VARIATION	0.284	0.282	0.227	0.151	0.156	0.160	0.148	0.141	0.123			
MEAN LOGS	4.384	4.326	4.232	4.135	4.056	3.976	3.924	3.877	3.827			
STD DEVIATION LOGS	0.112	0.113	0.099	0.066	0.066	0.069	0.062	0.059	0.053			
SKEWNESS LOGS	0.810	0.668	0.017	-0.152	0.359	0.133	0.483	0.441	0.092			
STD ERR SKEWNESS LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501			
SER CORR COEFF LOGS	-0.509	-0.489	-0.344	0.007	0.050	0.330	0.235	0.206	-0.120			
COEFF OF VAR LOGS	0.026	0.026	0.023	0.016	0.016	0.017	0.016	0.015	0.014			

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1949-1968)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01	14060.3	16386.6
MEAN	15541.6	13162.1	10093.8	9401.3	8310.5	6659.5	6327.6	5730.2	5081.3	4497.2	14060.3	16386.6
MAXIMUM	16957.8	14590.9	11763.7	10543.7	8999.0	7346.5	6771.0	6125.3	5497.2	4881.8	16926.2	18081.8
MINIMUM	17948.1	15554.7	12767.2	11191.5	9418.6	7751.2	7047.1	6368.5	5736.7	5192.9	18693.9	19259.5
STANDARD DEVIATION	19426.6	16958.9	14100.8	12012.5	9983.2	8281.3	7424.1	6497.8	6044.6	5604.2	21092.2	21012.9
SKEWNESS	23397.3	20599.5	17064.6	13696.4	11265.4	9433.6	8300.7	7452.8	6694.0	6044.6	26604.7	25711.4
STD ERROR OF SKEWNESS	29606.1	26066.5	20670.5	15531.5	12877.2	10799.6	9433.9	8411.5	7432.9	6694.0	33613.7	33083.8
SERIAL CORR COEFF	34194.0	29991.4	22857.7	16550.9	13882.7	11613.9	10155.2	9013.4	7859.5	6809.5	38009.5	38552.4
COEFF OF VARIATION	40542.4	35405.4	25453.0	17683.5	15103.3	12569.3	11043.6	9747.3	8488.2	7435.2	43354.2	46152.0
MEAN LOGS	45684.3	39528.7	27288.5	18439.9	15984.7	13239.0	11692.9	10279.1	8683.8	7421.3	52333.3	56978.0
STD DEVIATION LOGS	51192.4	43985.5	29055.4	19136.9	16847.5	13879.7	12334.2	10800.8	9000.0			

STATION 14235000 COMLITZ RIVER AT MOSSYROCK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1914	1980	4064	3226	9303	3506	5874	7874	7587	4172	2369	1497	1162	4392
1915	2942	8441	1790	1777	1911	2511	6028	3854	2895	1987	1535	1014	3050
1916	4728	4728	7201	2855	7777	10170	7376	9498	12920	10770	4391	2032	6732
1917	1130	2523	3123	3187	4677	2816	6116	9898	13630	10240	3021	1791	5174
1926						3367	4686	3999	10980	1622	1299	1251	
1927	3821	5033	6875	6071	5837	4075	5295	8725	10980	4474	2066	2212	5447
1928	5577	10650	6827	9895	3499	6578	6266	10550	9423	3331	1783	1224	5940
1929	2202	2487	2861	2458	1620	4029	4497	11120	9458	3611	1884	1178	3981
1930	909	710	2929	2345	9482	4761	6998	5620	4493	2414	1425	1013	3546
1931	1144	1541	1821	4956	4470	4940	8043	6747	3663	1900	1318	1039	3463
1932	1545	3315	3525	4759	4953	9894	8277	10140	9692	4499			
1933						4395	5762	8271	14140	7690	3244	2352	
1934	5844	6390	24520	15800	6255	8147	7106	4860	2808	1809	1360	1090	7204
1935	3712	9647	7772	6861	6397	4263	4716	8100	7797	3962	1793	1262	5513
1947	2412	6032	12470	5854	7169	5449	6391	7019	4951	2760	1520	1401	5277
1948	6561	8508	5811	6390	5160	4304	5236	11140	11880	4713	2263	1588	6082
1949	2716	4655	5392	2260	4403	6504	8232	14860	9157	4706	2233	1540	5561
1950	2305	6706	5641	5689	7430	9443	7621	9702	13070	7871	2872	1712	6659
1951	4365	9799	12300	7168	11040	4548	7429	8687	6026	3049	1637	1200	6403
1952	4544	4855	5941	2308	8529	3173	7486	9246	6087	3544	1765	1138	4643
1953	891	711	1270	12830	8554	3380	4977	8203	7786	5745	2275	1388	4817
1954	1625	3868	11650	6229	8533	5419	6628	10280	10270	7844	3247	1982	6456
1955	2655	4844	4128	4255	5053	2627	4947	8065	13780	7508	2780	1787	5158
1956	5925	12170	12820	7021	3494	5109	9308	14010	11660	6833	2696	1642	7720
1957	2625	4197	9834	3159	4593	7633	6891	9978	5552	2843	1607	1198	4989
1958	1207	2190	5554	6352	7889	3990	6885	9978	5552	2618	1606	1253	4595
1959	1994	11530	9992	10760	4284	4036	6711	7826	7986	3937	1826	2903	6152

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1914-1959)

MEAN	2866.0	5583.8	7002.9	6013.7	5748.6	5238.3	6584.5	8805.1	8084.6	4600.7	2113.2	1513.5	5373.1
MAXIMUM	6561.0	12170.0	24520.0	15800.0	11040.0	10170.0	9308.0	14860.0	14140.0	10770.0	4391.0	2903.0	7720.0
STD DEVIATION	891.0	710.0	1270.0	1777.0	1620.0	2511.0	4497.0	3854.0	2587.0	1622.0	1299.0	1013.0	3050.0
SKEDNESS	0.854	0.485	1.821	1.123	0.358	1.036	0.030	0.146	0.155	0.996	1.306	1.302	-0.090
STD ERR SKEW	0.464	0.464	0.464	0.464	0.464	0.464	0.448	0.448	0.448	0.448	0.456	0.456	0.472
SER CORR COEFF	0.075	0.039	-0.042	-0.084	0.0	-0.244	-0.025	0.112	-0.096	0.167	0.075	-0.137	-0.011
COEFF OF VAR	0.599	0.597	0.723	0.587	0.402	0.414	0.193	0.292	0.465	0.562	0.362	0.313	0.223
MEAN LOGS	3.383	3.648	3.745	3.708	3.721	3.686	3.810	3.925	3.855	3.601	3.301	3.162	3.719
STD DEV LOGS	0.263	0.335	0.309	0.258	0.199	0.169	0.086	0.140	0.229	0.236	0.142	0.123	0.103
SKEDNESS LOGS	0.047	-0.995	-0.174	-0.067	-0.864	0.324	-0.303	-0.892	-0.460	0.213	0.679	0.745	-0.608
STD ERR SKEW LOGS	0.464	0.464	0.464	0.464	0.464	0.448	0.448	0.448	0.448	0.448	0.456	0.456	0.472
SER CORR LOGS	0.194	0.241	0.053	-0.053	0.029	-0.239	-0.037	0.058	-0.159	0.056	0.050	-0.076	0.063
COEFF OF VAR LOGS	0.078	0.092	0.082	0.069	0.053	0.046	0.023	0.036	0.059	0.065	0.043	0.039	0.028
% OF AVE FLOW	4.5	8.7	10.9	9.4	9.0	8.2	10.3	13.7	12.6	7.2	3.3	2.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1914-1959)

0.99	602.7	432.5	971.2	1247.6	1371.3	2154.6	3892.1	3236.7	1759.2	1228.5	1102.8	878.0	2721.9
0.95	898.9	1045.5	1668.4	1903.5	2250.8	2857.6	4561.9	4611.9	2819.1	1689.1	1253.3	974.0	3418.9
0.90	1114.3	1580.7	2208.0	2378.1	2847.6	2994.1	4979.1	5453.4	3564.4	2015.5	1357.2	1040.3	3821.7
0.80	1447.9	2477.6	3077.1	3106.5	3688.8	3483.5	5485.1	6546.7	4663.7	2512.7	1511.9	1138.9	4333.4
0.50	2401.4	5044.7	5675.6	5141.8	5609.5	4757.1	8816.2	8816.2	7453.9	3910.3	1928.7	1402.6	5363.2
0.20	4009.8	8582.8	10167.4	8430.7	7774.5	6592.8	7858.8	11093.1	11250.4	6253.3	2592.3	1815.4	6416.3
0.10	5256.4	10627.1	13632.5	10876.6	8915.2	8098.6	8280.2	11899.3	13650.7	8081.7	3092.8	2121.6	6957.6
0.04	7029.8	12782.6	18479.3	14231.7	10080.1	8001.9	13266.6	16513.8	16513.8	10714.6	3798.8	2547.4	7516.8
0.02	8491.8	14096.9	22388.0	16905.2	10784.7	9411.3	13894.4	18518.8	18518.8	12916.7	4380.7	2893.8	7864.3
0.01	10072.6	15195.1	26523.4	19716.5	11377.0	13183.4	9820.5	14408.7	20417.3	15330.0	5013.1	3266.2	8165.5

STATION 14235000 COMLITZ RIVER AT MOSSYROCK, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1915	975.0	975.0	975.0	1070.0	1160.0	1280.0	1460.0	1940.0	2920.0
1916	825.0	825.0	895.0	946.0	1010.0	1100.0	1260.0	1460.0	2020.0
1917	975.0	975.0	975.0	986.0	1110.0	1410.0	1790.0	2150.0	2640.0
1927	910.0	923.0	958.0	1000.0	1120.0	1210.0	1350.0	1540.0	2280.0
1928	1580.0	1580.0	1640.0	1730.0	1920.0	2070.0	2810.0	3470.0	5250.0
1929	950.0	983.0	1030.0	1060.0	1180.0	1420.0	1680.0	1900.0	2120.0
1930	630.0	630.0	641.0	664.0	678.0	768.0	867.0	1030.0	1660.0
1931	740.0	775.0	806.0	846.0	951.0	1060.0	1110.0	1260.0	1500.0
1932	760.0	760.0	771.0	834.0	888.0	1010.0	1150.0	1380.0	1950.0
1934	1670.0	1710.0	1780.0	1890.0	2070.0	2380.0	3040.0	4410.0	6330.0
1935	804.0	804.0	849.0	861.0	914.0	1060.0	1190.0	1380.0	2370.0
1948	1150.0	1140.0	1200.0	1210.0	1350.0	1450.0	1810.0	2310.0	3860.0
1949	1310.0	1330.0	1340.0	1430.0	1570.0	1860.0	2140.0	2340.0	3100.0
1950	1050.0	1090.0	1150.0	1260.0	1470.0	1660.0	1940.0	2310.0	3660.0
1951	1380.0	1380.0	1400.0	1500.0	1630.0	2110.0	2780.0	3680.0	6250.0
1952	1020.0	1040.0	1090.0	1120.0	1180.0	1410.0	1840.0	2390.0	3400.0
1953	559.0	567.0	589.0	625.0	689.0	771.0	867.0	997.0	1460.0
1954	1130.0	1140.0	1170.0	1230.0	1390.0	1510.0	1630.0	1940.0	3760.0
1955	1350.0	1370.0	1410.0	1520.0	1750.0	2220.0	2730.0	3440.0	5360.0
1956	1320.0	1340.0	1430.0	1610.0	1740.0	2030.0	2980.0	4240.0	6360.0
1957	1260.0	1290.0	1350.0	1490.0	1770.0	2300.0	2780.0	3990.0	5990.0
1958	894.0	897.0	940.0	970.0	1030.0	1130.0	1260.0	1470.0	2190.0
1959	1050.0	1070.0	1070.0	1130.0	1220.0	1350.0	1610.0	1790.0	3730.0

LOWEST MEAN FLOW STATISTICS (YEARS 1915-1959)

MEAN	1056.2	1069.7	1106.0	1167.0	1281.7	1473.4	1786.3	2212.9	3314.8
MAXIMUM	1670.0	1710.0	1780.0	1890.0	2070.0	2380.0	3040.0	4410.0	6360.0
MINIMUM	559.0	567.0	589.0	625.0	678.0	768.0	867.0	997.0	1460.0
STANDARD DEVIATION	289.14	292.98	304.10	331.36	375.00	450.29	555.81	665.28	1512.31
SKWENESS	0.376	0.370	0.409	0.456	0.382	0.344	0.572	0.977	0.890
STD ERROR OF SKWENESS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SERIAL CORR COEFF	-0.032	-0.035	-0.009	0.024	0.040	0.063	0.048	0.005	-0.018
COEFF OF VARIATION	0.274	0.274	0.275	0.284	0.293	0.306	0.367	0.436	0.456
MEAN LOGS	3.008	3.013	3.028	3.050	3.090	3.148	3.224	3.308	3.479
STD DEVIATION LOGS	0.122	0.122	0.122	0.125	0.130	0.137	0.161	0.182	0.193
SKWENESS LOGS	-0.242	-0.257	-0.243	-0.166	-0.237	-0.218	-0.043	0.202	0.147
STD ERR SKWENESS LOGS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SER CORR COEFF LOGS	0.028	0.017	0.042	0.068	0.075	0.087	0.086	0.054	0.069
COEFF OF VAR LOGS	0.040	0.040	0.040	0.041	0.042	0.043	0.050	0.055	0.056

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1915-1959)

0.99	1858.8	1878.9	1949.3	2118.5	2345.0	2780.4	3916.0	5728.9	8895.0
0.98	1744.9	1765.0	1829.7	1976.9	2190.8	2586.3	3551.2	5024.0	7776.7
0.96	1623.6	1643.3	1702.1	1828.1	2027.4	2382.0	3184.0	4324.9	6711.0
0.90	1446.5	1465.2	1516.0	1615.0	1790.8	2088.6	2686.5	3505.1	5363.8
0.80	1292.5	1309.8	1354.1	1433.4	1586.9	1838.7	2288.4	2877.5	4366.6
0.50	1029.6	1043.5	1078.1	1131.3	1233.5	1423.2	1678.9	2003.8	2981.5
0.20	807.2	817.3	844.6	882.9	958.3	1083.9	1227.1	1423.5	2067.3
0.10	706.2	714.4	738.6	772.1	830.6	934.0	1040.0	1199.8	1717.5
0.05	630.2	636.9	658.9	695.4	735.4	823.0	906.5	1046.1	1478.3
0.02	552.4	557.4	577.2	605.4	638.8	711.2	776.0	900.3	1252.8
0.01	504.8	508.8	527.3	554.3	580.2	643.7	699.2	816.6	1124.1

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1915-1959)

	P95	P90	P75	P70	P50	P25	P10
1100.0	1400.0	2200.0	2600.0	4100.0	7200.0	11000.0	

STATION 14235300 TILTON RIVER NEAR MINERAL, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1970)			W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKEWNESS LOGS	ESTIMATE		
1950	99.0	11-26-1949				1.9279		1.9279
1951	89.0	2-10-1951				0.1296		0.1296
1952	76.0	4-27-1952				0.014		-0.343
1953	67.0	1-31-1953						
1954	114.0	12- 9-1953						
1955	74.0	2- 8-1955						
1956	142.0	12-11-1955						
1957	114.0	12- 9-1956						
1958	46.0	12-25-1957						
1959	88.0	11-12-1958						
1960	89.0	12-15-1959						
1961	66.0	11-24-1960						
1962	52.0	12-24-1961						
1963	130.0	2- 3-1963						
1964	82.0	1-25-1964						
1965	110.0	12-22-1964						
1966	54.0	3- 9-1966						
1967	108.0	12-13-1966						
1968	91.0	2-18-1968						
1969	90.0	12- 3-1968						
1970	72.0	1-18-1970						
			ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1950-1970)					
			0.99			42.4		39.3
			0.95			51.9		50.4
			0.90			57.8		57.2
			0.80			65.9		66.3
			0.50			84.6		86.1
			0.20			108.9		109.3
			0.10			124.2		122.6
			0.04			143.0		137.7
			0.02			156.7		147.8
			0.01			170.1		157.2

STATION 14235500 WEST FORK TILTON RIVER NEAR MOKTON, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1951	144	286	261	191	343	117	150	88.5	22.8	9.85	6.75	22.2	136
1952	199	159	149	103	211	105	184	107	36.7	18.2	8.60	6.90	107
1953	199	159	149	103	211	105	184	107	36.7	18.2	8.60	6.90	107
1954	73.0	11.4	95.5	501	212	115	107	109	64.5	28.9	16.7	25.7	112
1955	60.2	176	370	176	316	120	208	104	96.5	38.5	16.1	25.7	142
1956	237	336	490	207	66.3	221	324	224	146	48.5	19.6	25.2	117
1957	136	143	353	41.0	208	244	163	66.0	76.1	36.9	10.3	10.4	182
1958	35.6	137	345	246	238	79.5	193	38.1	20.8	12.7	6.64	11.5	113
1959	48.2	368	229	244	96.9	155	196	100	80.1	17.7	8.87	101	141
1960	171	256	140	108	176	150	170	108	51.2	14.6	28.8	25.7	123
1961	92.9	349	147	252	392	232	138	108	26.2	12.1	8.03	12.2	146
1962	85.3	139	284	160	75.2	88.2	162	104	39.6	13.5	17.2	20.5	99.4
1963	85.3	248	198	103	171	81.0	165	75.2	18.3	24.1	14.8	19.2	99.5
1964	64.5	269	141	257	139	140	174	151	79.2	21.7	31.8	28.0	125
1965	51.3	204	332	256	205	94.4	108	61.3	33.5	9.86	11.3	11.7	113
1966	36.2	105	97.9	160	88.4	208	202	96.3	21.5	32.2	10.5	8.64	90.0
1967	61.6	129	271	315	161	141	94.1	130	39.9	12.1	6.30	6.27	114
1968	138	110	181	193	323	128	83.0	50.3	82.2	16.3	40.3	57.4	116
1969	122	179	204	158	57.0	163	203	135	42.4	22.5	10.1	48.9	113
1970	94.2	89.2	132	301	167	98.1	109	64.5	20.3	9.67	5.87	16.9	92.1
1971	50.8	141	197	319	228	168	176	190	71.8	31.1	9.91	26.5	134

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1951-1971)

MEAN	94.9	189.7	228.8	214.8	194.0	139.5	167.6	111.0	52.7	20.7	14.4	24.3	120.7
MAXIMUM	237.0	368.0	490.0	561.0	392.0	244.0	324.0	224.0	146.0	48.5	40.3	101.0	182.0
MINIMUM	5.9	11.4	95.5	41.0	57.0	79.5	83.0	38.1	18.3	9.7	5.9	6.3	90.0
STD DEVIATION	58.45	93.26	103.10	111.87	92.86	51.08	52.74	47.65	32.51	10.30	9.13	21.87	21.08
SKEWNESS	0.893	0.415	0.878	1.339	0.448	0.766	0.902	0.702	1.254	1.212	1.668	2.507	1.150
STD ERR SKEW	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR COEFF	0.033	0.112	-0.093	-0.254	-0.247	-0.122	-0.026	-0.068	0.259	0.265	-0.220	0.020	-0.069
COEFF OF VAR	0.616	0.492	0.451	0.521	0.479	0.366	0.315	0.429	0.617	0.497	0.636	0.902	0.175
MEAN LOGS	1.878	2.204	2.319	2.274	2.233	2.118	2.204	2.006	1.648	1.270	1.091	1.268	2.076
STD DEV LOGS	0.346	0.318	0.194	0.243	0.236	0.154	0.139	0.195	0.260	0.202	0.235	0.310	0.072
SKEWNESS LOGS	-1.538	-2.359	0.043	-0.761	-0.589	0.253	-0.315	-0.321	0.160	0.341	0.582	0.554	0.568
STD ERR SKEW LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR LOGS	-0.075	0.047	-0.200	-0.261	-0.277	-0.186	-0.034	-0.112	0.082	0.093	-0.151	0.102	-0.034
COEFF OF VAR LOGS	0.184	0.144	0.084	0.107	0.106	0.073	0.063	0.097	0.158	0.159	0.216	0.244	0.035
% OF AVE FLOW	6.5	13.1	15.8	14.8	13.4	9.6	11.5	7.6	3.6	1.4	1.0	1.7	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1951-1971)

0.99	5.2	10.0	74.8	37.8	38.4	61.5	70.6	32.2	11.9	7.1	4.6	4.7	86.8
0.95	16.0	36.7	100.5	67.4	64.4	75.2	92.0	46.7	17.1	9.1	5.7	6.5	93.3
0.90	26.2	63.2	117.8	89.0	83.0	84.2	105.2	56.3	20.9	10.5	6.5	7.8	97.4
0.80	43.8	107.3	142.9	121.1	110.6	97.0	122.9	70.1	26.7	12.5	7.7	10.1	103.3
0.50	91.9	205.9	207.6	201.6	180.3	129.3	162.5	103.8	43.7	18.1	11.6	17.4	117.2
0.20	145.4	272.8	302.8	303.5	272.6	176.0	205.9	148.5	73.1	27.3	18.9	32.9	136.0
0.10	165.7	288.0	369.5	362.4	328.8	208.5	237.8	176.8	96.6	34.3	25.4	47.8	148.4
0.04	187.4	294.7	457.6	426.6	393.6	251.5	269.8	210.9	130.8	44.2	35.7	73.3	164.0
0.02	196.0	296.3	525.7	467.8	437.4	291.6	291.6	235.1	159.7	52.5	45.2	98.3	175.7
0.01	201.7	296.9	595.9	504.0	477.7	319.7	312.0	258.3	191.7	61.5	56.5	129.4	187.4

STATION 14235500 WEST FORK TILTON RIVER NEAR MORTON, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1952	4.8	4.8	5.1	5.5	6.3	6.6	8.0	12.0	47.0
1953	4.8	5.0	5.0	5.1	5.4	6.2	7.0	7.8	14.0
1954	9.2	9.3	9.5	9.9	13.0	15.0	19.0	30.0	51.0
1955	13.0	13.0	14.0	14.0	16.0	19.0	23.0	34.0	51.0
1956	9.5	9.7	9.8	10.0	13.0	22.0	28.0	48.0	102.0
1957	6.8	6.8	7.1	7.6	8.0	9.4	13.0	19.0	65.0
1958	6.6	6.7	7.1	7.4	7.9	9.4	11.0	14.0	26.0
1959	5.2	5.4	5.5	5.7	6.3	7.1	9.3	12.0	22.0
1960	7.2	7.4	7.8	8.1	8.7	12.0	31.0	44.0	73.0
1961	8.5	8.5	8.7	9.4	10.0	15.0	23.0	44.0	73.0
1962	6.2	6.4	6.4	6.5	6.9	9.5	10.0	13.0	55.0
1963	9.6	9.9	9.9	11.0	13.0	13.0	17.0	21.0	35.0
1964	13.0	13.0	14.0	18.0	21.0	26.0	26.0	32.0	40.0
1965	7.2	7.2	7.5	7.6	8.5	10.0	11.0	18.0	32.0
1966	5.7	5.7	6.0	6.9	8.2	10.0	11.0	12.0	50.0
1967	4.8	4.9	5.0	5.3	5.8	6.2	8.0	17.0	25.0
1968	7.8	7.8	8.3	9.1	11.0	15.0	28.0	37.0	33.0
1969	5.7	5.7	5.8	6.1	7.2	10.0	17.0	37.0	45.0
1970	4.2	4.4	4.6	4.9	5.6	7.4	9.9	28.0	52.0
1971								11.0	50.0
									25.0

LOWEST MEAN FLOW STATISTICS (YEARS 1952-1971)

MEAN	7.3	7.4	7.7	8.3	9.6	12.2	16.2	22.4	44.6
MAXIMUM	13.0	13.0	14.0	18.0	21.0	26.0	31.0	48.0	102.0
MINIMUM	4.2	4.4	4.6	4.9	5.4	6.2	7.0	7.8	14.0
STANDARD DEVIATION	2.53	2.51	2.70	3.23	3.99	5.51	7.77	11.77	20.25
SKEWNESS	1.102	1.080	1.234	1.677	1.402	1.061	0.623	0.831	1.094
STD ERROR OF SKEWNESS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SERIAL CORR COEFF	0.373	0.393	0.347	0.264	0.283	0.258	0.071	0.036	0.131
COEFF OF VARIATION	0.346	0.339	0.351	0.390	0.414	0.450	0.481	0.526	0.454
MEAN LOGS	0.841	0.848	0.864	0.893	0.954	1.049	1.161	1.295	1.607
STD DEVIATION LOGS	0.140	0.137	0.140	0.148	0.162	0.185	0.208	0.225	0.202
SKEWNESS LOGS	0.484	0.502	0.575	0.759	0.592	0.341	0.183	0.159	-0.334
STD ERR SKEWNESS LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF LOGS	0.384	0.407	0.369	0.309	0.289	0.275	0.120	0.036	0.013
COEFF OF VAR LOGS	0.167	0.162	0.162	0.166	0.170	0.176	0.179	0.174	0.125

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1952-1971)

	P99	P95	P90	P75	P70	P50	P25	P10	
0.99	16.4	16.5	17.7	20.8	25.1	33.4	47.1	69.9	106.2
0.98	14.6	14.6	15.6	18.0	21.6	28.9	40.6	59.7	96.4
0.96	12.8	12.9	13.6	15.4	18.5	24.7	34.5	50.2	86.3
0.90	10.6	10.7	11.2	12.3	14.8	19.6	27.0	38.6	72.0
0.80	9.0	9.1	9.5	10.2	12.1	15.9	21.6	30.3	60.2
0.50	6.8	6.9	7.1	7.5	8.7	10.9	14.3	19.4	41.6
0.20	5.3	5.4	5.5	5.8	6.5	7.8	9.6	12.7	27.7
0.10	4.7	4.8	5.0	5.2	5.7	6.6	7.9	10.2	22.0
0.05	4.3	4.4	4.6	4.8	5.2	5.8	6.8	8.6	18.1
0.02	3.9	4.0	4.2	4.5	4.7	5.1	5.7	7.1	14.4
0.01	3.7	3.8	4.0	4.3	4.4	4.6	5.1	6.3	12.3

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1952-1971)

P95	P90	P75	P70	P50	P25	P10
7.8	10.0	24.0	32.0	72.0	150.0	270.0

STATION 14235500 WEST FORK TILTON RIVER NEAR MORTON, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

ANNUAL PEAK-FLOW DATA
FLOW (CFS) DATE REG. (R)

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1951	1870.	1550.	987.	562.	388.	300.	317.	276.	227.
1952	1180.	711.	663.	419.	261.	190.	179.	175.	156.
1953	1140.	879.	784.	620.	399.	299.	291.	251.	201.
1954	1610.	961.	701.	522.	313.	269.	267.	227.	226.
1955	1290.	989.	540.	331.	234.	199.	177.	171.	171.
1956	3000.	2170.	1110.	832.	436.	378.	355.	325.	286.
1957	1300.	1140.	865.	626.	365.	288.	226.	226.	203.
1958	1000.	117.	584.	441.	349.	278.	278.	247.	206.
1959	1950.	1130.	726.	563.	397.	308.	303.	254.	227.
1960	1400.	1000.	778.	451.	361.	243.	214.	192.	180.
1961	1650.	1090.	702.	547.	402.	333.	296.	292.	255.
1962	928.	684.	598.	467.	338.	255.	203.	174.	158.
1963	1420.	1040.	608.	444.	333.	254.	213.	183.	164.
1964	1220.	684.	466.	335.	269.	220.	227.	187.	1740.
1965	1520.	1110.	683.	531.	293.	209.	259.	199.	1740.
1966	734.	434.	378.	285.	219.	178.	171.	148.	916.
1967	1450.	935.	567.	376.	295.	258.	228.	191.	1840.
1968	1300.	917.	739.	423.	317.	256.	232.	206.	180.
1969	1020.	703.	476.	294.	251.	235.	204.	169.	165.
1970	1050.	931.	666.	533.	346.	246.	207.	183.	151.
1971	1380.	802.	528.	440.	355.	283.	256.	232.	217.
1972									
1973									
1974									
1975									
1976									
1977									
1978									
1979									

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1951-1979)

W R C SYSTEMATIC
ESTIMATE RECORD

MEAN	1400.6	978.9	672.8	482.6	362.2	279.9	250.5	223.5	195.1
MAXIMUM	3000.0	2170.0	1110.0	832.0	620.0	456.0	378.0	325.0	286.0
MINIMUM	734.0	434.0	378.0	285.0	234.0	190.0	178.0	160.0	148.0
STANDARD DEVIATION	473.36	358.93	173.09	134.60	101.33	62.15	52.84	45.16	35.79
SKEWNESS	1.972	1.917	0.789	0.818	1.408	1.313	0.602	0.530	0.832
STD ERRDR OF SKEWNESS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SERIAL CORR COEFF	-0.168	-0.046	0.056	-0.026	-0.226	-0.346	-0.311	-0.311	-0.180
COEFF OF VARIATION	0.338	0.367	0.257	0.279	0.280	0.222	0.211	0.202	0.183
MEAN LOGS	3.127	2.967	2.815	2.668	2.545	2.438	2.390	2.341	2.284
STD DEVIATION LOGS	0.129	0.143	0.110	0.119	0.111	0.090	0.090	0.086	0.077
SKEWNESS LOGS	0.628	0.331	0.011	0.050	0.829	0.657	0.232	0.245	0.431
STD ERR SKEWNESS LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR COEFF LOGS	-0.209	-0.142	0.029	-0.074	-0.279	-0.398	-0.432	-0.302	-0.173
COEFF OF VAR LOGS	0.041	0.046	0.039	0.045	0.044	0.037	0.038	0.037	0.034

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1951-1979)

0.99	769.0	467.4	362.8	248.7	217.6	187.4	157.3	143.4	134.8	714.5
0.95	869.4	557.6	430.6	327.9	241.8	203.5	177.2	160.6	147.1	979.8
0.90	937.4	616.4	471.8	328.3	258.0	214.2	189.4	171.1	154.7	1159.5
0.80	1036.9	700.2	527.2	369.6	281.4	225.5	205.9	185.3	165.2	1421.9
0.50	1298.0	910.8	652.2	464.6	341.3	267.9	243.5	217.6	189.8	2101.5
0.20	1697.9	1215.7	807.5	585.9	430.0	322.9	291.2	258.4	221.9	3107.1
0.10	1990.3	1428.7	903.0	662.4	492.9	360.8	321.3	284.1	242.7	3734.8
0.04	2392.2	1711.0	1017.6	755.6	577.5	410.4	358.0	315.4	268.4	4742.4
0.02	2716.0	1931.1	1099.4	823.2	644.2	448.7	384.7	338.1	287.4	5460.9
0.01	3061.6	2159.8	1176.6	889.4	714.1	488.2	410.9	360.4	306.4	6200.0

STATION 14236200 TILTON R ABV BEAR CANYON CR NR CINEBAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1957	760	897	2206	466	1218	1759	1133	489	295	142	111	75.6	795
1958	185	675	1795	1800	1846	1683	1355	350	208	126	170.3	103	726
1959	349	2492	1759	2256	898	1134	1355	898	674	172	110	667	1065
1960	1240	2037	1365	846	1421	1070	1246	1204	476	172	208	180	953
1961	520	2351	1036	1542	2778	1708	1708	855	238	117	74.5	94.7	1019
1962	432	812	1928	1353	681	803	1232	732	362	142	158	139	737
1963	430	1719	1348	1750	1207	696	1175	576	201	220	125	145	711
1964	378	1647	976	2039	1158	1110	1250	1029	769	247	226	235	720
1965	385	1143	2534	2138	1638	640	1445	666	301	344	107	99.2	836
1966	197	549	714	1424	870	1445	1239	666	309	106	66.5	60.5	852
1967	436	892	1966	2602	1373	1005	674	740	547	152	294	430	786
1968	672	871	1223	1334	2023	892	760	486	547	238	106	263	808
1969	871	1221	1498	1405	566	984	1172	918	424	238	106	263	808
1970	548	537	891	2386	1494	709	839	571	183	260	64.3	701	996
1971	361	952	1451	2869	1693	1247	1114	1154	574	246	111	250	1228
1972	499	1258	1421	2547	2874	2940	1250	975	413	215	99.0	145	611
1973	130	566	2225	1114	528	761	573	481	459	322	126	88.8	1169
1974	356	1526	2169	2658	1522	1552	1414	1283	1030	322	126	88.8	1169
1975	74.8	706	1638	2862	1185	1084	607	840	313	159	168	158	817
1976	819	1654	3418	2488	1060	903	1163	870	364	182	186	126	1106
1977	144	300	401	415	377	1070	918	729	565	141	145	398	467
1978	327	2193	3252	1048	816	536	766	673	343	154	138	367	886
1979	169	649	1278	550	1756	1168	797	501	158	150	79.1	141	609

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1957-1979)

MEAN	447.1	1193.3	1673.6	1682.3	1338.3	1126.0	1030.9	763.1	408.6	184.1	129.0	201.0	846.1
MAXIMUM	1240.0	2492.0	3418.0	2869.0	2874.0	2940.0	1414.0	1283.0	1030.0	344.0	294.0	667.0	1228.0
MINIMUM	74.8	300.0	401.0	415.0	377.0	536.0	573.0	350.0	158.0	93.4	64.3	60.5	467.0
STD DEVIATION	278.14	641.21	739.53	802.34	636.43	515.85	268.80	256.16	212.11	68.14	56.71	144.26	190.67
SKEWNESS	1.154	0.665	0.750	-0.036	0.884	2.125	-0.434	0.391	1.317	0.621	1.373	1.888	0.227
STD ERR SKEW	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SER CORR COEFF	-0.038	-0.099	-0.504	0.188	-0.426	-0.188	-0.227	-0.100	-0.213	-0.267	-0.197	-0.026	-0.333
COEFF OF VAR	0.622	0.537	0.442	0.477	0.476	0.458	0.261	0.336	0.519	0.370	0.440	0.718	0.225
MEAN LOGS	2.564	3.014	3.180	3.164	3.077	3.018	2.997	2.858	2.560	2.238	2.076	2.220	2.917
STD DEV LOGS	0.296	0.244	0.211	0.256	0.219	0.168	0.125	0.151	0.213	0.156	0.174	0.264	0.101
SKEWNESS LOGS	-0.513	-0.163	-0.758	-0.796	-0.452	0.710	-0.685	-0.201	0.181	0.164	0.436	0.566	-0.373
STD ERR SKEW LOGS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SER CORR LOGS	-0.128	-0.262	-0.551	0.102	-0.218	-0.278	-0.252	-0.089	-0.239	-0.308	-0.163	0.059	-0.354
COEFF OF VAR LOGS	0.115	0.081	0.066	0.081	0.071	0.056	0.042	0.053	0.083	0.070	0.084	0.119	0.035
% OF AVE FLOW	4.4	11.7	16.4	16.5	13.2	11.1	10.1	7.5	4.0	1.8	1.3	2.0	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1979)

0.99	58.6	261.0	377.5	265.7	313.3	518.6	441.6	306.3	123.8	78.2	53.3	52.1	451.5
0.95	109.4	399.3	622.6	493.5	490.8	600.6	588.7	400.4	160.3	97.3	64.9	67.9	550.4
0.90	149.0	497.9	791.6	663.6	613.7	658.7	658.7	459.7	195.7	109.8	72.8	79.7	608.0
0.80	211.8	646.7	1033.9	921.2	793.1	747.0	790.8	541.2	239.5	127.4	84.4	98.6	682.3
0.50	388.7	1048.9	1606.5	1577.1	1241.1	995.0	1026.3	730.1	359.1	171.3	115.6	156.7	837.1
0.20	657.0	1664.8	2289.9	2418.5	1840.5	1413.7	1271.6	968.8	546.9	273.5	165.0	270.2	1006.2
0.10	837.9	2101.5	2669.9	2904.5	2215.6	1745.7	1398.0	1116.0	688.2	276.1	202.1	371.6	1099.1
0.04	1061.9	2677.1	3075.8	3433.0	2620.2	2233.6	1528.0	1291.5	885.1	331.5	254.2	535.9	1200.8
0.02	1222.9	3119.5	3331.9	3769.8	2970.3	2651.0	1608.1	1415.7	1045.0	376.0	297.1	689.1	1267.5
0.01	1377.8	3571.4	3554.8	4064.0	3263.1	3118.5	1677.0	1538.8	1216.5	417.5	343.4	872.7	1328.0

STATION 14236200 TILTON R ABV BEAR CANYON CR NR CINEBAR, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1958	68.0	69.0	71.0	73.0	75.0	84.0	97.0	114.0	188.0
1959	58.0	59.0	59.0	62.0	65.0	74.0	90.0	117.0	193.0
1960	88.0	90.0	95.0	98.0	108.0	146.0	260.0	380.0	574.0
1961	92.0	93.0	94.0	102.0	110.0	163.0	176.0	188.0	437.0
1962	62.0	63.0	64.0	66.0	71.0	84.0	89.0	112.0	235.0
1963	79.0	80.0	84.0	93.0	106.0	133.0	137.0	179.0	283.0
1964	88.0	88.0	89.0	95.0	110.0	130.0	135.0	157.0	263.0
1965	134.0	137.0	149.0	162.0	198.0	224.0	233.0	271.0	414.0
1966	67.0	67.0	68.0	71.0	85.0	89.0	97.0	107.0	180.0
1967	75.0	76.0	78.0	85.0	91.0	96.0	108.0	178.0	284.0
1968	52.0	53.0	53.0	55.0	60.0	63.0	76.0	116.0	286.0
1969	95.0	96.0	89.0	94.0	109.0	145.0	232.0	292.0	417.0
1970	75.0	76.0	78.0	80.0	86.0	109.0	189.0	244.0	343.0
1971	55.0	55.0	56.0	57.0	62.0	75.0	95.0	112.0	210.0
1972	80.0	81.0	84.0	91.0	98.0	128.0	159.0	226.0	452.0
1973	79.0	80.0	82.0	87.0	97.0	117.0	162.0	182.0	279.0
1974	66.0	68.0	70.0	77.0	81.0	99.0	135.0	190.0	285.0
1975	65.0	66.0	68.0	69.0	71.0	81.0	91.0	126.0	318.0
1976	80.0	81.0	85.0	92.0	103.0	146.0	154.0	180.0	346.0
1977	76.0	76.0	78.0	86.0	92.0	119.0	136.0	152.0	199.0
1978	68.0	69.0	70.0	73.0	84.0	122.0	184.0	223.0	373.0
1979	84.0	85.0	89.0	97.0	120.0	144.0	191.0	205.0	281.0

LOWEST MEAN FLOW STATISTICS (YEARS 1958-1979)

MEAN	76.2	77.2	79.7	84.8	94.6	116.9	146.6	184.1	310.9
MAXIMUM	134.0	137.0	149.0	162.0	198.0	224.0	260.0	380.0	574.0
MINIMUM	52.0	53.0	53.0	55.0	60.0	63.0	76.0	107.0	180.0
STANDARD DEVIATION	17.00	17.39	19.60	22.11	28.90	37.13	52.66	69.19	101.11
SKEWNESS	1.759	1.836	2.030	1.920	2.158	0.988	0.583	1.163	0.850
STD ERROR OF SKEWNESS	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
SERIAL CORR COEFF	-0.034	-0.052	-0.080	-0.097	0.006	-0.080	-0.101	-0.249	-0.179
COEFF OF VARIATION	0.223	0.225	0.246	0.261	0.305	0.318	0.359	0.376	0.325
MEAN LOGS	1.873	1.878	1.891	1.916	1.960	2.048	2.140	2.238	2.472
STD DEVIATION LOGS	0.089	0.089	0.095	0.102	0.115	0.134	0.156	0.153	0.137
SKEWNESS LOGS	0.735	0.784	0.848	0.700	0.840	0.111	0.059	0.344	0.174
STD ERR SKEWNESS LDGS	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
SER CORR COEFF LDGS	-0.077	-0.096	-0.125	-0.143	-0.025	-0.078	-0.105	-0.289	-0.215
COEFF OF VAR LDGS	0.047	0.047	0.050	0.053	0.059	0.065	0.073	0.069	0.056

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1958-1979)

0.99	133.3	136.2	147.7	160.0	198.3	234.7	322.8	430.2	643.1
0.98	122.3	124.7	133.8	145.1	176.1	214.3	291.5	381.2	583.6
0.96	111.6	113.5	120.7	130.8	155.5	193.9	260.4	334.5	524.7
0.90	97.9	99.3	104.3	112.7	130.2	166.4	218.9	275.4	446.6
0.80	87.6	88.7	92.2	99.2	112.2	144.5	186.4	231.4	385.4
0.50	72.8	73.6	75.4	80.2	88.0	111.0	137.5	169.7	293.6
0.20	62.7	63.4	64.4	67.4	72.7	86.0	101.9	128.1	226.6
0.10	58.7	59.5	60.3	62.5	67.1	75.5	87.3	111.8	198.9
0.05	56.0	56.8	57.5	59.0	63.3	67.9	76.9	100.4	179.1
0.02	53.4	54.3	55.0	55.8	59.9	60.3	66.8	89.6	159.6
0.01	51.9	52.9	53.6	54.0	58.0	55.8	60.8	83.3	148.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1958-1979)

P95	P90	P75	P70	P50	P25	P10
83.0	100.0	200.0	250.0	550.0	1100.0	1800.0

STATION 14236200 TILTON R ABV BEAR CANYON CR NR CINEBAR, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	
										FLOW (CFS)	DATE REG. (R)
1957	7890.	6050.	4770.	3670.	2330.	1740.	1490.	1510.	1330.	10500.	12/09/56
1958	4770.	3730.	3040.	2300.	1910.	1820.	1680.	1480.	1300.	5610.	04/19/58
1959	11600.	7410.	4820.	3700.	2700.	2220.	2240.	1910.	1680.	13100.	11/12/58
1960	11200.	8150.	5900.	3560.	2700.	1860.	1640.	1500.	1370.	16000.	11/23/59
1961	10700.	7230.	4720.	3700.	2830.	2250.	2030.	2020.	1750.	11400.	02/21/61
1962	6770.	4820.	4020.	3200.	2400.	1770.	1460.	1300.	1190.	7870.	11/22/61
1963	12400.	7480.	4390.	3320.	2410.	1750.	1480.	1290.	1170.	16300.	11/20/62
1964	8320.	5110.	3620.	2630.	2030.	1660.	1410.	1360.	1360.	9980.	01/25/64
1965	9680.	6410.	6080.	3670.	2710.	2290.	2270.	1920.	1450.	13700.	12/22/64
1966	4080.	3190.	2470.	2100.	1630.	1390.	1310.	1270.	1080.	4850.	03/09/66
1967	8840.	5740.	3760.	2880.	2620.	2310.	2030.	1780.	1440.	9670.	12/13/66
1968	7860.	5430.	4220.	2640.	1990.	1670.	1530.	1370.	1180.	8900.	02/19/68
1969	7020.	5850.	3870.	2410.	1810.	1730.	1500.	1270.	1160.	8060.	12/03/68
1970	7600.	6670.	4940.	4020.	2830.	1980.	1630.	1420.	1150.	8100.	01/19/70
1971	8460.	6430.	4640.	4020.	3080.	2340.	2050.	1840.	1620.	9580.	01/19/71
1972	13400.	10400.	6750.	4640.	4170.	3490.	2880.	2500.	2040.	17600.	01/20/72
1973	8350.	6290.	5290.	4010.	2650.	1720.	1370.	1190.	968.	10900.	12/21/72
1974	7620.	6520.	4660.	3870.	3210.	2570.	2310.	2050.	1830.	9580.	01/15/74
1975	9870.	8100.	6680.	4490.	2940.	2330.	2030.	1770.	1430.	13000.	01/18/75
1976	12900.	12500.	8420.	5360.	3480.	3150.	2660.	2270.	1840.	17600.	12/01/75
1977	2650.	1950.	1470.	1380.	1130.	1010.	931.	851.	704.	3130.	03/27/77
1978	17100.	10200.	6610.	5420.	4050.	2790.	2220.	1870.	1450.	22500.	12/02/77
1979	6410.	4300.	3700.	2580.	2140.	1480.	1260.	1210.	1040.	11600.	02/06/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1957-1979)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKEWNESS	STD ERROR OF SKEWNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKEWNESS LOGS	STD ERR SKEWNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	8933.5	17100.0	2650.0	3655.53	0.431	0.469	0.481	0.364	3.920	0.178	-0.965	0.481	-0.459	0.046		
	17100.0	12500.0	1950.0	1537.00	0.285	0.071	0.481	0.325	3.789	0.177	-0.939	0.481	-0.459	0.047		
	1950.0	1470.0	1380.0	1099.61	0.071	0.341	0.481	0.292	3.650	0.139	-0.826	0.481	-0.459	0.040		
	3655.53	2404.93	2650.0	1999.61	0.071	0.341	0.481	0.292	3.920	0.178	-0.965	0.481	-0.459	0.046		
	0.431	0.469	0.481	0.364	3.920	0.178	-0.965	0.481	-0.459	0.046					4.0150	4.0150
	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.1941	0.1941
	-0.466	-0.420	-0.259	-0.220	-0.201	-0.349	-0.362	-0.325	0.277	0.277	0.277	0.277	0.277	0.277	-0.8040	-0.8040
	0.364	0.364	0.364	0.364	0.364	0.364	0.364	0.364	0.364	0.364	0.364	0.364	0.364	0.364	0.0360	0.0360
	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920		
	0.178	0.177	0.160	0.139	0.128	0.120	0.116	0.109	0.105	0.105	0.105	0.105	0.105	0.105		
	-0.965	-0.939	-1.144	-0.826	-0.661	-0.115	-0.176	-0.248	-0.531	-0.531	-0.531	-0.531	-0.531	-0.531		
	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481		
	-0.459	-0.459	-0.459	-0.459	-0.459	-0.459	-0.459	-0.459	-0.459	-0.459	-0.459	-0.459	-0.459	-0.459		
	0.046	0.047	0.044	0.040	0.038	0.036	0.036	0.036	0.034	0.034	0.034	0.034	0.034	0.034		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	2424.5	3855.2	4793.9	6079.0	8869.8	11795.4	13243.1	14650.0	15462.8	16121.7
	1827.0	2878.9	3566.7	4507.1	6511.3	8707.0	9782.9	10637.4	11452.0	11953.9
	1416.0	2214.8	2723.1	3398.6	4507.1	6099.7	6693.4	7226.7	7512.0	7729.1
	1300.2	1829.6	2153.0	2576.9	3454.5	4351.6	4799.5	5244.9	5510.0	5731.1
	1096.8	1466.7	1688.9	1978.6	2581.4	3217.1	3548.4	3892.0	4105.6	4290.4
	1022.0	1250.8	1390.2	1576.8	1995.1	2505.7	2814.3	3178.5	3434.2	3678.9
	907.3	1112.2	1236.0	1400.4	1763.0	2195.1	2450.9	2747.7	2953.0	3147.2
	836.0	1019.8	1129.1	1272.4	1581.0	1936.0	2139.9	2371.2	2528.0	2673.7
	694.8	868.6	969.7	1099.0	1363.3	1641.0	1787.5	1942.2	2040.3	2126.8
	3704.3	4986.7	5848.9	7101.6	10323.9	15065.2	18383.6	22757.5	26138.4	29619.1
	2841.3	4549.5	5697.0	7307.1	10983.3	15174.7	18383.6	22757.5	26138.4	29619.1

STATION 14236400 CINNABAR CREEK NEAR CINEBAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1957	35.1	34.0	69.1	28.0	52.2	59.5	36.3	20.8	18.6	9.02	6.34	4.05	31.0
1958	9.21	27.4	52.1	42.0	45.4	26.8	39.4	13.4	10.0	8.15	4.27	6.14	23.5
1959	12.3	63.0	51.1	59.6	30.2	37.4	44.8	35.5	23.1	11.3	6.89	28.6	33.6
1960	40.4	65.3	39.1	23.7	41.3	33.1	43.1	43.6	15.7	8.24	10.7	9.43	31.1
1961	19.9	71.7	19.2	43.4	85.7	56.5	37.0	29.8	11.2	6.18	4.73	5.18	32.6
1962	14.9	27.0	62.8	49.1	22.0	28.6	39.2	26.9	14.7	7.98	10.7	8.35	26.3
1963	15.7	53.4	39.6	25.5	35.7	24.4	40.9	20.2	12.1	15.9	17.05	9.56	24.9
1964	12.2	51.1	34.1	72.9	42.9	38.8	43.7	36.5	32.0	12.9	11.3	14.7	33.5
1965	16.2	42.1	73.7	71.5	58.4	21.9	18.7	16.5	8.10	5.52	6.46	8.71	28.8
1966	14.1	19.8	22.4										

STATION 14236400 CINNABAR CREEK NEAR CINEBAR, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1957	313.0	12-9-1956
1958	135.0	12-19-1957
1959	412.0	11-12-1958
1960	498.0	11-22-1959
1961	386.0	2-21-1961
1962	295.0	11-24-1961
1963	710.0	11-19-1962
1964	361.0	1-25-1964
1965	355.0	1-28-1965

STATION 14236500 TILTON RIVER NEAR CINEBAR, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1941													
1942	788	1026	1783	665	445	396	288	426	308	130	93.9	506	
1943	203	1931	1970	959	955	665	498	515	914	392	155	92.4	703
1944	252	417	1084	985	1844	1112	1391	615	397	181	104	81.4	891
1945	199	693	712	1718	1447	785	841	524	326	140	89.7	177	543
1946	245	1640	1763	2015	1619	1147	1259	1239	324	138	92.0	200	760
1947	563	1737	2623	1602	1459	870	1152	1239	691	360	145	136	1011
1948	1235	1887	1424	1529	1554	962	1218	343	373	221	115	234	943
1949	469	1536	1898	1424	1529	962	1218	343	373	221	115	234	943
1950	506	1431	1946	1674	2355	1836	1378	1388	396	178	116	118	939
1951	781	1923	2214	1922	2409	1046	1083	569	752	235	171	145	1193
1952	1210	1135	1325	691	1637	942	1196	719	299	203	101	123	1028
1953	70.3	95.0	527	3576	1899	853	825	832	609	265	162	132	816
1954	438	1002	3266	1634	2119	973	1355	650	799	380	198	264	1084
1955	377	1095	1258	1309	1646	836	1646	1387	1118	494	209	189	958
1956	1374	2573	2886	1941	686	1663	1773	1025	602	206	127	118	1251
1957	808	983	2390	590	1396	2007	1343	556	345	175	134	84.6	899
1958	220	818	2137	1929	1878	836							

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1941-1958)

MEAN	572.8	1289.5	1835.6	1485.1	1540.9	1158.5	1191.6	826.7	526.6	235.9	133.3	173.6	927.4
MAXIMUM	1374.0	2573.0	3266.0	3576.0	2409.0	2291.0	1773.0	1388.0	1118.0	494.0	209.0	506.0	1251.0
MINIMUM	70.3	95.0	527.0	508.0	445.0	396.0	288.0	343.0	190.0	101.0	77.0	81.4	543.0
STD DEVIATION	400.55	627.25	735.55	749.71	533.29	510.19	398.88	354.19	256.08	108.71	39.92	105.10	180.21
SKENNESS	0.818	0.066	0.062	1.110	-0.396	0.921	-0.771	0.477	0.891	1.092	0.457	2.145	-0.229
STD ERR SKEW	0.550	0.550	0.550	0.550	0.536	0.536	0.550	0.550	0.550	0.550	0.550	0.550	0.564
SER CORR COEFF	0.025	0.042	-0.188	-0.230	0.335	0.253	0.401	0.134	0.042	0.089	0.153	-0.074	0.208
COEFF OF VAR	0.699	0.486	0.401	0.505	0.346	0.440	0.335	0.428	0.486	0.461	0.300	0.605	0.194
MEAN LOGS	2.643	3.030	3.223	3.118	3.155	3.026	3.042	2.879	2.675	2.333	2.106	2.183	2.959
STD DEV LOGS	0.348	0.334	0.209	0.230	0.189	0.189	0.201	0.190	0.208	0.188	0.130	0.217	0.090
SKENNESS LOGS	-0.497	-2.127	-1.038	-0.328	-1.394	-0.066	-1.886	-0.010	0.101	0.316	0.055	0.749	-0.862
STD ERR SKEW LOGS	0.550	0.550	0.550	0.550	0.536	0.536	0.550	0.550	0.550	0.550	0.550	0.550	0.564
SER CORR LOGS	0.001	0.066	-0.102	-0.265	0.311	0.309	0.545	0.073	0.014	0.054	0.127	0.036	0.240
COEFF OF VAR LOGS	0.132	0.110	0.065	0.074	0.060	0.062	0.066	0.066	0.078	0.081	0.062	0.099	0.031
% OF AVE FLOW	5.2	11.8	16.7	13.5	14.0	10.6	10.9	7.5	4.8	2.2	1.2	1.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1941-1958)

0.99	51.3	63.8	386.1	338.3	343.4	378.1	213.4	272.8	161.1	86.9	64.4	63.0	494.5
0.95	106.4	229.8	675.6	525.1	613.6	515.0	438.8	368.2	218.4	109.9	78.4	75.6	619.1
0.90	152.6	396.9	877.0	656.0	797.4	608.1	600.1	431.9	257.6	125.6	87.2	84.8	688.8
0.80	230.3	681.9	1163.4	849.9	1050.1	731.0	823.0	523.9	315.5	148.7	99.2	99.4	774.6
0.50	470.1	1370.7	1813.2	1350.8	1576.0	1065.8	1260.7	757.4	469.2	210.5	127.4	143.4	936.9
0.20	873.5	1921.5	2514.9	2060.8	2054.9	1530.9	1586.6	1093.7	705.6	307.7	164.3	225.7	1086.6
0.10	1165.5	2076.9	2863.1	2529.8	2252.3	1845.1	1688.0	1324.8	877.4	380.3	187.9	297.0	1156.3
0.04	1544.8	2159.8	3198.1	3111.8	2413.1	2246.9	1750.6	1624.7	1110.9	481.5	217.1	409.8	1222.7
0.02	1828.0	2184.5	3388.8	3535.0	2490.4	2549.1	1772.9	1853.4	1296.2	564.0	238.5	513.0	1291.9
0.01	2108.2	2195.7	3540.9	3944.5	2543.9	2853.5	1784.8	2086.2	1491.1	652.7	259.6	635.0	

STATION 14236500 TILTON RIVER NEAR CINEBAR, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1942	70.0	70.0	73.0	78.0	87.0	108.0	170.0	238.0	291.0
1943	78.0	79.0	80.0	84.0	86.0	92.0	116.0	183.0	261.0
1944	68.0	70.0	72.0	75.0	75.0	86.0	101.0	135.0	238.0
1945	65.0	67.0	69.0	70.0	81.0	90.0	105.0	150.0	238.0
1946	75.0	75.0	78.0	84.0	90.0	108.0	135.0	141.0	339.0
1947	102.0	103.0	110.0	128.0	131.0	135.0	147.0	251.0	426.0
1948	92.0	93.0	97.0	98.0	106.0	141.0	183.0	233.0	378.0
1949	137.0	143.0	146.0	146.0	163.0	172.0	192.0	278.0	403.0
1950	81.0	83.0	84.0	86.0	96.0	115.0	130.0	180.0	335.0
1951	97.0	98.0	101.0	104.0	124.0	154.0	171.0	278.0	524.0
1952	62.0	62.0	64.0	66.0	74.0	75.0	86.0	111.0	312.0
1953	62.0	64.0	64.0	65.0	68.0	74.0	82.0	86.0	136.0
1954	99.0	100.0	104.0	104.0	128.0	144.0	181.0	245.0	388.0
1955	145.0	147.0	151.0	160.0	193.0	217.0	239.0	284.0	419.0
1956	114.0	116.0	122.0	140.0	149.0	187.0	263.0	414.0	721.0
1957	87.0	91.0	91.0	100.0	103.0	116.0	132.0	192.0	463.0
1958	74.0	76.0	78.0	81.0	84.0	98.0	116.0	137.0	226.0

LOWEST MEAN FLOW STATISTICS (YEARS 1942-1958)

MEAN	88.8	89.8	92.5	97.5	107.6	124.6	151.5	208.0	364.5
MAXIMUM	145.0	147.0	151.0	160.0	193.0	217.0	263.0	414.0	721.0
MINIMUM	62.0	62.0	63.0	65.0	68.0	74.0	82.0	86.0	136.0
STANDARD DEVIATION	24.76	24.90	25.90	27.41	34.49	40.39	50.04	81.75	133.27
SKENNESS	1.106	1.100	1.080	1.018	1.141	0.840	0.753	0.781	0.944
STD ERROR OF SKENNESS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SERIAL CORR COEFF	0.313	0.324	0.299	0.243	0.298	0.419	0.371	0.214	0.197
COEFF OF VARIATION	0.279	0.277	0.280	0.281	0.321	0.324	0.330	0.393	0.366
MEAN LOGS	1.934	1.939	1.951	1.974	2.013	2.075	2.159	2.286	2.534
STD DEVIATION LOGS	0.112	0.112	0.114	0.114	0.129	0.136	0.142	0.174	0.164
SKENNESS LOGS	0.664	0.654	0.623	0.567	0.619	0.276	0.045	-0.213	-0.531
STD ERR SKENNESS LOGS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SER CORR COEFF LOGS	0.355	0.363	0.347	0.292	0.330	0.415	0.342	0.243	0.152
COEFF OF VAR LOGS	0.058	0.058	0.058	0.058	0.064	0.065	0.066	0.076	0.065

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1942-1958)

0.99	177.3	178.5	184.3	193.7	234.0	261.9	311.0	461.6	710.5
0.98	159.5	160.7	166.0	174.8	207.8	236.3	283.7	420.7	665.7
0.96	142.6	143.8	148.6	156.8	183.3	211.4	256.3	378.6	616.1
0.90	121.2	122.4	126.5	133.7	152.8	178.9	219.2	320.0	540.9
0.80	105.5	106.6	110.1	116.5	130.5	153.9	189.5	271.9	472.9
0.50	83.5	84.5	87.0	92.0	99.9	117.2	143.7	196.0	353.5
0.20	68.8	69.6	71.5	75.2	79.9	91.1	109.4	138.5	252.0
0.10	63.1	63.9	65.4	68.6	72.3	80.5	95.0	114.6	207.0
0.05	59.2	59.9	61.3	64.0	67.0	73.0	84.6	97.6	174.2
0.02	55.5	56.2	57.3	59.6	62.1	65.6	74.3	81.0	141.7
0.01	53.4	54.0	55.0	57.1	59.3	61.3	68.2	71.4	122.7

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED *PM PERCENT OF THE TIME (YEARS 1942-1958)

P95	P90	P75	P70	P50	P25	P10
90.0	110.0	230.0	300.0	630.0	1200.0	2100.0

STATION 14236500 TILTON RIVER NEAR CINEBAR, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW(CFS)	DATE	REG.(R)
1942	6770.	4910.	3410.	2230.	1820.	1440.	1250.	1120.	982.	8090.	12/19/41	
1943	7800.	5280.	3850.	2800.	2410.	2030.	1800.	1690.	1530.	9850.	11/23/42	
1944	7160.	4370.	2670.	1600.	1170.	1050.	997.	945.	853.	9050.	12/03/43	
1945	6470.	4400.	3310.	2760.	1780.	1590.	1470.	1440.	1270.	8660.	01/07/45	
1946	6800.	6010.	4390.	3640.	2570.	2090.	1950.	1880.	1640.	9250.	12/28/45	
1947	11700.	8930.	6230.	4240.	3490.	2310.	2200.	1920.	1610.	14500.	12/11/46	
1948	5930.	4000.	3770.	2670.	2180.	1740.	1790.	1590.	1450.	6800.	11/07/47	
1949	5270.	4640.	3500.	2950.	2650.	1850.	1830.	1550.	1550.	7210.	02/17/49	
1950	9930.	7740.	5110.	4540.	3260.	2610.	2340.	2210.	1950.	12200.	02/24/50	
1951	10100.	8930.	5910.	3640.	2790.	2440.	2470.	2140.	1760.	12200.	02/09/51	
1952	7560.	4830.	3820.	2730.	1790.	1340.	1310.	1290.	1180.	9780.	02/04/52	
1953	8660.	7320.	5660.	5030.	4320.	2740.	2120.	1800.	1430.	11700.	01/31/53	
1954	13400.	8690.	6310.	4580.	3400.	2590.	2350.	2100.	1720.	22500.	12/09/53	
1955	9040.	6220.	3770.	2470.	1790.	1470.	1450.	1400.	1300.	13700.	02/08/55	
1956	10600.	8420.	4830.	4090.	3570.	2900.	2620.	2240.	1990.	23200.	12/11/55	
1957	8000.	6300.	5080.	3910.	2530.	2000.	1670.	1710.	1500.	12700.	12/09/56	
1958										5500.	12/19/57	
1959										16600.	11/23/58	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1942-1959)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKEWNESS	STD. ERROR OF SKEWNESS	SERIAL CORR. COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKEWNESS LOGS	STD. ERR. SKEWNESS LOGS	SER. CORR. COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	8450.6	13400.0	13400.0	4476.2	6311.9	8930.0	4000.0	0.324	0.324	0.283	0.111	0.227	0.090	0.028	4.0424	4.0424
	13400.0	8930.0	4000.0	6310.0	8930.0	4476.2	8450.6	0.324	0.324	0.283	0.111	0.227	0.090	0.028	0.1680	0.1680
	4000.0	8930.0	13400.0	2670.0	1600.0	1170.0	1050.0	0.328	0.328	0.266	0.124	0.107	0.099	0.080	0.3350	0.3350
	1784.31	1135.10	976.96	843.07	539.07	469.93	385.97	-0.051	-0.118	-0.031	-0.031	-0.031	-0.031	-0.031	0.0360	0.0360
	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	4.0424	4.0424
	0.263	0.263	0.263	0.263	0.263	0.263	0.263	0.263	0.263	0.263	0.263	0.263	0.263	0.263	0.1680	0.1680
	3.913	3.784	3.638	3.509	3.391	3.291	3.255	3.217	3.163	3.163	3.163	3.163	3.163	3.163	0.0360	0.0360
	0.111	0.123	0.111	0.135	0.148	0.124	0.118	0.107	0.099	0.099	0.099	0.099	0.099	0.099	0.1680	0.1680
	0.227	0.090	-0.054	-0.553	-0.404	-0.574	-0.616	-0.782	-0.980	-0.980	-0.980	-0.980	-0.980	-0.980	0.3350	0.3350
	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.0360	0.0360
	0.090	0.109	0.206	0.154	0.013	-0.058	-0.017	-0.013	0.073	0.073	0.073	0.073	0.073	0.073	4.0424	4.0424
	0.028	0.033	0.031	0.038	0.044	0.038	0.036	0.033	0.031	0.031	0.031	0.031	0.031	0.031	0.1680	0.1680

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1942-1959)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	4714.4	5469.7	5941.2	6588.6	8112.8	10127.2	11435.7	13073.6	14288.4	15502.0
	3204.6	3842.7	4240.1	4783.7	6053.2	7705.9	8763.6	10070.5	11027.9	11974.8
	2368.9	2834.3	3122.7	3502.6	4351.9	5389.6	6019.3	6765.5	7292.2	7798.2
	1384.0	1851.4	2136.3	2512.8	3319.2	4210.5	4695.8	5217.6	5552.9	5851.1
	1006.6	1353.6	1570.3	1863.4	2519.8	3298.3	3749.6	4260.2	4603.9	4921.0
	897.1	1174.2	1340.0	1556.1	2008.7	2495.1	2754.5	3029.3	3203.7	3357.4
	849.6	1103.9	1254.4	1448.7	1849.1	2269.4	2488.9	2717.8	2861.0	2985.6
	808.7	1046.5	1184.1	1357.8	1700.4	2035.2	2198.7	2360.0	2455.8	2535.7
	731.0	947.9	1070.8	1222.7	1509.1	1767.5	1884.1	1991.5	2051.1	2098.3
	4528.9	5858.3	6725.7	7956.3	11000.3	15258.8	18129.2	21809.3	24588.3	27399.3
	4934.6	6066.3	6823.3	7924.4	10790.7	15149.7	18129.2	21809.3	24588.3	27399.3

STATION 14237000 KLICKITAT CREEK AT MOSSYROCK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1949	3.12	14.9	34.0	10.1	28.3	12.8	6.11	5.24	1.00	0.18	0.03	0.01	9.54
1950	0.88	8.03	21.4	26.5	32.2	25.3	14.6	4.79	1.10	0.04	0.03	0.05	11.1
1951	2.74	18.1	28.8	31.1	24.9	17.7	6.75	2.46	0.68	0.00	0.00	0.00	11.0
1952	3.97	10.8	21.0	10.3	16.3	10.4	6.59	2.88	0.92	0.11	0.00	0.00	6.93
1953	0.00	0.00	1.60	23.0	20.3	9.08	8.27	6.15	5.87	1.41	0.44	0.29	6.28
1954	3.37	9.23	39.5	27.7	20.6	10.8	10.5	2.84	4.73	2.28	1.25	0.61	11.1
1955	2.14	11.6	13.7	17.3	20.1	13.1	18.2	7.78	2.41	1.48	0.37	0.69	9.00
1956	10.3	35.0	41.8	30.4	16.7	24.6	12.9	1.92	2.49	0.48	0.17	0.17	14.4
1957	4.08	8.52	22.5	9.11	15.7	26.6	12.9	4.73	2.99	0.54	0.60	0.00	9.01
1958	0.32	3.51	14.2	20.1	22.5	10.0	10.4	4.67	2.05	0.30	0.00	0.07	7.59
1959	1.09	17.1	23.0	26.3	14.6	12.7	10.9	8.15	8.67	1.62	0.05	1.18	10.4
1960	6.23	22.3	16.2	10.0	19.5	12.5	14.2	16.0	4.77	0.49	0.22	0.25	10.2
1961	2.17	25.1	14.0	18.6	34.7	23.7	12.9	11.1	1.75	0.21	0.59	0.01	11.9
1962	0.52	2.93	19.7	18.6	8.57	15.9	15.3	9.70	5.54	0.95	0.52	0.25	8.05
1963	1.31	21.9	22.0	10.7	22.4	12.1	19.1	6.76	2.06	1.79	0.76	0.98	10.0
1964	2.82	14.2	14.6	38.0	15.9	15.5	12.5	7.79	4.37	1.60	0.91	1.01	10.8
1965	1.82	9.45	37.4	30.0	28.7	7.25	4.49	4.24	1.32	1.45	0.05	0.04	10.3
1966	0.27	1.94	7.10	27.3	14.2	19.0	6.71	2.52	1.22	1.45	0.07	0.12	6.81
1967	1.09	6.19	28.1	43.2	22.8	14.4	11.7	4.91	1.97	0.08	0.01	0.00	11.2
1968	0.82	1.88	8.69	14.6	21.3	12.1	13.5	6.21	5.64	0.65	1.61	3.46	7.48
1969	11.8	19.3	25.2	28.2	14.7	7.13	5.41	3.81	2.50	1.36	0.19	0.51	10.0
1970	1.56	4.40	11.9	37.8	20.8	7.19	10.4	5.27	0.82	0.04	0.00	0.06	8.30
1971	0.30	4.29	19.8	44.8	18.3	20.8	10.0	3.50	3.03	0.99	0.07	1.45	10.6
1972	3.18	12.9	34.7	33.3	23.8	30.1	13.4	5.07	1.96	0.26	0.01	0.35	13.3

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1949-1972)

MEAN	2.9	12.3	21.7	24.4	20.7	15.4	11.2	5.8	2.9	0.8	0.4	0.6	9.8
MAXIMUM	11.8	35.0	41.8	44.8	34.7	30.1	19.1	16.0	8.7	2.3	1.6	3.5	14.4
MINIMUM	0.0	0.0	1.6	9.1	8.6	7.1	4.5	1.9	0.7	0.0	0.0	0.0	6.3
STD DEVIATION	2.99	8.49	10.52	10.76	6.05	6.62	3.94	3.18	2.04	0.68	0.46	0.81	2.02
SKENESS	1.992	0.899	0.245	0.186	0.498	0.741	0.103	1.629	1.203	0.556	1.481	2.623	0.186
STD ERR SKEW	0.481	0.481	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.481	0.524	0.512	0.472
SER CORR COEFF	-0.072	-0.052	-0.513	0.105	-0.250	0.204	0.117	0.485	0.068	0.093	-0.047	-0.136	-0.172
COEFF OF VAR	1.046	0.689	0.485	0.441	0.292	0.204	0.177	0.552	0.702	0.847	1.186	1.369	0.206
MEAN LOGS	0.243	0.972	1.265	1.340	1.298	1.152	1.019	0.706	0.364	-0.330	-0.803	-0.637	0.982
STD DEV LOGS	0.467	0.356	0.302	0.217	0.132	0.184	0.169	0.222	0.305	0.539	0.687	0.706	0.092
SKENESS LOGS	-0.249	-0.540	-1.967	-0.478	-0.550	0.085	-0.570	0.158	0.044	-0.632	-0.289	-0.473	-0.313
STD ERR SKEW LOGS	0.481	0.481	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.481	0.524	0.512	0.472
SER CORR LOGS	-0.005	-0.061	-0.407	-0.007	-0.339	0.192	0.150	0.308	0.209	-0.002	0.133	0.052	-0.146
COEFF OF VAR LOGS	1.920	0.367	0.239	0.162	0.102	0.160	0.166	0.314	0.837	-1.631	-0.856	-1.108	0.093
% OF AVE FLOW	2.4	10.4	18.2	20.5	17.4	13.0	9.4	4.8	2.4	0.7	0.3	0.5	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1949-1972)

0.99	0.1	1.0	1.5	5.8	8.7	5.4	3.6	1.6	0.5	0.0	0.0	0.0	5.6
0.95	0.3	2.2	4.6	9.1	11.5	7.1	5.2	2.2	0.7	0.1	0.0	0.0	6.7
0.90	0.4	3.2	7.4	11.3	13.3	8.3	6.2	2.7	0.9	0.1	0.0	0.0	7.3
0.80	0.7	4.8	12.0	14.6	15.6	9.9	7.6	3.3	1.3	0.2	0.0	0.1	8.1
0.50	1.8	10.1	22.7	20.4	20.4	14.1	10.8	5.0	2.3	0.5	0.2	0.3	9.7
0.20	4.4	18.9	31.6	33.5	25.8	20.2	14.6	7.8	4.2	1.4	0.6	0.9	11.5
0.10	6.7	25.3	34.5	40.2	28.7	24.5	16.7	9.9	5.7	2.1	1.1	1.7	12.5
0.04	10.4	33.5	36.1	48.0	31.9	30.2	19.0	12.8	8.0	3.1	2.1	3.0	13.6
0.02	13.7	39.6	36.7	53.4	33.9	34.5	20.6	15.1	9.9	3.9	2.1	4.2	14.3
0.01	17.5	45.5	37.0	58.4	35.7	39.0	21.9	17.7	12.1	4.7	4.4	5.7	14.9

STATION 14237000 KLICKITAT CREEK AT MOSSYROCK, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1950	0.0	0.0	0.0	0.0	0.0	0.02	0.05	0.20	0.70
1951	0.0	0.0	0.0	0.0	0.0	0.02	0.03	0.21	1.40
1952	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.86
1953	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14
1954	0.0	0.0	0.0	0.01	0.17	0.29	0.0	0.0	2.90
1955	0.20	0.30	0.39	0.49	0.79	1.00	1.10	1.30	2.30
1956	0.20	0.20	0.20	0.24	0.28	0.47	0.74	1.10	3.30
1957	0.0	0.0	0.0	0.05	0.06	0.13	0.20	0.48	1.19
1958	0.0	0.0	0.0	0.0	0.0	0.0	0.16	0.34	1.10
1959	0.0	0.0	0.0	0.0	0.0	0.03	0.07	0.35	1.10
1960	0.0	0.0	0.0	0.02	0.05	0.29	0.70	1.70	4.00
1961	0.0	0.0	0.0	0.01	0.06	0.22	0.25	0.39	3.60
1962	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	0.79
1963	0.0	0.07	0.11	0.19	0.23	0.36	0.45	0.67	2.40
1964	0.20	0.20	0.20	0.29	0.53	0.79	0.84	1.10	2.40
1965	0.20	0.27	0.41	0.47	0.66	0.88	1.10	1.30	2.40
1966	0.0	0.0	0.0	0.0	0.02	0.04	0.06	0.13	0.55
1967	0.0	0.0	0.0	0.03	0.04	0.09	0.13	0.48	0.95
1968	0.0	0.0	0.0	0.0	0.0	0.01	0.09	0.78	0.78
1969	0.02	0.02	0.04	0.06	0.17	0.66	1.40	2.20	4.40
1970	0.01	0.01	0.02	0.04	0.08	0.21	0.56	0.82	1.50
1971	0.0	0.0	0.0	0.0	0.0	0.01	0.03	0.04	0.53
1972	0.01	0.01	0.01	0.02	0.07	0.48	0.70	1.19	2.00

LOWEST MEAN FLOW STATISTICS (YEARS 1950-1972)

MEAN	0.1	0.1	0.2	0.1	0.2	0.3	0.4	0.7	1.8
MAXIMUM	0.2	0.3	0.4	0.5	0.8	1.0	1.4	2.2	4.4
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
STANDARD DEVIATION	0.10	0.12	0.16	0.17	0.25	0.32	0.43	0.62	1.21
SKEWNESS	-0.378	0.193	0.634	1.179	1.392	0.939	0.774	0.797	0.723
STD ERROR OF SKEWNESS	0.794	0.752	0.752	0.616	0.597	0.524	0.501	0.491	0.481
SERIAL CORR COEFF	0.731	0.366	0.207	0.132	0.132	0.183	0.071	-0.045	0.015
COEFF OF VARIATION	0.832	0.977	0.920	1.181	1.093	1.004	0.970	0.867	0.673
MEAN LOGS	-1.214	-1.168	-1.031	-1.181	-0.884	-0.691	-0.578	-0.378	0.140
STD DEVIATION LOGS	0.650	0.642	0.603	0.611	0.490	0.676	0.656	0.535	0.354
SKEWNESS LOGS	-0.462	-0.441	-0.586	0.172	0.193	-0.514	-0.505	-0.683	-0.838
STD ERR SKEWNESS LOGS	0.794	0.752	0.752	0.616	0.597	0.524	0.501	0.491	0.481
SER CORR COEFF LOGS	0.804	0.664	0.687	0.119	0.272	0.059	-0.074	-0.140	-0.017
COEFF OF VAR LOGS	-0.535	-0.549	-0.585	-0.517	-0.554	-0.798	-0.950	-1.415	2.525

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1950-1972)

0.99	1.2	1.3	1.3	2.1	2.1	2.9	3.9	3.9	5.5
0.98	0.9	1.0	1.0	1.3	1.5	2.2	3.0	3.3	5.0
0.96	0.7	0.7	0.8	0.8	1.0	1.6	2.2	2.6	4.4
0.90	0.4	0.4	0.5	0.4	0.6	0.9	1.3	1.8	3.6
0.80	0.2	0.2	0.3	0.2	0.3	0.5	0.7	1.2	2.8
0.50	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.5	1.5
0.20	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.7
0.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1950-1972)

P95	P90	P75	P70	P50	P25	P10
0.0	0.0	0.7	1.1	5.2	15.0	26.0

STATION 14237000 KICKITAT CREEK AT MOSSY ROCK, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30										ANNUAL PEAK-FLOW DATA		
YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW(CFS)	DATE	REG. (R)
1949	116.	81.	60.	49.	39.	27.	24.	23.	18.	165.	02/17/49	
1950	72.	68.	55.	47.	38.	33.	30.	27.	21.	95.	02/24/50	
1951	61.	57.	45.	38.	33.	31.	30.	27.	21.	82.	01/02/51	
1952	43.	35.	34.	27.	22.	17.	16.	15.	13.	64.	12/05/51	
1953	44.	35.	38.	36.	31.	25.	18.	18.	15.	60.	01/31/53	
1954	104.	92.	75.	55.	40.	34.	30.	26.	20.	148.	12/09/53	
1955	70.	52.	40.	28.	21.	20.	18.	18.	16.	95.	02/08/55	
1956	84.	73.	63.	52.	49.	41.	37.	32.	27.	127.	12/11/55	
1957	55.	53.	46.	35.	29.	23.	19.	19.	16.	81.	03/07/57	
1958	35.	32.	29.	26.	24.	22.	20.	17.	14.	45.	12/25/57	
1959	62.	43.	32.	28.	21.	23.	21.	18.	14.	95.	01/24/59	
1960	89.	76.	58.	40.	29.	20.	19.	18.	16.	138.	11/22/59	
1961	85.	66.	43.	37.	29.	26.	26.	26.	22.	111.	11/24/60	
1962	61.	51.	43.	34.	29.	19.	17.	15.	13.	67.	12/24/61	
1963	90.	78.	63.	51.	36.	25.	23.	20.	18.	138.	11/19/62	
1964	114.	107.	83.	55.	39.	25.	25.	22.	19.	170.	01/25/64	
1965	51.	46.	44.	33.	29.	24.	21.	18.	13.	161.	12/22/64	
1967	85.	74.	57.	50.	44.	37.	32.	27.	21.	135.	01/19/67	
1968	42.	36.	34.	26.	21.	18.	17.	16.	13.	52.	02/19/68	
1969	96.	80.	67.	46.	32.	23.	25.	22.	18.	121.	01/07/69	
1970	84.	75.	67.	60.	43.	31.	24.	20.	16.	102.	01/19/70	
1971	99.	89.	72.	59.	46.	33.	29.	26.	20.	127.	01/25/71	
1972	80.	73.	59.	47.	38.	35.	33.	31.	25.	120.	01/20/72	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1972)

	MEAN	MINIMUM	STANDARD DEVIATION	SKWENESS	STD ERROR OF SKWENESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKWENESS LOGS	STD ERR SKWENESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
1949	77.1	64.6	53.5	42.7	34.0	27.4	24.5	22.1	18.0	2.0070	0.1615	-0.6150			
1950	116.0	107.0	83.0	60.0	49.0	41.0	37.0	32.0	27.0	0.1615	0.1615	-0.6150			
1951	35.0	32.0	29.0	26.0	21.0	17.0	16.0	15.0	12.0	0.0410	0.0410	-0.6150			
1952	24.28	19.30	14.08	10.56	7.94	6.79	5.98	5.02	3.82						
1953	-0.006	0.124	0.164	-0.125	0.036	0.223	0.361	0.333	0.480						
1954	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472						
1955	0.105	-0.024	0.004	0.127	-0.146	-0.286	-0.299	-0.212	-0.209						
1956	0.315	0.259	0.263	0.248	0.233	0.248	0.244	0.227	0.213						
1957	1.864	1.790	1.713	1.616	1.520	1.425	1.376	1.333	1.285						
1958	0.149	0.138	0.119	0.114	0.106	0.110	0.106	0.099	0.092						
1959	-0.516	-0.484	-0.339	-0.467	-0.446	-0.153	0.037	0.034	-0.004						
1960	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472						
1961	0.101	0.003	0.032	0.093	-0.154	-0.277	-0.291	-0.203	-0.197						
1962	0.080	0.077	0.070	0.071	0.070	0.077	0.077	0.074	0.074						
1963	29.1	26.4	25.5	20.5	17.3	14.5	13.5	12.8	10.7	43.3					
1964	39.8	35.1	32.1	26.0	21.5	17.4	15.9	14.8	12.4	55.4					
1965	46.5	40.5	36.0	29.2	24.0	19.2	17.4	16.1	13.4	63.2					
1966	55.5	47.6	41.2	33.4	27.1	21.0	19.3	17.8	14.7	75.5					
1967	75.3	63.2	52.4	42.2	33.7	26.7	23.7	21.5	17.6	101.4					
1968	98.0	81.1	65.2	51.8	40.8	32.9	29.2	26.1	21.0	138.8					
1969	110.8	91.1	72.5	57.0	44.7	36.6	32.6	28.9	23.1	163.9					
1970	124.7	102.2	80.7	62.6	48.9	39.9	34.6	31.6	25.5	195.9					
1971	133.9	109.5	86.2	66.3	51.6	43.9	39.5	34.5	27.1	219.9					
1972	142.1	116.1	91.2	69.6	54.0	46.8	42.3	36.8	28.8	244.1					

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1949-1972)

STATION 14237500 WINSTON CREEK NEAR SILVER LAKE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1950	42.7	131	260	309	396	279	180	69.3	26.2	12.3	8.09	8.35	142
1951	81.3	274	264	299	270	196	89.9	47.5	19.5	6.70	4.36	5.82	129
1952	101	169	235	103	195	131	92.2	53.7	24.0	11.6	5.90	4.27	93.4
1953	4.16	6.84	5.5	384	217	125	105	91.5	74.1	28.1	14.5	11.6	92.6
1954	49.3	142	450	295	289	129	166	42.7	88.8	41.0	22.4	20.5	144
1955	37.0	129	156	178	218	148	256	122	52.7	53.8	15.7	14.1	114
1956	135	357	404	282	137	290	141	35.1	50.0	18.4	12.9	11.8	156
1957	67.4	107	203	80.1	136	276	133	59.0	47.2	13.6	9.33	5.40	94.9
1958	13.9	263	263	235	107	233	233	46.8	34.5	15.7	4.94	21.4	109
1959	30.5	356	235	317	152	153	120	115	98.1	24.0	7.91	29.2	136
1960	129	250	189	109	232	148	176	177	50.7	12.1	12.8	12.6	124
1961	50.5	341	161	201	363	239	143	113	25.8	7.74	3.18	5.78	136
1962	23.2	67.5	240	161	88.5	122	191	89.5	30.5	32.0	15.0	18.7	104
1963	31.5	257	188	88.0	202	176	169	113	86.9	27.1	17.0	23.5	134
1964	44.1	189	160	422	176	178	169	113	19.6	7.04	6.01	5.12	114
1965	36.9	133	395	305	251	84.0	67.4	65.4	29.6	39.4	8.82	9.23	88.0
1966	13.0	100.2	89.6	278	150	238	118	43.5	23.5	6.61	2.52	1.95	116
1967	29.4	100.2	283	413	210	144	124	57.5	81.1	15.9	33.9	64.5	103
1968	39.6	57.0	156	168	259	143	140	81.1	48.7	27.5	6.54	12.8	118
1969	149	211	276	221	138	136	134	66.6	16.6	5.42	2.55	8.16	98.5
1970	38.7	70.2	145	361	229	83.7	134	75.3					
1971													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1950-1971)

MEAN	54.6	164.2	229.0	250.0	217.8	167.6	146.0	80.9	47.7	20.0	10.8	14.4	116.3
MAXIMUM	149.0	358.0	450.0	422.0	396.0	290.0	256.0	177.0	98.1	53.8	33.9	64.5	156.0
MINIMUM	4.2	6.8	55.5	80.1	84.5	83.7	87.4	35.1	16.6	5.4	2.5	1.9	88.0
STD DEVIATION	41.23	107.05	94.06	106.42	75.43	62.32	45.91	36.58	26.53	13.19	7.52	13.50	19.70
SKEWNESS	1.205	0.555	0.627	-0.085	0.646	0.793	0.696	0.997	0.636	1.061	1.568	2.768	0.344
STD ERR SKEW	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR COEFF	-0.076	-0.069	-0.632	-0.187	-0.156	0.086	0.088	0.283	-0.091	0.132	-0.087	-0.112	-0.155
COEFF OF VAR	0.755	0.652	0.433	0.427	0.346	0.372	0.314	0.452	0.556	0.659	0.697	0.934	0.169
MEAN LOGS	1.612	2.090	2.316	2.350	2.313	2.197	2.144	1.868	1.613	1.212	0.937	1.032	2.060
STD DEV LOGS	0.368	0.402	0.211	0.223	0.155	0.157	0.138	0.189	0.247	0.290	0.303	0.335	0.073
SKEWNESS LOGS	-0.761	-1.517	-0.893	-0.763	-0.351	0.169	-0.224	0.204	0.066	0.222	-0.150	0.113	0.122
STD ERR SKEW LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR LOGS	-0.091	-0.086	-0.592	-0.209	-0.216	0.002	0.129	0.190	-0.019	-0.004	-0.086	-0.122	-0.136
COEFF OF VAR LOGS	0.192	0.091	0.091	0.095	0.067	0.071	0.064	0.101	0.153	0.239	0.324	0.325	0.035
% OF AVE FLOW	3.9	11.7	16.3	17.8	15.5	11.9	10.4	5.8	3.4	1.4	0.8	1.0	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1950-1971)

0.99	3.6	5.6	49.2	51.6	81.6	71.0	63.1	28.6	11.2	3.5	1.6	1.9	78.8
0.95	8.7	20.2	83.9	87.6	110.3	88.4	81.0	37.0	16.3	5.5	2.7	3.1	87.5
0.90	13.2	35.8	108.0	113.0	128.4	99.8	92.0	42.6	19.9	9.3	3.5	4.0	92.7
0.80	21.0	65.0	142.4	149.9	153.2	115.8	107.0	50.9	25.4	16.3	4.8	5.6	99.5
0.50	45.5	153.8	222.5	239.0	209.7	155.8	140.9	72.7	40.8	26.3	8.8	10.6	114.4
0.20	84.5	263.3	313.9	347.5	278.7	212.6	182.5	106.0	66.2	38.6	15.6	20.5	132.1
0.10	110.4	313.9	362.3	408.5	319.8	251.6	207.6	130.1	85.5	52.7	20.9	29.2	142.7
0.04	141.3	355.9	411.5	474.2	367.6	302.4	236.9	183.1	112.7	72.3	28.3	42.9	155.1
0.02	182.5	375.7	441.5	515.8	399.6	341.5	257.4	189.3	135.0	94.7	34.3	55.1	163.9
0.01	181.6	389.0	465.9	552.1	429.9	381.5	276.8	217.1	158.9	77.8	40.6	69.2	172.3

STATION 14237500 WINSTON CREEK NEAR SILVER LAKE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1951	2.8	3.6	3.9	4.2	5.0	7.4	9.0	13.0	32.0
1952	1.5	1.9	2.4	2.5	3.6	4.0	5.1	8.6	22.0
1953	1.9	2.3	2.8	3.1	3.2	4.0	4.6	5.3	9.2
1954	6.8	7.0	7.5	7.6	10.0	12.0	17.0	25.0	44.0
1955	12.0	12.0	12.0	14.0	20.0	22.0	23.0	28.0	41.0
1956	6.5	6.8	7.2	7.8	9.9	14.0	24.0	31.0	61.0
1957	6.0	6.2	6.6	8.1	9.4	11.0	13.0	19.0	29.0
1958	4.4	4.5	4.7	4.9	5.3	7.1	8.5	10.0	23.0
1959	1.9	2.2	2.3	3.1	4.2	5.6	11.0	17.0	24.0
1960	6.0	6.3	6.9	7.3	7.8	12.0	19.0	33.0	58.0
1961	4.5	4.8	5.1	6.2	7.1	12.0	14.0	14.0	52.0
1962	1.9	2.0	2.3	2.5	2.8	4.3	4.9	7.0	18.0
1963	4.6	4.7	5.2	6.5	7.7	9.7	11.0	16.0	36.0
1964	7.4	7.8	8.1	11.0	13.0	16.0	17.0	21.0	37.0
1965	8.3	8.7	11.0	13.0	16.0	18.0	22.0	26.0	42.0
1966	2.8	3.0	3.2	3.4	5.0	5.3	5.7	7.2	14.0
1967	5.2	5.3	5.5	6.6	7.4	8.9	10.0	18.0	25.0
1968	1.1	1.2	1.3	1.4	1.7	2.2	3.5	6.9	19.0
1969	4.3	4.6	5.3	6.1	8.9	16.0	28.0	39.0	63.0
1970	2.7	2.8	3.1	3.4	4.3	6.9	15.0	20.0	31.0

LOWEST MEAN FLOW STATISTICS (YEARS 1951-1970)

MEAN	4.6	4.9	5.3	6.1	7.6	9.9	13.2	18.3	34.0
MAXIMUM	12.0	12.0	12.0	14.0	20.0	22.0	28.0	39.0	63.0
MINIMUM	1.1	1.2	1.3	1.4	1.7	2.2	3.5	5.3	9.2
STANDARD DEVIATION	2.74	2.72	2.89	3.48	4.61	5.34	7.24	9.68	15.69
SKENNESS	0.957	0.894	0.831	0.877	1.242	0.590	0.499	0.505	0.451
STD ERROR OF SKENNESS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SERIAL CORR COEFF	0.263	0.272	0.225	0.226	0.248	0.127	0.141	0.012	-0.022
COEFF OF VARIATION	0.592	0.556	0.542	0.568	0.806	0.538	0.550	0.531	0.461
MEAN LOGS	0.588	0.621	0.662	0.718	0.808	0.929	1.048	1.196	1.463
STD DEVIATION LOGS	0.278	0.259	0.251	0.262	0.266	0.261	0.267	0.256	0.221
SKENNESS LOGS	-0.304	-0.336	-0.329	-0.302	-0.198	-0.472	-0.357	-0.342	-0.539
STD ERR SKENNESS LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF LOGS	0.162	0.130	0.090	0.097	0.123	0.023	0.091	0.0	-0.024
COEFF OF VAR LOGS	0.472	0.418	0.380	0.365	0.330	0.281	0.255	0.214	0.149

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1951-1970)

0.99	14.8	14.4	15.3	18.5	24.4	27.9	39.7	53.1	81.0
0.98	12.9	12.8	13.6	16.3	21.2	25.0	35.0	47.1	74.3
0.96	11.1	11.1	11.8	14.1	18.0	21.9	30.3	40.9	67.0
0.90	8.6	8.8	9.4	11.1	13.9	17.7	23.9	32.5	56.3
0.80	6.7	7.0	7.5	8.7	10.8	14.2	18.9	25.9	47.0
0.50	4.0	4.3	4.7	5.4	6.6	8.9	11.6	16.2	31.8
0.20	2.3	2.6	2.9	3.2	3.9	5.2	6.8	9.7	20.2
0.10	1.7	1.9	2.1	2.4	2.9	3.8	5.0	7.2	15.5
0.05	1.3	1.5	1.7	1.8	2.3	2.9	3.8	5.6	12.3
0.02	0.9	1.1	1.3	1.4	1.7	2.1	2.8	4.2	9.3
0.01	0.8	0.9	1.0	1.1	1.4	1.7	2.3	3.4	7.6

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1951-1970)

P95	P90	P75	P70	P50	P25	P10
4.5	7.3	20.0	28.0	74.0	160.0	280.0

STATION 14237500 WINSTON CREEK NEAR SILVER LAKE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

ANNUAL PEAK-FLOW DATA
FLOW (CFS) DATE REG. (R)

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	
1950	1640.	1270.	824.	639.	478.	406.	358.	321.	259.	1960.
1951	766.	648.	514.	413.	345.	312.	314.	280.	234.	1010.
1952	659.	496.	419.	316.	268.	208.	198.	183.	161.	780.
1953	760.	679.	615.	537.	464.	392.	247.	209.	165.	955.
1954	1840.	1380.	972.	660.	468.	377.	346.	307.	243.	3510.
1955	1030.	722.	488.	312.	268.	216.	207.	206.	187.	1200.
1956	1080.	865.	674.	509.	458.	404.	360.	307.	277.	1740.
1957	638.	613.	496.	386.	317.	237.	183.	185.	160.	849.
1958	686.	628.	528.	392.	308.	226.	226.	226.	198.	795.
1959	1300.	881.	697.	568.	374.	308.	313.	272.	225.	1590.
1960	1090.	932.	686.	445.	333.	292.	221.	204.	189.	1390.
1961	1090.	859.	811.	567.	372.	297.	270.	286.	242.	1630.
1962	694.	590.	507.	389.	299.	206.	173.	162.	142.	760.
1963	1360.	826.	647.	534.	370.	242.	219.	191.	180.	1860.
1964	1310.	966.	685.	567.	428.	311.	271.	245.	217.	1740.
1965	1450.	1240.	890.	541.	404.	366.	334.	279.	206.	1960.
1966	601.	581.	480.	423.	298.	222.	227.	204.	155.	709.
1967	772.	653.	523.	472.	422.	355.	306.	265.	155.	976.
1968	549.	461.	417.	287.	256.	212.	195.	183.	159.	649.
1969	907.	810.	602.	388.	312.	294.	262.	220.	193.	1080.
1970	869.	746.	633.	615.	447.	320.	257.	217.	175.	970.
1971										1450.
1972										1790.
1973										12/21/72
1974										1010.
1975										1290.
1976										1700.
1977										323.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1977)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	1003.4	802.2	624.2	474.3	367.9	291.2	263.0	236.8	209.1	
MAXIMUM	1840.0	1380.0	972.0	660.0	495.0	406.0	360.0	321.0	277.0	
MINIMUM	549.0	461.0	417.0	287.0	256.0	206.0	173.0	163.0	155.0	
STANDARD DEVIATION	364.60	249.31	153.15	110.35	75.78	65.11	58.82	46.50	36.21	
SKENNESS	0.772	0.985	0.712	-0.034	0.197	0.273	0.226	0.435	0.539	
STD ERROR DF SKENNESS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	
SERIAL CORR COEFF	0.019	-0.037	-0.101	-0.204	-0.344	-0.419	-0.501	-0.501	-0.501	
COEFF OF VARIATION	2.975	2.886	2.783	2.664	2.557	2.454	2.409	2.367	2.295	
MEAN LOGS	0.153	0.128	0.103	0.076	0.050	0.024	0.008	0.084	0.077	
STD DEVIATION LOGS	0.268	0.370	0.476	0.571	0.666	0.761	0.856	0.951	1.046	
SKENNESS LOGS	0.059	0.051	0.043	0.035	0.027	0.019	0.011	0.003	0.000	
STD ERR SKENNESS LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	
SER CORR COEFF LOGS	0.059	0.008	-0.071	-0.188	-0.357	-0.431	-0.501	-0.501	-0.501	
COEFF OF VAR LOGS	0.051	0.044	0.037	0.040	0.035	0.040	0.041	0.035	0.034	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1950-1977)

0.99	447.2	420.1	366.4	244.6	221.0	168.2	149.8	154.2	135.7	402.0
0.95	545.0	489.5	418.5	301.5	255.5	196.3	176.1	171.9	149.6	549.5
0.90	609.0	534.3	451.1	335.0	276.0	213.1	191.7	182.7	158.1	649.7
0.80	700.4	597.8	495.7	378.3	302.8	235.3	212.3	197.3	165.4	796.5
0.50	930.3	755.0	600.7	468.9	361.0	284.4	257.4	230.6	195.4	1179.2
0.20	1263.5	978.4	739.2	568.3	429.5	343.6	310.8	272.8	228.1	1752.2
0.10	1496.2	1132.3	829.2	623.0	470.0	379.2	342.4	299.3	248.5	2152.2
0.04	1804.4	1334.0	941.7	682.8	517.1	421.2	379.2	331.7	273.4	2698.3
0.02	2044.3	1489.8	1025.3	722.1	549.8	450.8	404.9	355.2	291.5	3118.9
0.01	2293.3	1650.6	1108.7	757.6	580.9	479.1	429.2	378.3	309.2	3554.5

STATION 14238000 COMLITZ RIVER BELOW MAYFIELD DAM, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1935	4852	12190	10080	9276	7651	5327	5540	8675	8061	4047	1931	1511	6584
1936	1205	1556	2644	8927	3980	7485	9160	13320	10100	3590	1899	1443	5449
1937	1122	826	5242	2441	3550	7233	10340	11210	12720	5004	2174	1808	5308
1938	1838	11610	10780	10870	4646	5874	9989	10030	6985	3199	1776	1340	6584
1939	1615	3994	7021	7617	6128	6705	7784	8536	6172	3598	1739	1367	5186
1940	1462	2020	7860	4873	9268	8785	6685	7375	3235	1830	1349	1210	4652
1941	1562	3152	5472	4879	3292	3115	3546	4781	3227	1945	1368	2337	3224
1942	4199	5391	11500	4148	4821	3866	5527	6004	7140	3849	1997	1291	4981
1943	1173	10050	10100	6230	8152	11550	7914	8317	8317	3499	2198	1458	6532
1944	1676	2498	4960	4051	4519	4116	5126	6336	4589	2216	1424	1574	3587
1945	1497	2722	3908	8174	8052	5241	6432	12240	6283	2216	1424	1574	5064
1946	1818	6292	8804	9609	6469	7405	7657	12580	10140	6439	2476	1615	6781
1947	3096	7651	18700	7454	9172	7764	7445	7445	5392	3050	1639	1655	6587
1948	7642	10550	7584	8294	6792	5456	6528	12300	12410	4473	2433	1897	7191
1949	3297	6511	7996	2898	6300	8504	9475	15500	9430	5183	2523	1837	6621
1950	3020	7665	7863	7783	10120	11970	9461	10780	13650	6226	3164	1858	7959
1951	5279	11810	15220	9558	13990	5650	8552	9486	6330	3175	1703	1345	7648
1952	5817	6080	7633	3371	7733	4465	8612	9684	6437	3798	1831	1249	5547
1953	1048	888	1879	17320	11060	4571	6328	9228	8471	6073	2886	1650	5892
1954	2233	4973	15680	8469	11050	6566	9353	11200	10750	7988	3521	2375	7749
1955	2746	6055	5457	5729	7124	3828	7096	9133	14630	7729	3062	2041	6198
1956	7326	15080	16480	9428	4434	7250	11040	14230	11730	7165	2936	1809	9093
1957	3644	5582	12420	3812	6027	9875	8348	10240	6012	2803	1772	1316	5594
1958	1505	3081	7906	8496	10020	4857	8457	10420	6198	2723	1675	1346	5529
1959	2368	14060	12120	13360	5716	5786	8376	8882	8828	4364	2135	3845	7487
1960	8052	12750	8756	4219	8563	6389	8743	10450	8670	3685	2134	1760	6995
1961	2518	11650	6640	9248	14450	9814	8054	10280	9355	3809	2006	1600	7545
1962	2313	4041	9405	9249	5093	4059	8750	7313	7273	3873	2272	1597	5439

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1935-1962)

MEAN	3068.7	6811.7	8932.5	7492.2	7506.1	6308.2	7974.0	9841.9	8312.0	4366.8	2116.9	1712.6	6193.1
MAXIMUM	8052.0	15080.0	18700.0	17320.0	16450.0	11970.0	11550.0	15500.0	14530.0	8226.0	3521.0	3845.0	9093.0
MINIMUM	1048.0	826.0	1879.0	2441.0	3292.0	3115.0	3546.0	4781.0	3227.0	1830.0	1349.0	1210.0	3224.0
STD DEVIATION	2065.25	4262.43	4115.67	3326.56	3127.26	2080.39	1823.28	2493.98	2968.54	1807.65	551.38	514.83	1318.60
SKEDNESS	1.268	0.394	0.611	0.797	1.063	0.879	-0.310	0.197	0.377	0.823	0.894	2.828	-0.183
STD ERR SKEW	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
SER CORR COEFF	0.099	0.078	-0.165	-0.252	0.127	0.019	0.070	0.303	0.293	0.323	0.423	-0.048	0.286
COEFF OF VAR	0.673	0.626	0.461	0.444	0.417	0.330	0.229	0.253	0.337	0.414	0.260	0.301	0.213
MEAN LOGS	3.404	3.724	3.900	3.831	3.841	3.778	3.869	3.979	3.891	3.606	3.312	3.220	3.781
STD DEV LOGS	0.266	0.349	0.228	0.206	0.175	0.140	0.111	0.116	0.167	0.177	0.108	0.105	0.100
SKEDNESS LOGS	0.452	-0.791	-0.855	-0.417	0.091	0.090	-1.126	-0.558	-0.558	0.052	0.353	1.615	-0.908
STD ERR SKEW LOGS	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
SER CORR LOGS	0.197	0.120	-0.134	-0.310	0.189	0.023	0.146	0.377	0.364	0.304	0.403	-0.013	0.324
COEFF OF VAR LOGS	0.078	0.094	0.058	0.054	0.046	0.037	0.029	0.029	0.043	0.049	0.033	0.033	0.027
% OF AVE FLOW	4.1	9.2	12.0	10.1	10.1	8.5	10.7	13.2	11.2	5.9	2.8	2.3	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1935-1962)

0.99	748.1	519.8	1709.4	1949.0	2787.1	2900.6	3507.4	4596.8	2726.4	1589.3	1227.8	1243.8	3050.4
0.95	1006.6	1207.2	3009.7	2948.0	3609.4	3564.6	4771.1	5906.8	3911.1	2077.3	1399.6	1274.4	3934.8
0.90	1197.5	1806.6	3937.9	3626.1	4152.2	3985.9	5500.9	6681.5	4669.9	2399.2	1508.4	1304.8	4437.7
0.80	1500.3	2823.7	5294.4	4601.9	4930.5	4570.8	6409.8	7683.6	5710.1	2860.0	1659.7	1361.2	5063.0
0.50	2421.8	5876.6	8557.5	6998.1	6894.3	5970.7	8119.2	9761.5	8057.7	4017.9	2023.2	1558.6	6257.4
0.20	4173.4	10533.1	12450.0	10156.8	10168.2	7852.8	9617.4	11973.8	10810.3	5672.9	2518.0	1951.8	7362.9
0.10	5698.7	13527.9	14576.5	12122.2	11680.3	9087.1	10263.8	13148.3	12367.8	6807.7	2287.3	1787.5	7875.5
0.04	8113.2	17004.3	16796.8	14449.4	14239.5	10640.1	14390.7	14902.9	14082.9	8281.6	3267.3	2801.1	8359.4
0.02	10313.5	19329.9	18162.8	16073.4	16207.4	11795.4	11134.5	15178.9	15205.5	9407.4	3584.2	3254.3	8634.8
0.01	12900.8	21427.6	19324.6	17609.4	18226.9	12951.5	11362.7	15873.5	16216.1	10556.3	3905.1	3773.5	8856.8

STATION 14238000 COWLITZ RIVER BELOW MAYFIELD DAM, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1936	922.0	925.0	948.0	1040.0	1140.0	1230.0	1360.0	1510.0	2130.0
1937	723.0	775.0	780.0	800.0	818.0	936.0	1070.0	1250.0	2160.0
1938	1130.0	1140.0	1150.0	1200.0	1340.0	1690.0	1880.0	2320.0	5130.0
1939	1150.0	1180.0	1190.0	1230.0	1270.0	1440.0	1570.0	1900.0	3100.0
1940	1080.0	1110.0	1130.0	1230.0	1260.0	1350.0	1480.0	1640.0	2580.0
1941	924.0	929.0	965.0	1070.0	1150.0	1200.0	1320.0	1480.0	1950.0
1942	1220.0	1290.0	1300.0	1330.0	1360.0	1600.0	1870.0	2150.0	2830.0
1943	890.0	893.0	920.0	957.0	1030.0	1160.0	1440.0	1990.0	3530.0
1944	1150.0	1160.0	1170.0	1200.0	1300.0	1450.0	1730.0	1940.0	2780.0
1945	1150.0	1160.0	1190.0	1240.0	1290.0	1450.0	1630.0	1940.0	2210.0
1946	1280.0	1340.0	1360.0	1400.0	1560.0	1630.0	1680.0	2010.0	3390.0
1947	1090.0	1110.0	1150.0	1240.0	1310.0	1590.0	2060.0	2710.0	5160.0
1948	1270.0	1310.0	1340.0	1470.0	1630.0	2020.0	2630.0	3200.0	4280.0
1949	1380.0	1390.0	1480.0	1580.0	1780.0	2120.0	2520.0	2720.0	4140.0
1950	1370.0	1420.0	1480.0	1580.0	1770.0	2000.0	2350.0	2730.0	4490.0
1951	1480.0	1480.0	1500.0	1600.0	1770.0	2310.0	3160.0	4290.0	6900.0
1952	1130.0	1140.0	1200.0	1230.0	1290.0	2010.0	2630.0	3200.0	4020.0
1953	709.0	720.0	744.0	790.0	865.0	949.0	1040.0	1170.0	1720.0
1954	1340.0	1350.0	1390.0	1480.0	1650.0	1950.0	2070.0	2360.0	4270.0
1955	1630.0	1660.0	1710.0	1830.0	2140.0	2460.0	2640.0	3140.0	4310.0
1956	1540.0	1580.0	1680.0	1890.0	2010.0	2330.0	3450.0	3690.0	6980.0
1957	1420.0	1420.0	1420.0	1620.0	1680.0	1970.0	2630.0	3380.0	4990.0
1958	1030.0	1060.0	1140.0	1180.0	1210.0	1290.0	1470.0	1690.0	2620.0
1959	1110.0	1120.0	1140.0	1210.0	1320.0	1430.0	1710.0	1950.0	3960.0
1960	1760.0	1800.0	1830.0	1880.0	2020.0	2610.0	3240.0	4150.0	5520.0
1961	1290.0	1310.0	1370.0	1500.0	1550.0	1770.0	1890.0	2430.0	4480.0
1962	1220.0	1240.0	1270.0	1300.0	1380.0	1660.0	1930.0	2200.0	3250.0

LOWEST MEAN FLOW STATISTICS (YEARS 1936-1962)

MEAN	1201.4	1221.6	1258.8	1331.4	1434.6	1657.2	1966.3	2395.2	3910.4
MAXIMUM	1760.0	1800.0	1830.0	1890.0	2140.0	2610.0	3450.0	4690.0	6980.0
MINIMUM	709.0	720.0	744.0	790.0	818.0	936.0	1040.0	1170.0	1720.0
STANDARD DEVIATION	247.74	255.13	266.14	289.93	334.14	440.87	633.35	900.44	1403.33
SKWENESS	0.156	0.138	0.123	0.218	0.355	0.493	0.858	1.095	0.580
STD ERROR OF SKWENESS	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448
SERIAL CORR COEFF	0.305	0.290	0.354	0.425	0.433	0.343	0.358	0.347	0.288
COEFF OF VARIATION	0.206	0.209	0.211	0.218	0.233	0.266	0.322	0.376	0.368
MEAN LOGS	3.070	3.077	3.090	3.114	3.145	3.205	3.273	3.352	3.552
STD DEVIATION LOGS	0.093	0.094	0.096	0.098	0.103	0.116	0.135	0.154	0.164
SKWENESS LOGS	-0.455	-0.477	-0.475	-0.391	-0.261	-0.100	0.174	0.274	-0.163
STD ERR SKWENESS LOGS	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448
SER CORR COEFF LOGS	0.276	0.263	0.318	0.373	0.378	0.314	0.345	0.356	0.296
COEFF OF VAR LOGS	0.030	0.031	0.031	0.031	0.033	0.036	0.041	0.046	0.046

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1936-1962)

0.99	1798.3	1833.1	1899.4	2054.2	2317.6	2926.2	4028.4	5518.2	8194.1
0.98	1728.4	1762.2	1824.8	1965.1	2198.8	2734.8	3660.1	4911.4	7482.8
0.96	1649.8	1682.3	1740.8	1866.3	2070.3	2534.7	3295.4	4327.8	6752.8
0.90	1527.1	1557.1	1609.4	1714.9	1879.5	2249.9	2810.8	3590.3	5740.4
0.80	1412.0	1439.0	1485.7	1575.5	1709.8	2008.5	2430.4	3017.3	4909.4
0.50	1195.2	1215.8	1252.2	1319.4	1411.4	1608.5	1858.5	2214.5	3501.0
0.20	988.8	1002.4	1029.8	1082.3	1148.1	1280.5	1439.4	1662.9	2603.4
0.10	887.1	897.1	920.3	967.6	1024.5	1133.7	1265.8	1444.4	2184.5
0.05	806.9	814.1	834.2	878.1	929.7	1023.8	1141.3	1291.6	1884.1
0.02	721.3	725.5	742.4	763.3	805.5	911.6	1018.5	1144.4	1589.8
0.01	667.1	669.5	684.5	723.8	768.8	842.9	945.5	1058.6	1416.8

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1936-1962)

	P95	P90	P75	P70	P50	P25	P10
	1300.0	1500.0	2500.0	3000.0	5000.0	8400.0	12000.0

STATION 14238000 COMLITZ RIVER BELOW MAYFIELD DAM, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW(CFS)	PEAK- FLOW DATA DATE	REG. (R)
1912	1912	35700.	32700.	23600.	17900.	13700.	11500.	10500.	10400.	8700.	11/19/11	
1935	1935	22700.	19300.	15900.	14600.	13700.	13100.	11100.	10200.	8860.	11/06/34	
1936	1936	28900.	23600.	17900.	14000.	12700.	12100.	11600.	10400.	8350.	06/08/36	
1937	1937	28900.	23600.	17900.	14000.	12700.	12100.	11600.	10400.	8350.	06/15/37	
1938	1938	34600.	28900.	22200.	19500.	17000.	15500.	13500.	12300.	9750.	12/30/37	
1939	1939	17400.	15100.	12700.	10300.	8880.	8730.	8140.	7490.	7330.	02/15/39	
1940	1940	24600.	22100.	16700.	12200.	10900.	9380.	8670.	8100.	7510.	12/17/39	
1941	1941	14400.	12300.	9160.	7560.	6100.	5500.	4860.	4410.	4310.	11/29/40	
1942	1942	31000.	26900.	19900.	13700.	11700.	8710.	7410.	6570.	6000.	12/20/41	
1943	1943	43800.	32000.	22100.	16700.	13500.	10700.	9830.	8960.	8800.	11/24/42	
1944	1944	15700.	13000.	10600.	7020.	5800.	5470.	5130.	4890.	42600.	12/04/43	
1945	1945	26100.	21900.	16300.	11700.	12300.	9740.	8470.	8240.	7750.	02/08/45	
1946	1946	35900.	29700.	22600.	17700.	12800.	11700.	10700.	9550.	9400.	12/29/45	
1947	1947	66000.	63400.	50500.	30600.	21400.	13600.	12600.	11100.	9880.	12/13/46	
1948	1948	25100.	21900.	18400.	15900.	13100.	12500.	10600.	9510.	8640.	10/20/47	
1949	1949	24000.	23600.	22300.	18100.	15700.	13600.	11800.	11200.	9100.	05/13/49	
1950	1950	33600.	28200.	22000.	20900.	15300.	13200.	11600.	12100.	11100.	11/28/49	
1951	1951	48100.	44000.	31800.	20300.	16500.	14200.	14400.	12800.	11000.	02/11/51	
1952	1952	20000.	18000.	14200.	11400.	10300.	9470.	8480.	7620.	6910.	02/04/52	
1953	1953	36100.	30800.	27000.	22000.	18200.	14200.	11100.	10200.	9660.	02/01/53	
1954	1954	42400.	33300.	26400.	21400.	16200.	12700.	11800.	10800.	10200.	12/10/53	
1955	1955	28100.	27400.	24000.	18000.	14700.	12400.	10600.	9740.	8210.	06/11/55	
1956	1956	47600.	37000.	25000.	22100.	18900.	16400.	14300.	12400.	10800.	12/12/55	
1957	1957	29500.	24100.	23800.	19500.	13100.	10100.	10100.	9300.	8670.	04/21/58	
1958	1958	25100.	22000.	17000.	12600.	10600.	10200.	8940.	8440.	8430.	12/11/56	
1959	1959	33000.	28000.	22000.	19000.	16000.	13800.	13600.	11600.	10200.	04/21/58	
1960	1960	55600.	48100.	34500.	21400.	16100.	11700.	10000.	9080.	8760.	11/12/59	
1961	1961	33600.	28300.	21900.	18100.	15300.	12800.	11500.	10600.	96800.	02/22/61	
1962	1962	26700.	22900.	18200.	16000.	13900.	9670.	8270.	7660.	7580.	12/25/61	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1912-1962)

	MEAN	W R C	SYSTEMATIC
MAXIMUM	32471.4	ESTIMATE	RECORD
MINIMUM	6000.0		
STANDARD DEVIATION	11752.97		
SKEWNESS	1.059		
STD ERROR OF SKEWNESS	0.441		
SERIAL CORR COEFF	-0.059		
COEFF OF VARIATION	0.362		
MEAN LOGS	4.486		
STD DEVIATION LOGS	0.152		
SKEWNESS LOGS	0.091		
STD ERR SKEWNESS LOGS	0.441		
SER CORR COEFF LOGS	-0.033		
COEFF OF VAR LOGS	0.034		

32471.4	28042.9	21737.9	16638.6	13885.0	11440.4	10301.4	9437.5	8603.2	
6000.0	63400.0	50500.0	30600.0	22600.0	16400.0	14400.0	12800.0	11100.0	
11752.97	12300.0	9160.0	7020.0	6100.0	5500.0	4860.0	4410.0	4310.0	
1.059	1.567	1.691	0.310	0.441	0.441	0.441	0.441	0.441	
0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	
-0.059	-0.041	0.027	0.252	0.191	0.306	0.234	0.311	0.243	
0.362	0.377	0.369	0.299	0.267	0.218	0.225	0.218	0.196	
4.486	4.422	4.312	4.206	4.126	4.047	4.001	3.963	3.925	
0.152	0.152	0.151	0.142	0.129	0.108	0.110	0.108	0.098	
0.091	0.205	-0.001	-0.812	-1.012	-1.343	-1.211	-1.338	-1.472	
0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	
-0.033	-0.012	0.081	0.261	0.208	0.322	0.283	0.323	0.263	
0.034	0.034	0.035	0.034	0.031	0.027	0.028	0.027	0.025	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1912-1962)

0.99	13908.1	12353.2	9139.7	6240.6	5433.3	4966.7	4497.5	4099.2	3994.8	15576.7	16490.6
0.95	17394.6	15179.7	11581.0	8809.4	7666.6	6879.5	6166.6	5675.2	5431.4	19280.1	19731.8
0.90	19635.9	17015.4	13138.4	10345.3	8971.7	7975.2	7127.9	6578.0	6234.2	21630.2	21837.7
0.80	22781.7	19617.9	15307.0	12458.0	10760.9	9320.1	8318.9	7686.5	7198.4	24893.3	24826.3
0.50	30443.8	26045.4	20501.2	16775.0	14029.0	11752.7	10526.3	9693.4	8873.5	32693.1	32277.8
0.20	40986.7	35277.3	27455.5	21227.9	17193.2	13714.1	12401.5	11314.6	10135.4	43149.8	42945.6
0.10	48023.6	41591.3	31982.9	23468.5	18494.5	14821.5	13181.9	11951.2	10595.8	49985.5	50330.8
0.04	56993.6	49636.1	37635.4	25710.4	20000.3	15101.7	13847.0	12465.3	10944.2	58560.6	60045.6
0.02	63740.5	56175.8	41806.8	27052.4	20751.5	15400.4	14187.0	12465.3	10944.2	64921.0	67569.6
0.01	70548.9	62687.7	45952.1	28176.7	21343.8	15609.5	14437.1	12888.3	11205.8	71270.3	75345.2

STATION 14238000 COWLITZ RIVER BELOW MAYFIELD OAM, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1963	3080	11130	9998	4848	9353	4205	8835	7020	4569	2709	1861	1669	5670
1964	2015	6648	6127	10670	6663	5225	6946	9991	14060	7431	3280	2296	6687
1965	2900	4890	16360	12990	11710	5429	7605	7951	10600	3117	2062	1390	6918
1966	1541	2939	3742	5868	4226	7020	9400	10140	7037	4228	1977	1489	4971
1967	2123	4499	11790	12770	8479	5447	4061	9474	10980	4162	1910	1497	6429
1968	5058	5487	7787	9319	14420	6966	2150	1522	1548	1512	1524	1524	4871
1969	3488	5869	10870	12550	6523	5365	4527	5032	8029	3448	3334	3059	6283
1970	5869	7095	10870	12550	6523	5365	4527	5032	8029	3448	3334	3059	6283
1971	5482	8376	9282	11230	9851	7205	6778	4799	2584	2069	2391	3925	5702
1972	4625	8236	10080	11350	11000	18300	10620	11110	12850	7592	3343	3925	7728
1973	6210	5776	11480	9776	5644	5595	3393	3231	2112	3172	3645	2746	5247
1974	2365	7550	11320	15320	11160	7594	9241	9695	16480	9616	3178	3088	8863
1975	3625	5985	9216	13350	10990	8390	7530	2887	5701	6720	2483	2706	6609
1976	5288	10400	24170	13930	9020	9236	5315	4518	4729	6323	2939	3013	8262
1977	5109	6724	5194	5980	3460	4296	2400	1870	1888	1943	2135	2128	3598
1978	2444	13380	26170	9581	6404	4055	3122	3211	4321	3290	2342	2672	6761
1979	4130	6847	9372	5899	6251	3613	3052	5246	4517	2511	2085	2326	4646

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1963-1979)

MEAN	3844.2	7361.9	11225.0	10286.8	8456.2	6923.1	6012.8	6093.9	6891.1	4501.6	2601.5	2533.9	6386.9
MAXIMUM	6210.0	13380.0	26170.0	15320.0	14420.0	18300.0	10620.0	11110.0	16480.0	9616.0	3745.0	4144.0	9333.0
MINIMUM	1541.0	2939.0	3742.0	4848.0	4226.0	3613.0	2150.0	1522.0	1548.0	1492.0	1512.0	1390.0	3598.0
STD DEVIATION	1492.49	2596.48	5986.07	3143.08	2918.01	3449.98	2693.61	3070.17	4469.34	2404.86	702.82	855.35	1542.99
SKENESS	0.053	0.681	1.575	-0.365	0.136	2.407	0.043	0.124	0.808	0.693	0.263	0.280	0.280
STD ERR SKEW	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SER CORR COEFF	0.245	0.099	-0.483	-0.135	-0.177	0.211	0.278	0.088	-0.317	0.039	0.289	0.695	-0.273
COEFF OF VAR	0.388	0.353	0.533	0.306	0.345	0.498	0.448	0.504	0.549	0.334	0.270	0.338	0.242
MEAN LOGS	3.550	3.841	4.000	3.990	3.900	3.803	3.730	3.720	3.743	3.594	3.400	3.379	3.793
STD DEV LOGS	-0.185	0.159	0.211	0.151	0.165	0.174	0.222	0.262	0.310	0.237	0.119	0.153	0.108
SKENESS LOGS	-0.423	-0.416	0.195	-0.821	-0.649	1.014	-0.464	-0.559	-0.288	0.0	-0.047	-0.218	-0.319
STD ERR SKEW LOGS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SER CORR LOGS	0.279	0.292	-0.803	-0.166	-0.147	0.349	0.347	0.048	-0.333	-0.004	0.257	0.682	-0.305
COEFF OF VAR LOGS	0.052	0.041	0.053	0.038	0.042	0.046	0.059	0.070	0.083	0.066	0.035	0.045	0.028
% OF AVE FLOW	5.0	9.6	14.6	13.4	11.0	9.0	7.8	7.9	9.0	5.9	3.4	3.3	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1963-1979)

0.99	1154.9	2657.9	3462.2	3550.4	2750.4	3381.6	1381.6	974.4	905.5	1100.5	1316.1	997.8	3290.2
0.95	1677.8	3654.5	4623.4	5138.7	3993.8	3762.4	2182.0	1764.6	1618.3	1597.1	1595.5	1313.7	4040.6
0.90	2022.3	4285.8	5425.2	6129.5	4787.8	4054.5	2738.7	2354.4	2175.1	1947.9	1766.4	1513.5	4484.2
0.80	2507.0	5148.8	6620.1	7447.8	5869.6	4523.4	3552.9	3254.1	3072.7	2477.5	1996.5	1788.1	5062.3
0.50	3656.6	7110.0	9852.4	10235.9	8271.4	5949.4	5592.3	5606.3	5729.1	3924.7	2517.7	2425.5	6291.2
0.20	5111.2	9472.8	14994.1	13155.3	10998.4	8603.6	832.0	8796.0	10176.5	6211.6	3165.2	3231.1	7673.5
0.10	5990.9	10856.0	18845.1	14635.9	12491.6	10671.2	10032.0	10754.3	13488.3	7908.1	3563.1	3721.2	8451.7
0.04	7012.9	12429.4	24214.8	16123.0	14089.6	14416.9	12053.9	12997.6	17956.0	10220.3	4036.1	4317.7	9319.1
0.02	7715.1	13493.0	28582.1	17014.8	15107.5	17625.2	13461.0	14502.4	21443.2	12062.2	4377.6	4734.6	9897.9
0.01	8371.9	14476.7	33265.8	17762.6	16003.5	21387.4	14787.3	15873.4	25030.7	14000.9	4704.8	5134.2	10429.4

STATION 14238000 COWLITZ RIVER BELOW MAYFIELD DAM, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1964	1030.0	1030.0	1080.0	1180.0	1360.0	1540.0	1710.0	2000.0	3140.0
1965	1650.0	1840.0	2040.0	2050.0	2300.0	2580.0	2640.0	2850.0	5420.0
1966	1010.0	1080.0	1110.0	1210.0	1360.0	1460.0	1630.0	1820.0	2420.0
1967	1020.0	1070.0	1130.0	1200.0	1360.0	1460.0	1750.0	2030.0	3530.0
1968	1080.0	1120.0	1250.0	1280.0	1490.0	1660.0	1950.0	2800.0	4020.0
1969	1460.0	1460.0	1470.0	1470.0	1480.0	1660.0	1500.0	1500.0	1530.0
1970	2100.0	2110.0	2210.0	2370.0	2730.0	3190.0	3260.0	3840.0	4560.0
1971	1940.0	1950.0	1950.0	1960.0	1970.0	2080.0	2330.0	2590.0	3480.0
1972	2160.0	2240.0	2460.0	2640.0	3020.0	3600.0	3970.0	4850.0	5910.0
1973	2190.0	2390.0	2580.0	2880.0	3050.0	3420.0	4120.0	4670.0	5740.0
1974	2080.0	2080.0	2080.0	2080.0	2090.0	2120.0	2570.0	2800.0	2870.0
1975	2130.0	2130.0	2330.0	2630.0	2810.0	3000.0	3260.0	3880.0	5660.0
1976	2070.0	2100.0	2110.0	2240.0	2430.0	2590.0	2930.0	4150.0	4110.0
1977	2390.0	2420.0	2720.0	2740.0	2790.0	2920.0	3610.0	4140.0	4350.0
1978	1840.0	1850.0	1850.0	1850.0	1870.0	1880.0	1930.0	2000.0	2000.0
1979	2310.0	2320.0	2330.0	2330.0	2340.0	2410.0	2710.0	3070.0	3160.0

LOWEST MEAN FLOW STATISTICS (YEARS 1964-1979)

MEAN	1778.7	1823.1	1918.7	2006.9	2153.1	2337.5	2614.4	3060.0	3868.7
MAXIMUM	2390.0	2420.0	2720.0	2880.0	3050.0	3600.0	4120.0	4850.0	5910.0
MINIMUM	1010.0	1030.0	1050.0	1180.0	1360.0	1460.0	1500.0	1500.0	1530.0
STANDARD DEVIATION	499.06	505.92	548.12	588.78	619.49	733.70	851.03	1072.35	1352.31
SKEWNESS	-0.644	-0.637	-0.398	-0.183	0.005	0.293	0.376	0.242	0.025
STD ERROR OF SKEWNESS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SERIAL CORR COEFF	0.702	0.619	0.462	0.448	0.288	0.165	0.241	0.181	-0.181
COEFF OF VARIATION	0.281	0.278	0.286	0.293	0.268	0.314	0.326	0.350	0.350
MEAN LOGS	3.231	3.242	3.264	3.283	3.315	3.348	3.395	3.459	3.559
STD DEVIATION LOGS	0.139	0.137	0.138	0.138	0.131	0.139	0.143	0.159	0.169
SKEWNESS LOGS	-0.842	-0.842	-0.694	-0.485	-0.258	-0.1028	-0.012	-0.199	-0.701
STD ERR SKEWNESS LOGS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SER CORR COEFF LOGS	0.705	0.622	0.501	0.502	0.335	0.209	0.238	0.112	-0.204
COEFF OF VAR LOGS	0.043	0.042	0.042	0.042	0.040	0.041	0.042	0.046	0.048

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1979)

0.99	2938.2	2992.9	3267.9	3585.0	3935.6	4659.4	5341.4	6394.3	7326.3
0.98	2827.1	2881.2	3121.4	3385.3	3680.1	4278.1	4885.7	5870.2	6929.4
0.96	2693.3	2746.7	2951.5	3164.1	3408.4	3899.7	4424.0	5327.1	6473.4
0.90	2467.4	2519.4	2677.0	2826.7	3013.4	3355.1	3792.9	4564.6	5747.8
0.80	2239.2	2289.3	2411.9	2519.2	2671.4	2919.0	3282.3	3930.4	5061.2
0.50	1779.4	1824.7	1904.2	1968.6	2092.9	2232.9	2487.3	2914.6	3791.0
0.20	1327.2	1366.3	1427.2	1483.4	1609.7	1704.4	1883.1	2124.5	2663.0
0.10	1108.2	1143.6	1201.0	1260.3	1392.9	1478.8	1627.6	1788.4	2154.9
0.05	941.1	973.1	1029.2	1092.8	1231.2	1314.5	1442.6	1545.6	1783.0
0.02	770.2	798.5	853.9	922.6	1066.9	1150.9	1259.1	1306.3	1417.6
0.01	667.4	693.2	748.1	819.8	967.3	1052.9	1149.9	1165.0	1204.9

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1964-1979)

	P95	P90	P75	P70	P50	P25	P10
1600.0		2000.0	2800.0	3100.0	5200.0	8800.0	11000.0

STATION 14238000 COMLITZ RIVER BELOW MAYFIELD DAM, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
1963	46400.	37400.	27100.	21300.	16700.	11600.	10400.	8980.	8230.	49500.
1964	23300.	20600.	18100.	16400.	14700.	12300.	10400.	9430.	8790.	27500.
1965	61400.	54900.	38600.	24600.	16900.	14900.	14000.	12200.	10400.	64700.
1966	21700.	19900.	16900.	12700.	10300.	9950.	9120.	8600.	7380.	24500.
1967	34800.	28700.	20700.	15400.	13600.	12600.	11200.	9730.	8760.	40400.
1968	34600.	31500.	28700.	19500.	14400.	12200.	10900.	9650.	8190.	35200.
1969	19800.	14300.	18000.	14300.	12700.	12200.	11200.	9910.	8240.	22400.
1970	11900.	11100.	10700.	10400.	9890.	9090.	8690.	8370.	7850.	13100.
1971	21800.	18500.	14800.	12500.	11300.	10600.	10300.	10100.	9410.	24200.
1972	31300.	30200.	27200.	23900.	18800.	15200.	13900.	13600.	12700.	33800.
1973	24000.	21800.	19200.	15800.	12600.	10800.	9210.	8530.	7470.	25700.
1974	25900.	24100.	23200.	20700.	17300.	14700.	12800.	11600.	11800.	27200.
1975	24000.	19900.	16700.	15900.	14300.	12800.	11500.	10800.	9200.	26800.
1976	60000.	46000.	38800.	30400.	24400.	19700.	16600.	14600.	12300.	64700.
1977	9200.	9160.	9090.	8490.	7370.	6540.	5980.	5900.	5140.	10600.
1978	54100.	47100.	37200.	34300.	27600.	20200.	16600.	14100.	10500.	55200.
1979	12900.	12900.	11900.	10900.	10200.	8750.	7600.	7150.	5990.	14700.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1963-1979)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	STANDARD ERROR OF SKEWNESS	SKEWNESS	STD ERROR OF SKEWNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKEWNESS LOGS	STD ERR SKEWNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	30417.6	61400.0	9200.0	16211.84	0.804	0.819	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	26591.8	54900.0	9160.0	13174.74	0.819	0.819	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	22170.0	38800.0	9090.0	9456.40	0.507	0.507	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	18105.3	27600.0	8490.0	7370.0	0.582	0.582	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	12596.5	20200.0	6540.0	3572.07	0.749	0.749	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	10191.8	16600.0	5900.0	2893.05	0.406	0.406	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	8961.8	12700.0	5140.0	2076.49	0.214	0.214	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	7934.9	9430.0	4638.0	1606.7	0.232	0.232	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	6606.7	8600.0	3941.0	1100.3	0.104	0.104	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	5507.9	7274.5	3197.3	887.3	0.026	0.026	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	4655.7	6365.9	2560.8	717.5	0.026	0.026	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	3941.0	5481.9	1804.6	5637.6	0.026	0.026	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	3197.3	45481.9	1804.6	45481.9	0.026	0.026	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	2560.8	5637.6	1804.6	5637.6	0.026	0.026	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	1804.6	70367.1	1804.6	70367.1	0.026	0.026	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	11908.5	80886.9	11908.5	80886.9	0.026	0.026	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		
	7934.9	91448.5	7934.9	91448.5	0.026	0.026	0.550	0.550	0.550	4.424	0.239	-0.175	0.550	-0.510	0.054		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1963-1979)

0.99	6873.4	7023.6	7088.7	7190.7	6864.1	6155.9	5507.9	5477.7	4655.7	7934.9
0.95	10449.5	10167.1	9768.3	9136.3	8345.8	7565.4	6863.9	6606.7	5734.8	11908.5
0.90	12981.6	12336.6	11559.9	10410.0	9309.9	8427.6	7677.7	7274.5	6365.9	14684.1
0.80	16784.7	15338.3	14107.2	12225.4	10640.8	9586.7	8733.1	8146.9	7179.5	18804.6
0.50	25961.6	23906.9	20488.8	16765.9	13957.7	12198.7	11007.3	10017.3	8873.4	29608.4
0.20	42339.9	36284.5	29402.9	23246.9	18599.2	15411.2	13589.2	12160.0	10715.5	45481.9
0.10	53130.1	44884.2	35345.6	27700.8	21754.4	17364.7	15050.9	13389.3	11721.4	56373.6
0.04	67235.9	56085.0	42859.6	33508.0	25842.1	19679.5	16685.0	14782.4	12815.1	70367.1
0.02	78001.0	64624.0	48449.4	37962.7	28964.1	21311.6	17777.7	15726.7	13528.4	80886.9
0.01	88936.1	73302.7	54028.2	42527.2	32154.3	22877.3	18782.4	16605.5	14171.8	91448.5

STATION 14239000 SALMON CREEK NEAR TOLEDO, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1961													
1962	16.6	59.6	367	143	148	282	168	140	12.2	3.42	1.27	3.09	115
1963	33.6	409	239	260	413	239	234	88.6	15.0	40.1	6.30	4.56	166
1964	74.4	304	187	774	165	230	106	58.7	79.9	11.5	8.51	32.6	168
1965	31.4	272	659	512	251	59.4	83.2	40.2	6.57	2.65	5.41	2.14	160
1966	13.8	46.3	215	424	196	367	271.8	27.8	18.1	4.0	2.01	5.33	121
1967	33.9	115	446	603	281	202	185	35.4	25.9	2.76	0.78	0.91	161
1968	61.3	99.6	243	258	428	193	125	85.5	79.3	5.71	50.4	93.5	142
1969	236	343	505	518	402	84.0	88.6	38.3	48.7	14.4	2.15	1.44	190
1970	51.5	108	294	727	290	93.4	149	45.6	5.21	1.36	0.76	2.25	147
1971	12.7	143	499	696	232	379	150	24.2	32.2	8.85	2.69	15.3	184
1972													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1961-1972)

MEAN	56.5	189.9	365.4	491.5	280.6	212.9	138.2	58.4	33.3	12.2	8.4	17.0	155.4
MAXIMUM	236.0	409.0	659.0	774.0	428.0	379.0	234.0	140.0	79.9	40.1	50.4	93.5	190.0
MINIMUM	12.7	46.3	187.0	143.0	148.0	59.4	83.2	24.2	5.2	1.4	0.8	0.9	115.0
STD DEVIATION	66.32	129.73	156.54	217.25	102.97	111.58	48.61	36.27	26.83	14.33	14.38	27.02	24.51
SKENNESS	2.629	0.581	0.639	0.301	0.342	0.113	0.721	1.434	0.698	1.595	2.978	2.689	-0.390
STD ERR SKEW	0.687	0.587	0.687	0.687	0.687	0.687	0.687	0.687	0.661	0.661	0.661	0.661	0.687
SER CORR COEFF	0.052	-0.083	-0.631	0.128	-0.108	-0.307	0.073	0.521	-0.290	-0.321	-0.207	-0.143	-0.380
COEFF OF VAR	1.173	0.683	0.428	0.442	0.367	0.524	0.352	0.621	0.805	1.171	1.721	1.588	0.158
MEAN LOGS	1.576	2.175	2.527	2.641	2.421	2.259	2.117	1.702	1.373	0.840	0.561	0.589	2.186
STD DEV LOGS	0.385	0.328	0.186	0.240	0.164	0.277	0.150	0.243	0.302	0.430	0.551	0.589	0.072
SKENNESS LOGS	0.751	-0.119	0.149	-1.001	-0.106	-0.688	0.187	0.577	-0.263	0.430	0.689	0.391	-0.663
STD ERR SKEW LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.661	0.661	0.661	0.661	0.687
SER CORR LOGS	0.191	-0.145	-0.634	0.260	-0.180	-0.259	0.117	0.430	-0.365	-0.421	-0.137	-0.242	-0.362
COEFF OF VAR LOGS	0.244	0.151	0.073	0.091	0.068	0.123	0.071	0.143	0.293	0.573	0.982	0.684	0.033
% OF AVE FLOW	3.0	10.2	19.6	26.4	15.1	11.4	7.4	3.1	1.8	0.7	0.4	0.9	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1961-1972)

0.99	7.8	24.2	130.5	42.0	106.2	30.2	61.4	17.4	2.3	0.7	0.4	0.5	96.8
0.95	10.8	42.2	169.7	154.7	139.9	57.0	75.5	22.2	4.8	1.3	0.6	0.9	113.9
0.90	13.3	56.4	196.0	208.2	161.6	77.7	84.6	25.7	7.0	1.8	0.8	1.4	123.3
0.80	17.6	79.7	234.2	287.4	192.1	109.7	97.5	31.1	11.0	2.7	1.2	2.3	134.7
0.50	33.8	152.0	333.0	476.7	269.3	195.4	129.5	47.7	22.6	6.4	3.1	6.6	156.4
0.20	75.6	283.7	480.7	700.3	362.9	313.8	174.5	78.8	52.0	17.1	9.9	21.9	176.9
0.10	123.1	389.9	585.9	815.8	425.9	387.0	205.2	105.8	75.2	29.9	19.7	43.2	186.8
0.04	218.3	543.8	727.0	930.7	503.8	470.9	245.1	148.4	109.6	56.4	43.9	92.4	196.8
0.02	325.5	672.0	837.8	997.9	560.6	527.2	275.6	187.2	138.6	86.6	76.5	154.5	202.7
0.01	475.8	811.0	953.5	1052.6	616.6	578.3	306.8	233.0	170.2	129.1	129.5	249.1	207.8

STATION 14239000 SALMON CREEK NEAR TOLEDO, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1963	1.5	1.6	1.7	2.0	3.5	4.5	4.7	8.3	31.0
1964	4.9	5.1	6.0	6.8	11.0	16.0	21.0	20.0	38.0
1965	4.6	4.9	5.3	6.4	7.7	9.1	11.0	16.0	33.0
1966	0.8	0.8	0.8	0.9	2.1	3.3	3.4	3.9	9.7
1967	1.0	1.0	1.2	1.6	1.8	2.9	4.2	13.0	20.0
1968	0.3	0.3	0.3	0.5	0.5	0.8	1.3	6.3	19.0
1969	1.2	1.3	1.4	1.5	2.7	6.1	24.0	43.0	67.0
1970	1.2	1.2	1.3	1.4	1.5	2.1	9.1	19.0	27.0
1971	0.5	0.6	0.6	0.6	0.7	0.9	1.4	1.6	8.6

LOWEST MEAN FLOW STATISTICS (YEARS 1963-1971)

MEAN	1.8	1.9	2.1	2.4	3.5	5.1	8.9	14.6	28.1
MAXIMUM	4.9	5.1	6.0	6.8	11.0	16.0	24.0	43.0	67.0
MINIMUM	0.3	0.3	0.3	0.3	0.5	0.8	1.3	1.6	8.6
STANDARD DEVIATION	1.73	1.82	2.09	2.44	3.54	4.86	8.39	12.51	17.72
SKEWNESS	1.424	1.422	1.461	1.430	1.564	1.645	1.694	1.563	1.291
STD ERROR OF SKEWNESS	0.717	0.717	0.717	0.379	0.717	0.717	0.717	0.717	0.717
SERIAL CORR COEFF	0.395	0.396	0.380	0.379	0.446	0.556	0.942	0.859	0.630
COEFF OF VARIATION	0.976	0.982	1.012	1.021	1.010	0.932	0.754	1.005	1.372
MEAN LOGS	0.077	0.098	0.132	0.190	0.358	0.527	0.754	1.005	1.372
STD DEVIATION LOGS	0.412	0.408	0.423	0.434	0.433	0.427	0.460	0.429	0.283
SKEWNESS LOGS	0.149	0.249	0.228	0.182	0.144	-0.049	-0.068	-0.591	-0.244
STD ERR SKEWNESS LOGS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SER CORR COEFF LOGS	0.305	0.315	0.279	0.255	0.442	0.259	-0.162	-0.288	-0.004
COEFF OF VAR LOGS	5.316	4.166	3.195	2.286	1.211	0.803	0.610	0.427	0.206

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1963-1971)

0.99	12.0	13.2	15.3	18.1	25.8	32.4	63.3	65.2	95.5
0.98	9.0	9.8	11.2	13.3	19.1	25.0	48.1	55.6	82.5
0.96	6.6	7.0	8.0	9.5	13.7	18.7	35.4	45.9	69.7
0.90	4.1	4.3	4.8	5.7	8.3	11.9	21.9	33.1	53.3
0.80	2.6	2.7	3.0	3.6	5.2	7.8	13.9	23.6	41.0
0.50	1.2	1.2	1.3	1.5	2.2	3.4	5.8	11.1	24.2
0.20	0.5	0.6	0.6	0.7	1.0	1.5	2.3	4.6	13.7
0.10	0.4	0.4	0.4	0.4	0.6	1.0	1.5	2.7	10.1
0.05	0.3	0.3	0.3	0.3	0.5	0.7	1.0	1.7	7.7
0.02	0.2	0.2	0.2	0.2	0.3	0.4	0.6	1.0	5.7
0.01	0.1	0.2	0.2	0.2	0.2	0.3	0.5	0.7	4.6

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1963-1971)

P95	P90	P75	P50	P25	P10
1.5	2.5	10.0	55.0	170.0	390.0

STATION 14239100 NORTH FORK LACAMAS CREEK NEAR ETHEL, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1969)		
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
1950	29.0	2-24-1950			
1951	19.0	1- 1-1951		1.3693	1.3693
1952	16.0	2- 4-1952		0.1273	0.1273
1953	14.0	1-23-1953		0.060	-0.262
1954	33.0	12- 9-1953			
1955	23.0	2- 8-1955			
1956	34.0	12-11-1955			
1957	19.0	12- 9-1956			
1958	16.0	2-13-1958			
1959	24.0	1-24-1959			
1960	28.0	11-22-1959			
1961	27.0	11-20-1960			
1962	16.0	11-22-1961			
1963	29.0	11-19-1962			
1964	34.0	1-25-1964			
1965	34.0	12-22-1964			
1966	27.0	1- 2-1966			
1967	28.0	1-19-1967			
1968	19.0	2-19-1968			
1969	18.0	12- 3-1968			
ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1950-1969)					
			0.99	12.0	11.2
			0.95	14.5	14.2
			0.90	16.1	16.0
			0.80	18.3	18.4
			0.50	23.3	23.7
			0.20	29.9	30.0
			0.10	34.1	33.8
			0.04	39.3	38.0
			0.02	43.1	43.0
			0.01	46.9	43.7

STATION 14239700 OLEQUA CREEK TRIBUTARY NEAR WINLOCK, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1969)		
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
1950	37.0	11-26-1949			
1951	28.0	2- 9-1951		1.3442	1.3442
1952	14.0	2- 3-1952		0.1738	0.1738
1953	15.0	1-18-1953		0.090	0.158
1954	20.0	12- 9-1953			
1955	15.0	2- 8-1955			
1956	37.0	1- 5-1956			
1957	25.0	12- 9-1956			
1958	15.0	12-25-1957			
1959	20.0	1-23-1959			
1960	12.0	11-22-1959			
1961	28.0	11-20-1960			
1962	12.0	12-17-1961			
1963	36.0	11-19-1962			
1964	47.0	1-25-1964			
1965	32.0	12-22-1964			
1966	20.0	1- 2-1966			
1967	22.0	12-13-1966			
1968	21.0	2-19-1968			
1969	21.0	12- 3-1968			
ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1950-1969)					
			0.99	8.9	9.1
			0.95	11.6	11.7
			0.90	13.3	13.3
			0.80	15.7	15.7
			0.50	22.0	21.9
			0.20	30.9	30.8
			0.10	37.0	37.1
			0.04	45.1	45.5
			0.02	51.2	52.0
			0.01	57.6	58.7

STATION 14240450 ELK CR NR SPIRIT LAKE, WASH.

ANNUAL PEAK FLOW DATA		
WATER YEAR	FLOW (CFS)	DATE
1970	153.0	1-18-1970
1971	237.0	1-19-1971
1972	378.0	1-20-1972
1973	173.0	12-21-1972
1974	349.0	1-15-1974
1975	203.0	1-14-1975

STATION 14241200 COLDSPRING CREEK NEAR COUGAR, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1969	88.0	12-3-1968
1970	92.0	1-23-1970
1971	84.0	11-23-1970
1972	112.0	1-20-1972
1973	106.0	12-21-1972

STATION 14241500 SOUTH FORK TOUTLE RIVER AT TOUTLE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1940	112	152	1085	529	1463	1045	659	535	132	97.2	78.8	94.5	496
1941	165	504	710	794	381	297	257	417	226	116	119	409	366
1942	453	551	1375	507	731	449	399	467	523	237	123	83.7	491
1943	134	1322	1106	650	981	670	1020	448	361	175	118	89.7	585
1944	279	353	666	663	549	466	564	376	287	116	81.8	119	378
1945	122	552	389	908	1016	927	773	1033	320	132	88.6	214	537
1946	218	1086	1241	1374	1040	860	685	708	629	387	143	129	707
1947	396	1347	2021	800	1039	556	588	211	243	151	89.4	135	629
1948	924	1340	781	1145	987	672	784	1097	521	204	156	170	731
1949	373	1024	1224	340	1306	1036	716	892	327	156	104	105	630
1950	196	1888	1006	1156	1628	1647	1036	761	725	274	127	110	791
1951	660	1356	1452	1298	1537	690	740	536	215	115	87.7	96.8	727
1952	832	836	987	449	993	579	760	699	354	170	101	86.1	599
1953	75.3	106	490	2488	1044	583	573	723	521	234	148	126	594
1954	367	748	1838	1284	1702	701	859	534	665	344	172	152	775
1955	264	824	796	671	864	504	906	682	772	414	168	171	583
1956	837	1655	2004	1457	545	1260	980	867	627	248	159	130	900
1957	440	584	1226	355	909	1365	1001	621	268	134	115	82.1	590

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1940-1957)

MEAN	380.4	846.3	1134.3	937.1	1039.7	794.8	738.9	644.8	428.7	205.8	121.1	139.1	615.4
MAXIMUM	924.0	1655.0	2021.0	2488.0	1702.0	1647.0	1036.0	1097.0	772.0	414.0	172.0	409.0	900.0
MINIMUM	75.3	106.0	389.0	340.0	381.0	297.0	257.0	211.0	196.19	97.2	78.8	82.1	366.0
STD DEVIATION	267.74	445.27	476.31	529.25	372.10	357.21	214.00	231.75	0.327	0.994	0.254	0.885	0.074
STDEV	0.921	0.048	0.500	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536
SKWENESS	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536
SEK CORR SKEW	0.033	0.118	-0.255	-0.198	0.194	0.222	0.196	-0.037	0.458	0.154	0.233	-0.221	0.248
COEFF OF VAR	0.704	0.526	0.420	0.565	0.358	0.449	0.290	-0.037	0.458	0.154	0.233	-0.221	0.248
MEAN LOGS	2.473	2.841	3.016	2.913	2.987	2.861	2.847	2.779	2.585	2.272	2.070	2.104	2.778
STD DEV LOGS	0.324	0.325	0.197	0.233	0.173	0.190	0.153	0.174	0.216	0.192	0.111	0.173	0.103
SKWENESS LOGS	-0.111	-1.349	-0.483	0.125	-0.745	0.063	-1.507	-0.857	-0.355	-0.040	-0.040	1.549	-0.541
STD ERH SKEW LOGS	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536
SEK CORR LOGS	-0.018	0.112	-0.069	-0.315	0.134	0.176	0.261	-0.103	0.4056	0.148	0.175	-0.199	0.317
COEFF OF VAR LOGS	0.131	0.114	0.085	0.065	0.058	0.067	0.054	0.063	0.084	0.084	0.084	0.084	0.084
% OF AVE FLOW	5.1	11.4	15.3	12.6	14.0	10.7	10.0	8.7	5.8	2.8	1.6	1.9	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1940-1957)

0.99	49.3	61.5	308.8	246.9	311.4	267.2	216.4	185.6	106.2	76.0	64.2	77.8	314.1
0.95	85.2	163.7	465.0	345.2	468.6	355.8	352.6	286.2	161.7	95.3	76.8	81.4	392.1
0.90	113.3	255.1	569.6	414.5	570.4	415.1	438.7	351.6	199.9	108.5	84.5	85.0	437.3
0.80	159.3	407.4	718.3	519.2	709.9	501.3	550.6	441.0	255.6	128.3	94.7	91.5	495.1
0.50	301.4	816.7	1074.7	808.5	1019.6	722.5	764.8	634.9	392.8	181.9	117.6	115.1	612.7
0.20	559.0	1296.3	1527.2	1279.0	1365.7	1048.3	939.7	849.3	587.8	266.5	145.7	166.8	735.5
0.10	766.2	1525.4	1799.5	1635.9	1550.7	1278.6	1005.6	957.0	711.3	334.6	162.8	216.0	800.0
0.04	1066.3	1728.1	2113.5	2137.2	1744.0	1578.6	1055.6	1066.5	861.5	428.5	183.1	300.0	867.9
0.02	1315.9	1831.7	2327.3	2546.9	1864.1	1812.5	1078.0	1132.1	968.9	504.4	197.5	382.2	910.8
0.01	1586.7	1906.5	2525.6	2987.6	1967.6	2054.0	1092.7	1187.0	1072.5	591.3	211.4	485.2	948.5

STATION 14241500 SOUTH FORK TOUTLE RIVER AT TOUTLE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1941	68.0	69.0	71.0	72.0	77.0	84.0	88.0	92.0	149.0
1942	81.0	81.0	82.0	85.0	90.0	109.0	150.0	213.0	251.0
1943	74.0	75.0	76.0	78.0	82.0	86.0	100.0	133.0	228.0
1944	74.0	74.0	75.0	76.0	81.0	86.0	107.0	139.0	255.0
1945	67.0	68.0	68.0	70.0	76.0	85.0	104.0	108.0	181.0
1946	76.0	76.0	78.0	82.0	87.0	105.0	136.0	149.0	295.0
1947	101.0	102.0	104.0	115.0	116.0	125.0	141.0	243.0	373.0
1948	64.0	65.0	68.0	69.0	80.0	107.0	122.0	153.0	218.0
1949	99.0	100.0	107.0	108.0	129.0	146.0	169.0	225.0	354.0
1950	85.0	86.0	87.0	90.0	92.0	102.0	116.0	132.0	233.0
1951	94.0	95.0	96.0	97.0	102.0	117.0	149.0	236.0	410.0
1952	69.0	70.0	71.0	74.0	82.0	85.0	95.0	124.0	271.0
1953	68.0	68.0	68.0	68.0	72.0	76.0	92.0	143.0	143.0
1954	96.0	96.0	97.0	99.0	117.0	131.0	164.0	216.0	330.0
1955	125.0	125.0	133.0	137.0	151.0	157.0	174.0	206.0	337.0
1956	125.0	125.0	127.0	130.0	139.0	166.0	223.0	325.0	471.0
1957	106.0	107.0	112.0	117.0	126.0	133.0	149.0	205.0	344.0

LOWEST MEAN FLOW STATISTICS (YEARS 1941-1957)

MEAN	86.6	87.4	89.4	92.8	99.9	112.5	133.6	175.9	285.2
MAXIMUM	125.0	129.0	133.0	137.0	151.0	166.0	223.0	329.0	471.0
MINIMUM	64.0	65.0	68.0	69.0	72.0	78.0	85.0	92.0	143.0
STANDARD DEVIATION	19.67	20.23	21.03	21.65	24.77	26.93	36.82	64.30	91.12
SKEWNESS	0.783	0.841	0.818	0.786	0.776	0.776	0.603	0.717	0.863
STD ERROR OF SKEWNESS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SERIAL CORR COEFF	0.452	0.462	0.456	0.400	0.443	0.463	0.245	0.007	0.073
COEFF OF VARIATION	0.227	0.231	0.235	0.233	0.248	0.239	0.276	0.365	0.319
MEAN LOGS	1.928	1.931	1.931	1.937	1.957	1.988	2.040	2.111	2.533
STD DEVIATION LOGS	0.094	0.096	0.097	0.097	0.103	0.102	0.117	0.160	0.147
SKEWNESS LOGS	0.499	0.546	0.550	0.526	0.547	0.547	0.145	-0.027	-0.428
STD ERR SKEWNESS LOGS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SER CORR COEFF LOGS	0.379	0.395	0.399	0.339	0.399	0.423	0.207	-0.003	0.035
COEFF OF VAR LOGS	0.049	0.050	0.050	0.049	0.052	0.050	0.056	0.072	0.060

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1941-1957)

0.99	151.8	155.4	160.5	165.5	184.8	197.8	249.1	385.6	535.0
0.98	139.9	142.8	147.3	152.0	168.8	183.2	229.6	349.5	501.6
0.96	128.2	130.5	134.3	138.9	153.2	168.5	210.0	313.3	465.1
0.90	112.9	114.4	117.4	121.7	133.0	148.7	183.3	264.3	410.6
0.80	100.9	101.9	104.5	108.4	117.6	132.9	161.7	225.2	362.0
0.50	83.1	83.7	85.5	88.8	95.2	108.4	128.3	165.5	277.5
0.20	70.2	70.7	72.0	74.8	79.4	89.8	102.7	121.3	205.6
0.10	65.0	65.4	66.6	69.1	73.1	81.8	91.7	103.1	173.3
0.05	61.2	61.7	62.7	65.1	68.6	76.0	83.7	90.0	149.4
0.02	57.5	58.0	59.0	61.1	64.3	70.2	75.7	77.3	125.3
0.01	55.3	55.9	56.8	58.8	61.8	66.7	70.9	69.8	110.9

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1941-1957)

P95	P90	P75	P70	P50	P25	P10
87.	100.	180.	220.	430.	780.	1300.

STATION 14241500 SOUTH FORK TOUTLE RIVER AT TOUTLE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-DATE	REG. (R)
1940	3890.	3430.	2650.	1890.	1660.	1290.	1130.	1060.	881.	5820.	12/15/39	
1941	3060.	2170.	1470.	1150.	832.	795.	687.	609.	501.	3880.	01/18/41	
1942	6100.	4290.	2990.	1950.	1410.	1000.	927.	810.	682.	6770.	12/19/41	
1943	4940.	3340.	2780.	1930.	1500.	1260.	1080.	1020.	955.	6490.	11/23/42	
1944	3500.	2370.	1560.	1020.	733.	686.	641.	597.	553.	4560.	12/03/43	
1945	4230.	3500.	2230.	1490.	1200.	973.	972.	943.	840.	7290.	02/07/45	
1946	4480.	3900.	3040.	2300.	1750.	1480.	1230.	1050.	870.	6140.	12/28/45	
1947	6900.	6600.	4920.	3360.	2880.	1760.	1570.	1340.	1080.	8710.	12/11/46	
1948	4040.	3070.	2490.	1870.	1540.	1160.	1250.	1070.	984.	4720.	03/22/48	
1949	4370.	3710.	2760.	2140.	1710.	1200.	1580.	1440.	1250.	5600.	02/17/49	
1950	6020.	5050.	3290.	3090.	2240.	1830.	1560.	1610.	1460.	7670.	03/05/50	
1951	5580.	4860.	3530.	2240.	1830.	1560.	1610.	1460.	1200.	6180.	02/11/51	
1952	3880.	2730.	2380.	1680.	1310.	1040.	920.	896.	791.	4600.	02/04/52	
1953	5810.	4820.	4120.	3380.	2810.	1790.	1380.	1180.	991.	7080.	01/19/53	
1954	7400.	4500.	3350.	2470.	1960.	1610.	1610.	1460.	1190.	14300.	12/09/53	
1955	4640.	2910.	2020.	1360.	993.	942.	803.	784.	784.	6340.	02/08/55	
1956	7300.	5240.	3600.	2750.	2380.	2000.	1770.	1530.	1350.	9580.	12/11/55	
1957	4520.	3920.	2700.	2370.	1750.	1410.	1160.	1040.	913.	5520.	02/26/57	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1940-1957)

W R C
ESTIMATESYSTEMATIC
RECORD

MEAN	5036.7	3911.7	2882.2	2152.8	1693.8	1320.9	1203.3	1084.7	943.9	3.8077	3.8077
MAXIMUM	7400.0	6600.0	4920.0	3380.0	2880.0	2000.0	1770.0	1530.0	1350.0	0.1327	0.1327
MINIMUM	3060.0	2170.0	1470.0	1020.0	733.0	686.8	641.0	597.0	501.0	0.8650	0.8650
STANDARD DEVIATION	1304.39	1132.11	856.50	702.22	604.35	381.05	332.12	285.22	230.51		
SKEWNESS	0.520	0.572	0.518	0.261	0.446	0.130	0.054	-0.045	-0.228		
STD ERROR OF SKEWNESS	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536		
SERIAL CORR COEFF	-0.114	-0.155	-0.055	0.081	0.018	0.047	0.095	0.059	0.145		
COEFF OF VARIATION	0.259	0.289	0.297	0.326	0.357	0.288	0.276	0.263	0.244		
MEAN LOGS	3.689	3.575	3.441	3.310	3.201	3.103	3.064	3.020	2.961		
STD DEVIATION LOGS	0.111	0.127	0.134	0.150	0.164	0.132	0.127	0.122	0.116		
SKEWNESS LOGS	0.123	-0.117	-0.400	-0.434	-0.359	-0.462	-0.574	-0.836	-0.836		
STD ERR SKEWNESS LOGS	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536		
SER CORR COEFF LOGS	-0.070	-0.140	-0.032	0.107	0.056	0.082	0.134	0.087	0.181		
COEFF OF VAR LOGS	0.030	0.035	0.039	0.045	0.051	0.042	0.041	0.040	0.039		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1940-1957)

0.99	2754.6	1860.3	1234.5	826.5	586.7	578.7	532.0	484.6	419.6	3211.0	3838.1
0.95	3233.9	2304.9	1610.9	1114.8	818.1	747.7	690.9	632.4	558.3	3912.3	4231.9
0.90	3529.4	2578.2	1840.9	1295.1	965.8	850.9	786.8	720.6	639.7	4353.1	4514.6
0.80	3930.6	2946.7	2147.3	1539.5	1168.8	988.4	913.2	835.4	743.3	4960.7	4945.9
0.50	4857.0	3781.1	2817.6	2088.1	1632.8	1290.0	1183.2	1075.2	948.9	6396.6	6148.4
0.20	6046.2	4812.9	3591.5	2740.7	2194.8	1641.1	1486.9	1332.3	1149.5	8294.2	8131.7
0.10	6799.8	5442.5	4032.2	3119.7	2524.2	1842.8	1654.9	1469.1	1246.7	9521.9	9664.2
0.04	7724.9	6190.2	4525.0	3349.0	2898.9	2070.4	1838.6	1613.9	1341.6	11050.7	11864.8
0.02	8399.0	6718.2	4853.8	3638.4	3152.0	2223.4	1958.9	1705.8	1397.2	12177.9	13707.8
0.01	9063.2	7225.2	5155.2	4105.5	3385.8	2364.7	2067.5	1786.6	1443.1	13298.1	15736.4

STATION 14242500 TOUTLE RIVER NEAR SILVER LAKE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1910	649	7377	3319	2603	3450	6441	2887	1805	974	609	415	398	2566
1911	1150	4350	2466	2200	1258	1353	1357	2634	1717	765	393	610	1688
1912	510	3094	1968										
1920	574	1991	2430	2430	1549	2059	2914	1943	1837	869	410	1529	1708
1921	3303	2526	3833	4630	4129	3888	2715	2622	2206	1275	760	775	2717
1930	368	301	2062	1324	4331	2010	1865	1889	1282	558	348	308	1368
1931	492	864	1066	2379	1895	2589	3568	1417	1145	739	372	395	1405
1932	1052	2376	2640	3149	2406	4952	3669	2431	2059	1068	553	426	2232
1933	703	4894	3981	4049	1848	3453	2283	2737	3735	1809	864	1040	2619
1934	1891	2411	12560	6581	2150	2504	1796	1297	731	473	377	382	2783
1935	1840	4683	3892	3988	2669	2240	1967	1872	1467	863	514	457	2201
1936	465	786	1223	4708	2288	2676	2173	2641	2559	945	494	464	1786
1937	450	379	2421	1044	1918	2639	4935	2641	2958	1120	565	600	1726
1938	653	4307	4518	3889	2062	2615	2767	2151	1308	590	402	367	2136
1939	578	1729	2612	3067	3307	2605	1885	1485	1380	760	411	392	1675
1940	455	588	3092	1736	4556	3347	2396	2092	703	444	364	407	1673
1941	556	1443	2109	2119	1312	1129	1045	1481	976	500	430	1091	1182
1942	1434	1787	4608	1618	2064	1467	1335	1604	1911	921	501	360	1634
1943	460	4014	3553	2202	3181	2334	3249	1723	1576	942	518	406	2000
1944	780	1090	2073	1919	1783	1781	1507	1507	1201	520	334	463	1247
1945	419	1668	1368	2648	3090	2542	2456	3190	1496	723	429	700	1718
1946	633	3237	3934	4229	3113	2582	2208	2435	2304	1583	590	474	2293
1947	1261	3385	6422	3116	3519	1924	2106	1214	1129	634	392	501	2160
1948	2362	4387	2756	3505	3185	2323	2595	3444	2300	925	662	665	2421
1949	1131	2842	3655	1219	3893	2949	3256	2517	2711	1387	614	486	2017
1950	910	2453	3102	3949	4834	4855	3225	2517	1500	833	497	460	2573
1951	1929	4084	4583	4189	4379	2215	2271	1950	1187	596	407	414	2338
1952	2281	2549	3353	1661	3098	1935	2315	2228	1375	816	443	362	1864
1953	314	369	1219	6657	3526	1876	1871	2250	1782	1075	581	481	1827
1954	958	2225	5641	4098	5000	2325	2605	1895	2346	1478	713	634	2478
1955	882	2380	2432	2315	2908	1800	3026	2360	2912	1740	689	564	1991
1956	2505	5492	6429	4667	1774	3770	3069	2800	2192	1283	672	492	2936
1957	1286	1817	3702	1282	2717	3775	2535	2006	1129	557	432	333	1794
1958	471	1130	3644	3520	3880	1738	2841	1693	1204	616	417	381	1782
1959	749	4202	3569	5564	2193	2165	2365	2280	1901	866	446	1059	2279
1960	2245	2985	2622	1562	3308	2344	3012	2849	1566	658	541	524	2011
1961	958	5333	2439	3517	5831	4030	2771	2743	1575	662	449	463	2538
1962	832	1701	3710	2502	1694	1837	2736	2234	1465	725	540	469	1705
1963	1279	3968	2885	1469	3349	1882	2909	2012	1022	775	544	509	1869
1964	843	2809	2157	4789	2494	2405	2219	2309	2874	1300	818	833	2152
1965	1011	2163	5931	4818	3506	1677	1739	1688	1152	614	469	405	2094
1966	527	1199	1641	3362	1844	3311	2617	2163	1551	1206	519	463	1702
1967	683	1803	4800	5220	2984	2357	1723	2091	2068	829	427	363	2113
1968	1672	1538	2788	2919	4588	2634	2058	1880	2119	722	922	1328	2088
1969	2462	3715	3895	3524	2243	1955	2380	2827	2079	1013	512	660	2273
1970	1126	1568	2614	5534	3583	1974	2019	1767	1129	531	369	453	1882
1971	1997	2314	4197	6143	3369	3286	2650	3013	2397	1701	709	828	2634
1972	1160	2793	3669	5498	4854	6358	2994	3034	2136	1168	611	849	2924
1973	589	1724	4674	2902	1286	1884	1497	1622	1154	632	401	549	1582
1974	907	4235	5299	6264	3649	3865	3474	3023	3440	1770	814	503	3101
1975	463	1687	3565	5861	2798	2555	1432	2331	1729	989	587	510	2044
1976	1551	3505	7262	4924	2474	2253	2534	2643	1652	1097	813	597	2615
1977	567	708	785	743	770	2383	2261	2182	1717	563	501	1012	1183
1978	909	4237	7622	2611	219A	1540	2228	2144	1248	723	582	2248	2248
1979	509	1092	2082	924	3607	2447	2188	2021	1011	667	447	662	1456

STATION 14242500 TOUTLE RIVER NEAR SILVER LAKE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1910-1979)

MEAN	1049.9	2623.4	3566.9	3395.2	2957.3	2663.7	2423.6	2220.9	1745.9	911.6	529.3	588.5	2056.1
MAXIMUM	3303.0	7377.0	12560.0	6657.0	5931.0	6441.0	4035.0	3444.0	3735.0	1809.0	922.0	1529.0	3101.0
MINIMUM	314.0	301.0	785.0	743.0	770.0	1129.0	1045.0	1214.0	703.0	444.0	334.0	308.0	1182.0
STD DEVIATION	664.39	1510.66	1965.41	1597.94	1103.00	1105.70	621.98	526.92	670.44	360.72	144.66	259.20	460.02
SKEWNESS	1.419	0.692	2.053	0.293	0.335	1.734	0.197	0.215	0.911	1.024	0.970	1.746	0.193
STD ERR SKEW	0.322	0.322	0.322	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325
SER CORR COEFF	0.002	-0.034	-0.147	0.116	0.018	-0.062	-0.081	-0.029	-0.087	-0.011	-0.054	0.039	-0.040
COEFF OF VAR	0.633	0.576	0.548	0.471	0.373	0.415	0.257	0.237	0.384	0.356	0.273	0.440	0.224
MEAN LOGS	2.948	3.331	3.499	3.475	3.438	3.395	3.369	3.334	3.212	2.930	2.709	2.737	3.302
STD DEV LOGS	0.248	0.308	0.224	0.236	0.178	0.157	0.118	0.106	0.163	0.101	0.111	0.161	0.100
SKEWNESS LOGS	0.403	-0.906	-0.203	-0.609	-0.659	0.605	-0.609	-0.277	0.048	0.396	0.519	0.943	-0.334
STD ERR SKEW LOGS	0.322	0.322	0.322	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325
SER CORR LOGS	0.011	0.032	-0.203	0.008	0.016	-0.054	-0.072	-0.057	-0.070	-0.038	-0.030	0.066	-0.019
COEFF OF VAR LOGS	0.084	0.093	0.064	0.068	0.052	0.046	0.035	0.032	0.051	0.055	0.041	0.059	0.030
% OF AVE FLOW	4.3	10.6	14.5	13.7	12.0	10.8	9.8	9.0	7.1	3.7	2.1	2.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1910-1979)

0.99	278.9	262.0	882.8	667.3	869.7	1260.2	1103.3	1164.6	689.3	401.1	311.2	298.8	1108.4
0.95	372.0	572.5	1315.1	1124.9	1303.6	1467.5	1434.1	1418.4	883.2	483.9	349.8	332.9	1343.6
0.90	439.5	828.3	1615.2	1451.7	1586.7	1610.2	1630.0	1568.6	1009.0	539.2	375.0	358.3	1491.1
0.80	544.7	1241.7	2058.6	1935.6	1978.4	1822.6	1883.3	1764.5	1186.9	619.8	410.9	398.3	1658.5
0.50	854.3	2380.7	3212.2	3153.6	2866.5	2397.3	2406.4	2182.8	1624.3	829.8	500.7	515.7	2030.3
0.20	1414.4	3926.2	4890.5	4753.6	3997.2	3319.9	2957.0	2657.4	2232.4	1150.0	629.5	724.6	2440.7
0.10	1882.5	4829.6	6033.8	5721.7	4468.8	4021.9	3445.4	2927.2	2640.5	1383.5	718.9	896.6	2668.4
0.04	2598.2	5803.1	7494.9	6828.6	5084.9	5018.9	3546.7	3230.3	3162.4	1703.6	836.6	1157.2	2919.7
0.02	3230.4	6412.5	8588.5	7572.1	5479.2	5846.2	3735.6	3434.1	3555.7	1960.7	928.1	1386.3	3085.9
0.01	3955.4	6934.5	9682.8	8251.8	5827.2	6749.8	3900.4	3622.5	3952.9	2234.3	1022.8	1648.7	3237.5

STATION 14242500 TOUTLE RIVER NEAR SILVER LAKE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1911	330.0	331.0	335.0	363.0	379.0	401.0	466.0	573.0	851.0
1921	299.0	302.0	310.0	331.0	382.0	499.0	765.0	1040.0	1570.0
1931	270.0	273.0	279.0	292.0	306.0	318.0	369.0	401.0	580.0
1932	295.0	298.0	301.0	324.0	352.0	373.0	388.0	543.0	800.0
1933	325.0	328.0	335.0	346.0	388.0	432.0	515.0	670.0	1190.0
1934	539.0	553.0	591.0	616.0	650.0	854.0	969.0	1280.0	1920.0
1935	305.0	305.0	308.0	319.0	339.0	360.0	375.0	417.0	653.0
1936	342.0	346.0	359.0	365.0	436.0	454.0	465.0	505.0	698.0
1937	354.0	356.0	360.0	368.0	378.0	404.0	421.0	438.0	703.0
1938	439.0	446.0	458.0	489.0	518.0	573.0	579.0	668.0	1340.0
1939	328.0	331.0	334.0	341.0	359.0	380.0	406.0	471.0	824.0
1940	313.0	318.0	322.0	334.0	364.0	395.0	414.0	459.0	646.0
1941	327.0	327.0	333.0	339.0	351.0	379.0	396.0	407.0	583.0
1942	329.0	333.0	336.0	349.0	373.0	456.0	613.0	734.0	918.0
1943	308.0	311.0	313.0	329.0	336.0	355.0	408.0	529.0	945.0
1944	316.0	319.0	321.0	338.0	359.0	421.0	476.0	635.0	881.0
1945	272.0	272.0	278.0	303.0	307.0	354.0	403.0	427.0	725.0
1946	371.0	371.0	377.0	396.0	418.0	512.0	549.0	607.0	1070.0
1947	399.0	403.0	414.0	448.0	454.0	471.0	572.0	899.0	1360.0
1948	310.0	315.0	321.0	325.0	365.0	444.0	491.0	623.0	899.0
1949	446.0	446.0	465.0	477.0	552.0	620.0	727.0	832.0	1330.0
1950	394.0	399.0	412.0	419.0	434.0	466.0	566.0	639.0	961.0
1951	400.0	405.0	411.0	426.0	464.0	533.0	706.0	977.0	1530.0
1952	320.0	330.0	345.0	363.0	387.0	537.0	461.0	637.0	1040.0
1953	288.0	291.0	293.0	299.0	307.0	326.0	347.0	368.0	581.0
1954	387.0	396.0	403.0	415.0	472.0	526.0	628.0	724.0	1100.0
1955	480.0	486.0	500.0	536.0	611.0	639.0	710.0	801.0	1260.0
1956	420.0	434.0	445.0	456.0	511.0	598.0	870.0	1230.0	1700.0
1957	432.0	436.0	450.0	456.0	484.0	524.0	629.0	872.0	1230.0
1958	300.0	303.0	309.0	320.0	332.0	362.0	393.0	432.0	672.0
1959	330.0	330.0	330.0	349.0	372.0	386.0	331.0	529.0	810.0
1960	386.0	398.0	411.0	414.0	433.0	545.0	725.0	968.0	1330.0
1961	386.0	391.0	400.0	412.0	446.0	529.0	537.0	595.0	1100.0
1962	380.0	380.0	387.0	398.0	419.0	450.0	487.0	566.0	901.0
1963	361.0	365.0	380.0	410.0	423.0	486.0	551.0	702.0	1020.0
1964	392.0	392.0	412.0	441.0	441.0	487.0	513.0	592.0	912.0
1965	590.0	601.0	645.0	680.0	738.0	820.0	871.0	928.0	1370.0
1966	356.0	358.0	360.0	371.0	400.0	447.0	449.0	492.0	723.0
1967	375.0	375.0	395.0	404.0	432.0	424.0	498.0	601.0	960.0
1968	327.0	327.0	330.0	342.0	362.0	394.0	511.0	690.0	1150.0
1969	441.0	448.0	457.0	476.0	527.0	701.0	900.0	1040.0	1420.0
1970	408.0	412.0	414.0	419.0	441.0	522.0	704.0	790.0	1080.0
1971	333.0	335.0	339.0	346.0	361.0	398.0	424.0	483.0	814.0
1972	485.0	491.0	508.0	555.0	576.0	726.0	829.0	1080.0	1570.0
1973	438.0	444.0	456.0	481.0	500.0	608.0	678.0	770.0	1060.0
1974	313.0	320.0	330.0	353.0	361.0	400.0	499.0	592.0	871.0
1975	361.0	365.0	372.0	381.0	440.0	473.0	543.0	690.0	1250.0
1976	378.0	384.0	392.0	404.0	469.0	543.0	578.0	742.0	1190.0
1977	430.0	430.0	437.0	465.0	483.0	563.0	611.0	619.0	678.0
1978	325.0	328.0	331.0	339.0	376.0	496.0	611.0	693.0	1130.0
1979	432.0	436.0	444.0	456.0	497.0	642.0	669.0	673.0	834.0

STATION 14242500 TOUTLE RIVER NEAR SILVER LAKE, WASH.

LOWEST MEAN FLOW STATISTICS (YEARS 1911-1979)

MEAN	369.9	374.0	383.3	399.0	430.7	487.6	562.7	679.9	1034.0
MAXIMUM	590.0	601.0	645.0	680.0	738.0	854.0	969.0	1280.0	1920.0
MINIMUM	270.0	272.0	278.0	292.0	306.0	318.0	347.0	368.0	580.0
STANDARD DEVIATION	66.96	68.76	75.22	79.91	93.31	119.21	153.20	214.81	312.84
SKEWNESS	1.048	1.086	1.271	1.395	1.342	1.162	0.835	0.926	0.665
STD ERROR OF SKEWNESS	0.333	0.333	0.333	0.333	0.333	0.333	-0.009	0.333	0.333
SERIAL CORR COEFF	0.086	0.083	0.067	0.018	0.027	-0.020	-0.009	-0.044	-0.048
COEFF OF VARIATION	0.181	0.184	0.196	0.200	0.217	0.244	0.272	0.316	0.303
MEAN LOGS	2.562	2.566	2.576	2.593	2.625	2.677	2.735	2.813	2.995
STD DEVIATION LOGS	0.075	0.076	0.080	0.080	0.087	0.099	0.113	0.131	0.130
SKEWNESS LOGS	0.569	0.592	0.697	0.837	0.768	0.575	0.361	0.254	0.061
STD ERR SKEWNESS LOGS	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333
SER CORR COEFF LOGS	0.129	0.126	0.113	0.054	0.054	0.014	0.014	-0.029	-0.017
COEFF OF VAR LOGS	0.029	0.029	0.031	0.031	0.033	0.037	0.041	0.047	0.043

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1911-1979)

0.99	582.9	594.3	631.7	671.6	748.3	886.3	1066.4	1387.0	2010.4
0.98	545.2	554.9	585.3	618.5	686.6	810.8	974.5	1257.7	1846.4
0.96	507.7	515.9	540.1	567.4	627.1	737.5	884.3	1130.7	1680.5
0.90	457.7	464.1	480.9	501.9	550.9	642.5	765.5	963.6	1454.3
0.80	418.3	423.3	435.5	452.5	493.3	570.0	673.1	833.8	1271.5
0.50	358.6	362.1	368.9	382.2	411.4	464.6	535.4	641.3	986.6
0.20	314.5	317.3	322.0	334.8	355.6	390.5	435.4	502.2	768.9
0.10	296.2	298.8	303.3	316.6	333.9	360.8	394.2	445.1	676.0
0.05	283.2	285.7	290.3	304.2	319.1	339.9	364.6	404.2	608.4
0.02	270.3	272.8	277.8	292.7	305.1	319.7	335.5	364.2	540.9
0.01	262.8	265.2	270.6	286.2	297.1	308.0	318.3	340.4	500.4

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1911-1979)

P95	P90	P75	P70	P50	P25	P10
380.	440.	750.	900.	1600.	2600.	4000.

STATION 14242500 TOUTLE RIVER NEAR SILVER LAKE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (R)
1910	35600.	26100.	16600.	10800.	7620.	5380.	4510.	4820.	4330.	37600. 03/02/10
1911	20600.	13500.	8080.	6930.	5050.	3560.	3080.	2590.	2240.	23500. 11/10/10
1912										14700. 01/14/12
1920	8810.	6940.	5470.	3770.	2920.	2620.	2410.	2410.	2290.	9700. 01/26/20
1921	13700.	11100.	10900.	8280.	5940.	4810.	4530.	4140.	3740.	14700. 12/20/20
1922										13800. 12/12/21
1923										16500. 01/06/23
1930	8360.	5760.	5140.	5080.	4170.	3100.	2680.	2510.	2290.	10800. 12/14/29
1931	15000.	12600.	7990.	5970.	4430.	3250.	2870.	2640.	2160.	20000. 03/31/31
1932	11400.	9020.	6450.	6100.	5300.	4690.	4010.	3620.	3300.	15600. 03/05/32
1933	10800.	9780.	7970.	6300.	5490.	4840.	4350.	3740.	3440.	13300. 12/02/32
1934	31000.	29300.	24600.	17100.	13600.	9910.	7360.	6250.	4850.	34300. 12/23/33
1935	15200.	13600.	9430.	7150.	5110.	4350.	4190.	4030.	3390.	19500. 11/05/34
1936	12000.	10700.	7630.	6840.	4860.	3560.	3270.	3000.	2860.	15700. 01/12/36
1937	11400.	10300.	7550.	5400.	4080.	3360.	3220.	3070.	2610.	17400. 12/22/36
1938	17100.	16300.	11300.	7020.	5750.	4850.	4390.	3810.	3420.	20300. 12/28/37
1939	13100.	9240.	7020.	4550.	3280.	3210.	3000.	2890.	2530.	15400. 02/15/39
1940	10800.	9190.	8290.	5890.	5190.	4070.	3540.	3310.	2860.	12800. 12/15/39
1941	7800.	4970.	3450.	2820.	2380.	2260.	2000.	1790.	1600.	9410. 11/29/40
1942	18900.	14700.	9890.	6460.	4710.	3360.	2940.	2600.	2190.	21400. 12/19/41
1943	15200.	11800.	8630.	5980.	4840.	4000.	3500.	3250.	3080.	20500. 11/23/42
1944	9300.	6710.	4350.	2930.	2120.	2010.	1940.	1840.	1770.	12300. 12/03/43
1945	10400.	8530.	6210.	4330.	3320.	2900.	2820.	2830.	2550.	14900. 02/07/45
1946	13000.	11100.	9740.	7630.	5260.	4510.	4060.	3790.	3290.	17400. 12/28/45
1947	22600.	22300.	17600.	10900.	8130.	5250.	5010.	4320.	3520.	29800. 12/11/46
1948	12500.	10100.	7450.	5980.	4610.	3760.	3920.	3450.	3170.	14100. 11/08/47
1949	12900.	9480.	7750.	6140.	4600.	3620.	3400.	3120.	2890.	17300. 02/17/49
1950	16500.	14500.	9800.	9060.	6520.	5880.	4790.	4400.	3840.	17200. 02/24/50
1951	13700.	12100.	9220.	6200.	5200.	4800.	4490.	4430.	3660.	14100. 02/11/51
1952	10500.	7740.	6530.	4960.	3930.	3180.	2950.	2850.	2540.	11900. 02/04/52
1953	14000.	12100.	10600.	9010.	7790.	5110.	4400.	3500.	2980.	15600. 01/19/53
1954	15700.	12400.	9820.	7380.	5900.	4960.	4910.	4480.	3680.	25200. 12/09/53
1955	13400.	9160.	6080.	4060.	3160.	2880.	2620.	2600.	2600.	16200. 02/08/55
1956	18000.	15000.	10500.	8540.	7630.	6410.	5730.	4900.	4290.	20400. 12/12/55
1957	11500.	9850.	7190.	6650.	4860.	3740.	3170.	3030.	2670.	12800. 02/26/57
1958	10000.	7590.	6010.	5160.	4080.	3980.	3690.	3190.	2860.	11800. 12/26/57
1959	16300.	11600.	8800.	6360.	5710.	4640.	4610.	3410.	2860.	17600. 01/24/59
1960	13000.	10200.	7560.	4870.	4000.	3050.	2960.	2920.	2780.	14100. 11/23/59
1961	15000.	12700.	11600.	9070.	5800.	4900.	4510.	4580.	4070.	20400. 11/24/60
1962	10100.	8040.	7100.	5870.	4410.	3370.	2830.	2590.	2490.	11300. 12/24/61
1963	20000.	12200.	9740.	7460.	5350.	3670.	3370.	2960.	2820.	24800. 11/20/62
1964	17300.	12500.	8710.	6630.	4990.	3780.	3420.	3120.	2870.	22000. 01/25/64
1965	22200.	17100.	12300.	7670.	6120.	5320.	5000.	4280.	3370.	26600. 12/23/64
1966	8970.	6950.	5590.	4790.	3620.	3090.	2910.	2850.	2510.	10500. 03/09/66
1967	16200.	12000.	8110.	6700.	5420.	5030.	4390.	3890.	3220.	19100. 12/13/66
1968	10600.	8690.	7460.	5130.	4550.	3790.	3430.	3250.	2850.	12300. 02/04/68
1969	12800.	11000.	8110.	5530.	4470.	4430.	3990.	3490.	3040.	15200. 01/07/69
1970	12800.	10900.	9700.	9000.	6430.	4750.	4040.	3510.	2930.	13500. 01/19/70
1971	15100.	11800.	9270.	8130.	6480.	5380.	4750.	4320.	3830.	17800. 12/07/70
1972	26800.	21900.	13700.	13700.	9410.	6700.	5190.	4430.	38000.	01/20/72
1973	15100.	13300.	11400.	8320.	5770.	3940.	3170.	2800.	2370.	20600. 12/21/72
1974	26100.	22000.	14300.	9740.	7370.	6080.	5660.	4520.	33000.	01/15/74
1975	20000.	15100.	11600.	8230.	6220.	4930.	4350.	3850.	3180.	21200. 01/14/75
1976	25900.	22500.	16600.	10800.	7340.	6330.	5460.	4680.	3920.	32700. 12/04/75
1977	4770.	3930.	3310.	2780.	2470.	2350.	2340.	2180.	1700.	5420. 03/09/77
1978	29400.	20800.	13400.	12300.	9010.	6080.	4930.	4240.	3430.	43200. 12/02/77
1979	11500.	7610.	6680.	5020.	4220.	3050.	2810.	2560.	2200.	16400. 02/07/79

STATION 14242500 TOUTLE RIVER NEAR SILVER LAKE, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1910-1979)

W R C
ESTIMATESYSTEMATIC
RECORD

MEAN	15383.5	12340.4	9264.4	6940.4	5360.0	4302.4	3866.1	3509.1	3065.4		
MAXIMUM	35600.0	29300.0	24600.0	17100.0	13600.0	9910.0	7360.0	6250.0	4850.0		
MINIMUM	4770.0	3930.0	3310.0	2780.0	2120.0	2010.0	1940.0	1790.0	1600.0		
STANDARD DEVIATION	6208.62	5248.68	3741.59	2536.41	1900.09	1357.39	1078.62	912.84	730.38		
SKEWNESS	1.294	1.306	1.652	1.329	1.563	1.355	0.662	0.528	0.299		
STD ERROR OF SKEWNESS	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325		
SERIAL CORR COEFF	-0.096	-0.105	-0.089	-0.097	-0.092	-0.065	-0.073	-0.085	-0.099		
COEFF OF VARIATION	0.404	0.425	0.404	0.365	0.354	0.315	0.279	0.260	0.238		
MEAN LOGS	4.156	4.057	3.936	3.815	3.705	3.614	3.571	3.531	3.474		
STD DEVIATION LOGS	0.165	0.174	0.164	0.155	0.148	0.131	0.121	0.114	0.107		
SKEWNESS LOGS	0.118	0.061	0.015	-0.169	-0.130	0.084	-0.098	-0.158	-0.345		
STD ERR SKEWNESS LOGS	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325		
SER CORR COEFF LOGS	-0.180	-0.171	-0.141	-0.112	-0.102	-0.082	-0.065	-0.073	-0.080		
COEFF OF VAR LOGS	0.040	0.043	0.042	0.041	0.040	0.036	0.034	0.032	0.031		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1910-1979)

0.99	6130.5	4555.2	3603.0	2721.3	2221.3	2080.1	1906.6	1788.9	1582.9		
0.95	7779.0	5924.2	4647.7	3567.5	2858.2	2524.9	2334.6	2179.7	1945.0		
0.90	8856.3	6825.3	5325.3	4105.2	3259.8	2804.2	2596.2	2415.3	2158.3		
0.80	10389.3	8113.6	6281.4	4848.0	3812.4	3188.7	2847.6	2728.0	2435.4		
0.50	14212.6	11344.0	8623.9	6590.9	5102.4	4095.7	3739.5	3417.6	3020.8		
0.20	19648.7	15952.4	11856.1	8833.8	6758.4	5292.4	4713.7	4240.0	3672.7		
0.10	23372.8	19108.9	14010.0	10237.9	7796.0	6065.8	5306.7	4727.7	4036.4		
0.04	28216.3	23207.1	16746.9	11932.1	9050.7	7028.4	6009.9	5294.6	4439.0		
0.02	31923.6	26336.4	18797.2	13143.0	9950.0	7737.8	6506.2	5687.6	4705.8		
0.01	35715.8	29529.7	20858.3	14315.4	10823.0	8442.6	6982.7	6055.7	4949.6		

742.5
9279.7
10586.1
12479.4
17184.1
23930.3
28532.4
34510.1
39079.0
43746.1

STATION 14242600 TOUTLE R TRIBUTARY NR CASTLE ROCK, WASH.

ANNUAL PEAK FLOW DATA

W R C
ESTIMATESYSTEMATIC
RECORD

WATER YEAR	FLOW(CFS)	DATE
1950	58.0	11-26-1949
1951	28.0	2-11-1951
1952	32.0	2-4-1952
1953	20.0	1-23-1953
1954	62.0	12-9-1953
1955	42.0	2-8-1955
1956	64.0	12-22-1955
1957	68.0	12-9-1956
1958	20.0	12-25-1957
1959	32.0	1-23-1959
1960	25.0	11-22-1959
1961	54.0	11-20-1960
1962	16.0	12-17-1961
1963	99.0	2-3-1963
1964	99.0	1-25-1964
1965	50.0	12-22-1964
1966	34.0	1-2-1966
1967	30.0	12-13-1966
1968	42.0	2-19-1968
1969	40.0	12-3-1968
1970	28.0	1-26-1970

ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1970)

W R C
ESTIMATESYSTEMATIC
RECORDMEAN LOGS
STANDARD DEVIATION LOGS
SKEWNESS LOGS1.5992
0.2194
0.0951.5992
0.2194
0.095ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1950-1970)0.99
0.95
0.90
0.80
0.50
0.20
0.10
0.04
0.02
0.0112.7
17.6
20.9
25.9
39.4
60.6
76.5
97.8
115.1
133.712.9
17.7
21.0
25.9
39.3
60.6
76.5
98.6
116.6
135.7

STATION 14243000 COWLITZ R AT CASTLE ROCK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1927			7919	14420	14150	8448	8370	12830	13610	5287	2663	3770	
1928	9546	20410	12270	17550	5676	13260	12910	13990	6314	4283	2366	1819	10050
1929	3298	3918	6077	5647	4280	9045	10050	14170	12450	4757	2319	1605	6480
1930	1577	1402	7089	5073	18350	8451	9775	8584	6108	3104	1865	1459	5984
1931	1987	3239	3907	10550	8604	10560	16010	8915	5658	3066	1829	1592	6305
1932	3548	9040	9924	11710	11170	20590	14850	13440	12150	6089	2508	1566	9710
1933	2733	22370	16690	17120	7009	12010	9808	12700	19250	9761	4165	3892	11470
1934	9101	10390	52650	28070	9720	13610	10320	7143	3988	2553	1919	1641	12680
1935	7275	20290	17380	17030	11660	9009	8068	10640	9515	5419	3184	2295	10140
1936	1828	2558	4415	17380	8491	11970	11730	16040	13410	4658	2419	1944	8075
1937	1578	1233	8485	3891	8300	10920	16540	14220	16420	6321	2671	2366	7726
1938	2433	18660	19040	16870	8166	10560	13640	12700	8369	3828	2133	1757	9851
1939	2213	6334	11120	13010	12850	10450	10130	10310	7918	4580	2294	1887	7728
1940	2016	2696	12680	7887	17050	13570	10330	10580	4107	2313	1798	1677	7199
1941	2172	5004	9031	8537	5175	4822	4966	6704	4396	2448	1863	3430	4881
1942	5729	7953	18560	6614	8395	6017	7181	7997	9720	4951	2437	1697	7268
1943	1627	16190	16170	9880	13910	9289	16340	9838	9990	6373	2698	1951	9468
1944	2580	3679	7965	7317	7513	6464	7645	8104	5953	2730	1855	2086	5318
1945	2040	4229	5651	12390	13230	9818	9894	15810	8012	3659	2095	2591	7418
1946	2272	10900	14710	17100	12890	12140	10690	15150	12640	8323	3099	2084	10160
1947	4436	13320	26760	12090	14800	9123	10970	9078	6758	4018	2170	2189	9615
1948	11010	17220	11930	14550	12350	9218	9926	17010	15180	5314	3145	2568	10770
1949	4505	10930	15000	4865	14050	12960	12030	19290	11220	6093	3051	2346	9665
1950	3791	11570	14550	14800	18860	19520	13740	13440	16610	9834	3956	2474	11880
1951	7345	18170	21980	17000	21520	10050	11660	12120	7982	4094	2305	1843	11270
1952	8615	10050	13480	6216	13000	7438	11850	12600	8215	4866	2403	1690	8349
1953	1362	1301	3586	26710	18430	7406	8626	12290	10680	7293	3158	2206	8539
1954	3485	8615	24150	15670	19190	10150	12250	12790	13680	9808	3198	2725	11410
1955	3805	9674	9267	9835	11650	7107	11780	11880	17310	9745	3873	2725	9018
1956	10340	23190	25950	17340	7388	13740	15090	17330	14750	8677	3564	2492	13350
1957	5366	8027	17590	5776	10270	15710	11510	12660	7217	3412	2376	1887	8483
1958	2167	4522	13440	14300	16180	7890	12460	11980	7535	3381	2239	1966	8105
1959	3211	19900	17380	21600	9620	8994	11680	12110	11130	5395	2568	5000	10710
1960	10920	16690	13200	6971	14510	10350	13830	14630	10920	4545	2854	2463	10120
1961	3726	19660	10310	15100	26810	16420	11860	13920	11240	4643	2565	2173	11410
1962	3237	5976	15270	13120	8061	7537	12670	10780	9294	4815	2995	2125	7995

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1927-1962)

MEAN	4367.8	10551.7	14321.6	12888.6	12313.3	10677.9	11421.6	12327.0	10269.4	5289.9	2660.7	2290.4	9102.9
MINIMUM	11010.0	23190.0	52650.0	28070.0	26810.0	20590.0	16540.0	19290.0	19250.0	9834.0	4385.0	5000.0	13350.0
MAXIMUM	1362.0	1233.0	3586.0	3891.0	4280.0	4822.0	4966.0	6704.0	3988.0	2313.0	1798.0	1459.0	4881.0
STD DEVIATION	2970.12	6861.99	8850.87	5849.48	4981.70	3511.01	2609.12	2930.50	3934.05	2194.47	678.94	753.80	2067.79
SKEWNESS	1.134	0.348	2.415	0.577	0.760	1.049	-0.045	0.097	0.381	0.877	0.955	1.869	-0.075
STD ERR SKEW	0.398	0.398	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.398
SER CORR COEFF	0.121	0.037	0.083	-0.018	0.103	0.071	0.083	0.279	0.072	0.227	0.277	-0.077	0.348
COEFF OF VAR	0.680	0.650	0.618	0.454	0.405	0.329	0.228	0.238	0.383	0.415	0.255	0.329	0.227
MEAN LOGS	3.553	3.900	4.089	4.062	4.055	4.007	4.046	4.078	3.978	3.689	3.412	3.342	3.947
STD DEV LOGS	0.273	0.370	0.246	0.181	0.181	0.137	0.108	0.109	0.178	0.175	0.105	0.122	0.105
SKEWNESS LOGS	0.437	-0.716	-0.144	-0.437	-0.261	0.112	-0.940	-0.511	-0.597	0.113	0.475	1.063	-0.606
STD ERR SKEW LOGS	0.398	0.398	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.398
SER CORR LOGS	0.206	0.169	0.115	-0.085	0.112	0.112	0.137	0.290	0.088	0.188	0.275	-0.026	0.377
COEFF OF VAR LOGS	0.077	0.095	0.060	0.053	0.045	0.034	0.027	0.027	0.045	0.048	0.031	0.037	0.027
% OF AVE FLOW	4.0	9.6	13.1	11.8	11.3	9.8	10.4	11.3	9.4	4.8	2.4	2.1	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1927-1962)

0.99	1018.2	710.1	3102.9	3113.8	3986.1	4999.9	5294.6	6099.1	3260.5	1975.4	1605.3	1421.3	4546.6
0.95	1384.9	1682.5	4735.0	4823.0	5561.8	6105.0	6988.2	7672.7	4644.0	2548.4	1799.8	1525.1	5735.8
0.90	1657.0	2550.9	5900.1	6000.1	6594.9	6805.5	7984.0	8594.5	5545.7	2927.1	1925.2	1603.9	6425.4
0.80	2090.0	4058.9	7663.3	7710.6	8051.5	7776.1	9188.4	9780.7	6805.7	3471.1	2101.8	1728.3	7303.6
0.50	3416.2	8789.4	12450.6	11965.5	11562.4	10106.2	11540.6	12228.8	9769.6	4848.2	2535.3	2090.5	9077.5
0.20	5950.6	16491.6	19844.4	17642.8	16184.8	13240.6	13726.8	13490.8	6844.6	3141.9	2711.6	10899.6	
0.10	8181.0	21731.2	25129.2	21195.6	19104.3	15300.1	14737.3	16225.9	1574.6	832.2	3554.3	3202.5	
0.04	11716.3	28096.1	32142.4	25412.7	22633.0	17896.1	15685.9	17705.8	18364.5	10056.2	4089.4	3918.6	12811.7
0.02	14948.2	32532.9	37566.9	28357.9	25151.9	19830.8	16222.1	18651.3	20165.7	11465.0	4499.0	4526.1	13416.8
0.01	18757.7	36666.7	43135.8	31143.6	27583.6	21769.9	16651.6	19489.5	21854.1	12915.8	4918.7	5201.6	13942.2

STATION 14243000 COWLITZ R AT CASTLE ROCK, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1928	2140.0	2190.0	2200.0	2320.0	2620.0	2450.0	3770.0	5250.0	7630.0
1929	1620.0	1620.0	1650.0	1680.0	1810.0	2050.0	2440.0	2660.0	3460.0
1930	1230.0	1260.0	1310.0	1350.0	1400.0	1470.0	1500.0	1620.0	3110.0
1931	1280.0	1280.0	1320.0	1380.0	1420.0	1580.0	1730.0	1890.0	2580.0
1932	1270.0	1290.0	1320.0	1390.0	1460.0	1570.0	1710.0	2240.0	3830.0
1933	1340.0	1380.0	1410.0	1470.0	1500.0	1740.0	2190.0	3040.0	6270.0
1934	2640.0	2640.0	2820.0	2920.0	3030.0	3720.0	4330.0	6200.0	9120.0
1935	1260.0	1290.0	1320.0	1340.0	1420.0	1590.0	1750.0	2000.0	3450.0
1936	1050.0	1040.0	1130.0	1390.0	1690.0	1840.0	2090.0	2390.0	3240.0
1937	1110.0	1120.0	1130.0	1170.0	1210.0	1350.0	1500.0	1710.0	3000.0
1938	1520.0	1530.0	1550.0	1660.0	1810.0	2210.0	2410.0	2950.0	6900.0
1939	1540.0	1540.0	1600.0	1660.0	1840.0	1840.0	2010.0	2400.0	4070.0
1940	1520.0	1560.0	1620.0	1700.0	1780.0	1890.0	2020.0	2210.0	3390.0
1941	1390.0	1400.0	1460.0	1560.0	1620.0	1660.0	1780.0	1940.0	2650.0
1942	1720.0	1730.0	1730.0	1760.0	1820.0	2100.0	2560.0	2940.0	3920.0
1943	1320.0	1330.0	1340.0	1400.0	1460.0	1590.0	1870.0	2570.0	4710.0
1944	1660.0	1690.0	1700.0	1730.0	1800.0	1990.0	2360.0	2710.0	4080.0
1945	1550.0	1560.0	1600.0	1660.0	1700.0	1930.0	1990.0	2130.0	3070.0
1946	1610.0	1660.0	1680.0	1750.0	1930.0	2230.0	2220.0	2600.0	4710.0
1947	1340.0	1380.0	1420.0	1590.0	1670.0	2030.0	2650.0	3730.0	6750.0
1948	1660.0	1670.0	1720.0	1770.0	1950.0	2150.0	2670.0	3450.0	5470.0
1949	1710.0	1750.0	1880.0	2000.0	2360.0	2800.0	3400.0	3650.0	6840.0
1950	1810.0	1890.0	1940.0	2060.0	2280.0	2510.0	2930.0	3440.0	5760.0
1951	2000.0	2010.0	2040.0	2140.0	2380.0	2990.0	4070.0	5650.0	8780.0
1952	1550.0	1560.0	1620.0	1670.0	1790.0	2050.0	2680.0	3530.0	5630.0
1953	1100.0	1110.0	1130.0	1180.0	1280.0	1320.0	1430.0	1630.0	2500.0
1954	1790.0	1830.0	1880.0	1980.0	2210.0	2640.0	2930.0	3270.0	5700.0
1955	2330.0	2400.0	2470.0	2590.0	2960.0	3320.0	3620.0	4170.0	6540.0
1956	2140.0	2140.0	2180.0	2550.0	2670.0	3030.0	4590.0	6080.0	8840.0
1957	2120.0	2130.0	2220.0	2340.0	2400.0	2640.0	3350.0	4530.0	6570.0
1958	1690.0	1710.0	1760.0	1800.0	1840.0	1900.0	2090.0	2300.0	3500.0
1959	1690.0	1700.0	1710.0	1820.0	1930.0	2020.0	2300.0	2610.0	4850.0
1960	2190.0	2220.0	2250.0	2300.0	2440.0	3200.0	4090.0	5310.0	7130.0
1961	1910.0	1950.0	2000.0	2170.0	2260.0	2550.0	2600.0	3220.0	6010.0
1962	1700.0	1700.0	1740.0	1790.0	1880.0	2220.0	2540.0	2970.0	4550.0

LOWEST MEAN FLOW STATISTICS (YEARS 1928-1962)

MEAN	1642.9	1667.4	1713.1	1800.0	1929.1	2190.6	2576.3	3171.1	5102.6
MAXIMUM	2640.0	2640.0	2820.0	2920.0	3030.0	3720.0	4590.0	6200.0	9120.0
MINIMUM	1050.0	1080.0	1130.0	1170.0	1210.0	1430.0	1430.0	1620.0	2500.0
STANDARD DEVIATION	371.17	375.75	395.37	415.61	463.13	597.64	849.34	1263.43	1898.58
SKWENESS	0.641	0.618	0.751	0.787	0.701	0.749	0.851	1.066	0.507
STD ERROR OF SKWENESS	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398
SERIAL CORR COEFF	0.271	0.290	0.281	0.299	0.279	0.261	0.261	0.220	0.265
COEFF OF VARIATION	0.226	0.225	0.231	0.231	0.240	0.273	0.330	0.398	0.372
MEAN LOGS	3.205	3.212	3.223	3.245	3.274	3.326	3.390	3.471	3.678
STD DEVIATION LOGS	0.097	0.096	0.098	0.097	0.101	0.115	0.137	0.161	0.164
SKWENESS LOGS	0.108	0.110	0.187	0.271	0.240	0.248	0.301	0.395	-0.013
STD ERR SKWENESS LOGS	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398
SER CORR COEFF LOGS	0.321	0.335	0.331	0.324	0.279	0.226	0.270	0.266	0.297
COEFF OF VAR LOGS	0.030	0.030	0.030	0.030	0.031	0.034	0.040	0.046	0.044

STATION 14243000 CONULTZ RIVER AT CASTLE ROCK, WASH.

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1928-1962)

	0.99	0.98	0.96	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
	2736.8	2563.6	2385.6	2137.3	1931.1	1597.3	1328.7	1209.5	1120.4	1029.2	973.3
	2776.2	2600.6	2420.1	2168.3	1959.4	1621.2	1349.2	1228.4	1138.2	1045.9	989.3
	2907.6	2711.6	2512.4	2238.4	2014.5	1659.4	1380.5	1258.9	1168.8	1077.4	1021.8
	3085.8	2868.1	2649.0	2351.5	2111.8	1738.5	1451.8	1328.7	1238.3	1147.4	1092.5
	3366.4	3123.4	2878.7	2546.2	2278.2	1860.6	1539.7	1401.9	1300.8	1199.0	1137.4
	4103.9	3768.5	3434.6	2987.5	2633.2	2093.4	1690.2	1520.4	1397.4	1275.0	1201.7
	5471.2	4924.9	4394.3	3705.8	3179.4	2413.6	1873.6	1655.6	1501.4	1351.2	1262.9
	7805.6	6846.2	5945.0	4823.9	4006.7	2886.7	2152.9	1871.6	1678.3	1495.0	1389.6
	11411.3	10307.5	9204.0	7721.8	6547.4	4771.1	3472.7	2940.0	2561.7	2193.2	1977.1

FLOW DUKATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1928-1962)

	P95	P90	P75	P70	P50	P25	P10
	1700.0	2000.0	3300.0	4100.0	7300.0	12000.0	18000.0

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1927	71300.	56900.	41900.	32700.	24700.	20300.	17000.	15100.	14200.	41100. 01/03/27
1928	21100.	19600.	18300.	16500.	14600.	13600.	12600.	11600.	9370.	74000. 11/25/27
1929	29500.	26700.	22500.	21500.	17800.	13100.	12000.	11100.	9760.	21800. 05/25/29
1930	63200.	51200.	34100.	25100.	16900.	14400.	12700.	12000.	10000.	30200. 02/08/30
1931	49200.	44500.	33700.	28200.	23500.	19900.	17900.	16400.	14300.	65900. 04/01/31
1932	52200.	44500.	41400.	30200.	25800.	21700.	19000.	16000.	14300.	50800. 03/06/32
1933	134000.	120000.	94800.	74900.	57300.	42100.	31500.	27000.	21500.	53000. 11/14/32
1934	58100.	53800.	38900.	29200.	21700.	18900.	18300.	17500.	14500.	139000. 12/23/33
1935	39800.	35800.	27300.	22300.	18000.	16300.	14000.	14000.	13200.	61800. 11/06/34
1936	47200.	40200.	30300.	23600.	18200.	16300.	15800.	14500.	12000.	48200. 01/12/36
1937	60500.	53600.	41000.	26800.	23000.	20700.	18800.	16100.	14900.	49000. 04/15/37
1938	39800.	29900.	25100.	16900.	13200.	13100.	12300.	11900.	11300.	62900. 12/30/37
1939	40500.	36800.	30100.	22300.	19400.	15900.	14300.	13300.	12000.	43600. 02/15/39
1940	22100.	19600.	14200.	11800.	8960.	8290.	8090.	7280.	6750.	41900. 12/16/39
1941	58400.	47100.	34200.	23500.	18900.	13800.	12100.	10600.	9280.	28400. 11/29/40
1942	58300.	46900.	33600.	25700.	20600.	17300.	15300.	14000.	13600.	58100. 12/20/41
1943	33700.	26500.	17500.	11400.	8570.	8060.	7660.	7530.	7550.	60500. 11/24/42
1944	44200.	36300.	27300.	19400.	15900.	13200.	12400.	12400.	11500.	37100. 12/04/43
1945	51700.	45400.	35900.	30000.	21000.	16700.	15500.	14800.	14100.	45300. 02/08/45
1946	82400.	80800.	65400.	42300.	31900.	20800.	19600.	17300.	14900.	54700. 12/29/46
1947	37000.	32700.	26600.	22300.	18900.	16500.	16300.	14000.	13300.	85100. 12/13/46
1948	43300.	30200.	27500.	22600.	19500.	16700.	15800.	15500.	13300.	38500. 10/20/47
1949	54000.	49900.	37400.	34400.	25400.	20900.	18700.	18000.	16400.	51500. 02/17/49
1950	63900.	61500.	46600.	30500.	24100.	21700.	22200.	19900.	16700.	54800. 02/25/50
1951	35600.	31600.	26000.	19700.	15200.	12500.	11600.	11300.	10800.	67200. 02/12/51
1952	50000.	44000.	39100.	35900.	33900.	22500.	17500.	15600.	14000.	41400. 02/04/52
1953	63600.	51100.	39400.	31300.	25000.	20600.	19700.	18100.	15900.	60000. 02/01/53
1954	43300.	33800.	27100.	20900.	17400.	15100.	13700.	12900.	11700.	73000. 12/09/53
1955	63100.	49700.	37500.	34200.	29700.	25400.	23000.	19700.	17400.	60400. 02/08/55
1956	40400.	37400.	32900.	27500.	19300.	15400.	13000.	12500.	11700.	57400. 12/12/55
1957	34500.	30900.	24700.	18700.	16500.	15400.	14800.	13000.	12500.	43200. 12/11/56
1958	52900.	44700.	34500.	27700.	22700.	19800.	20400.	17500.	15300.	35200. 04/21/58
1959	61000.	56400.	43900.	28100.	22000.	16000.	14600.	13400.	13300.	57800. 01/24/59
1960	59000.	46100.	42600.	31900.	26500.	21500.	19600.	19100.	17000.	62700. 11/24/59
1961	40100.	34800.	29200.	24100.	20700.	14800.	12700.	11900.	11400.	64500. 11/25/60
1962										42100. 12/25/61

STATION 14243000 COMLITZ RIVER AT CASTLE ROCK, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1927-1962)

SYSTEMATIC
RECORDW R C
ESTIMATE

MEAN	51311.4	44311.4	34928.6	27008.6	21700.9	17721.4	16055.7	14666.0	13163.1
MAXIMUM	134000.0	120000.0	94800.0	74900.0	57300.0	42100.0	31500.0	27000.0	21500.0
MINIMUM	21100.0	19600.0	14200.0	11400.0	8570.0	8060.0	7660.0	7280.0	6750.0
STANDARD DEVIATION	19754.24	18149.66	14159.48	10681.96	8240.16	5725.07	4486.10	3739.86	2943.81
SKWENESS	2.125	2.278	2.423	2.651	2.398	2.193	1.032	0.804	0.217
STD ERROR OF SKWENESS	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398
SERIAL CORR COEFF	-0.006	0.032	0.098	0.109	0.085	0.136	0.156	0.177	0.195
COEFF OF VARIATION	0.385	0.410	0.405	0.396	0.380	0.323	0.279	0.255	0.224
MEAN LOGS	4.684	4.618	4.516	4.406	4.312	4.230	4.190	4.153	4.108
STD DEVIATION LOGS	0.153	0.156	0.152	0.149	0.146	0.127	0.121	0.112	0.102
SKWENESS LOGS	0.059	0.351	0.359	0.260	0.151	0.230	-0.239	-0.385	-0.656
STD ERR SKWENESS LOGS	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398	0.398
SER CORR COEFF LOGS	0.001	0.027	0.101	0.139	0.104	0.156	0.180	0.202	0.233
COEFF OF VAR LOGS	0.033	0.034	0.034	0.034	0.034	0.030	0.029	0.027	0.025

4.7112
0.1471
0.04404.7112
0.1471
0.0980

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1927-1962)

0.99	21646.4	19798.6	15929.0	12248.2	9716.8	9055.1	7732.9	7252.8	6642.2	23968.4	23651.3
0.95	27247.4	23910.3	19136.4	14869.4	11950.7	10721.5	9629.1	9051.5	8376.0	29746.5	29590.8
0.90	30842.9	26633.4	21255.9	16576.1	13385.7	11778.7	10775.8	10117.4	9374.9	33444.9	33376.2
0.80	35880.6	30560.9	24307.5	19002.1	15400.9	13249.6	12298.7	11506.2	10638.8	38617.9	38448.1
0.50	48101.0	40638.0	32113.0	25065.2	20322.6	16791.3	15646.2	14447.1	13160.7	51150.2	51303.6
0.20	64796.5	55663.8	43702.6	33764.7	27140.1	21617.9	19598.6	17719.2	15699.1	68278.6	68344.9
0.10	75825.1	66417.1	51969.9	39794.0	31724.2	24829.1	21910.1	19538.3	16983.7	79656.1	79512.2
0.04	89892.9	80941.0	63108.6	47728.0	37608.0	28922.9	24567.8	21541.8	18292.9	94109.9	93539.2
0.02	100387.6	92454.9	71920.6	53872.9	42063.4	32007.4	26389.3	22863.4	19096.0	104950.9	103952.1
0.01	110931.6	104575.7	81182.2	60222.0	46584.6	35126.5	28097.5	24065.7	19785.1	115868.6	114350.4

STATION 142+3000 COMLITZ R AT CASTLE ROCK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1963	4616	16530	14210	7191	15200	7556	12540	9881	6064	3760	2429	2211	8451
1964	3044	11220	9518	20300	10610	9304	10030	11660	17090	8894	4162	3167	9908
1965	3915	8075	25390	19440	17680	7834	9558	9736	8811	3975	2714	1904	9833
1966	2182	4475	6617	12190	7224	12730	12720	12630	8811	5779	2714	1904	7499
1967	2936	6751	19780	21700	13460	9322	6850	11840	13310	5270	2431	1937	9628
1968	6754	7853	12490	14470	22270	11470	5202	3801	4198	2343	2637	3144	8008
1969	6788	14760	17900	18950	11440	8414	7838	8451	10550	4785	4042	3945	9817
1970	7523	9500	12700	19340	14450	9810	9810	7199	3899	2753	2899	4579	8711
1971	6791	11700	17020	21660	15150	16170	12230	10530	11880	9874	4278	5185	11860
1972	5867	11860	16050	20140	17940	27300	15000	14400	14830	7993	4624	4508	13370
1973	6663	7756	18340	14030	7271	8055	5223	5191	3524	3866	4184	3421	7311
1974	3474	14580	19640	24670	17040	13040	13730	12870	19030	11330	4334	3558	13060
1975	3992	7895	14160	22410	15030	12140	9195	5591	7384	7712	3344	9331	13331
1976	6933	14840	34790	21320	12840	12650	8777	7303	6426	7161	3874	3684	11750
1977	5609	7220	6079	6674	4569	7741	4984	4415	3961	2579	2762	3400	5004
1978	3593	18020	37280	13900	9685	6323	6224	5868	5706	4220	3069	3758	9820
1979	4787	7912	11860	7135	11890	7097	5840	7410	5729	3380	2502	2874	6501

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1963-1979)

MEAN	5027.5	10645.2	17283.8	16795.3	13163.5	11021.5	9181.8	8746.2	8853.5	5627.3	3333.2	3330.4	9403.6
MAXIMUM	7523.0	18020.0	37280.0	24670.0	22270.0	27300.0	15000.0	14400.0	19030.0	11330.0	4624.0	5185.0	13370.0
MINIMUM	2182.0	4475.0	6079.0	6674.0	4569.0	6323.0	4984.0	3801.0	3524.0	2343.0	2431.0	1904.0	5004.0
STD DEVIATION	1698.90	3920.29	8584.67	5776.91	4482.67	4969.16	3214.52	3246.70	4832.53	2727.25	780.24	952.94	2244.47
SKWENESS	-0.080	0.439	1.165	-0.685	-0.059	2.391	0.288	0.118	0.850	0.711	0.279	0.050	0.061
STD ERR SKEW	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SER CORR COEFF	0.454	-0.267	-0.655	0.006	-0.173	0.159	0.087	-0.033	-0.340	-0.036	0.260	0.705	-0.325
COEFF OF VAR	0.338	0.368	0.497	0.344	0.341	0.451	0.351	0.371	0.546	0.485	0.234	0.286	0.239
MEAN LOGS	3.675	3.999	4.189	4.193	4.091	4.012	3.936	3.911	3.888	3.703	3.512	3.504	3.961
STD DEV LOGS	0.161	0.165	0.213	0.186	0.172	0.157	0.158	0.175	0.234	0.211	0.101	0.133	0.110
SKWENESS LOGS	-0.516	-0.185	-0.124	-1.129	-1.045	1.206	-0.140	-0.401	0.175	0.086	0.147	-0.521	-0.629
STD ERR SKEW LOGS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SER CORR LOGS	0.434	-0.118	-0.738	-0.015	-0.121	0.214	0.123	-0.053	-0.363	-0.077	0.257	0.685	-0.343
COEFF OF VAR LOGS	0.041	0.051	0.091	0.044	0.042	0.039	0.081	0.045	0.060	0.057	0.029	0.038	0.028
% OF AVE FLOW	4.4	9.4	15.3	14.9	11.7	9.8	8.1	7.7	7.8	5.0	2.9	2.9	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1963-1979)

0.99	1741.1	3917.0	4723.6	4113.5	3669.9	6099.6	3563.0	2840.2	2363.9	1679.2	1936.4	1395.4	4531.4
0.95	2447.9	5237.6	6784.7	6903.0	5832.7	6566.8	4672.9	4023.7	3272.4	2294.8	2294.8	1850.9	5792.8
0.90	2896.7	6086.8	8196.7	8770.1	7238.7	6947.5	5381.8	4791.6	3914.1	2717.6	2418.5	2127.9	6529.2
0.80	3508.8	7270.5	10267.9	11341.4	9144.4	7580.0	6365.9	5860.9	4888.0	3343.1	2665.5	2494.0	7470.8
0.50	4884.9	10083.9	15625.9	16873.5	13192.2	9575.4	8696.5	8381.8	7602.8	5006.2	3230.1	3279.3	9381.3
0.20	6501.0	13756.9	23441.7	22422.4	17273.6	13385.9	11788.2	11484.1	12090.2	7570.2	3946.0	4152.6	11346.0
0.10	7420.8	16077.2	28814.3	25007.0	19215.7	16875.9	13665.7	13359.5	15547.0	9434.3	4395.7	4631.7	12361.0
0.04	8440.8	18892.9	35755.2	27374.4	21850.4	21850.4	16014.4	15531.6	20459.0	11966.4	4944.3	5150.5	13407.2
0.02	9113.6	20914.1	41010.1	28660.6	22061.5	26554.0	17708.0	17021.8	24542.2	13976.0	5341.9	5486.3	14056.3
0.01	9723.4	22876.3	46322.5	29649.8	22866.6	32090.1	19359.1	18415.1	28968.5	16088.4	5732.2	5786.6	14616.2

STATION 14243000 COMLITZ R AT CASTLE ROCK, #ASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG. (R)
1963	59500.	52900.	40400.	32200.	24400.	16900.	15600.	13500.	12600.	66900. 11/20/62 R
1964	55400.	46300.	33200.	26300.	20500.	15100.	14600.	13300.	13200.	72600. 01/25/64 R
1965	79100.	68900.	52200.	34400.	25800.	16800.	21600.	18600.	15300.	83900. 12/23/64 R
1966	27000.	24300.	20700.	16800.	14600.	13800.	12900.	11900.	11100.	28800. 05/07/66 R
1967	58800.	48200.	33200.	25300.	22500.	18700.	18600.	16200.	13900.	65000. 12/14/66 R
1968	47600.	44600.	41100.	29200.	22100.	18700.	16700.	15200.	12700.	49500. 02/20/68 R
1969	37500.	35300.	31900.	24000.	19600.	14900.	17600.	15900.	13300.	40300. 01/07/69 R
1970	35000.	30400.	27200.	26900.	21300.	17400.	15600.	14300.	12700.	37900. 01/14/70 R
1971	45500.	38500.	29200.	26400.	22400.	19700.	18200.	17600.	15700.	50000. 01/26/71 R
1972	65000.	50800.	36300.	34600.	29100.	24200.	22400.	20600.	18700.	81600. 01/20/72 R
1973	44800.	34700.	32200.	27000.	21100.	16400.	13700.	12200.	10400.	45600. 12/27/72 R
1974	61100.	51400.	37700.	32300.	24400.	24200.	21500.	19500.	17300.	68600. 01/16/74 R
1975	55000.	42000.	34600.	26000.	22900.	20200.	17800.	16200.	13600.	58900. 01/14/75 R
1976	80600.	75600.	61900.	46300.	35100.	28900.	24300.	21200.	17800.	86700. 12/04/75 R
1977	14100.	12600.	10900.	9210.	7800.	7040.	6680.	6560.	6440.	15000. 03/10/77 R
1978	70300.	66200.	51800.	56300.	40600.	28500.	23400.	20000.	15300.	86400. 12/02/77 R
1979	30900.	19500.	16200.	13900.	12500.	10600.	10300.	10100.	8600.	39400. 02/07/79 R

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1963-1979)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	51011.8	43494.1	35011.8	28471.2	22982.4	19161.2	17145.9	15462.4	13449.4	
MAXIMUM	80600.0	75600.0	61900.0	51800.0	40600.0	28900.0	24300.0	21200.0	18700.0	
MINIMUM	14100.0	12600.0	10900.0	9210.0	7800.0	7040.0	6680.0	6560.0	6440.0	
STANDARD DEVIATION	18311.25	16977.94	13242.44	10378.67	7785.90	5727.73	4732.34	3977.98	3190.42	
SKWENESS	-0.220	0.059	0.312	0.441	0.353	-0.219	-0.453	-0.488	-0.421	
STD ERROR OF SKWENESS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	
SERIAL CORR COEFF	-0.514	-0.639	-0.696	-0.755	-0.750	-0.742	-0.723	-0.628	-0.501	
COEFF OF VARIATION	0.359	0.387	0.378	0.365	0.339	0.299	0.276	0.257	0.237	
MEAN LOGS	4.674	4.605	4.510	4.423	4.335	4.260	4.215	4.173	4.115	4.7446
STD DEVIATION LOGS	0.192	0.201	0.188	0.180	0.167	0.153	0.141	0.130	0.116	0.1537
SKWENESS LOGS	-1.322	-1.085	-0.987	-1.020	-1.082	-1.292	-1.369	-1.312	-1.195	-0.4390
STD ERR SKWENESS LOGS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	4.7225
SER CORR COEFF LOGS	-0.473	-0.596	-0.669	-0.716	-0.704	-0.657	-0.622	-0.556	-0.445	0.2008
COEFF OF VAR LOGS	0.041	0.044	0.042	0.041	0.038	0.036	0.034	0.031	0.028	-1.2900

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1963-1979)

0.99	11336.7	9710.1	8761.4	7555.3	6641.5	5904.8	5686.9	5704.4	5611.4	0.0	11990.6
0.95	20113.9	16793.0	14360.0	12180.9	10459.8	9264.6	8738.1	8385.3	7817.8	0.0	21689.7
0.90	26101.0	21657.0	18103.0	15226.5	12916.6	11375.2	10613.2	9991.2	9104.8	0.0	28415.8
0.80	34371.9	28491.5	23290.9	19396.1	16217.1	14137.1	13022.0	12024.8	10714.2	34822.0	37829.0
0.50	51853.5	43673.5	34721.7	28398.1	23118.8	19593.9	17630.5	15866.5	13738.3	56988.8	58142.2
0.20	68314.6	59553.3	46833.1	37674.0	29915.1	24433.4	21529.3	19120.3	16350.5	75175.5	77811.3
0.10	75366.1	67206.1	52838.3	42167.5	33080.6	26472.4	23085.6	20439.7	17451.8	85681.1	86439.1
0.04	81321.7	74398.1	58661.5	46477.6	36003.7	28177.8	24343.3	21527.5	18399.0	97509.7	93860.4
0.02	84293.7	78398.6	62012.4	48870.4	37610.8	29030.7	24947.9	22063.0	18887.2	105432.5	97628.8
0.01	86418.4	81531.8	64716.6	50800.5	38861.3	29643.6	25368.7	22443.4	19248.8	112708.4	100359.7

STATION 14243000 COWLITZ R AT CASTLE ROCK, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1970	2750.0	2790.0	3010.0	3080.0	3580.0	3990.0	4200.0	5020.0	6470.0
1971	2480.0	2590.0	2590.0	2620.0	2820.0	2820.0	3090.0	3500.0	4590.0
1972	2680.0	2900.0	3150.0	3410.0	3980.0	4510.0	5020.0	6240.0	7920.0
1973	3180.0	3290.0	3460.0	3690.0	3860.0	4410.0	5020.0	5660.0	7030.0
1974	2550.0	2590.0	2590.0	2620.0	2820.0	3280.0	3610.0	3850.0	3920.0
1975	2790.0	2860.0	3000.0	3290.0	3500.0	3600.0	3800.0	4630.0	7160.0
1976	2840.0	2980.0	3070.0	3190.0	3320.0	3350.0	3680.0	5010.0	5450.0
1977	3110.0	3230.0	3450.0	3500.0	3710.0	3710.0	4310.0	4850.0	5450.0
1978	2450.0	2460.0	2480.0	2510.0	2550.0	2600.0	2770.0	2930.0	3410.0
1979	2900.0	2930.0	2940.0	2980.0	3060.0	3280.0	3610.0	3910.0	4520.0

LOWEST MEAN FLOW STATISTICS (YEARS 1970-1979)

MEAN	2793.0	2850.0	2974.0	3089.0	3307.0	3555.0	3911.0	4540.0	5592.0
MAXIMUM	3180.0	3290.0	3460.0	3690.0	3980.0	4510.0	5020.0	6240.0	7920.0
MINIMUM	2450.0	2460.0	2480.0	2510.0	2550.0	2600.0	2770.0	2930.0	3410.0
STANDARD DEVIATION	246.76	284.06	340.76	404.27	498.47	623.95	739.77	1030.78	1508.02
SKEWNESS	0.059	0.098	-0.017	-0.153	-0.269	0.151	0.243	0.039	0.114
STD ERROR OF SKEWNESS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SERIAL CORR COEFF	-0.377	-0.324	-0.347	-0.302	-0.293	-0.109	-0.080	-0.076	-0.121
COEFF OF VARIATION	0.088	0.100	0.115	0.131	0.151	0.176	0.189	0.227	0.270
MEAN LOGS	3.445	3.453	3.471	3.486	3.515	3.545	3.585	3.647	3.733
STD DEVIATION LOGS	0.038	0.043	0.050	0.058	0.067	0.077	0.083	0.102	0.121
SKEWNESS LOGS	-0.084	-0.060	-0.192	-0.311	-0.431	-0.177	-0.134	-0.361	-0.247
STD ERR SKEWNESS LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SER CORR COEFF LOGS	-0.351	-0.313	-0.340	-0.308	-0.300	-0.147	-0.128	-0.098	-0.120
COEFF OF VAR LOGS	0.011	0.013	0.014	0.017	0.019	0.022	0.023	0.028	0.032

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1970-1979)

	0.99	0.98	0.96	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01
MEAN	3401.8	3564.2	3806.1	4052.7	4467.8	5178.7	5884.9	7191.2	9827.8						
MAXIMUM	3325.5	3472.5	3704.1	3939.6	4337.9	4964.3	5615.4	6855.8	9231.2						
MINIMUM	3241.9	3372.8	3591.6	3813.3	4190.8	4732.2	5326.3	6487.0	8594.3						
STANDARD DEVIATION	3115.4	3222.8	3419.9	3617.4	3958.5	4386.1	4900.2	5927.0	7663.8						
SKEWNESS	2999.7	3087.1	3261.6	3433.8	3736.9	4076.3	4524.0	5417.1	6852.9						
STD ERROR OF SKEWNESS	2786.6	2840.0	2967.2	3085.9	3308.6	3523.0	3864.7	4494.1	5666.4						
SERIAL CORR COEFF	2584.0	2609.1	2685.2	2746.2	2883.5	3023.5	3281.1	3654.6	4290.1						
COEFF OF VARIATION	2482.4	2494.5	2543.3	2573.5	2686.1	2782.6	3004.4	3253.3	3754.9						
MEAN LOGS	2400.5	2403.0	2429.0	2433.9	2490.3	2594.1	2790.0	2942.5	3351.8						
STD DEVIATION LOGS	2310.7	2303.2	2303.7	2280.6	2297.5	2393.0	2563.2	2615.6	2938.6						
SKEWNESS LOGS	2252.2	2238.6	2222.2	2180.8	2172.4	2265.5	2420.3	2411.2	2685.7						

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1970-1979)

P	P95	P90	P75	P50	P25	P10
2400.0	3200.0	4400.0	7700.0	13000.0	18000.0	

STATION 14243000 COMLITZ R AT CASTLE ROCK, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (R)
1969	37500.	35300.	31900.	24400.	19600.	19400.	17600.	15900.	13300.	40300. 01/07/69 R
1970	35000.	30400.	27200.	26900.	21300.	17400.	15600.	14300.	12700.	37900. 01/16/70 R
1971	45500.	38500.	29200.	26400.	22400.	19700.	18200.	17600.	15700.	50000. 01/26/71 R
1972	65000.	50800.	36300.	34600.	29100.	24200.	22400.	20600.	18700.	81600. 01/20/72 R
1973	44800.	38700.	32000.	27000.	21100.	18400.	17000.	16200.	10400.	45600. 12/27/72 R
1974	61100.	51400.	37700.	32300.	28400.	24000.	21500.	19500.	17300.	68600. 01/16/74 R
1975	55000.	42000.	34600.	28000.	22900.	20200.	17800.	16200.	13600.	58900. 01/16/75 R
1976	80600.	75600.	61900.	46300.	35100.	28900.	24300.	21200.	17800.	86700. 12/04/75 R
1977	14100.	12600.	10900.	9210.	7800.	7040.	6680.	6560.	6440.	15000. 03/10/77 R
1978	70300.	66200.	56300.	51800.	40600.	28500.	23400.	20000.	15300.	86400. 12/02/77 R
1979	30900.	19500.	16200.	13900.	12500.	10600.	10300.	10100.	8600.	39400. 02/07/79 R

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1969-1979)

W R C SYSTEMATIC
ESTIMATE RECORD

MEAN	49072.7	41909.1	34036.4	29164.5	23709.1	19685.5	17407.3	15832.7	13621.8
MAXIMUM	80600.0	75600.0	61900.0	51800.0	40600.0	28900.0	24300.0	21200.0	18700.0
MINIMUM	14100.0	12600.0	10900.0	9210.0	7800.0	7040.0	6680.0	6560.0	6440.0
STANDARD DEVIATION	19479.12	18583.61	14907.73	12320.98	9363.38	6798.40	5554.44	4690.48	3899.23
SKENNESS	-0.105	0.301	0.525	0.338	0.152	-0.454	-0.652	-0.766	-0.544
STD ERROR OF SKENNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	-0.553	-0.709	-0.745	-0.864	-0.851	-0.797	-0.744	-0.666	-0.510
COEFF OF VARIATION	0.497	0.443	0.438	0.422	0.395	0.345	0.319	0.296	0.286
MEAN LOGS	4.651	4.576	4.489	4.423	4.338	4.264	4.215	4.177	4.115
STD DEVIATION LOGS	0.242	0.226	0.215	0.213	0.201	0.195	0.170	0.156	0.143
SKENNESS LOGS	-1.280	-0.905	-0.826	-0.972	-1.052	-1.311	-1.368	-1.388	-1.087
STD ERR SKENNESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SER CORR COEFF LOGS	-0.496	-0.661	-0.733	-0.776	-0.736	-0.656	-0.610	-0.554	-0.456
COEFF OF VAR LOGS	0.046	0.049	0.048	0.048	0.046	0.043	0.040	0.037	0.035

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1969-1979)

0.99	9362.3	8120.0	7313.7	6051.6	5279.6	4676.3	4590.6	4652.9	4710.0	9967.3
0.95	17483.6	14365.5	12377.7	10557.0	9080.7	8093.9	7689.4	7498.4	6971.2	18887.0
0.90	23246.1	18812.5	15905.9	13709.2	11690.6	10388.1	9711.6	9302.7	8362.9	25315.3
0.80	31442.2	25283.0	20981.0	18222.8	15363.5	13525.1	12416.6	11667.7	10176.2	34584.8
0.50	49531.1	40669.3	32958.0	28641.9	23570.3	20076.0	17869.4	16301.5	13812.2	55555.5
0.20	67473.4	58614.5	47042.3	40259.5	32270.0	26190.3	22721.1	20293.5	17239.6	77151.6
0.10	75470.7	68193.3	54710.5	46215.6	38527.1	28804.9	24711.5	21893.6	18794.3	87119.7
0.04	82420.7	77991.7	62732.1	52112.9	40584.1	31016.5	26341.2	23183.3	20208.7	96035.4
0.02	85980.4	83901.5	67687.4	55563.1	42873.1	32123.5	27131.6	23799.8	20977.8	100730.1
0.01	88577.6	88845.2	71921.1	58379.8	44687.6	32917.3	27684.2	24225.9	21572.0	104234.1

STATION 14243500 DELAMETER CREEK NEAR CASTLE ROCK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1950	16.2	111	242	205	336	268	143	50.9	16.8	9.06	5.33	4.22	116
1951	66.8	180	236	272	229	163	70.6	28.2	10.6	4.64	2.69	5.11	105
1952	83.1	139	200	104	165	94.6	54.6	22.1	11.3	5.52	3.85	2.99	73.5
1953	3.20	6.59	63.4	389	203	89.4	64.7	50.7	26.1	9.81	7.96	6.19	76.2
1954	26.7	111	310	211	292	92.6	122	26.4	22.8	13.4	7.68	10.3	103
1955	21.4	127	150	150	167	171	164	45.9	16.8	13.1	7.49	9.31	86.4
1956	116	306	316	251	99.1	255	104	25.0	19.0	8.70	7.17	6.57	127
1957	57.9	86.3	239	77.3	160	162	72.9	29.3	18.9	9.21	8.52	3.86	76.6
1958	10.8	53.2	235	187	181	90.7	116	37.2	19.2	6.61	3.41	4.03	78.1
1959	16.4	239	158	258	118	120	180	92.8	32.1	12.7	5.70	34.6	105
1960	77.5	167	145	73.3	205	134	145	75.6	29.2	8.56	7.77	7.40	89.0
1961	22.6	227	85.7	194	398	259	84.9	60.8	18.3	7.17	4.24	4.60	112
1962	26.7	75.6	236	110	91.2	116	104	64.1	19.1	8.15	12.0	9.76	72.8
1963	49.0	256	138	90.6	190	92.4	131	56.8	16.1	9.15	6.50	7.04	85.8
1964	26.9	167	96.2	359	121	179	62.7	30.7	21.4	12.6	9.46	9.88	91.4
1965	19.9	166	292	258	157	55.3	38.5	34.3	14.7	6.43	4.77	3.75	87.3
1966	10.1	57.1	87.3	254	125	196	54.4	23.7	13.5	9.75	4.06	4.46	69.9
1967	22.4	67.9	262	329	165	124	87.3	31.2	14.3	5.28	2.44	2.49	92.7
1968	60.2	73.2	181	152	259	118	82.2	38.2	14.2	11.4	16.5	32.5	88.5
1969	91.7	147	233	155	130	159	82.6	29.2	16.1	8.78	4.51	12.7	89.0

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1950-1969)

MEAN	41.3	138.1	195.3	204.0	189.6	146.9	98.2	42.7	19.9	9.0	6.6	9.1	91.3
MAXIMUM	116.0	306.0	316.0	389.0	398.0	268.0	180.0	92.8	44.2	13.4	16.5	34.6	127.0
MINIMUM	3.2	6.6	63.4	73.3	91.2	55.3	38.5	22.1	10.6	4.6	2.4	2.5	69.9
STO DEVIATION	31.89	77.07	76.88	92.43	79.90	60.82	39.21	19.26	7.94	2.63	3.38	8.82	15.65
SKEDNESS	0.919	0.482	-0.180	0.364	1.228	0.760	0.550	1.181	1.747	0.166	1.409	2.394	0.697
STD ERR SKEW	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF	0.022	-0.070	-0.374	-0.186	-0.082	-0.034	0.402	0.458	-0.006	0.006	-0.265	-0.063	-0.139
COEFF OF VAR	0.773	0.558	0.394	0.453	0.421	0.414	0.399	0.452	0.398	0.292	0.512	0.371	0.171
MEAN LOGS	1.474	2.043	2.251	2.262	2.245	2.132	1.958	1.593	1.273	0.936	0.770	0.837	1.934
STD DEV LOGS	0.390	0.363	0.204	0.217	0.170	0.180	0.178	0.180	0.151	0.134	0.212	0.304	0.072
SKEDNESS LOGS	-0.551	-2.050	-0.622	-0.426	0.366	-0.072	-0.173	0.531	0.740	-0.393	0.084	1.014	0.391
STD ERR SKEW LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR LOGS	-0.054	-0.027	-0.348	-0.195	-0.121	-0.088	0.457	0.383	0.093	0.001	-0.164	-0.016	-0.192
COEFF OF VAR LOGS	0.264	0.178	0.090	0.096	0.076	0.084	0.091	0.113	0.119	0.143	0.275	0.364	0.037
% DF AVE FLOW	3.8	12.6	17.7	18.5	17.2	13.4	8.9	3.9	1.8	0.8	0.6	0.8	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1950-1969)

0.99	2.6	5.3	45.7	48.9	78.6	50.6	33.2	17.6	10.1	3.9	2.0	2.3	64.1
0.95	6.0	20.8	75.1	75.9	96.4	68.0	45.3	21.2	11.5	5.0	2.7	2.7	69.8
0.90	9.1	37.3	95.2	94.5	108.3	79.5	53.3	23.7	12.4	5.7	3.2	3.1	73.3
0.80	14.5	66.9	123.7	121.6	125.8	95.8	64.6	27.5	13.9	6.7	3.9	3.8	78.1
0.50	32.3	143.5	189.8	189.3	171.6	136.3	92.0	37.7	18.0	8.8	5.9	6.1	89.1
0.20	64.2	210.5	266.0	280.4	242.2	192.5	129.8	54.7	24.6	11.2	8.9	11.7	103.2
0.10	88.0	231.0	307.0	337.7	294.1	229.9	152.6	67.8	29.8	12.6	11.1	17.5	112.1
0.04	119.3	242.7	349.7	406.1	365.6	277.4	161.9	86.7	37.2	14.1	14.0	28.8	123.1
0.02	142.8	246.5	375.9	454.1	423.3	312.7	203.3	102.6	43.5	15.2	16.4	40.9	131.1
0.01	166.1	248.3	398.2	499.6	484.9	348.1	224.2	120.1	50.4	16.1	18.9	57.3	139.0

STATION 14243500 DELAMETER CREEK NEAR CASTLE ROCK, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1951	2.6	2.7	2.8	2.8	3.2	4.7	5.9	8.1	23.0
1952	1.5	1.5	1.7	2.0	2.6	2.7	3.5	5.4	15.0
1953	1.9	1.9	2.0	2.2	2.3	2.9	3.2	3.7	5.5
1954	3.2	3.3	3.5	3.7	4.9	6.5	7.6	11.0	20.0
1955	6.3	6.3	6.3	6.5	7.0	8.6	9.4	12.0	16.0
1956	5.6	5.7	6.1	6.6	6.8	8.2	9.5	11.0	29.0
1957	3.5	3.5	3.6	4.1	4.7	6.1	6.8	8.6	17.0
1958	2.9	3.1	3.4	3.8	3.8	5.1	6.5	7.5	12.0
1959	1.6	1.7	1.8	2.1	2.8	3.5	4.1	6.5	13.0
1960	4.5	4.6	5.0	5.2	5.6	8.1	14.0	20.0	35.0
1961	3.2	3.6	3.9	4.0	4.8	7.5	14.0	20.0	35.0
1962	2.8	3.0	3.3	3.4	3.7	4.4	4.8	6.7	17.0
1963	4.0	4.2	4.6	5.4	7.1	9.1	9.2	12.0	23.0
1964	4.4	4.6	4.9	5.1	6.6	6.5	6.8	7.9	19.0
1965	6.2	6.3	6.9	7.3	8.6	9.0	10.0	13.0	17.0
1966	3.0	3.0	3.1	3.2	3.7	4.3	4.7	6.1	12.0
1967	2.2	2.3	2.5	3.1	3.7	4.1	4.6	6.4	12.0
1968	1.7	1.7	1.8	1.9	2.1	2.4	3.3	5.9	15.0
1969	5.3	5.4	5.6	6.1	7.5	11.0	16.0	21.0	33.0

LOWEST MEAN FLOW STATISTICS (YEARS 1951-1969)

MEAN	3.5	3.6	3.8	4.1	4.8	6.0	7.2	9.5	18.8
MAXIMUM	6.3	6.3	6.9	7.3	8.6	11.0	16.0	21.0	35.0
MINIMUM	1.5	1.5	1.7	1.9	2.1	2.5	3.2	3.7	5.5
STANDARD DEVIATION	1.53	1.54	1.62	1.69	1.93	2.41	3.51	4.62	7.56
SKEWNESS	0.536	0.445	0.430	0.430	0.424	0.249	1.138	1.439	0.698
STD ERROR OF SKEWNESS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SER CORR COEFF	0.268	0.278	0.268	0.231	0.165	0.034	-0.135	-0.178	0.023
COEFF OF VARIATION	0.437	0.430	0.425	0.412	0.404	0.416	0.487	0.402	0.402
MEAN LOGS	0.503	0.515	0.542	0.517	0.644	0.741	0.812	0.937	1.239
STD DEVIATION LOGS	0.196	0.196	0.194	0.186	0.183	0.196	0.202	0.191	0.187
SKEWNESS LOGS	-0.119	-0.197	-0.177	-0.121	-0.157	-0.358	0.197	0.413	-0.680
STD ERR SKEWNESS LOGS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SER CORR COEFF LOGS	0.273	0.288	0.279	0.245	0.189	0.099	-0.054	-0.086	0.047
COEFF OF VAR LOGS	0.391	0.381	0.357	0.322	0.284	0.265	0.249	0.204	0.151

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1951-1969)

0.99	8.8	8.8	9.3	9.8	11.2	14.0	20.5	27.4	37.9
0.98	7.8	7.9	8.3	8.8	10.1	12.8	17.7	23.4	35.6
0.96	6.9	7.0	7.4	7.8	9.0	11.5	15.1	19.8	33.0
0.90	5.6	5.8	6.1	6.5	7.5	9.6	11.9	15.4	28.9
0.80	4.7	4.8	5.1	5.4	6.3	8.1	9.6	12.4	25.1
0.50	3.2	3.3	3.5	3.8	4.5	5.7	6.4	8.4	18.2
0.20	2.2	2.2	2.4	2.6	3.1	3.6	4.4	5.9	12.3
0.10	1.8	1.8	2.0	2.2	2.6	3.0	3.6	5.0	9.8
0.05	1.5	1.5	1.6	1.8	2.2	2.5	3.1	4.4	8.0
0.02	1.2	1.2	1.3	1.5	1.8	2.0	2.6	3.9	6.2
0.01	1.1	1.1	1.2	1.3	1.6	1.7	2.4	3.6	5.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1951-1969)

P95	P90	P75	P70	P50	P25	P10
3.6	4.4	11.0	15.0	47.0	120.0	230.0

STATION 142K3500 DELAMETER CREEK NEAR CASTLE ROCK, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30										ANNUAL PEAK-FLOW DATA		
YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW(CFS)	DATE	REG.(R)
1950	1240.	901.	608.	512.	405.	321.	303.	272.	218.	1790.	02/24/50	
1951	695.	585.	442.	338.	309.	285.	265.	235.	195.	950.	12/22/50	
1952	590.	445.	397.	282.	219.	174.	175.	159.	134.	772.	02/04/52	
1953	936.	724.	599.	539.	448.	297.	228.	190.	143.	1250.	01/22/53	
1954	1440.	949.	689.	472.	346.	272.	270.	239.	187.	2270.	12/09/53	
1955	778.	670.	435.	269.	216.	187.	179.	174.	156.	1070.	02/08/55	
1956	950.	717.	478.	416.	376.	324.	304.	254.	231.	1390.	12/11/55	
1957	830.	733.	499.	385.	254.	169.	171.	163.	136.	2200.	12/09/56	
1958	545.	477.	380.	328.	247.	218.	202.	174.	145.	824.	12/19/57	
1959	821.	623.	482.	357.	264.	211.	226.	198.	184.	1210.	11/12/58	
1960	855.	662.	480.	294.	244.	170.	171.	158.	145.	1260.	11/22/59	
1961	1310.	977.	701.	519.	424.	331.	280.	207.	207.	1520.	02/21/61	
1962	576.	482.	457.	370.	257.	187.	155.	141.	126.	740.	12/20/61	
1963	1450.	986.	651.	490.	323.	223.	195.	171.	151.	2420.	11/19/62	
1964	1510.	886.	602.	494.	364.	250.	227.	202.	165.	2130.	01/25/64	
1965	1230.	838.	623.	440.	334.	259.	273.	224.	161.	1690.	11/24/64	
1966	602.	497.	436.	384.	279.	199.	201.	168.	129.	670.	03/09/66	
1967	944.	646.	446.	374.	337.	298.	256.	223.	174.	1220.	12/13/66	
1968	693.	528.	450.	291.	254.	204.	197.	177.	148.	1000.	02/04/68	
1969	612.	554.	402.	326.	238.	213.	186.	172.	157.	1010.	12/03/68	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1969)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKENNESS	STD ERROR OF SKENNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	STD ERR SKENNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
0.99	425.9	372.1	341.3	186.0	140.1	137.2	130.4	115.5	528.0	531.6					
0.95	517.4	442.1	375.8	267.8	211.0	161.9	156.3	144.6	676.1	677.9					
0.90	576.7	484.8	397.4	290.2	226.5	175.2	167.8	153.3	773.5	774.3					
0.80	660.6	542.3	427.1	319.8	247.6	192.9	183.2	165.1	912.4	912.4					
0.50	869.0	672.3	497.1	385.1	296.6	233.2	217.6	192.2	1263.0	1261.1					
0.20	1164.9	834.4	589.4	463.6	360.4	283.6	260.2	227.0	186.8	1766.2					
0.10	1368.2	934.5	649.3	510.8	401.4	286.5	249.0	204.7	2113.5	2115.4					
0.04	1633.9	1054.9	724.3	566.3	452.2	352.5	318.0	276.0	2567.9	2575.8					
0.02	1838.3	1141.0	779.9	605.3	489.6	379.7	340.5	295.8	2917.3	2931.5					
0.01	2048.6	1224.6	835.5	642.7	526.7	406.1	362.4	315.2	3275.9	3298.1					

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1950-1969)

STATION 14245000 COMEMAN RIVER NEAR KELSO, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1951	299	883	932	1274	878	687	335	198	84.6	44.6	31.4	38.5	472
1952	438	554	989	450	721	599	363	219	104	56.4	37.5	30.3	380
1953	31.0	51.8	418	1615	781	532	385	378	262	95.8	67.1	53.3	388
1954	172	532	1292	754	1129	496	505	167	301	136	68.5	71.1	464
1955	113	471	1231	650	1134	676	893	348	169	129	54.5	73.3	417
1956	589	1257	1535	1231	564	1289	518	202	129	62.3	59.5	53.3	629
1957	263	348	870	299	693	877	424	229	129	61.8	51.6	32.9	355
1958	68.0	243	1080	851	893	415	641	190	146	68.1	38.0	45.3	387
1959	86.8	885	704	1194	531	512	512	386	245	97.8	50.4	168	455
1960	389	621	646	368	831	560	741	514	176	67.6	66.1	57.2	418
1961	163	1094	427	738	1608	1144	569	406	133	64.0	41.1	49.9	528
1962	146	323	969	484	373	504	702	329	177	73.5	78.3	68.4	337
1963	277	986	570	354	697	504	702	319	117	106	67.4	72.2	394
1964	153	665	499	1434	540	792	433	268	215	99.2	85.2	84.3	439
1965	118	569	1415	1282	693	263	182	171	140.5	47.4	44.3	35.4	408
1966	60.5	229	451	1088	586	897	300	157	104	128	41.6	42.9	336
1967	107	330	1128	1443	715	726	368	248	135	54.2	33.5	30.8	457
1968	247	231	645	605	971	536	369	231	253	75.6	150	174	372
1969	460	679	1119	815	785	501	384	255	211	122	52.4	92.1	455
1970	222	299	645	1375	772	401	404	255	85.5	46.0	32.4	47.4	381
1971	161	358	1173	1857	685	1075	527	245	178	104	49.7	123	546
1972	238	702	1175	1459	1027	1150	610	293	123	62.3	41.0	96.1	582
1973	53.7	281	935	574	254	431	255	172	130	69.0	46.1	87.2	275
1974	165	1132	1262	1430	1044	1052	649	382	278	148	60.1	45.4	635
1975	48.5	306	770	1419	642	580	340	346	126	166.9	62.3	52.3	397
1976	272	684	1438	1144	684	687	518	275	170	98.5	92.1	61.5	510
1977	61.8	79.3	110	101	157	627	312	330	263	71.5	81.0	166	197
1978	152	872	1722	552	543	287	476	255	159	106	86.2	176	455
1979	83.7	243	528	218	998	473	400	267	94.2	63.8	48.6	97.9	288

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1951-1979)

MEAN	194.4	548.6	900.7	933.7	744.4	663.9	475.6	280.5	166.6	83.6	59.2	76.8	426.1
MAXIMUM	599.0	1257.0	1722.0	1857.0	1608.0	1289.0	893.0	514.0	301.0	148.0	150.0	176.0	635.0
MINIMUM	31.0	51.8	110.0	101.0	157.0	263.0	182.0	157.0	80.5	44.6	31.4	30.3	197.0
STO DEVIATION	137.57	325.68	387.66	481.25	276.95	268.50	155.85	86.18	63.48	29.24	24.41	44.51	99.28
SKENNESS	1.224	0.540	0.164	0.008	0.685	0.825	0.611	0.648	0.582	0.644	1.938	1.253	0.174
STD ERR SKEW	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434
SER CORR COEFF	-0.021	-0.328	-0.594	0.101	-0.211	-0.044	0.068	0.268	0.032	-0.231	-0.002	0.202	-0.417
COEFF OF VAR	0.708	0.594	0.430	0.515	0.372	0.404	0.328	0.307	0.381	0.350	0.412	0.580	0.233
MEAN LOGS	2.182	2.644	2.903	2.891	2.837	2.789	2.654	2.428	2.191	1.898	1.744	1.824	2.617
STD DEV LOGS	0.321	0.326	0.241	0.300	0.193	0.174	0.148	0.133	0.166	0.149	0.156	0.229	0.108
SKENNESS LOGS	-0.206	-1.039	-1.613	-1.144	-1.507	-0.056	-0.435	-0.016	-0.018	0.178	0.606	0.452	-0.782
STO ERR SKEW LGS	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434
SER CORR LOGS	-0.118	-0.288	-0.502	0.045	-0.158	-0.095	0.091	0.194	0.029	-0.258	0.089	0.241	-0.414
COEFF OF VAR LGS	0.147	0.123	0.083	0.104	0.068	0.062	0.056	0.055	0.076	0.078	0.090	0.125	0.041
% OF AVE FLOW	3.8	10.7	17.6	18.2	14.5	12.9	9.3	5.5	3.2	1.6	1.2	1.5	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1951-1979)

0.99	24.4	44.7	121.3	90.6	155.8	237.8	183.7	132.2	64.1	37.2	28.2	23.4	202.9
0.95	43.3	107.2	268.7	209.4	288.3	315.8	247.9	162.5	83.0	45.7	32.8	30.2	262.8
0.90	58.1	161.2	382.5	308.4	379.6	366.8	287.9	181.4	95.2	51.3	36.0	35.0	297.5
0.85	82.4	250.6	550.5	467.1	505.5	469.1	341.9	207.3	112.5	59.0	40.7	42.5	341.3
0.80	156.0	501.0	922.6	885.5	764.8	617.1	468.1	268.0	155.2	78.2	53.4	64.1	427.8
0.75	285.1	834.9	1259.4	1396.4	991.7	862.5	603.1	346.8	214.2	105.0	73.9	102.2	512.3
0.70	385.4	1022.1	1388.0	1661.5	1080.1	1025.4	684.1	397.0	253.7	123.3	89.4	133.6	553.6
0.65	525.8	1214.7	1483.1	1917.7	1148.3	1231.0	747.9	458.7	304.1	146.9	111.3	180.9	594.4
0.60	639.0	1329.5	1524.1	2061.8	1179.2	1384.2	835.5	503.7	361.9	164.9	129.6	222.2	618.6
0.55	758.7	1423.7	1549.7	2174.7	1199.6	1537.2	891.0	548.0	380.0	183.4	149.5	269.3	638.8

STATION 14245000 COWEMAN RIVER NEAR KELSO, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1952	22.0	23.0	23.0	24.0	29.0	30.0	35.0	48.0	107.0
1953	23.0	24.0	25.0	26.0	26.0	30.0	32.0	35.0	51.0
1954	40.0	41.0	41.0	42.0	50.0	58.0	70.0	96.0	162.0
1955	46.0	48.0	49.0	52.0	66.0	67.0	73.0	89.0	138.0
1956	35.0	35.0	37.0	39.0	43.0	61.0	78.0	105.0	199.0
1957	32.0	32.0	34.0	37.0	46.0	52.0	55.0	68.0	122.0
1958	27.0	28.0	29.0	31.0	32.0	39.0	46.0	53.0	87.0
1959	29.0	29.0	31.0	32.0	35.0	41.0	45.0	58.0	91.0
1960	42.0	43.0	46.0	48.0	47.0	67.0	94.0	129.0	197.0
1961	37.0	39.0	40.0	42.0	47.0	61.0	60.0	68.0	160.0
1962	32.0	33.0	35.0	36.0	38.0	45.0	48.0	60.0	102.0
1963	39.0	39.0	41.0	49.0	55.0	66.0	70.0	88.0	152.0
1964	45.0	46.0	49.0	54.0	64.0	69.0	69.0	81.0	131.0
1965	56.0	57.0	64.0	68.0	72.0	82.0	89.0	96.0	135.0
1966	29.0	30.0	31.0	32.0	35.0	39.0	41.0	45.0	71.0
1967	30.0	31.0	32.0	36.0	37.0	41.0	44.0	66.0	90.0
1968	25.0	25.0	26.0	27.0	30.0	32.0	39.0	59.0	116.0
1969	40.0	40.0	43.0	46.0	53.0	76.0	117.0	136.0	190.0
1970	33.0	34.0	35.0	37.0	41.0	52.0	85.0	116.0	156.0
1971	28.0	29.0	30.0	30.0	32.0	37.0	40.0	45.0	92.0
1972	40.0	41.0	42.0	44.0	49.0	71.0	84.0	104.0	146.0
1973	29.0	29.0	30.0	33.0	39.0	41.0	56.0	63.0	101.0
1974	36.0	38.0	38.0	42.0	43.0	46.0	64.0	80.0	107.0
1975	36.0	36.0	37.0	38.0	39.0	43.0	50.0	66.0	134.0
1976	23.0	24.0	27.0	34.0	43.0	57.0	58.0	71.0	137.0
1977	45.0	45.0	46.0	48.0	51.0	59.0	67.0	80.0	105.0
1978	39.0	39.0	40.0	41.0	47.0	64.0	84.0	105.0	171.0
1979	49.0	51.0	54.0	60.0	76.0	96.0	112.0	112.0	137.0

LOWEST MEAN FLOW STATISTICS (YEARS 1952-1979)

MEAN	35.3	36.0	37.7	40.3	45.3	54.4	64.5	78.9	127.1
MAXIMUM	56.0	57.0	64.0	68.0	76.0	96.0	117.0	136.0	199.0
MINIMUM	22.0	23.0	23.0	24.0	26.0	30.0	32.0	35.0	51.0
STANDARD DEVIATION	8.48	8.64	9.44	10.30	12.69	16.59	22.43	26.57	38.31
SKEWNESS	0.417	0.473	0.785	0.784	0.824	0.489	0.653	0.457	0.126
STD ERROR OF SKEWNESS	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
SERIAL CORR COEFF	0.134	0.131	0.157	0.177	0.228	0.150	0.075	-0.031	-0.025
COEFF OF VARIATION	0.241	0.240	0.250	0.256	0.280	0.305	0.348	0.337	0.301
MEAN LOGS	1.535	1.545	1.563	1.592	1.640	1.716	1.784	1.873	2.093
STD DEVIATION LOGS	0.105	0.104	0.106	0.108	0.118	0.134	0.151	0.150	0.142
SKEWNESS LOGS	-0.085	-0.011	0.148	0.133	0.201	-0.105	0.013	-0.174	-0.634
STD ERR SKEWNESS LOGS	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
SER CORR COEFF LOGS	0.135	0.131	0.173	0.191	0.230	0.180	0.104	-0.030	-0.033
COEFF OF VAR LOGS	0.069	0.067	0.068	0.068	0.072	0.078	0.084	0.080	0.068

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1952-1979)

0.99	59.3	61.1	66.4	71.6	85.5	104.1	136.9	159.2	221.9
0.98	55.8	57.3	61.6	66.4	78.5	96.3	124.4	146.7	211.0
0.96	52.0	53.3	56.8	61.2	71.5	88.3	111.9	133.6	198.6
0.90	46.6	47.6	50.2	54.0	62.2	76.9	95.0	115.3	178.9
0.80	42.1	42.9	44.9	48.1	54.7	67.5	81.5	100.0	160.2
0.50	34.4	35.1	36.4	38.9	43.3	52.2	60.8	75.4	125.4
0.20	28.0	28.7	29.7	31.6	34.6	40.1	45.4	56.0	93.5
0.10	25.1	25.8	26.9	28.5	31.0	34.8	39.0	47.7	78.5
0.05	22.9	23.6	24.7	26.2	28.4	30.9	34.4	41.6	67.3
0.02	20.6	21.4	22.6	23.8	25.7	27.0	29.9	35.6	55.9
0.01	19.2	20.0	21.3	22.4	24.2	24.7	27.2	32.0	49.0

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED μ PM PERCENT OF THE TIME (YEARS 1952-1979)

	P95	P90	P75	P70	P50	P25	P10
38.0	47.0	86.0	110.0	250.0	540.0	1000.0	

STATION 14245000 COWEMAN RIVER NEAR KELS0, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
1950										FLOW(CFS) DATE REG.(R)
1951	2410.	2090.	1700.	1600.	1330.	1170.	1150.	1010.	844.	7730. 02/24/50
1952	2680.	2340.	1820.	1240.	1050.	803.	789.	714.	638.	3390. 01/02/51
1953	3460.	2800.	2700.	2260.	1830.	1210.	984.	851.	685.	3840. 12/04/51
1954	4770.	3360.	2640.	1680.	1420.	1090.	1060.	979.	777.	4910. 01/22/53
1955	3390.	2660.	1840.	1140.	1030.	831.	765.	793.	704.	7490. 12/09/53
1956	3880.	3280.	2410.	1930.	1800.	1590.	1410.	1200.	1110.	4680. 12/30/54
1957	2560.	2250.	1750.	1430.	1110.	826.	705.	714.	599.	5260. 12/11/55
1958	2920.	2400.	1850.	1610.	1120.	1040.	943.	811.	693.	3790. 12/10/56
1959	3680.	2500.	1940.	1330.	1230.	968.	962.	868.	750.	4690. 12/19/57
1960	2820.	2310.	1670.	1160.	948.	701.	722.	675.	649.	4570. 11/12/58
1961	4020.	2970.	2670.	2010.	1720.	1360.	1150.	1110.	940.	3460. 11/22/59
1962	2730.	2230.	2040.	1550.	1110.	796.	655.	617.	549.	5570. 11/20/60
1963	6510.	3580.	2440.	1890.	1250.	856.	763.	665.	650.	3630. 11/22/61
1964	5240.	3400.	2250.	2020.	1490.	1040.	950.	848.	730.	9720. 11/20/62
1965	4300.	2930.	1800.	1620.	1250.	908.	909.	773.	586.	6900. 01/25/64
1966	3140.	2300.	1800.	1620.	1250.	908.	909.	773.	586.	6560. 12/23/64
1967	3410.	2870.	2000.	1680.	1470.	1300.	1110.	1010.	827.	3800. 01/05/66
1968	2600.	2130.	1590.	1020.	952.	782.	739.	687.	568.	4150. 12/04/66
1969	2730.	2320.	1820.	1540.	1160.	1070.	926.	864.	739.	3100. 02/04/68
1970	3500.	2960.	2430.	2300.	2020.	1550.	1260.	1220.	954.	3500. 12/03/68
1971	5730.	4610.	3170.	2640.	2020.	1550.	1260.	1220.	954.	4060. 01/19/70
1972	5800.	4610.	3020.	2390.	1550.	1440.	1290.	1250.	1020.	6520. 01/25/71
1973	3370.	2570.	2210.	1700.	1150.	783.	645.	566.	458.	7670. 01/20/72
1974	4420.	3770.	2530.	2040.	1700.	1440.	1380.	1300.	1090.	4200. 12/21/72
1975	5250.	4130.	2740.	1990.	1550.	1150.	1010.	873.	707.	5050. 01/15/74
1976	5140.	4600.	3440.	2190.	1460.	1350.	1140.	1010.	877.	6150. 01/14/75
1977	1390.	1080.	887.	799.	642.	494.	429.	403.	305.	6400. 12/04/75
1978	7110.	4660.	2990.	2790.	2040.	1330.	1080.	939.	742.	1600. 03/09/77
1979	3780.	2540.	1920.	1380.	1110.	723.	616.	557.	484.	9940. 12/02/77
										5830. 02/07/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1979)

MEAN	W R C ESTIMATE	SYSTEMATIC RECORD
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MAXIMUM	3911.4	3022.4	2248.2	1757.6	1363.9	1070.7	956.8	867.0	726.2
MINIMUM	7110.0	4660.0	3440.0	2790.0	2040.0	1590.0	1410.0	1300.0	1110.0
STANDARD DEVIATION	1390.0	1080.0	887.0	799.0	642.0	494.0	429.0	403.0	305.0
SKWENESS	0.597	0.390	0.390	0.148	0.216	0.045	0.050	0.157	0.206
STD ERROR OF SKWENESS	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434
SERIAL CORR COEFF	-0.017	-0.049	-0.123	-0.113	-0.312	-0.404	-0.404	-0.344	-0.1387
COEFF OF VARIATION	0.346	0.304	0.255	0.272	0.246	0.265	0.256	0.255	0.253
MEAN LOGS	3.567	3.460	3.337	3.228	3.121	3.014	2.966	2.923	2.847
STD DEVIATION LOGS	0.155	0.140	0.126	0.126	0.122	0.122	0.120	0.117	0.118
SKWENESS LOGS	-0.343	-0.624	-0.942	-0.588	-0.516	-0.515	-0.709	-0.564	-0.839
STD ERR SKWENESS LOGS	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434	0.434
SER CORR COEFF LOGS	-0.081	-0.153	-0.187	-0.167	-0.324	-0.424	-0.397	-0.358	-0.381
COEFF OF VAR LOGS	0.043	0.040	0.036	0.039	0.036	0.041	0.041	0.040	0.041

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1950-1979)

0.99	1473.0	1182.0	947.2	763.5	660.1	483.5	421.9	401.3	318.2	0.0	1774.7
0.95	1985.8	1614.5	1292.7	1006.0	836.4	626.1	558.0	517.3	425.5	2846.4	2507.7
0.90	2309.5	1879.7	1496.5	1151.4	940.2	711.3	638.6	586.1	488.5	3204.5	2976.5
0.80	2752.0	2230.8	1756.0	1341.4	1074.2	822.7	742.6	675.1	569.0	3709.1	3620.4
0.50	3762.5	2980.4	2267.0	1739.8	1352.0	1057.5	954.5	859.8	729.2	4948.4	5085.5
0.20	4997.9	3798.1	2752.8	2167.8	1649.1	1313.8	1171.6	1056.5	885.9	6676.7	6836.8
0.10	5733.7	4235.8	2980.3	2395.7	1808.0	1452.0	1282.0	1160.8	961.9	7844.3	7848.6
0.04	6584.0	4698.8	3195.6	2636.5	1977.4	1602.0	1394.3	1271.2	1036.0	9347.6	8984.0
0.02	7167.9	4991.4	3317.9	2789.0	2085.6	1698.2	1462.8	1341.1	1079.5	10488.7	9740.8
0.01	7714.9	5248.0	3416.1	2923.0	2181.7	1783.9	1521.3	1402.7	1115.4	11648.9	10432.3

STATION 14246000 ABERNATHY CR NR LONGVIEW, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1949													
1950	29.7	148	278	166	362	324	166	53.4	19.1	11.5	8.37	9.09	
1951	83.0	209	301	321	275	179	76.3	55.4	24.9	13.7	11.3	9.42	131
1952	112.0	160	209	100	220	128	71.9	34.8	17.7	9.89	7.34	11.2	127
1953	6.14	9.88	78.1	405	215	98.5	79.9	29.5	16.7	9.47	7.40	5.90	88.9
1954	32.9	123	327	220	315	110	134	62.9	36.1	16.5	13.7	11.6	85.6
1955	30.0	134	161	180	156	166	177	58.0	30.7	19.8	15.1	18.1	113
1956	117	302	366	282	113	283	132	31.4	27.4	23.1	14.1	13.7	94.6
1957	86.9	116	248	80.9	165	190	95.9	39.6	24.8	12.9	11.8	13.4	141
1958	14.3	64.8	329						24.6	14.0	13.2	7.34	89.8

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1950	2080.0	2-24-1950
1951	1350.0	12-23-1950
1952	1220.0	2-4-1952
1953	1420.0	1-23-1953
1954	1848.0	12-9-1953
1955	1190.0	12-30-1954
1956	1610.0	12-12-1955
1957	2530.0	12-10-1956

STATION 14246500 MILL CR NR CATHLAMET, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1949													
1950	26.4	118	275	193	524	349	154	59.3	27.9	12.8	9.40	9.43	
1951	62.7	215	326	380	257	211	81.6	34.7	17.8	14.2	10.2	9.22	144
1952	82.6	152	242	125	262	145	75.9	32.7	19.3	10.2	6.51	9.23	134
1953	6.28	10.4	80.2	406	229	113	89.9	64.2	42.0	10.6	7.69	6.83	96.3
1954	26.3	105	349	279	340	116	141	36.0	43.4	18.7	14.5	11.4	89.9
1955	24.9	127	177	206	179	197	169	51.6	27.9	23.5	15.0	17.4	123
1956	109	341	403	322						24.4	11.5	13.0	100

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1950	4460.0	2-24-1950
1951	1230.0	12-23-1950
1952	1170.0	2-4-1952
1953	1710.0	1-22-1953
1954	2090.0	12-9-1953
1955	1240.0	12-30-1954
1956	1940.0	12-21-1955

STATION 14247500 ELDCHOMAN RIVER NEAR CATHLAMET, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1941	151	343	415	563	232	186	137	207	98.4	48.7	45.9	195	219
1942	251	485	175	326	486	324	170	175	234	112	58.4	36.0	298
1943	123	990	988	369	926	367	496	168	118	58.7	42.5	30.9	387
1944	105	379	563	463	417	379	357	151	104	54.9	38.0	69.6	242
1945	89.7	347	302	756	712	765	398	199	82.6	43.9	29.5	77.7	315
1946	66.4	704	898	980	960	590	402	128	103	100	44.2	45.5	417
1947	195	792	1128	747	730	335	308	111	112	69.8	42.5	59.5	384
1948	549	704	526	732	715	498	369	406	111	57.3	43.0	72.7	397
1949	176	679	1215	237	1160	537	211	203	70.3	46.2	34.3	36.5	379
1950	140	682	950	691	1331	1146	588	208	84.6	52.1	51.3	40.1	490
1951	411	818	1022	1053	1299	245	211	113	56.0	35.2	24.8	43.7	467
1952	481	492	728	479	761	475	276	113	63.9	41.5	31.0	25.1	329
1953	23.4	44.4	406	1622	805	371	275	244	138	61.9	46.7	43.0	339
1954	168	571	1202	878	1142	415	420	112	135	79.5	51.3	80.0	439
1955	147	551	565	613	569	576	628	199	98.7	87.4	52.0	56.6	343
1956	482	1181	1250	943	357	1072	443	117	100.0	53.4	46.1	48.4	513
1957	378	409	948	301	670	693	374	133	85.7	46.2	41.1	25.5	341
1958	57.6	275	966	794	738	332	540	157	85.2	42.4	34.3	53.5	337
1959	172	1116	723	1078	552	500	621	329	158	71.2	44.2	25.9	467
1960	508	787	654	355	583	545	583	327	130	52.2	51.0	41.1	405
1961	196	963	397	792	1488	983	333	262	82.6	43.4	30.1	33.1	460
1962	169	354	922	515	403	479	431	262	104	53.4	73.0	63.3	319
1963	269	919	593	418	605	348	500	223	83.4	60.3	53.6	71.2	343
1964	225	855	446	1357	455	725	301	168	109	71.2	55.1	70.7	404
1965	125	610	1084	1021	712	237	164	172	73.1	38.9	35.2	29.5	357
1966	73.2	333	361	995	535	739	333	104	73.2	61.8	33.3	36.3	298
1967	165	357	1037	1237	676	552	325	132	69.4	34.1	19.6	20.1	385
1968	337	338	813	706	1069	517	372	180	223	68.4	89.3	157	404
1969	386	660	809	605	523	624	406	151	104	70.3	38.0	78.5	371
1970	198	281	529	1005	595	337	381	188	71.7	38.2	24.1	65.2	305
1971	167	497	1239	1583	606	842	425	160	113	69.2	35.3	79.0	486

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MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1941-1971)

MEAN	224.0	591.6	793.7	783.3	745.1	549.0	379.5	187.1	105.8	58.8	43.2	66.2	375.5
MAXIMUM	549.0	1181.0	1250.0	1622.0	1488.0	1146.0	928.0	406.0	234.0	112.0	89.3	259.0	513.0
MINIMUM	23.4	44.4	302.0	237.0	232.0	186.0	137.0	104.0	56.0	34.1	19.6	20.1	219.0
STD DEVIATION	144.83	279.76	290.78	359.96	303.65	233.38	132.74	71.66	40.32	18.40	14.15	51.61	71.16
SKENNESS	0.920	0.269	-0.073	0.625	0.784	0.956	0.104	1.341	1.889	1.106	1.215	2.542	-0.021
STD ERR SKEW	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421
SER CORR COEFF	0.051	-0.004	-0.304	0.061	0.201	-0.015	0.307	0.201	0.030	-0.031	-0.122	-0.093	0.024
COEFF OF VAR	0.647	0.473	0.366	0.460	0.408	0.425	0.350	0.383	0.381	0.313	0.327	0.779	0.190
MEAN LOGS	2.256	2.707	2.867	2.846	2.837	2.703	2.550	2.245	2.000	1.751	1.614	1.738	2.567
STD DEV LOGS	0.310	0.279	0.179	0.213	0.180	0.183	0.170	0.152	0.142	0.128	0.138	0.253	0.086
SKENNESS LOGS	-0.604	-1.845	-0.557	-0.361	-0.277	-0.106	-0.717	0.492	0.826	0.360	-0.022	0.850	-0.574
STD ERR SKEW LOGS	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421	0.421
SER CORR LOGS	0.022	0.007	-0.276	0.056	0.189	0.009	0.347	0.185	0.101	-0.045	-0.091	-0.036	0.073
COEFF OF VAR LOGS	0.137	0.103	0.062	0.075	0.064	0.068	0.067	0.068	0.071	0.073	0.085	0.145	0.034
% OF AVE FLOW	4.9	13.1	17.5	17.3	16.5	12.1	8.4	4.1	2.3	1.3	1.0	1.5	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1941-1971)

0.99	25.1	53.0	239.4	196.8	240.4	182.9	116.8	88.6	57.1	30.7	19.6	20.4	214.4
0.95	49.9	142.4	352.4	298.4	336.4	248.9	173.7	104.3	63.7	35.8	24.4	24.7	258.6
0.90	69.8	219.1	426.1	368.0	399.2	292.4	210.3	114.9	68.4	39.1	27.4	27.9	283.4
0.80	101.8	338.8	528.6	469.3	487.8	354.5	260.4	130.3	75.6	43.8	31.5	33.3	314.5
0.50	193.5	612.9	764.5	723.1	700.7	508.2	371.4	170.9	95.6	55.4	41.2	50.5	375.7
0.20	332.2	848.5	1047.6	1084.4	979.5	720.9	496.0	233.3	128.9	71.7	53.7	85.9	436.9
0.10	424.2	928.1	1210.2	1289.4	1154.7	861.8	563.1	279.2	154.8	83.0	61.7	119.2	488.0
0.04	535.8	979.8	1391.0	1557.1	1365.5	1039.3	633.6	342.6	192.2	97.7	71.5	175.7	500.0
0.02	614.2	998.9	1510.3	1747.8	1515.4	1171.0	677.7	393.4	223.8	109.1	78.6	230.9	519.9
0.01	688.2	1009.5	1618.2	1931.2	1659.6	1302.2	716.0	448.8	258.7	120.8	85.5	299.7	537.1

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1942	31.0	32.0	32.0	34.0	38.0	46.0	63.0	95.0	122.0
1943	31.0	31.0	32.0	32.0	35.0	40.0	47.0	63.0	111.0
1944	25.0	26.0	27.0	28.0	29.0	33.0	39.0	47.0	86.0
1945	25.0	26.0	27.0	31.0	33.0	39.0	51.0	62.0	84.0
1946	24.0	25.0	25.0	28.0	29.0	35.0	47.0	69.0	83.0
1947	35.0	35.0	36.0	38.0	40.0	44.0	47.0	67.0	89.0
1948	33.0	34.0	36.0	36.0	40.0	50.0	56.0	70.0	113.0
1949	26.0	27.0	28.0	34.0	40.0	43.0	51.0	68.0	120.0
1950	25.0	26.0	26.0	27.0	29.0	35.0	38.0	44.0	76.0
1951	24.0	26.0	28.0	31.0	37.0	45.0	47.0	54.0	127.0
1952	19.0	19.0	20.0	21.0	24.0	25.0	29.0	36.0	78.0
1953	18.0	19.0	19.0	19.0	20.0	24.0	26.0	28.0	38.0
1954	28.0	28.0	29.0	30.0	36.0	41.0	48.0	66.0	116.0
1955	39.0	39.0	41.0	42.0	46.0	58.0	66.0	83.0	99.0
1956	30.0	30.0	32.0	34.0	38.0	52.0	61.0	70.0	138.0
1957	27.0	27.0	28.0	31.0	35.0	43.0	48.0	55.0	90.0
1958	21.0	21.0	22.0	23.0	25.0	29.0	34.0	39.0	58.0
1959	22.0	22.0	23.0	24.0	28.0	34.0	42.0	49.0	88.0
1960	37.0	38.0	41.0	43.0	44.0	54.0	85.0	110.0	205.0
1961	32.0	32.0	32.0	34.0	38.0	46.0	46.0	51.0	124.0
1962	24.0	24.0	25.0	26.0	28.0	31.0	34.0	41.0	90.0
1963	34.0	35.0	37.0	41.0	47.0	59.0	59.0	70.0	124.0
1964	32.0	33.0	36.0	37.0	43.0	52.0	58.0	61.0	103.0
1965	33.0	34.0	38.0	41.0	52.0	59.0	63.0	74.0	98.0
1966	20.0	21.0	22.0	23.0	29.0	32.0	33.0	40.0	68.0
1967	25.0	26.0	27.0	30.0	31.0	34.0	36.0	44.0	75.0
1968	15.0	15.0	15.0	16.0	17.0	20.0	24.0	35.0	75.0
1969	34.0	35.0	37.0	40.0	49.0	66.0	85.0	113.0	166.0
1970	23.0	24.0	24.0	26.0	29.0	37.0	57.0	71.0	98.0
1971	20.0	21.0	21.0	21.0	23.0	30.0	39.0	44.0	87.0

LOWEST MEAN FLOW STATISTICS (YEARS 1942-1971)

MEAN	27.1	27.7	28.8	30.7	34.4	41.2	48.6	60.0	100.6
MAXIMUM	39.0	39.0	41.0	43.0	52.0	66.0	85.0	113.0	205.0
MINIMUM	15.0	15.0	15.0	16.0	17.0	20.0	24.0	28.0	38.0
STANDARD DEVIATION	6.10	6.11	6.77	7.24	8.72	11.48	15.02	20.84	32.73
SKEWNESS	0.061	-0.007	0.095	-0.086	0.072	0.271	0.684	0.955	1.125
STD ERROR OF SKEWNESS	0.427	0.427	0.427	0.427	0.427	0.427	0.427	0.427	0.427
SERIAL CORR COEFF	0.144	0.107	0.094	0.032	0.028	0.028	0.025	-0.002	0.038
COEFF OF VARIATION	0.225	0.221	0.235	0.236	0.253	0.279	0.309	0.347	0.325
MEAN LOGS	1.421	1.432	1.448	1.474	1.522	1.598	1.667	1.754	1.981
STD DEVIATION LOGS	0.102	0.101	0.106	0.109	0.117	0.126	0.135	0.146	0.141
SKEWNESS LOGS	-0.390	-0.490	-0.436	-0.584	-0.533	-0.346	-0.150	0.125	-0.333
STD ERR SKEWNESS LOGS	0.427	0.427	0.427	0.427	0.427	0.427	0.427	0.427	0.427
SER CORR COEFF LOGS	0.137	0.100	0.084	0.035	0.026	0.041	0.072	0.057	0.071
COEFF OF VAR LOGS	0.072	0.070	0.074	0.074	0.077	0.079	0.081	0.083	0.071

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1942-1971)

0.99	42.5	42.6	45.8	48.0	55.9	72.2	92.5	127.9	187.8
0.98	40.6	40.8	43.7	46.1	53.3	68.0	85.7	115.8	175.5
0.96	38.5	38.9	41.4	43.9	50.5	63.5	78.7	103.7	162.4
0.90	35.2	35.8	37.9	40.4	46.1	56.7	68.8	87.7	143.1
0.80	32.2	32.9	34.6	37.0	41.9	50.7	60.5	75.1	126.3
0.50	26.8	27.5	28.5	30.6	34.1	40.3	46.8	56.4	79.5
0.20	21.8	22.4	23.0	24.4	26.8	31.2	35.9	42.7	73.4
0.10	19.4	19.9	20.3	21.4	23.3	27.1	31.0	37.1	62.6
0.05	17.5	17.9	18.2	19.0	20.6	23.9	27.5	33.0	54.6
0.02	15.5	15.8	16.0	16.5	17.8	20.7	23.9	29.1	46.6
0.01	14.3	14.5	14.7	15.0	16.1	18.8	21.8	26.8	41.7

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1942-1971)

P95	P90	P75	P70	P50	P25	P10
31.0	38.0	69.0	68.0	210.0	480.0	920.0

STATION 14248100 RISK CREEK NEAR SKAMOKANA, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1970)			W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKEWNESS LOGS	ESTIMATE		
1949	94.0	2-17-1949				1.8853		1.8853
1950	103.0	2-24-1950				0.2256		0.2256
1951	102.0	12-22-1950				0.137		-0.389
1952	55.0	2- 4-1952						
1953	125.0	1-22-1953						
1954	72.0	12- 9-1953						
1955	78.0	12-30-1954						
1956	102.0	12-11-1955						
1957	131.0	12- 9-1956						
1958	40.0	1-14-1958						
1959	85.0	1-23-1959						
1960	151.0	11-22-1959						
1961	142.0	2-21-1961						
1962	45.0	11-22-1961						
1963	132.0	11-20-1962						
1964	133.0	1-25-1964						
1965	113.0	1-28-1965						
1966	33.0	1- 3-1966						
1967	46.0	1-27-1967						
1968	49.0	1-20-1968						
1969	38.0	1- 4-1969						
1970	32.0	1-18-1970						
			ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1949-1970)					
			0.99			24.2		19.8
			0.95			33.4		31.0
			0.90			39.8		38.8
			0.80			49.4		50.2
			0.50			75.9		79.4
			0.20			118.4		119.4
			0.10			150.5		145.7
			0.04			195.3		177.2
			0.02			231.7		199.7
			0.01			270.8		221.3

STATION 14248200 JIM CHOW CREEK NEAR GRAYS RIVER, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1964	15.4	84.5	82.9	102	55.2	12.3	17.3	14.2	3.11	3.07	3.48	9.45	32.5
1965	8.19	46.5	39.7	78.7	46.0	58.6	12.7	6.15	4.03	1.20	1.83	1.26	25.5
1966	23.4	44.5	90.8	104	49.6	40.1	18.9	5.01	2.94	3.76	1.21	1.46	31.8
1967	44.1	32.6	63.4	61.4	80.7	47.3	25.1	9.93	25.3	1.98	7.25	15.8	34.4
1968	35.5	62.4	71.1	67.2	68.6	25.8	22.1	12.9	12.6	6.59	1.66	8.04	32.7
1969	19.5	33.5	53.1	91.4	47.5	27.2	37.1	11.1	2.62	1.03	0.23	5.79	27.4
1970	24.9	63.9	114	132	51.3	81.9	28.7	8.07	7.58	4.31	2.14	6.12	43.9
1971	26.6	65.8	98.5	105	77.5	75.9	43.4	9.72	2.57	3.48	0.94	2.85	42.4
1972	3.64	29.5	46.1	48.6	13.6	28.1	13.4	9.68	17.0	3.91	0.86	7.88	22.8
1973	19.8	106	88.4	73.3	66.2	64.0	40.3	20.5	17.4	15.0	2.36	1.15	42.7
1974													
1975													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1964-1975)

MEAN	22.1	56.9	79.8	86.4	55.6	46.1	25.9	10.5	9.5	4.1	2.0	5.5	33.6
MAXIMUM	44.1	106.0	114.0	132.0	80.7	81.9	43.4	20.5	25.3	15.0	7.3	15.8	43.9
MINIMUM	3.6	29.5	39.7	48.6	13.6	12.3	12.7	5.0	2.6	1.0	0.2	0.6	22.8
STD DEVIATION	11.95	24.68	22.74	25.07	19.34	23.38	11.13	4.52	8.10	3.98	1.98	4.67	7.40
SKENESS	0.313	0.827	-0.422	0.281	-0.888	0.217	0.451	1.155	0.912	2.328	2.072	1.006	0.163
STD ERR SKEW	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.661	0.661	0.661	0.687
SER CORR COEFF	0.260	-0.543	-0.044	0.107	-0.391	-0.134	-0.139	0.060	0.064	-0.048	-0.226	-0.094	-0.312
COEFF OF VAR	0.541	0.434	0.285	0.290	0.348	0.507	0.430	0.429	0.851	0.963	0.977	0.854	0.220
MEAN LOGS	1.263	1.719	1.883	1.919	1.707	1.603	1.376	0.989	0.825	0.478	0.128	0.549	1.517
STD DEV LOGS	0.317	0.186	0.140	0.131	0.220	0.258	0.192	0.179	0.391	0.356	0.439	0.467	0.097
SKENESS LOGS	-1.318	0.160	-0.978	-0.300	-2.234	-0.697	-0.029	0.157	0.284	0.359	-0.381	-0.386	-0.156
STD ERR SKEW LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.661	0.661	0.661	0.687
SER CORR LOGS	0.039	-0.598	-0.122	0.064	-0.353	-0.231	-0.089	0.130	-0.030	-0.215	-0.348	-0.036	-0.382
COEFF OF VAR LOGS	0.251	0.108	0.1074	0.068	0.129	0.161	0.140	0.181	0.474	0.745	3.437	0.851	0.064
% OF AVE FLOW	5.5	14.1	19.7	21.4	13.8	11.4	6.4	2.6	2.4	1.0	0.5	1.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1975)

0.99	1.7	20.4	29.0	38.6	7.7	7.5	8.4	3.9	1.0	0.6	0.1	0.2	19.0
0.95	4.5	26.5	41.8	49.4	18.4	13.6	11.4	5.0	1.6	0.9	0.2	0.5	22.5
0.90	6.9	30.6	49.6	56.0	26.6	18.2	13.5	5.8	2.2	1.1	0.4	0.9	24.6
0.80	10.9	36.5	59.8	64.8	38.2	25.1	16.4	6.9	3.1	1.5	0.6	1.5	27.3
0.50	21.4	51.8	80.5	84.3	60.4	42.9	23.8	9.6	6.4	2.9	1.4	3.8	33.1
0.20	33.8	74.8	100.6	107.3	74.5	66.7	34.5	13.7	14.0	5.9	1.4	3.9	39.1
0.10	39.8	91.2	110.1	120.7	79.9	81.0	41.8	16.6	21.7	8.8	4.7	13.4	43.6
0.04	45.1	113.3	119.1	136.1	79.5	97.1	51.3	20.5	35.1	13.9	6.9	20.1	48.1
0.02	47.9	130.7	124.2	146.5	79.9	107.8	58.5	23.5	48.4	18.8	8.7	25.7	51.1
0.01	49.9	148.9	128.3	156.3	80.1	117.3	65.8	26.7	65.2	25.0	10.6	31.8	53.9

STATION 14248200 JIM CROW CREEK NEAR GRAYS RIVER, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1966	0.50	0.57	0.59	0.63	0.86	1.40	1.40	1.60	4.70
1967	0.51	0.55	0.61	0.83	1.00	1.19	1.50	2.20	3.50
1968	0.10	0.11	0.12	0.15	0.21	0.35	0.59	1.19	4.60
1969	0.60	0.62	0.70	0.81	1.19	2.00	4.90	8.00	13.00
1970	0.67	0.70	0.73	0.80	1.00	1.70	5.10	6.90	9.90
1971	0.14	0.14	0.14	0.16	0.21	0.53	1.19	2.00	5.70
1972	1.50	1.50	1.80	2.00	2.10	3.10	3.90	4.80	5.90
1973	0.45	0.48	0.49	0.54	0.76	1.19	2.00	3.50	3.50
1974	0.44	0.44	0.49	0.60	0.66	0.93	3.30	6.30	8.50

LOWEST MEAN FLOW STATISTICS (YEARS 1966-1974)

MEAN	0.5	0.6	0.6	0.7	0.9	1.4	2.7	3.9	6.6
MAXIMUM	1.5	1.5	1.8	2.0	2.1	3.1	5.1	8.0	13.0
MINIMUM	0.1	0.1	0.1	0.1	0.2	0.4	0.6	1.2	3.5
STANDARD DEVIATION	0.41	0.40	0.49	0.54	0.57	0.83	1.69	2.60	3.23
SKENNESS	1.720	1.548	1.834	1.706	1.035	1.015	0.419	0.541	1.105
STD ERROR OF SKENNESS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SERIAL CORR COEFF	-0.397	-0.412	-0.410	-0.465	-0.501	-0.412	-0.086	-0.048	0.186
COEFF OF VARIATION	0.743	0.712	0.719	0.789	0.639	0.602	0.635	0.663	0.491
MEAN LOGS	-0.374	-0.353	-0.319	-0.253	-0.147	0.082	0.331	0.501	0.777
STD DEVIATION LOGS	0.354	0.350	0.364	0.356	0.333	0.289	0.319	0.306	0.199
SKENNESS LOGS	-0.637	-0.699	-0.562	-0.580	-0.777	-0.531	-0.388	0.104	0.503
STD ERR SKENNESS LOGS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SER CORR COEFF LOGS	-0.456	-0.464	-0.496	-0.464	-0.529	-0.433	-0.158	-0.123	0.166
COEFF OF VAR LOGS	-0.945	-0.991	-1.138	-1.405	-2.263	4.671	0.963	0.612	0.257

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1966-1974)

0.99	1.9	1.9	2.4	2.6	2.7	4.2	9.6	17.3	20.5
0.98	1.7	1.7	2.1	2.3	2.5	3.7	8.3	14.0	17.3
0.96	1.4	1.5	1.7	2.0	2.2	3.2	7.0	11.2	14.4
0.90	1.1	1.2	1.3	1.5	1.7	2.6	5.3	7.9	11.0
0.80	0.8	0.9	1.0	1.1	1.4	2.0	4.0	5.7	8.7
0.50	0.5	0.5	0.5	0.6	0.8	1.2	2.2	3.1	5.8
0.20	0.2	0.2	0.2	0.3	0.4	0.7	1.2	1.7	4.0
0.10	0.1	0.2	0.2	0.2	0.3	0.5	0.8	1.3	3.4
0.05	0.1	0.1	0.1	0.1	0.2	0.4	0.6	1.0	3.0
0.02	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.8	2.6
0.01	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.6	2.4

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1966-1974)

P95	P90	P75	P70	P50	P25	P10
0.7	1.2	3.8	5.2	15.0	43.0	93.0

STATION 14249200 JIM CROW CREEK NEAR GRAYS RIVER, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	DATE	REG. (R)
1965	397.	267.	193.	144.	105.	94.	93.	82.	59.	637.	12/22/64	
1966	246.	205.	149.	126.	91.	68.	66.	57.	47.	368.	01/05/66	
1967	270.	199.	142.	137.	106.	99.	85.	75.	61.	454.	01/27/67	
1968	285.	222.	181.	102.	81.	71.	70.	63.	55.	469.	01/20/68	
1969	211.	181.	158.	114.	87.	79.	72.	68.	55.	352.	01/04/69	
1970	351.	262.	188.	165.	103.	78.	65.	58.	48.	562.	01/19/70	
1971	623.	436.	267.	212.	151.	126.	107.	98.	82.	1020.	01/25/71	
1972	456.	273.	194.	157.	117.	110.	98.	96.	80.	650.	01/11/72	
1973	437.	305.	258.	182.	115.	75.	59.	49.	39.	936.	12/21/72	
1974	245.	200.	174.	134.	110.	98.	94.	88.	73.	367.	12/15/73	
1975										508.	02/12/75	
1976										670.	12/02/75	
1977										140.	03/07/77	
1978										962.	12/02/77	
1979										731.	02/06/79	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1965-1979)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	352.1	255.0	190.4	147.3	106.6	89.8	80.9	73.4	59.9	2.7533	2.7251
MAXIMUM	623.0	436.0	267.0	212.0	151.0	126.0	107.0	98.0	82.0	0.1602	0.2200
MINIMUM	211.0	181.0	142.0	102.0	81.0	68.0	59.0	49.0	39.0	0.1430	-1.1510
STANDARD DEVIATION	127.93	75.28	42.07	32.84	19.61	18.83	16.54	17.14	14.37		
SKEWNESS	1.036	1.678	0.998	0.690	1.126	0.706	0.216	0.174	0.1373		
STD ERROR OF SKEWNESS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687		
SERIAL CORR COEFF	0.338	0.177	0.125	0.346	0.301	-0.681	-0.304	-0.310	-0.248		
COEFF OF VARIATION	0.363	0.295	0.221	0.223	0.184	0.210	0.204	0.234	0.240		
MEAN LOGS	2.523	2.392	2.271	2.159	2.022	1.945	1.900	1.855	1.766		
STD DEVIATION LOGS	0.149	0.114	0.091	0.095	0.076	0.088	0.089	0.103	0.105		
SKEWNESS LOGS	0.463	1.074	0.660	0.213	0.571	0.412	0.028	-0.106	-0.016		
STD ERR SKEWNESS LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687		
SER CORR COEFF LOGS	0.331	0.224	0.188	0.380	0.345	-0.145	-0.374	-0.415	-0.358		
COEFF OF VAR LOGS	0.059	0.048	0.040	0.044	0.038	0.045	0.047	0.056	0.059		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1965-1979)

0.99	168.7	164.7	127.0	89.8	75.2	58.4	49.4	40.5	33.2	0.0	109.4
0.95	198.9	175.8	138.1	102.0	81.2	64.7	56.7	48.1	39.2	0.0	202.6
0.90	219.1	184.1	145.4	109.5	85.0	68.6	61.1	52.7	42.9	355.3	269.2
0.80	248.4	197.3	155.9	119.7	90.4	74.0	66.8	58.7	47.7	414.4	365.2
0.50	324.6	235.5	182.3	143.0	103.4	86.9	79.3	71.9	58.4	561.7	584.0
0.20	440.4	300.2	220.3	172.8	121.0	104.0	94.3	87.5	71.5	770.8	815.2
0.10	524.6	350.7	246.5	191.6	132.7	115.2	103.3	96.8	79.4	914.0	925.6
0.04	659.8	423.6	281.0	214.6	147.5	129.3	113.9	107.5	88.8	1100.4	1027.5
0.02	732.3	484.9	307.6	231.3	158.7	139.8	121.4	115.0	95.5	1243.2	1083.0
0.01	830.6	552.4	335.1	247.9	169.9	150.3	129.5	122.1	101.9	1389.4	1125.7

STATION 14249000 GRAYS RIVER ABV SOUTH FK NR GRAYS RIVER, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1956	540	946	952	879	281	975	407	90.0	159	57.6	40.7	66.9	451.6
1957	460	330	729	202	604	573	302	91.7	68.9	67.3	51.6	30.3	291.6
1958	119	304	827	699	657	221	445	86.8	54.5	30.7	23.5	45.1	291.6
1959	217	880	543	856	386	448	559	274	140	65.7	35.1	378	338
1960	421	610	539	331	652	475	462	272	110	45.6	43.2	39.2	332
1961	271	920	377	800	1260	802	230	219	66.5	37.1	25.3	34.7	414
1962	274	388	814	418	356	396	336	207	90.1	41.9	79.5	78.3	290
1963	303	731	486	314	494	277	449	184	54.9	49.7	47.9	70.8	303
1964	284	786	351	1054	362	572	203	128	101	72.2	88.6	80.9	341
1965	129	664	838	846	637	192	198	175	58.9	33.5	32.1	26.8	317
1966	148	396	358	856	427	664	217	85.3	63.5	59.0	29.9	33.6	278
1967	189	333	1020	1137	547	524	250	88.6	50.7	31.7	22.5	23.6	352
1968	430	305	692	705	968	486	257	138	261	60.4	113	143	378
1969	292	534	725	408	465	560	414	146	113	63.8	32.8	141	324
1970	235	292	527	820	448	295	379	141	53.7	31.1	20.2	116	279
1971	228	458	1079	1171	504	825	347	145	114	70.4	35.1	86.8	423
1972	207	547	697	1262	1016	923	430	116	148	60.8	25.2	98.3	451
1973	54.5	252	942	557	152	294	155	130	148	66.3	30.6	57.1	238
1974	168	996	931	958	667	665	451	229	176	149	50.0	30.0	454
1975	22.7	330	632	802	472	379	163	189	60.8	37.5	52.5	45.6	265
1976													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1956-1976)

MEAN	249.6	560.1	702.9	753.7	567.7	527.3	332.7	156.8	99.6	56.6	44.0	81.3	343.5
MAXIMUM	540.0	996.0	1079.0	1262.0	1260.0	975.0	559.0	274.0	261.0	149.0	113.0	378.0	454.0
MINIMUM	22.7	252.0	351.0	202.0	152.0	192.0	155.0	85.3	47.8	30.7	20.2	23.6	238.0
STD DEVIATION	134.31	261.11	223.02	300.70	262.62	228.40	118.06	59.99	55.10	26.12	24.24	78.87	67.99
SKWENESS	0.482	0.509	-0.063	-0.246	1.168	0.445	0.056	0.605	1.493	2.361	1.682	3.052	0.399
STD ERR SKEW	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF	0.360	-0.170	-0.172	0.031	-0.328	-0.180	0.046	0.491	-0.141	-0.153	-0.160	-0.068	-0.438
COEFF OF VAR	0.538	0.466	0.317	0.399	0.463	0.433	0.355	0.382	0.553	0.462	0.451	0.512	0.198
MEAN LOGS	2.313	2.703	2.824	2.834	2.711	2.680	2.493	2.165	1.945	1.719	1.593	1.792	2.528
STD DEV LOGS	0.323	0.204	0.151	0.216	0.204	0.202	0.167	0.166	0.217	0.169	0.204	0.304	0.085
SKWENESS LOGS	-1.560	0.158	-0.562	-1.051	-0.454	-0.355	-0.391	0.060	0.574	0.663	0.755	0.794	0.155
STD ERR SKEW LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR LOGS	0.275	-0.158	-0.149	-0.041	-0.401	-0.265	-0.011	0.478	-0.223	-0.257	-0.122	0.052	-0.464
COEFF OF VAR LOGS	0.140	0.075	0.053	0.076	0.075	0.075	0.047	0.077	0.110	0.098	0.128	0.170	0.034
% OF AVE FLOW	6.0	13.6	17.0	18.2	13.7	12.8	8.1	3.8	2.4	1.4	1.1	2.0	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1976)

0.99	16.8	179.0	258.0	149.6	147.8	144.0	114.1	61.2	34.6	25.7	17.1	18.4	218.6
0.95	48.0	238.4	357.8	267.4	224.5	213.2	158.9	78.6	42.8	29.9	20.3	23.4	246.5
0.90	76.4	279.0	420.1	350.6	276.5	259.9	187.7	89.9	48.7	33.0	22.6	27.4	263.3
0.80	123.8	339.0	504.0	469.8	351.0	327.0	227.4	106.0	57.7	37.5	26.2	34.0	285.6
0.50	247.2	498.5	688.1	743.1	532.5	492.1	319.2	145.8	84.0	50.1	37.0	56.5	335.6
0.20	378.1	746.0	897.4	1040.6	768.2	712.2	432.6	201.6	130.7	71.2	56.6	107.0	397.1
0.10	433.3	927.5	1013.2	1184.5	912.9	851.3	500.2	239.3	169.4	87.8	73.3	157.9	434.8
0.04	476.7	1176.4	1139.1	1330.6	1082.1	1018.3	578.2	287.8	228.3	111.9	99.3	249.7	480.1
0.02	496.3	1375.8	1220.5	1411.3	1198.9	1136.6	631.5	324.6	280.2	132.4	122.7	344.3	512.5
0.01	509.1	1587.1	1293.3	1475.4	1308.3	1249.9	681.3	361.8	339.7	155.2	150.1	467.4	543.9

STATION 14249000 GRAYS RIVER ABV SOUTH FK NR GRAYS RIVER, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1957	29.0	29.0	30.0	32.0	34.0	42.0	53.0	64.0	99.0
1958	26.0	26.0	27.0	27.0	29.0	35.0	43.0	50.0	66.0
1959	19.0	19.0	19.0	20.0	22.0	24.0	30.0	36.0	75.0
1960	29.0	30.0	31.0	31.0	34.0	47.0	75.0	103.0	198.0
1961	24.0	25.0	26.0	26.0	30.0	41.0	40.0	46.0	110.0
1962	20.0	20.0	21.0	22.0	23.0	30.0	31.0	37.0	93.0
1963	31.0	31.0	31.0	33.0	38.0	58.0	57.0	66.0	123.0
1964	26.0	27.0	29.0	31.0	38.0	45.0	48.0	54.0	87.0
1965	48.0	49.0	53.0	59.0	69.0	79.0	78.0	84.0	100.0
1966	22.0	22.0	22.0	23.0	27.0	29.0	30.0	35.0	78.0
1967	22.0	22.0	23.0	26.0	27.0	31.0	34.0	42.0	58.0
1968	18.0	18.0	19.0	20.0	21.0	23.0	26.0	31.0	76.0
1969	34.0	34.0	36.0	38.0	44.0	58.0	88.0	106.0	152.0
1970	25.0	25.0	26.0	27.0	30.0	34.0	53.0	75.0	121.0
1971	17.0	18.0	18.0	18.0	20.0	25.0	32.0	42.0	86.0
1972	28.0	28.0	30.0	32.0	35.0	51.0	58.0	72.0	92.0
1973	18.0	19.0	19.0	20.0	23.0	28.0	39.0	44.0	65.0
1974	19.0	20.0	20.0	22.0	24.0	31.0	47.0	69.0	93.0
1975	18.0	18.0	19.0	20.0	21.0	25.0	31.0	46.0	94.0

LOWEST MEAN FLOW STATISTICS (YEARS 1957-1975)

MEAN	24.9	25.2	26.3	27.7	31.1	38.7	47.0	58.0	98.2
MAXIMUM	48.0	49.0	53.0	59.0	69.0	79.0	88.0	106.0	198.0
MINIMUM	17.0	18.0	18.0	18.0	20.0	23.0	26.0	31.0	58.0
STANDARD DEVIATION	7.51	7.63	8.39	9.42	11.53	14.76	17.91	22.32	33.09
SKENNESS	1.675	1.741	1.872	2.134	2.103	1.276	0.969	0.906	1.726
STD ERROR OF SKENNESS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SERIAL CORR COEFF	-0.089	-0.078	-0.072	-0.077	0.030	-0.133	-0.288	-0.305	0.050
COEFF OF VARIATION	0.302	0.303	0.319	0.340	0.371	0.381	0.381	0.385	0.337
MEAN LOGS	1.380	1.386	1.402	1.424	1.471	1.562	1.645	1.735	1.973
STD DEVIATION LOGS	0.117	0.116	0.121	0.125	0.136	0.151	0.156	0.159	0.129
SKENNESS LOGS	0.847	0.889	0.951	1.084	1.055	0.597	0.415	0.357	0.788
STD ERR SKENNESS LOGS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SER CORR COEFF LOGS	-0.085	-0.080	-0.080	-0.106	0.010	-0.149	-0.296	-0.318	0.108
COEFF OF VAR LOGS	0.085	0.084	0.086	0.088	0.092	0.097	0.095	0.092	0.065

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1975)

0.99	52.7	53.6	58.1	64.5	76.9	95.0	113.3	140.0	221.3
0.98	46.7	47.4	51.0	55.8	65.9	82.8	99.7	123.4	194.5
0.96	41.1	41.7	44.5	48.1	56.2	71.5	86.9	107.7	169.7
0.90	34.4	34.8	36.7	39.1	44.9	57.9	70.8	87.9	139.7
0.80	29.6	29.9	31.2	32.9	37.4	48.2	59.1	73.4	118.5
0.50	23.1	23.4	24.2	25.2	28.0	35.2	43.0	53.2	90.3
0.20	19.1	19.3	19.9	20.8	22.7	27.1	32.4	39.7	72.8
0.10	17.6	17.9	18.4	19.3	20.8	24.0	28.4	34.5	66.3
0.05	16.6	16.9	17.4	18.3	19.7	22.0	25.6	30.9	62.0
0.02	15.7	16.0	16.5	17.4	18.7	20.0	22.9	27.5	58.1
0.01	15.2	15.5	16.1	17.1	18.2	19.0	21.4	25.5	55.9

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1957-1975)

P95	P90	P75	P70	P50	P25	P10
27.0	33.0	63.0	79.0	180.0	430.0	840.0

STATION 14249000 GRAYS RIVER ABV SOUTH FK NR GRAYS RIVER, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-FLOW DATA DATE	REG. (R)
1956	3450.	2600.	1760.	1310.	1130.	1040.	991.	848.	785.	6360.	12/11/55	
1957	3630.	2690.	1730.	1220.	790.	599.	556.	539.	503.	7050.	12/09/56	
1958	2300.	1910.	1470.	1220.	919.	799.	730.	640.	522.	3730.	12/25/57	
1959	4280.	2660.	1650.	1330.	952.	737.	677.	678.	624.	5970.	11/12/58	
1960	4010.	2570.	1860.	1090.	943.	635.	636.	569.	516.	5230.	12/15/59	
1961	4690.	3230.	2260.	1600.	1310.	1090.	945.	914.	744.	5700.	02/21/61	
1962	2100.	1930.	1630.	1280.	920.	685.	587.	518.	459.	4480.	11/22/61	
1963	5600.	4270.	2350.	1640.	1100.	801.	656.	561.	496.	8900.	01/19/62	
1964	3380.	2200.	1520.	1320.	1030.	767.	746.	683.	586.	4910.	01/24/64	
1965	4470.	3430.	2090.	1560.	1080.	842.	885.	755.	559.	5490.	11/30/64	
1966	2740.	2250.	1600.	1370.	885.	657.	666.	584.	488.	4800.	03/08/66	
1967	5320.	3420.	2100.	1540.	1150.	1080.	929.	826.	649.	8700.	12/13/66	
1968	3030.	2370.	1850.	1160.	997.	833.	789.	712.	597.	5400.	02/04/68	
1969	2060.	1570.	1100.	902.	756.	709.	605.	546.	520.	3280.	12/03/68	
1970	2120.	1680.	1490.	1390.	926.	734.	619.	549.	460.	2760.	01/26/70	
1971	5210.	3780.	2310.	1880.	1300.	1150.	950.	917.	753.	6380.	12/07/70	
1972	7810.	5280.	3120.	2110.	1490.	1320.	1130.	1020.	814.	9280.	01/20/72	
1973	3790.	2760.	2460.	1780.	1180.	778.	598.	500.	395.	5600.	12/21/72	
1974	2700.	2530.	1890.	1420.	1210.	1020.	1040.	928.	779.	3670.	01/15/74	
1975	2470.	1930.	1500.	1190.	976.	782.	685.	612.	480.	3580.	02/12/75	
1976										8320.	12/02/75	
1977										2860.	03/07/77	
1978										7240.	12/02/77	
1979										5800.	02/06/79	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1956-1979)

	MEAN	MINIMUM	STANDARD DEVIATION	STANDARD ERROR OF SKEWNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKEWNESS LOGS	STD ERR SKEWNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	# R C ESTIMATE	SYSTEMATIC RECORD
	3758.0	7810.0	2550.0	1570.0	1100.0	455.98	1.087	1.209	0.936	0.703	0.512	0.512		
	2753.0	5250.0	3120.0	1887.0	1416.6	1053.2	852.9	776.0	694.9	586.4				
	1470.98	926.61	455.98	287.64	184.37	195.76	172.08	161.46	126.83					
	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512				
	-0.006	-0.019	0.257	0.397	0.217	-0.087	-0.320	-0.295	-0.409					
	0.391	0.337	0.242	0.203	0.175	0.230	0.222	0.232	0.216					
	3.546	3.419	3.264	3.143	3.016	2.921	2.880	2.831	2.759				3.7272	
	0.162	0.136	0.102	0.087	0.075	0.094	0.094	0.094	0.092				0.1516	
	0.247	0.439	0.166	0.119	0.174	0.570	0.320	0.396	0.306				0.1350	
	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512					
	-0.028	-0.028	0.213	0.344	0.199	-0.144	-0.341	-0.333	-0.455					
	0.046	0.040	0.031	0.028	0.025	0.032	0.033	0.034	0.033					

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	1552.8
0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
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0.90	1528.3
0.80	1478.3
0.50	1384.3
0.20	1298.3
0.10	1219.3
0.05	1150.4
0.02	1080.6
0.01	1010.7

	HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1956-1979)
0.99	1577.2
0.95	155

STATION 14249500 GRAYS R BLW SOUTH FK NR GRAYS RIVER, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1956	794	1423	1422	1277	404	1465	597	131	227	79.6	57.5	92.2	666
1957	691	494	1035	302	899	869	450	138	114	91.5	70.3	34.7	430
1958	176	473	1251	1026	970	317	640	119	76.7	39.9	29.9	82.7	430
1959	332	1290	804	1288	578	704	851	391	218	96.8	54.1	578	597
1960	675	944	787	491	1020	732	731	426	152	55.0	68.2	62.6	510

STATION 14249500 GRAYS R BLW SOUTH FK NR GRAYS RIVER, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW (CFS)	DATE
1956	10000.0	12-11-1955
1957	10700.0	12-9-1956
1958	5700.0	12-25-1957
1959	8340.0	11-12-1958
1960	8120.0	12-15-1959

STATION 14250500 WEST FORK GRAYS RIVER NEAR GRAYS RIVER, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1949							48.7	57.8	16.5	13.0	12.3	14.0	
1950	58.6	322	284	256	365	347	158	52.9	22.2	16.8	54.1	26.5	162
1951	114	284	349	304	373	138	55.8	27.7	14.6	16.8	54.1	26.5	162
1952	208	150	197	192	206	156	78.0	40.7	34.2	18.0	15.6	10.6	139
1953	9.51	27.9	189	598	220	112	66.3	80.8	43.0	19.9	14.0	24.6	117
1954	81.6	204	332	288	338	107	129	23.0	60.6	32.8	21.1	40.5	137
1955	77.2	217	173	151	158	176	203	62.7	36.3	55.9	37.9	23.3	114
1956	209	360	342	280	123	366	106	24.5	73.9	22.9	14.2	28.4	163
1957	187	123	266	211	241	197	108	33.0	24.1	24.3	22.0	8.46	109
1958	34.6	184	297	249	206	134	134	28.4	52.2	10.2	7.87	21.0	97.2
1959	80.2	326	214	306	115	135	198	29.4	57.6	28.8	15.7	14.3	142
1960	161	254	180	133	234	160	157	114	48.0	16.1	22.2	16.9	126
1961	104	330	140	295	498	299	97.0	87.8	24.5	11.3	7.76	12.3	157
1962	120	152	134	179	125	164	128	76.5	41.0	17.5	40.7	35.2	115
1963	122	327	194	125	174	114	160	65.6	23.1	26.2	26.2	36.3	115
1964	112	269	122	402	132	232	79.1	50.8	43.8	32.2	37.4	35.3	129
1965	48.5	256	290	364	242	62.8	71.0	62.8	21.7	11.4	13.9	13.7	121
1966	69.8	151	148	274	140	202	87.0	29.1	21.8	21.4	11.3	15.7	95.9
1967	66.8	134	339	370	178	173	88.5	29.6	18.5	10.6	6.79	7.65	119
1968	146	105	240	269	361	183	94.1	56.1	122	22.4	58.4	63.7	143
1969	106	202	273	178	194	166	113	58.0	52.2	31.1	13.6	61.7	120

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1949-1969)

MEAN	105.8	213.9	243.6	283.9	232.1	178.0	111.4	54.9	39.1	21.5	21.9	32.0	126.5
MAXIMUM	209.0	360.0	349.0	598.0	498.0	366.0	203.0	114.0	122.0	55.9	58.4	143.0	163.0
MINIMUM	9.5	27.9	122.0	75.1	115.0	62.8	48.7	23.0	14.6	9.1	5.9	7.6	95.9
STD DEVIATION	55.09	93.50	73.11	117.55	104.39	81.30	44.44	25.19	25.11	10.87	15.26	29.80	19.468
SKENNESS	0.433	-0.131	-0.084	0.993	1.053	1.040	0.627	0.600	1.968	1.588	1.237	2.836	0.474
STD ERR SKEW	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.501	0.501	0.501	0.501	0.501	0.512
SER CORR COEFF	-0.081	0.105	-0.287	-0.103	-0.028	-0.078	0.183	0.349	0.009	0.193	-0.345	-0.079	-0.148
COEFF OF VAR	0.521	0.437	0.300	0.445	0.450	0.457	0.399	0.459	0.642	0.505	0.698	0.931	0.156
MEAN LOGS	1.947	2.273	2.366	2.379	2.327	2.208	2.014	1.694	1.525	1.286	1.247	1.387	2.097
STD DEV LOGS	0.308	0.261	0.141	0.206	0.184	0.198	0.175	0.208	0.239	0.203	0.229	0.312	0.067
SKENNESS LOGS	-1.658	-1.712	-0.464	-0.583	0.339	-0.197	-0.053	-0.129	0.543	0.224	0.226	0.506	0.185
STD ERR SKEW LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.501	0.501	0.501	0.501	0.501	0.501	0.512
SER CORR LOGS	-0.148	0.105	-0.252	-0.126	-0.035	-0.116	0.176	0.201	0.092	0.100	-0.349	-0.060	-0.126
COEFF OF VAR LOGS	0.158	0.115	0.059	0.087	0.079	0.090	0.087	0.123	0.157	0.158	0.231	0.225	0.032
% OF AVE FLOW	7.0	14.1	16.0	17.4	15.3	11.7	7.3	3.6	2.6	1.4	1.4	2.1	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1949-1969)

0.99	7.8	23.6	98.3	65.1	88.1	52.3	34.8	15.6	11.6	7.0	4.2	6.0	89.4
0.95	21.9	57.3	131.3	102.2	110.4	74.3	52.8	22.2	14.9	9.2	6.2	8.4	98.0
0.90	34.5	84.7	151.6	127.4	125.6	89.2	61.4	26.6	17.2	10.7	7.7	10.2	103.1
0.80	55.2	126.3	178.8	183.5	147.9	110.5	73.6	33.2	20.9	13.0	10.0	13.2	109.8
0.50	106.6	220.6	238.3	250.3	207.5	164.0	103.6	50.0	31.9	19.0	17.2	22.9	124.5
0.20	157.5	304.8	306.6	359.0	301.2	238.3	145.1	74.1	52.2	28.5	30.6	43.6	142.1
0.10	177.4	335.5	345.1	423.0	371.1	287.2	172.7	90.6	69.5	35.6	42.0	63.2	152.7
0.04	192.1	357.0	375.7	495.1	448.5	348.4	207.7	111.7	96.5	45.5	59.4	96.5	165.2
0.02	198.4	365.8	415.7	520.0	468.0	393.4	233.8	127.6	120.8	53.5	74.8	128.8	174.0
0.01	202.2	371.0	441.2	586.7	633.5	437.8	259.9	143.6	149.3	62.0	92.5	168.9	182.5

STATION 14250500 WEST FORK GRAYS RIVER NEAR GRAYS RIVER, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1950	8.1	8.4	8.5	8.7	10.0	12.0	13.0	14.0	24.0
1951	8.1	8.4	8.9	9.8	12.0	18.0	21.0	29.0	42.0
1952	4.7	4.8	4.9	5.1	5.5	6.4	6.4	9.7	24.0
1953	5.7	5.7	5.7	6.0	6.6	6.9	11.0	13.0	19.0
1954	9.0	9.2	9.4	9.9	11.0	13.0	16.0	23.0	41.0
1955	12.0	12.0	12.0	14.0	16.0	24.0	31.0	34.0	41.0
1956	11.0	11.0	12.0	12.0	16.0	24.0	36.0	38.0	58.0
1957	9.1	9.1	9.3	10.0	11.0	15.0	20.0	26.0	35.0
1958	5.6	5.6	6.0	6.6	7.7	11.0	15.0	23.0	23.0
1959	4.4	4.6	4.8	5.2	6.2	7.8	10.0	14.0	28.0
1960	13.0	13.0	13.0	14.0	15.0	21.0	32.0	41.0	78.0
1961	7.4	8.1	8.3	8.9	10.0	16.0	18.0	19.0	45.0
1962	5.6	5.6	5.7	6.1	6.7	8.9	10.0	13.0	32.0
1963	12.0	12.0	12.0	13.0	17.0	25.0	27.0	30.0	52.0
1964	10.0	10.0	10.0	12.0	17.0	22.0	23.0	26.0	37.0
1965	17.0	18.0	20.0	23.0	30.0	34.0	34.0	37.0	41.0
1966	7.8	7.8	7.9	8.4	9.4	12.0	13.0	14.0	32.0
1967	8.3	8.4	8.7	9.3	10.0	12.0	14.0	17.0	21.0
1968	5.0	5.4	5.6	5.8	6.4	7.1	8.3	11.0	26.0
1969	8.5	8.7	9.5	11.0	15.0	22.0	39.0	47.0	67.0

LOWEST MEAN FLOW STATISTICS (YEARS 1950-1969)

MEAN	8.6	8.8	9.2	9.9	11.9	16.0	19.9	23.7	38.6
MAXIMUM	17.0	18.0	20.0	23.0	30.0	34.0	39.0	47.0	78.0
MINIMUM	4.4	4.6	4.8	5.1	5.5	6.4	7.5	9.7	19.0
STANDARD DEVIATION	3.21	3.30	3.62	4.18	5.7	7.46	9.97	11.24	15.70
SKEWNESS	0.888	1.081	1.357	1.563	1.642	0.696	0.595	0.583	1.033
STD ERROR OF SKEWNESS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SERIAL CORR COEFF	0.078	0.066	0.090	0.076	0.171	0.121	-0.013	-0.116	0.026
COEFF OF VARIATION	0.373	0.375	0.395	0.421	0.482	0.466	0.500	0.475	0.407
MEAN LOGS	0.908	0.917	0.933	0.965	1.035	1.159	1.247	1.327	1.554
STD DEVIATION LOGS	0.159	0.157	0.162	0.169	0.190	0.207	0.222	0.209	0.169
SKEWNESS LOGS	0.055	0.126	0.229	0.299	0.353	-0.055	0.012	0.059	0.229
STD ERR SKEWNESS LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF LOGS	0.104	0.101	0.116	0.102	0.172	0.096	-0.017	-0.085	0.110
COEFF OF VAR LOGS	0.175	0.172	0.173	0.175	0.184	0.178	0.178	0.158	0.109

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1950-1969)

0.99	19.3	19.8	21.6	24.8	33.6	42.8	58.4	66.6	94.6
0.98	17.4	17.8	19.2	21.8	28.9	37.8	50.7	58.1	83.6
0.96	15.5	15.8	16.9	18.9	24.6	32.9	43.4	49.9	73.0
0.90	13.0	13.2	13.9	15.3	19.3	26.4	34.1	39.5	59.5
0.80	11.0	11.2	11.7	12.7	15.5	21.5	27.2	31.8	49.5
0.50	8.1	8.2	8.4	9.1	10.6	14.5	17.6	21.1	35.3
0.20	5.9	6.1	6.2	6.6	7.5	9.7	11.5	14.1	25.7
0.10	5.1	5.2	5.4	5.7	6.3	7.8	9.2	11.5	22.0
0.05	4.4	4.6	4.8	5.0	5.5	6.5	7.6	9.7	19.4
0.02	3.8	4.0	4.2	4.4	4.8	5.3	6.2	8.0	16.9
0.01	3.5	3.7	3.8	4.1	4.4	4.7	5.4	7.1	15.5

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1950-1969)

P95	P90	P75	P70	P50	P25	P10
9.0	13.0	26.0	32.0	67.0	150.0	310.0

STATION 14250500 WEST FORK GRAYS RIVER NEAR GRAYS RIVER, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1949										3700. 02/22/49
1950	1770.	1100.	716.	620.	468.	394.	360.	340.	287.	2830. 11/12/49
1951	2190.	1570.	996.	573.	456.	408.	378.	329.	256.	2970. 02/09/51
1952	1310.	863.	732.	500.	312.	218.	218.	209.	185.	2070. 01/30/52
1953	1400.	1090.	825.	725.	632.	423.	340.	284.	211.	2190. 01/22/53
1954	1220.	977.	680.	500.	393.	337.	323.	294.	233.	1670. 12/09/53
1955	1400.	931.	572.	360.	251.	219.	208.	186.	180.	1790. 11/18/54
1956	1270.	908.	526.	474.	310.	376.	353.	304.	287.	2080. 12/11/55
1957	1410.	985.	645.	450.	302.	224.	210.	199.	188.	2320. 02/09/56
1958	959.	690.	525.	438.	329.	273.	249.	217.	174.	1520. 01/14/58
1959	1810.	1060.	625.	503.	353.	281.	287.	244.	219.	2890. 11/12/58
1960	1320.	1140.	812.	453.	363.	247.	246.	219.	193.	2680. 02/06/60
1961	2240.	1610.	998.	664.	534.	425.	360.	346.	280.	3100. 02/21/61
1962	1110.	685.	612.	463.	344.	264.	226.	202.	180.	1900. 11/22/61
1963	1960.	1470.	818.	580.	385.	299.	241.	207.	184.	4770. 11/19/62
1964	1470.	927.	616.	502.	404.	286.	273.	248.	217.	2220. 01/24/64
1965	2040.	1440.	866.	605.	408.	332.	313.	291.	213.	2530. 11/30/64
1966	924.	725.	513.	429.	299.	221.	217.	195.	167.	1460. 03/08/66
1967	1910.	1170.	674.	546.	375.	358.	307.	272.	219.	3320. 12/13/66
1968	1260.	1100.	761.	451.	364.	314.	291.	263.	217.	1790. 02/03/68
1969	1040.	699.	453.	346.	289.	278.	233.	217.	190.	4770. 11/19/68

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1969)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKEWNESS	STD ERROR OF SKEWNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKEWNESS LOGS	STD ERR SKEWNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	1500.6	2240.0	924.0	406.43	0.463	0.512	-0.389	0.271	3.161	0.117	0.089	0.512	-0.406	0.037	3.3902	3.3902
	1057.0	1610.0	685.0	283.43	0.469	0.512	-0.421	0.268	3.010	0.115	0.116	0.512	-0.444	0.038	0.1468	0.1468
	703.2	998.0	453.0	149.36	0.469	0.512	-0.063	0.212	2.838	0.092	0.116	0.512	-0.066	0.032	0.1400	0.1400
	509.1	725.0	346.0	96.38	0.486	0.512	-0.041	0.189	2.699	0.082	0.0	0.540	-0.003	0.030	0.4410	0.4410
	383.6	632.0	251.0	88.95	1.231	0.512	-0.156	0.232	2.574	0.094	0.098	0.512	-0.435	0.040	3.3902	3.3902
	308.9	425.0	218.0	69.81	0.327	0.512	-0.392	0.226	2.479	0.098	0.098	0.512	-0.398	0.037	0.1468	0.1468
	283.1	378.0	208.0	58.29	0.211	0.512	-0.366	0.206	2.443	0.090	0.090	0.512	-0.398	0.037	0.1400	0.1400
	253.3	346.0	186.0	51.51	0.449	0.512	-0.263	0.203	2.395	0.087	0.087	0.512	-0.299	0.036	0.4410	0.4410
	214.0	287.0	167.0	37.54	0.894	0.512	-0.224	0.175	2.324	0.073	0.073	0.512	-0.243	0.031	3.3902	3.3902
	158.6	1428.1	1601.2	1844.0	2436.5	3255.5	3805.1	4509.2	5041.6	5581.0	6002.2					

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1949-1969)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	786.9	937.6	1029.5	1154.6	1444.0	1816.2	2052.1	2341.6	2552.4	2760.0
	565.4	667.7	731.1	817.3	1017.1	1275.0	1439.0	1640.9	1784.3	1933.9
	420.9	486.1	524.9	576.1	688.4	822.7	903.0	997.3	1063.5	1126.7
	323.0	367.2	393.2	427.2	500.6	586.6	637.3	696.1	737.0	775.9
	246.5	271.7	288.0	311.0	367.5	446.4	499.9	569.2	622.1	676.2
	179.6	208.5	225.9	249.1	300.9	364.4	403.2	449.5	482.4	514.1
	172.9	198.1	213.2	233.1	277.0	330.0	361.9	399.7	426.3	451.8
	161.6	181.3	193.4	209.6	246.5	293.2	322.6	358.4	384.4	409.9
	155.2	165.9	173.0	182.9	207.3	241.1	263.7	292.7	314.6	336.7
	1249.7	1474.0	1623.2	1839.0	2395.7	3232.6	3805.1	4509.2	5041.6	5581.0

STATION 12009500 BEAR BRANCH NEAR NASELLE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1963	67.0	214	100	80.8	118	67.9	50.6	40.4	14.4	13.8	9.95	8.97	83.3
1964	34.8	150	175	263	169	36.1	44.1	39.4	37.7	17.3	20.6	24.9	79.0
1965	36.9	104	120	146	192.5	127	49.0	24.1	15.2	8.52	9.05	10.0	62.0
1966	62.3	127	189	262	134	108	59.6	22.2	14.8	10.9	8.78	11.5	87.7
1968	99.3	78.8	189	162	186	118	56.3	28.2	72.0	16.7	34.3	44.4	90.2
1969	77.3	128	222	184	157	48.4	46.8	38.1	38.6	24.0	11.0	45.1	84.7
1970	52.5	73.6	133	185	94.8	63.9	87.8	42.6	22.4	8.05	5.47	33.3	65.9
1971	69.4	111	243	298	119	151	80.6	27.6	12.4	17.2	8.94	27.2	98.2
1972	55.3	113	253	191	163	206	129	26.6	15.2	24.4	9.60	17.9	100
1973	12.4	88.2	210	107	45.7	87.5	44.8	43.3	66.5	21.4	9.20	25.3	63.7
1974	45.2	184	204	175	154	175	99.0	91.0	55.6	49.0	14.1	7.37	104.8
1975	7.00	68.8	157	191	125	83.0	43.2	46.0	21.3	14.1	12.9	9.58	64.8

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1963-1975)

MEAN	51.6	120.0	187.6	190.0	126.9	106.4	67.4	39.2	30.7	17.9	12.2	20.9	82.0
MAXIMUM	99.3	214.0	253.0	298.0	186.0	206.0	129.0	91.0	72.0	49.0	34.3	45.1	104.0
MINIMUM	7.0	68.8	100.0	80.8	45.7	36.1	43.2	22.2	12.4	7.4	5.1	6.3	62.0
STO DEVIATION	26.43	44.53	51.27	61.39	39.18	49.76	26.68	17.54	21.49	10.94	7.71	13.69	15.01
SKENNESS	-0.127	0.960	-0.387	0.035	-0.456	0.568	1.155	2.298	1.031	2.046	2.259	0.710	-0.052
STD ERR SKEW	0.637	0.637	0.637	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.637
SER CORR COEFF	0.332	-0.193	-0.083	-0.229	-0.372	-0.088	-0.147	0.288	0.021	0.075	-0.213	0.381	-0.480
COEFF OF VAR	0.512	0.371	0.273	0.323	0.309	0.467	0.396	0.447	0.701	0.611	0.630	0.655	0.183
MEAN LOGS	1.626	2.054	2.256	2.255	2.079	1.980	1.801	1.563	1.396	1.194	1.030	1.229	1.907
STD DEV LOGS	0.337	0.154	0.131	0.157	0.162	0.219	0.157	0.160	0.285	0.229	0.218	0.300	0.081
SKENNESS LOGS	-1.523	0.326	-0.770	-0.863	-1.437	-0.403	0.689	1.004	0.561	0.486	0.889	0.055	-0.234
STD ERR SKEW LOGS	0.637	0.637	0.637	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.637
SER CORR LOGS	0.145	-0.311	-0.098	-0.224	-0.374	-0.113	-0.168	0.414	-0.018	0.141	-0.218	0.239	-0.487
COEFF OF VAR LOGS	0.207	0.075	0.058	0.070	0.078	0.111	0.087	0.103	0.204	0.192	0.212	0.244	0.043
% OF AVE FLOW	5.3	12.4	19.3	19.6	13.1	11.0	6.9	4.0	3.2	1.8	1.3	2.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1963-1975)

0.99	3.2	54.0	75.7	62.4	35.1	25.5	32.7	22.4	7.1	5.6	4.6	3.5	50.5
0.95	9.3	65.4	103.6	92.1	58.1	39.5	37.7	22.5	9.5	7.1	5.4	5.5	58.6
0.90	15.0	72.9	120.4	110.9	72.9	49.1	41.1	24.1	11.3	8.2	6.0	7.0	63.2
0.80	24.8	83.6	142.3	136.0	92.4	63.2	46.3	26.7	14.2	10.0	7.0	9.5	69.1
0.50	51.0	111.0	187.5	189.3	130.9	98.7	60.6	34.4	23.4	15.0	10.0	16.8	81.3
0.20	80.1	151.4	233.8	244.8	163.7	146.8	84.1	48.3	42.1	23.9	15.8	30.2	94.6
0.10	92.7	180.2	257.1	272.7	176.6	177.4	102.4	60.0	59.4	31.3	21.0	41.1	102.0
0.04	102.9	218.7	280.6	300.5	186.8	214.2	128.7	77.7	88.1	42.6	29.5	57.4	110.3
0.02	107.7	249.0	294.8	317.0	191.6	240.2	150.8	93.5	115.5	52.6	37.5	71.3	115.7
0.01	110.8	280.8	306.8	330.6	194.8	265.1	175.2	111.6	148.9	63.9	47.2	86.7	120.8

STATION 12009500 BEAR BRANCH NEAR NASELLE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1964	7.0	7.1	7.4	7.9	8.8	9.4	10.0	11.0	20.0
1965	13.0	13.0	13.0	15.0	17.0	18.0	20.0	24.0	29.0
1966	5.5	5.6	5.8	5.9	7.5	8.0	9.0	10.0	20.0
1967	4.8	4.8	5.0	6.2	6.8	8.6	10.0	11.0	16.0
1968	4.4	4.4	4.7	5.0	5.0	5.5	6.2	7.7	18.0
1969	5.8	6.0	6.7	8.0	11.0	16.0	26.0	31.0	40.0
1970	10.0	11.0	11.0	11.0	12.0	12.0	21.0	26.0	33.0
1971	4.5	4.8	4.8	4.9	5.3	6.6	8.2	12.0	23.0
1972	6.6	6.6	7.0	8.0	8.7	13.0	16.0	18.0	22.0
1973	7.4	7.7	7.7	8.0	8.9	11.0	13.0	16.0	18.0
1974	7.3	7.3	7.6	8.2	8.8	9.9	17.0	23.0	33.0
1975	5.0	5.2	5.4	5.6	5.8	6.9	8.6	13.0	32.0

LOWEST MEAN FLOW STATISTICS (YEARS 1964-1975)

MEAN	6.8	7.0	7.2	7.8	8.7	10.4	13.8	16.9	25.3
MAXIMUM	13.0	13.0	13.0	15.0	17.0	18.0	26.0	31.0	40.0
MINIMUM	4.4	4.4	4.7	4.8	5.0	5.5	6.2	7.7	16.0
STANDARD DEVIATION	2.53	2.62	2.54	2.87	3.28	3.81	6.20	7.46	7.74
SKEWNESS	1.577	1.468	1.379	1.543	1.447	0.781	0.713	0.647	0.576
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SERIAL CORR COEFF	-0.113	-0.120	-0.119	-0.178	-0.098	-0.292	-0.215	-0.136	0.156
COEFF OF VARIATION	0.373	0.376	0.354	0.369	0.376	0.366	0.451	0.442	0.305
MEAN LOGS	0.808	0.819	0.834	0.868	0.915	0.992	1.098	1.189	1.386
STD DEVIATION LOGS	0.143	0.145	0.138	0.145	0.151	0.156	0.194	0.191	0.130
SKEWNESS LOGS	0.918	0.907	0.794	0.704	0.450	0.149	0.155	0.137	0.262
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR COEFF LOGS	-0.065	-0.050	-0.067	-0.179	-0.104	-0.292	-0.281	-0.148	0.169
COEFF OF VAR LOGS	0.177	0.177	0.166	0.166	0.164	0.157	0.177	0.161	0.094

LOWEST MEAN FLDW NON-EXCEEDENCE PROBABILITIES BASED ON LGD-PEARSON III ANALYSIS (YEARS 1964-1975)

0.99	17.0	17.7	17.1	18.8	20.6	23.5	37.4	45.0	51.6
0.98	14.6	15.1	14.9	16.4	18.2	21.1	32.6	39.4	46.8
0.96	12.5	12.9	12.9	14.2	15.9	18.7	28.1	34.1	42.1
0.90	10.0	10.3	10.5	11.5	13.0	15.6	22.4	27.3	35.9
0.80	8.3	8.5	8.8	9.6	10.9	13.2	18.2	22.3	31.1
0.50	6.1	6.3	6.5	7.1	8.0	9.7	12.4	15.3	24.0
0.20	4.9	5.0	5.2	5.6	6.1	7.2	8.6	10.6	18.8
0.10	4.4	4.5	4.7	5.0	5.4	6.2	7.1	8.9	16.7
0.05	4.1	4.2	4.4	4.6	4.9	5.5	6.1	7.6	15.2
0.02	3.9	3.9	4.1	4.3	4.4	4.8	5.2	6.5	13.7
0.01	3.7	3.8	3.9	4.1	4.1	4.4	4.7	5.8	12.8

FLDW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1964-1975)

P95	P90	P75	P70	P50	P25	P10
6.9	9.0	18.0	22.0	46.0	110.0	200.0

STATION 12010000 NASELLE RIVER NEAR NASELLE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1929													
1930	33.0	37.6	47.6	36.0	104.3	45.8	31.5	22.0	20.9	82.2	40.7	30.0	264
1931	111	34.2	34.4	90.1	48.6	82.2	62.6	99.9	14.3	62.9	32.9	40.4	264
1932	56.3	86.3	104.1	103.1	102.2	107.5	68.9	13.1	23.5	115	41.5	127	353
1933	135	133.9	123.3	104.2	81.1	107.7	33.1	35.4	211	72.9	76.2	50.8	556
1934	508	151.6	253.0	135.0	295	76.6	24.1	35.4	211	67.1	42.3	19.8	573
1935	584	103.3	99.9	160.8	54.4	76.6	24.1	11.4	78.5	73.2	51.3	57.9	543
1936	89.6	29.4	47.6	133.8	61.6	64.4	18.8	25.6	27.8	63.1	44.4	87.5	515
1937	43.0	37.3	66.8	34.0	110.5	48.9	85.8	28.8	25.1	95.4	55.4	52.0	371
1938	32.2	148.8	100.2	61.8	51.0	66.1	54.8	18.4	64.0	98.4	71.6	74.7	355
1939	156	66.3	65.3	102.2	102.0	50.8	12.0	89.9	16.0	94.3	43.6	35.5	377
1940	129	30.7	122.6	55.5	115.4	69.3	36.1	33.1	111	43.7	40.4	42.6	410
1941	45.4	50.2	60.5	64.9	31.8	19.4	13.9	27.6	111	54.1	47.1	31.3	305
1942	33.5	53.5	111.9	31.5	66.1	33.5	18.8	21.8	28.9	135	58.6	35.3	350
1943	164	94.0	97.4	41.9	94.0	35.4	57.4	18.1	11.8	68.5	56.6	39.3	398
1944	289	33.4	69.4	57.0	45.5	39.7	45.5	13.9	81.4	43.5	32.9	72.6	297
1945	11.8	69.4	43.9	93.5	73.9	93.3	33.8	36.6	91.4	42.1	28.1	10.6	399
1946	100	97.2	105.2	104.5	120.0	71.9	53.9	12.0	12.5	14.9	50.4	49.5	507
1947	32.8	88.4	107.5	72.7	89.6	28.4	30.3	11.8	14.7	11.3	56.1	80.5	413
1948	796	81.0	73.7	81.3	74.8	48.9	44.8	44.8	10.2	55.7	50.1	17.6	472
1949	32.6	92.9	124.4	24.6	140.8	44.8	19.7	21.7	65.9	42.2	34.4	34.4	426
1950	177	87.6	95.8	91.4	153.2	121.7	19.3	77.9	77.9	46.8	62.4	52.2	547
1951	45.8	92.7	126.3	112.8	125.6	50.3	20.1	11.6	61.0	36.5	26.0	76.0	500
1952	72.7	56.1	78.1	76.7	79.7	54.3	26.7	13.3	94.2	55.3	46.0	36.4	400
1953	38.1	96.8	73.8	196.9	75.7	47.1	26.2	28.7	13.9	71.0	56.3	66.7	413
1954	24.0	73.5	110.6	104.5	141.2	40.3	46.4	37.6	13.7	13.1	85.7	11.1	498
1955	24.2	84.7	164.0	58.4	55.9	50.0	77.0	18.6	13.7	12.4	101.1	71.1	396
1956	52.6	116.6	126.2	109.2	50.2	121.3	31.5	18.0	21.5	72.6	47.6	86.9	550
1957	63.9	47.8	93.0	30.9	81.7	74.3	40.2	10.7	75.1	66.3	98.2	42.9	390
1958	15.9	42.9	103.5	94.3	100.7	33.2	56.0	12.5	21.1	38.4	27.9	55.3	395
1959	24.5	109.5	84.0	116.0	55.0	54.8	56.0	33.7	14.8	90.0	45.7	36.3	503
1960	51.9	79.0	69.7	59.0	89.7	53.2	54.8	37.8	14.8	55.7	45.1	36.6	434
1961	27.4	102.3	56.0	99.4	158.7	100.4	33.8	30.7	82.3	38.5	28.1	32.2	515
1962	27.2	57.2	99.4	63.7	48.6	63.9	41.7	26.4	14.2	65.2	82.1	84.1	388
1963	32.8	113.3	69.3	45.6	59.1	40.2	51.7	24.7	77.2	76.0	46.7	49.4	382
1964	35.2	103.7	51.2	133.9	49.8	77.2	26.4	18.2	13.2	81.3	92.7	83.4	446
1965	14.2	72.4	96.8	124.3	83.5	23.2	25.5	22.5	79.2	41.9	36.7	35.6	399
1966	13.4	52.5	54.3	100.8	55.8	77.2	22.2	10.5	69.9	55.4	36.3	37.7	339
1967	19.1	54.4	146.8	136.4	71.3	72.7	33.5	13.8	69.1	38.4	24.2	28.7	471
1968	51.1	40.9	88.3	110.2	104.9	74.2	33.4	17.5	38.3	65.1	123.1	21.0	494
1969	34.7	67.1	118.6	67.8	80.5	50.7	39.9	10.1	15.1	94.7	44.1	14.0	431
1970	27.8	41.6	83.8	103.6	67.9	37.6	52.7	18.4	63.8	33.8	22.3	10.8	379
1971	34.4	60.2	142.4	158.4	60.3	100.7	42.4	18.9	13.1	92.7	58.4	12.7	551
1972	26.4	65.9	109.7	127.6	103.7	111.8	56.5	15.4	66.7	91.7	38.6	98.5	538
1973	60.3	39.5	113.8	72.9	25.1	46.5	21.7	21.5	23.2	103	43.3	72.5	328
1974	18.3	113.4	130.6	121.2	97.2	107.8	61.5	31.5	22.9	20.5	70.8	38.7	611
1975	30.5	38.8	91.2	105.0	66.7	52.5	23.4	27.3	88.7	55.3	82.2	68.6	364
1976	75.4	106.6	151.2	112.4	59.8	65.1	28.0	12.6	11.7	94.0	93.1	65.3	537
1977	58.3	13.6	124.5	22.2	35.1	73.3	20.1	21.5	21.8	56.3	77.8	18.7	226
1978	17.1	105.2	148.4	52.8	35.5	35.7	29.8	21.0	15.7	66.1	73.2	45.5	453
1979	14.4	40.0	50.3	24.2	122.4	57.6	28.1	21.0	66.0	55.3	33.9	86.6	312

STATION 12010000 NASELLE RIVER NEAR NASELLE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1929-1979)

MEAN	288.2	686.9	941.5	884.8	801.6	632.8	387.8	207.0	134.6	75.8	53.6	92.9	430.6
MAXIMUM	796.0	1488.0	2530.0	1969.0	1587.0	1217.0	858.0	448.0	343.0	205.0	123.0	455.0	611.0
MINIMUM	30.5	37.3	245.0	222.0	251.0	194.0	120.0	82.0	61.0	33.8	22.3	28.7	226.0
STO DEVIATION	199.35	338.09	387.36	394.44	326.22	261.56	169.38	85.54	71.07	35.42	22.76	85.61	87.03
SKWNESS	0.863	0.085	1.275	0.250	0.540	0.641	0.674	0.625	1.007	1.452	1.016	2.609	-0.035
STD ERR SKEW	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.333	0.333	0.333	0.333	0.337
SER CORR COEFF	-0.041	-0.145	-0.084	0.235	0.019	0.021	0.032	0.091	-0.080	0.089	-0.008	0.001	-0.047
COEFF OF VAR	0.692	0.492	0.411	0.446	0.407	0.413	0.437	0.413	0.528	0.467	0.424	0.921	0.202
MEAN LOGS	2.337	2.751	2.938	2.895	2.867	2.764	2.577	2.279	2.075	1.839	1.694	1.854	2.625
STD DEV LOGS	0.361	0.338	0.185	0.231	0.187	0.186	0.196	0.184	0.216	0.185	0.176	0.293	0.092
SKWNESS LOGS	-0.646	-2.000	-0.531	-0.794	-0.373	-0.281	-0.193	-0.115	0.364	0.385	0.196	0.861	-0.569
STD ERR SKEW LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.333	0.333	0.333	0.333	0.337
SER CORR LOGS	-0.055	-0.045	-0.127	0.186	-0.044	0.024	0.027	0.089	-0.101	0.089	-0.025	0.025	-0.058
COEFF OF VAR LOGS	0.154	0.123	0.063	0.080	0.065	0.067	0.077	0.081	0.104	0.100	0.104	0.158	0.035
% OF AVE FLOW	5.6	13.2	18.1	17.1	15.5	12.2	7.5	4.0	2.6	1.5	1.0	1.8	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1979)

0.99	21.4	34.2	273.6	169.3	240.5	186.6	115.9	68.5	42.7	29.0	20.4	22.9	236.0
0.95	48.4	119.5	405.8	295.6	347.1	278.1	163.9	93.4	55.3	36.1	26.0	28.4	288.3
0.90	71.9	204.8	492.8	385.9	417.6	331.8	196.1	109.9	64.2	40.9	29.7	32.8	318.1
0.80	112.3	351.1	614.7	518.4	517.1	407.9	242.3	133.4	77.5	48.0	35.0	40.1	355.6
0.50	237.6	715.9	899.3	841.3	755.5	592.4	357.5	191.6	115.2	67.2	48.8	64.9	430.1
0.20	443.2	1031.6	1247.3	1236.7	1062.8	836.2	516.7	272.0	178.6	97.8	69.2	120.4	505.7
0.10	585.7	1130.5	1450.4	1458.6	1252.0	990.4	621.4	325.1	228.5	120.8	83.7	176.2	544.5
0.04	762.5	1188.7	1679.1	1695.8	1475.1	1176.6	752.1	392.1	301.2	153.3	103.2	277.0	584.6
0.02	888.5	1207.8	1831.6	1845.2	1630.6	1309.5	848.0	441.6	362.9	180.1	118.5	380.9	609.6
0.01	1008.2	1217.4	1970.8	1974.6	1777.8	1437.5	942.7	490.9	431.3	209.0	134.5	516.4	631.4

STATION 12010000 NASELLE RIVER NEAR NASELLE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1931	25.0	26.0	26.0	26.0	29.0	34.0	42.0	55.0	99.0
1932	26.0	27.0	28.0	32.0	38.0	46.0	60.0	118.0	134.0
1933	29.0	29.0	31.0	34.0	44.0	53.0	62.0	62.0	87.0
1934	34.0	35.0	36.0	37.0	39.0	45.0	62.0	112.0	173.0
1935	41.0	42.0	42.0	43.0	44.0	52.0	60.0	62.0	96.0
1936	36.0	36.0	37.0	39.0	42.0	45.0	55.0	64.0	76.0
1937	34.0	34.0	34.0	36.0	37.0	39.0	42.0	46.0	100.0
1938	37.0	38.0	42.0	48.0	54.0	67.0	75.0	119.0	173.0
1939	24.0	24.0	26.0	26.0	28.0	30.0	31.0	37.0	76.0
1940	27.0	28.0	29.0	30.0	33.0	38.0	51.0	68.0	86.0
1941	30.0	30.0	30.0	30.0	37.0	49.0	42.0	45.0	123.0
1942	31.0	31.0	32.0	32.0	38.0	49.0	69.0	122.0	156.0
1943	30.0	30.0	31.0	32.0	35.0	38.0	46.0	68.0	131.0
1944	30.0	30.0	32.0	35.0	36.0	44.0	50.0	61.0	111.0
1945	26.0	26.0	26.0	29.0	30.0	34.0	42.0	55.0	78.0
1946	24.0	24.0	25.0	27.0	28.0	34.0	42.0	57.0	111.0
1947	32.0	33.0	35.0	39.0	41.0	47.0	55.0	86.0	104.0
1948	40.0	41.0	42.0	43.0	51.0	68.0	81.0	99.0	135.0
1949	38.0	39.0	40.0	42.0	45.0	52.0	59.0	83.0	183.0
1950	19.0	20.0	20.0	22.0	27.0	34.0	36.0	42.0	83.0
1951	29.0	30.0	32.0	34.0	42.0	50.0	51.0	58.0	124.0
1952	19.0	19.0	21.0	22.0	25.0	26.0	30.0	39.0	86.0
1953	29.0	29.0	29.0	30.0	30.0	35.0	39.0	43.0	60.0
1954	33.0	33.0	34.0	36.0	44.0	49.0	58.0	77.0	142.0
1955	60.0	63.0	65.0	66.0	74.0	95.0	105.0	126.0	159.0
1956	49.0	50.0	51.0	53.0	62.0	77.0	93.0	96.0	154.0
1957	29.0	30.0	32.0	35.0	38.0	50.0	66.0	81.0	106.0
1958	34.0	35.0	36.0	37.0	40.0	50.0	66.0	67.0	83.0
1959	20.0	20.0	21.0	23.0	25.0	29.0	37.0	45.0	93.0
1960	39.0	39.0	42.0	43.0	45.0	62.0	106.0	137.0	234.0
1961	29.0	30.0	30.0	31.0	35.0	41.0	43.0	51.0	139.0
1962	22.0	22.0	23.0	24.0	26.0	30.0	31.0	39.0	118.0
1963	42.0	43.0	45.0	49.0	61.0	68.0	72.0	88.0	148.0
1964	33.0	33.0	36.0	39.0	44.0	47.0	52.0	58.0	106.0
1965	54.0	57.0	60.0	67.0	74.0	83.0	84.0	96.0	118.0
1966	26.0	26.0	27.0	28.0	32.0	35.0	37.0	45.0	90.0
1967	27.0	27.0	27.0	30.0	32.0	36.0	39.0	45.0	66.0
1968	20.0	20.0	20.0	21.0	23.0	26.0	30.0	39.0	100.0
1969	31.0	32.0	32.0	36.0	44.0	64.0	102.0	136.0	195.0
1970	27.0	27.0	28.0	30.0	35.0	45.0	76.0	98.0	147.0
1971	18.0	19.0	20.0	20.0	22.0	27.0	36.0	50.0	100.0
1972	45.0	47.0	50.0	54.0	58.0	74.0	88.0	99.0	125.0
1973	26.0	26.0	27.0	29.0	34.0	42.0	60.0	64.0	83.0
1974	26.0	26.0	26.0	31.0	33.0	44.0	64.0	90.0	134.0
1975	25.0	25.0	27.0	28.0	29.0	33.0	42.0	63.0	130.0
1976	34.0	34.0	36.0	39.0	41.0	53.0	65.0	72.0	128.0
1977	39.0	40.0	40.0	43.0	46.0	59.0	69.0	74.0	88.0
1978	28.0	29.0	29.0	30.0	34.0	50.0	93.0	103.0	143.0
1979	37.0	38.0	40.0	43.0	49.0	63.0	96.0	147.0	192.0

LOWEST MEAN FLOW STATISTICS (YEARS 1931-1979)

MEAN	31.5	32.1	33.3	35.4	39.4	47.9	59.8	75.2	120.1
MAXIMUM	60.0	63.0	65.0	67.0	74.0	95.0	106.0	147.0	234.0
MINIMUM	18.0	19.0	20.0	20.0	22.0	26.0	30.0	37.0	60.0
STANDARD DEVIATION	8.71	9.23	9.64	10.30	11.81	15.52	21.51	29.78	36.91
SKENNESS	1.115	1.241	1.234	1.183	1.157	0.908	0.580	0.722	0.844
STD ERROR OF SKENNESS	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340
SERIAL CORR COEFF	0.107	0.091	0.084	0.034	0.059	-0.004	0.024	-0.109	-0.002
COEFF OF VARIATION	0.277	0.288	0.290	0.291	0.299	0.324	0.360	0.396	0.307
MEAN LOGS	1.483	1.490	1.506	1.533	1.579	1.659	1.749	1.844	2.060
STD DEVIATION LOGS	0.114	0.117	0.118	0.119	0.122	0.136	0.156	0.168	0.130
SKENNESS LOGS	0.264	0.370	0.393	0.340	0.358	0.189	0.032	0.166	0.110
STD ERR SKENNESS LOGS	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340
SER CORR COEFF LOGS	0.054	0.043	0.044	-0.004	0.011	-0.045	0.005	-0.090	0.023
COEFF OF VAR LOGS	0.077	0.078	0.078	0.078	0.077	0.082	0.089	0.091	0.063

STATION 12010000 NASELLE RIVER NEAR NASELLE, WASH.

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1931-1979)

0.99	58.9	62.2	65.0	68.9	78.4	98.5	130.7	180.4	236.2
0.98	54.1	56.6	59.1	62.8	71.2	89.4	118.2	160.2	216.3
0.96	49.3	51.2	53.3	56.7	64.1	80.4	105.8	140.7	196.3
0.90	42.9	44.1	45.8	48.8	54.8	68.5	89.1	115.5	169.2
0.80	37.8	38.6	40.0	42.7	47.7	59.1	75.9	96.5	147.6
0.50	30.0	30.4	31.5	33.6	37.3	45.1	56.0	69.1	114.3
0.20	24.3	24.6	25.4	27.0	29.8	34.9	41.4	50.3	89.2
0.10	21.9	22.2	23.0	24.3	26.8	30.7	35.4	42.8	78.6
0.05	20.1	20.5	21.2	22.4	24.6	27.7	31.1	37.6	70.9
0.02	18.4	18.8	19.5	20.5	22.5	24.8	27.0	32.7	63.3
0.01	17.4	17.8	18.5	19.3	21.2	23.0	24.5	29.8	58.7

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1931-1979)

P95	P90	P75	P70	P50	P25	P10
33.0	42.0	78.0	98.0	220.0	530.0	1100.0

STATION 12010000 NASELLE RIVER NEAR NASELLE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW(CFS)	PEAK-FLOW DATA DATE	REG.(R)
1930	1910.	1470.	1200.	1150.	1000.	728.	639.	611.	476.	2460.	12/23/29	
1931	2790.	2250.	1700.	1320.	1080.	842.	812.	729.	586.	2860.	01/23/31	
1932	4490.	2990.	2220.	1930.	1350.	1140.	1130.	1080.	1000.	5030.	02/26/32	
1933	5280.	3100.	2420.	2020.	1420.	1410.	1220.	1130.	982.	6090.	11/13/32	
1934	5280.	4580.	4260.	3550.	2700.	2000.	1520.	1290.	981.	7540.	12/09/33	
1935	10400.	6930.	4080.	2180.	1660.	1330.	1230.	1110.	938.	11100.	01/22/35	
1936	5580.	3630.	2400.	2230.	1490.	995.	896.	784.	599.	6210.	02/27/36	
1937	3070.	2540.	2010.	1640.	1210.	862.	802.	728.	614.	3560.	02/22/37	
1938	4910.	3290.	2420.	1970.	1520.	1290.	1060.	922.	814.	5760.	11/25/37	
1939	3790.	2730.	2220.	1490.	1200.	1070.	895.	844.	667.	5230.	02/12/39	
1940	5070.	4000.	2550.	1870.	1370.	1010.	1010.	911.	738.	5850.	12/16/39	
1941	2670.	2170.	1280.	982.	709.	660.	596.	592.	461.	4360.	01/17/41	
1942	3790.	2770.	1960.	1330.	1160.	845.	762.	659.	547.	4520.	12/18/41	
1943	3630.	2480.	1860.	1500.	1100.	968.	906.	843.	709.	5800.	10/31/42	
1944	5240.	3690.	2030.	1140.	719.	647.	582.	541.	498.	7030.	12/03/43	
1945	3820.	2990.	1930.	1560.	1050.	852.	888.	790.	685.	6500.	03/19/45	
1946	4540.	3160.	2240.	2020.	1330.	1240.	1160.	1100.	914.	5060.	12/28/45	
1947	4620.	3520.	2500.	1810.	1640.	1090.	1070.	939.	718.	5800.	12/11/46	
1948	3150.	2670.	1980.	1510.	1280.	885.	935.	805.	733.	4620.	01/01/48	
1949	7140.	4370.	3240.	2230.	1630.	1110.	997.	948.	754.	10300.	02/22/49	
1950	4810.	3940.	2540.	2240.	1890.	1500.	1320.	1210.	996.	5710.	02/24/50	
1951	5440.	4670.	3190.	1890.	1550.	1410.	1330.	1170.	921.	6830.	02/09/51	
1952	4310.	3200.	2780.	2330.	2050.	1440.	1170.	999.	747.	5760.	02/04/52	
1953	5380.	3720.	2690.	2300.	2100.	1360.	1190.	1080.	854.	6890.	02/19/54	
1954	3670.	3410.	2680.	2100.	1360.	1210.	1190.	1080.	854.	5630.	02/19/54	
1955	4530.	3510.	2300.	1420.	930.	636.	784.	676.	657.	4640.	11/18/54	
1956	4030.	2920.	2180.	1760.	1540.	1330.	1240.	1050.	983.	5990.	12/11/55	
1957	3860.	3120.	2190.	1560.	1050.	812.	741.	719.	680.	6990.	12/10/56	
1958	2860.	2330.	1870.	1540.	1190.	1070.	995.	878.	712.	3560.	01/15/58	
1959	4260.	3220.	2120.	1620.	1220.	1010.	1050.	927.	804.	5310.	01/23/59	
1960	4100.	3310.	2270.	1560.	1250.	855.	883.	784.	688.	5950.	11/22/59	
1961	5860.	4020.	2800.	2020.	1660.	1350.	1180.	1140.	922.	7090.	02/21/61	
1962	2430.	2120.	1810.	1450.	1140.	903.	781.	706.	632.	2850.	11/22/61	
1963	6540.	4710.	2690.	1950.	1360.	1050.	840.	730.	639.	10500.	11/19/62	
1964	4540.	2850.	1920.	1710.	1340.	1010.	980.	897.	774.	5600.	01/25/64	
1965	4270.	3650.	2660.	1880.	1360.	1130.	1120.	954.	706.	5370.	12/01/64	
1966	3090.	2600.	1870.	1570.	1100.	835.	821.	733.	603.	3480.	01/06/66	
1967	5700.	3720.	2430.	2290.	1560.	1420.	1230.	1100.	869.	7500.	12/13/66	
1968	4820.	4050.	2490.	1840.	1370.	1080.	1020.	946.	785.	5570.	01/19/68	
1969	3930.	2750.	1680.	1350.	1240.	1070.	925.	852.	710.	4570.	12/24/68	
1970	3260.	2210.	1900.	1700.	1180.	1020.	867.	769.	644.	5020.	02/16/70	
1971	5710.	4400.	2930.	2490.	1760.	1540.	1250.	1180.	979.	8410.	12/07/70	
1972	5120.	3600.	2370.	1950.	1600.	1330.	1230.	1170.	964.	7160.	01/11/72	
1973	3960.	3310.	2640.	2100.	1360.	976.	772.	664.	535.	5310.	12/21/72	
1974	3090.	2690.	2120.	1800.	1320.	1030.	921.	824.	655.	3680.	12/16/73	
1975	3490.	2340.	1780.	1480.	1280.	1030.	921.	824.	655.	4460.	12/21/74	
1976	6000.	5560.	3850.	2270.	1660.	1430.	1360.	1160.	953.	7580.	12/01/75	
1977	2430.	2160.	1420.	1070.	772.	568.	454.	407.	344.	3740.	03/07/77	
1978	6300.	3700.	2840.	2440.	1740.	1300.	1040.	895.	709.	8720.	12/02/77	
1979	3570.	2590.	1760.	1500.	1460.	901.	723.	671.	528.	5000.	03/04/79	

STATION 12010500 SALMON CREEK NEAR NASELLE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1953													
1954	69.4	179	283	297	365	100	126	18.0	29.2	10.5	7.22	11.0	127
1955	59.6	235	162	135	140	160	203	39.0	39.9	25.4	14.9	26.7	127
1956	179	317	365	289	166	332	71.0	14.6	18.5	24.1	17.7	15.6	100
1957	160	120	220	81.5	203	191	93.9	24.7	46.0	14.1	8.00	19.2	152
1958	29.3	107	281	254	244	74.2	135	26.2	13.5	9.79	17.8	5.91	94.6
1959	58.9	300	212	300	125	135	138	74.3	45.0	5.04	3.36	9.29	97.6
1960	128	217	170	163	254	140	157	90.5	35.1	18.5	6.08	71.4	124
1961	77.7	304	161	267	451	283	179.0		33.1	6.92	5.55	5.00	114
1962	62.9	149	244	144	122	147	102	65.5	13.2	4.62	2.36	3.45	141
1963	112	307	186	117	156	102	136	59.0	26.3	9.42	13.5	18.8	92.0
1964	97.9	305	138	376	118	188	55.7	37.8	13.6	11.6	7.45	12.2	101
1965	33.7	229	288	362	218	58.3	69.6	53.5	25.3	16.1	18.8	13.4	116
									16.0	5.38	4.56	3.54	111

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1953-1965)

MEAN	89.0	230.7	225.8	232.1	213.5	159.2	113.9	48.6	25.6	12.4	9.8	16.6	114.2
MAXIMUM	179.0	317.0	365.0	376.0	451.0	332.0	203.0	96.5	46.0	25.4	18.8	71.4	152.0
MINIMUM	29.3	107.0	138.0	81.5	118.0	58.3	55.7	14.6	13.2	4.6	5.4	3.4	92.0
STD DEVIATION	47.54	77.51	67.95	99.65	103.73	81.08	43.07	25.92	12.17	6.91	5.91	17.85	18.95
SKWENESS	0.706	-0.403	0.642	-0.097	1.363	1.034	0.561	0.341	0.597	0.779	0.450	2.734	0.774
STD ERR SKEW	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.616	0.616	0.616	0.637
SER CORR COEFF	-0.019	-0.200	-0.303	-0.214	-0.148	-0.045	-0.040	0.627	-0.284	0.224	-0.218	-0.240	-0.424
COEFF OF VAR	0.534	0.336	0.301	0.429	0.486	0.509	0.378	0.533	0.476	0.557	0.603	1.077	0.166
MEAN LOGS	1.990	2.336	2.326	2.321	2.289	2.152	2.027	1.620	1.362	1.031	0.907	1.062	2.052
STD DEV LOGS	0.245	0.168	0.129	0.216	0.189	0.220	0.168	0.264	0.207	0.248	0.292	0.370	0.070
SKWENESS LOGS	-0.240	-0.779	0.168	-0.611	0.675	-0.048	-0.123	-0.521	0.174	-0.015	-0.278	0.417	0.529
STD ERR SKEW LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.616	0.616	0.616	0.637
SER CORR LOGS	-0.114	-0.086	-0.289	-0.310	-0.009	-0.093	0.027	0.949	-0.290	0.141	-0.135	-0.187	-0.411
COEFF OF VAR LOGS	0.130	0.072	0.055	0.093	0.083	0.102	0.083	0.163	0.152	0.241	0.322	0.348	0.004
% OF AVE FLOW	6.5	16.8	16.4	16.9	15.5	11.6	8.3	3.5	1.9	0.9	0.7	1.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1953-1965)

0.99	18.9	71.5	113.0	53.1	87.9	42.8	41.7	8.4	8.1	2.8	1.5	2.1	82.7
0.95	29.5	106.9	135.2	85.7	104.3	61.2	55.6	14.3	10.8	4.2	2.5	3.2	89.0
0.90	37.1	129.5	149.2	108.2	116.0	73.9	64.5	18.7	12.6	5.2	3.3	4.1	92.9
0.80	48.6	160.4	168.7	140.9	134.0	92.7	77.0	25.4	15.4	6.6	4.6	5.6	98.3
0.50	79.3	227.9	215.1	220.4	185.3	142.4	107.3	43.5	22.7	10.7	8.3	10.9	111.2
0.20	125.4	301.8	277.5	320.9	274.7	211.5	147.8	70.1	34.3	17.4	14.3	23.1	126.4
0.10	157.3	340.5	318.6	380.3	347.5	270.9	173.9	81.9	42.8	22.3	18.7	35.4	139.5
0.04	198.6	380.4	370.4	447.0	456.8	341.6	206.3	110.1	54.6	29.1	24.6	57.4	153.5
0.02	229.7	404.8	409.1	491.3	552.1	396.6	229.8	126.1	64.1	34.5	29.1	79.6	163.8
0.01	260.9	425.6	448.0	531.5	660.5	453.2	253.1	141.7	74.2	40.3	33.7	106.0	174.1

STATION 12010500 SALMON CREEK NEAR NASELLE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1955	9.2	9.5	9.8	10.0	12.0	17.0	22.0	24.0	29.0
1956	6.8	6.9	7.1	7.6	9.9	15.0	18.0	19.0	40.0
1957	3.1	3.1	3.3	4.4	5.3	8.1	13.0	17.0	22.0
1958	3.8	4.0	4.3	4.4	5.1	7.6	11.0	11.0	16.0
1959	1.3	1.3	1.4	1.5	2.0	3.6	5.2	6.9	19.0
1960	4.6	4.8	5.4	5.5	5.9	11.0	19.0	26.0	51.0
1961	2.8	3.0	3.2	3.3	3.9	5.0	5.3	7.8	32.0
1962	1.5	1.5	1.6	1.7	2.0	2.9	3.2	4.6	23.0
1963	5.6	5.7	5.9	6.4	8.6	11.0	11.0	15.0	38.0
1964	3.5	3.6	4.3	4.6	6.1	8.3	9.5	10.0	23.0
1965	8.3	8.8	9.2	10.0	12.0	16.0	16.0	18.0	24.0

LOWEST MEAN FLOW STATISTICS (YEARS 1955-1965)

MEAN	4.6	4.7	5.0	5.4	6.6	9.6	12.1	14.5	28.8
MAXIMUM	9.2	9.5	9.8	10.0	12.0	17.0	22.0	26.0	51.0
MINIMUM	1.3	1.3	1.4	1.5	2.0	2.9	3.2	4.6	16.0
STANDARD DEVIATION	2.62	2.73	2.79	2.90	3.57	4.89	6.15	7.03	10.53
SKEWNESS	0.577	0.589	0.490	0.424	0.353	0.219	0.097	0.250	0.967
STD ERROR OF SKEWNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	0.126	0.096	0.107	0.159	0.254	0.207	0.112	-0.121	-0.096
COEFF OF VARIATION	0.576	0.576	0.576	0.537	0.540	0.510	0.508	0.486	0.366
MEAN LOGS	0.589	0.601	0.632	0.664	0.752	0.920	1.018	1.106	1.435
STD DEVIATION LOGS	0.277	0.282	0.277	0.273	0.273	0.258	0.258	0.239	0.151
STD ERR SKEWNESS LOGS	-0.425	-0.463	-0.573	-0.664	-0.582	-0.581	-0.737	-0.512	0.367
SER CORR COEFF LOGS	-0.023	-0.053	-0.039	0.032	0.126	0.661	0.661	0.661	0.661
COEFF OF VAR LOGS	-0.470	-0.448	-0.438	-0.442	-0.353	-0.280	-0.263	-0.266	-0.195

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1955-1965)

0.99	14.0	14.5	14.4	14.6	18.5	25.6	31.2	37.3	67.2
0.98	12.4	12.8	12.9	13.3	16.7	23.2	28.7	33.9	59.5
0.96	10.7	11.1	11.4	11.9	14.8	20.7	25.9	30.2	52.2
0.90	8.5	8.8	9.2	9.7	12.0	17.0	21.5	24.9	43.0
0.80	6.7	7.0	7.4	7.9	9.7	13.8	17.7	20.5	36.2
0.50	4.1	4.2	4.6	4.9	6.0	8.8	11.2	13.4	26.7
0.20	2.3	2.4	2.6	2.8	3.4	5.2	6.4	8.2	20.2
0.10	1.7	1.7	1.8	2.0	2.5	3.8	4.6	6.2	17.7
0.05	1.3	1.3	1.4	1.5	1.8	2.9	3.4	4.8	16.0
0.02	0.9	0.9	1.0	1.0	1.3	2.1	2.3	3.6	14.3
0.01	0.7	0.7	0.8	0.8	1.0	1.6	1.8	2.9	13.3

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1955-1965)

P95	P90	P75	P70	P50	P25	P10
4.1	6.6	16.0	22.0	57.0	140.0	300.0

STATION 12010600 LANE CREEK NEAR NASELLE, WASH.

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1970)			W R C	
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	ESTIMATE	SYSTEMATIC RECORD
1950	172.0	1-20-1950				
1951	142.0	2- 9-1951			2.2431	2.2431
1952	192.0	2- 3-1952			0.0767	0.0767
1953	125.0	1-22-1953			0.155	-0.447
1954	154.0	2-19-1954				
1955	185.0	11-18-1954				
1956	205.0	12-21-1955				
1957	197.0	12- 9-1956				
1958	178.0	1-15-1958				
1959	180.0	11-12-1958	0.99		118.4	109.6
1960	211.0	11-22-1959	0.95		131.9	128.2
1961	188.0	2-21-1961	0.90		140.0	138.6
1962	128.0	12-24-1961	0.80		150.7	151.6
1963	249.0	11-20-1962	0.50		174.2	177.3
1964	200.0	1-25-1964	0.20		202.8	203.6
1965	192.0	1-28-1965	0.10		220.1	217.3
1966	133.0	12-27-1965	0.04		240.6	231.7
1967	185.0	12-13-1966	0.02		255.2	240.8
1968	148.0	1-19-1968	0.01		269.3	248.9
1969	183.0	12-24-1968				
1970	182.0	2-15-1970				

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1950-1970)

STATION 12010700 SOUTH FORK NASELLE RIVER NEAR NASELLE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1964	46.6	259	300	405	249	46.8	64.8	53.4	13.9	19.9	24.9	23.1	120
1965	33.0	172	206	287	162	210	57.5	26.4	16.5	13.5	7.32	5.56	100
1966	89.9	225	388	437	207	168	85.9	24.8	9.28	4.41	2.05	5.33	137
1968	184	124	279	286	308	217	94.2	37.6	111	12.1	51.9	70.2	148
1969	124	216	373	322	214	87.2	85.4	47.0	39.8	22.7	8.09	62.4	135
1970	88.9	120	238	366	161	107	138	52.7	11.7	5.86	2.90	45.2	111
1971	157	236	434	501	190	277	110	35.1	24.0	16.7	7.18	37.8	169
1972	104	211	413	392	315	354	181	38.0	13.0	33.9	7.34	21.9	174
1973	14.1	131	367	197	63.8	137	68.0	74.6	84.8	23.6	7.04	32.9	101
1974	67.0	346	392	321	280	311	160	126	80.9	80.8	14.1	6.89	182
1975	5.91	127	304	419	251	154	65.5	77.8	23.1	14.4	16.4	12.2	122
1977	17.0	51.9	82.1	86.6	120	209	42.3	52.8	69.0	9.66	25.5	80.6	70.2

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1964-1977)

MEAN	77.6	184.9	314.7	332.5	215.1	189.8	96.1	53.9	41.4	20.2	13.8	31.8	130.8
MAXIMUM	184.0	346.0	434.0	501.0	315.0	354.0	181.0	126.0	111.0	80.8	51.9	80.6	182.0
MINIMUM	5.9	51.9	82.1	86.6	63.8	46.8	42.3	24.8	9.3	4.4	2.1	5.3	70.2
STD DEVIATION	57.73	79.40	102.15	113.44	78.11	92.02	43.23	28.16	35.40	20.07	13.71	25.91	33.57
SKWENESS	0.487	0.355	-1.076	-0.778	-0.522	0.297	0.885	1.650	0.912	2.590	2.031	0.743	-0.031
STD ERR SKEW	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.616	0.616	0.637
SER CORR COEFF	0.426	-0.366	-0.030	-0.235	-0.435	-0.135	-0.091	0.526	-0.037	0.052	-0.184	0.227	-0.163
COEFF OF VAR	0.744	0.429	0.325	0.341	0.363	0.485	0.450	0.523	0.855	0.994	0.991	0.814	0.257
MEAN LOGS	1.720	2.223	2.465	2.487	2.297	2.221	1.944	1.685	1.465	1.165	0.978	1.338	2.102
STD DEV LOGS	0.465	0.217	0.200	0.205	0.201	0.251	0.190	0.203	0.383	0.351	0.390	0.422	0.119
SKWENESS LOGS	-0.857	-0.992	-2.132	-1.963	-1.434	-0.881	0.203	0.508	0.309	0.362	0.187	-0.204	-0.649
STD ERR SKEW LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.616	0.616	0.637
SER CORR LOGS	0.340	-0.184	-0.012	-0.267	-0.416	-0.124	0.038	0.576	-0.018	0.103	-0.193	0.221	-0.141
COEFF OF VAR LOGS	0.270	0.098	0.081	0.082	0.088	0.113	0.098	0.120	0.262	0.301	0.399	0.315	0.057
% OF AVE FLOW	4.9	11.8	20.0	21.2	13.7	12.1	6.1	3.4	2.6	1.3	0.9	2.0	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1977)

0.99	2.3	37.0	53.8	56.7	43.1	30.4	34.0	19.5	4.6	2.8	1.3	2.0	58.9
0.95	7.2	65.5	116.0	120.0	80.5	57.0	44.0	24.2	7.4	4.2	2.3	4.2	77.1
0.90	12.5	85.6	161.0	165.9	106.6	76.8	50.7	27.5	9.7	5.4	3.1	6.2	87.9
0.80	22.9	114.5	222.8	229.7	143.2	106.6	69.6	32.5	13.7	7.3	4.4	9.7	101.8
0.50	61.0	181.4	338.6	353.9	220.4	160.9	86.6	46.6	27.8	13.9	9.2	22.5	130.3
0.20	131.0	256.1	414.4	443.5	291.1	212.4	126.4	70.6	60.3	28.4	20.1	49.7	160.1
0.10	180.6	294.2	434.0	469.9	319.9	323.2	159.3	89.8	92.6	42.3	30.6	73.9	175.5
0.04	241.1	331.7	444.2	485.5	343.0	376.4	194.6	118.2	149.5	66.3	48.5	111.2	191.4
0.02	282.6	353.5	447.2	490.7	354.0	409.2	226.1	142.6	206.0	89.6	65.8	143.8	201.3
0.01	320.6	371.2	448.6	493.4	361.4	437.0	259.3	170.0	276.9	118.5	87.0	180.2	209.8

STATION 12010700 SOUTH FORK NASELLE RIVER NEAR NASELLE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1966	2.0	2.1	2.1	2.2	3.3	4.2	5.1	6.6	19.0
1967	2.8	2.9	3.0	3.7	4.6	7.3	9.1	11.0	17.0
1968	1.4	1.4	1.4	1.5	1.9	2.9	3.7	5.0	22.0
1969	5.5	5.5	5.8	6.6	8.1	13.0	32.0	42.0	60.0
1970	4.4	4.4	4.6	5.0	6.2	8.4	17.0	26.0	41.0
1971	2.0	2.2	2.3	2.7	4.1	4.1	6.2	11.0	28.0
1972	4.6	4.8	5.5	5.9	7.1	12.0	16.0	20.0	26.0
1973	3.3	3.3	3.5	4.0	5.7	8.8	14.0	17.0	21.0
1974	3.9	4.1	4.5	6.0	6.2	7.5	19.0	29.0	45.0
1975	3.1	3.2	3.4	3.7	4.0	5.7	7.9	16.0	46.0

LOWEST MEAN FLOW STATISTICS (YEARS 1966-1975)

MEAN	3.3	3.4	3.6	4.1	5.0	7.4	13.0	18.4	32.5
MAXIMUM	5.5	5.5	5.8	6.6	8.1	13.0	32.0	42.0	60.0
MINIMUM	1.4	1.4	1.4	1.5	1.9	2.9	3.7	5.0	17.0
STANDARD DEVIATION	1.31	1.30	1.48	1.76	2.01	3.33	8.56	11.38	14.51
SKEWNESS	0.187	0.110	0.096	-0.013	-0.050	0.433	1.188	0.946	0.755
STD ERROR OF SKEWNESS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SERIAL CORR COEFF	-0.238	-0.258	-0.270	-0.331	-0.309	-0.340	-0.176	-0.059	0.253
COEFF OF VARIATION	0.396	0.384	0.411	0.430	0.403	0.451	0.658	0.620	0.446
MEAN LOGS	0.484	0.497	0.518	0.569	0.659	0.825	1.029	1.184	1.474
STD DEVIATION LOGS	0.188	0.185	0.200	0.214	0.201	0.210	0.292	0.288	0.189
SKEWNESS LOGS	-0.486	-0.502	-0.583	-0.639	-0.716	-0.342	-0.045	-0.274	0.311
STD ERR SKEWNESS LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SER CORR COEFF LOGS	-0.260	-0.260	-0.254	-0.314	-0.327	-0.380	-0.208	-0.023	0.354
COEFF OF VAR LOGS	0.368	0.371	0.365	0.377	0.305	0.255	0.284	0.244	0.128

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1966-1975)

0.99	7.1	7.0	7.9	9.2	10.5	18.3	50.0	62.5	90.5
0.98	6.6	6.5	7.3	8.6	9.8	16.5	41.9	54.1	78.2
0.96	6.0	6.0	6.7	7.8	9.1	14.7	34.3	45.8	66.8
0.90	5.2	5.2	5.7	6.7	7.9	12.2	25.2	35.0	52.7
0.80	4.4	4.5	4.9	5.7	6.8	10.1	18.9	26.9	42.6
0.50	3.2	3.3	3.4	3.9	4.8	6.9	10.7	15.7	25.1
0.20	2.1	2.2	2.3	2.5	3.2	4.5	6.1	8.8	20.6
0.10	1.7	1.8	1.8	1.9	2.5	3.5	4.5	6.4	17.3
0.05	1.4	1.5	1.4	1.5	2.0	2.9	3.5	4.9	15.2
0.02	1.1	1.2	1.1	1.1	1.5	2.3	2.6	3.5	13.1
0.01	1.0	1.0	0.9	0.9	1.2	1.9	2.2	2.9	12.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1966-1975)

P95	P90	P75	P70	P50	P25	P10
4.2	6.4	18.0	24.0	60.0	160.0	350.0

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

W R C
ESTIMATE

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1965-1979)

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1965-1979)

0.99	340.7	335.6	260.8	234.2	187.1	132.9	108.5	98.9	82.9	789.7	556.3
0.95	587.6	505.4	393.4	337.5	261.4	195.0	167.1	148.5	120.3	1047.6	927.9
0.90	750.5	610.8	473.0	393.2	303.2	231.6	202.3	178.5	123.4	1233.4	1181.4
0.80	949.2	748.5	573.4	469.5	353.2	277.2	246.2	216.8	172.5	1538.9	1351.6
0.50	1407.5	1024.7	758.5	556.1	438.4	360.1	324.7	289.6	231.3	2167.0	2351.6
0.20	1786.5	1283.0	906.0	689.3	499.2	425.5	382.7	351.3	286.7	3222.5	3253.5
0.10	1935.7	1398.6	961.4	721.6	519.7	450.0	402.5	376.2	311.9	3992.7	3719.4
0.04	2053.1	1502.3	1003.8	744.8	534.1	468.8	416.3	396.5	335.1	5044.1	4186.2
0.02	2107.6	1557.8	1023.1	754.6	540.2	477.4	422.0	406.4	347.8	5883.4	4463.2
0.01	2144.2	1600.2	1036.0	760.7	543.9	483.1	425.5	413.4	357.7	6770.2	4695.3

STATION 12010800 SOUTH NEMAH RIVER NEAR NASELLE, WASH.

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1963-1977)			W R C ESTIMATE	SYSTEMATIC RECORD
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS		
1963	205.0	11-20-1962			2.3982	2.3497
1964	256.0	1-25-1964			0.0839	0.1860
1965	286.0	11-24-1964			0.162	-1.863
1966	131.0	1-5-1966				
1967	261.0	12-13-1965				
1968	298.0	12-3-1967				
1969	162.0	12-3-1968				
1970	293.0	2-15-1970				
1971	343.0	1-25-1971				
1972	247.0	12-5-1971	0.99		--	49.3
1973	274.0	12-21-1972	0.95		--	95.6
1974	212.0	12-15-1973	0.90		196.0	127.5
1975	217.0	1-13-1975	0.80		212.3	170.6
1976	344.0	12-1-1975	0.50		248.8	253.3
1977	66.0	3-7-1977	0.20		293.8	314.1
			0.10		321.4	333.1
			0.04		354.5	344.9
			0.02		378.2	349.2
			0.01		401.1	351.5

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1963-1977)

STATION 12011000 NORTH NEMAH RIVER NEAR SOUTH BEND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1946					295	204	130	38.3	45.9	48.2	19.0	19.1	
1947	75.7	211	282	183	208	75.6	72.7	30.9	40.5	29.3	17.4	17.4	103
1948	180	218	182	216	199	137	126	124	30.7	16.5	13.9	30.9	123
1949	71.6	224	384	219	332	119	51.9	51.4	20.1	14.8	11.9	9.37	113
1950	43.5	194	250	280	403	298	140	27.9	25.7	18.3	20.4	16.7	144
1951	133	267	354	344	319	129	49.0	27.9	16.0	10.6	7.09	19.3	139
1952	149	135	212	221	207	173	82.0	40.9	29.0	16.7	13.4	10.6	107
1953	9.29	27.6	195	483	216	137	73.1	78.0	45.3	22.9	16.2	19.4	110
1954	56.5	184	329	336	368	119	118	29.2	53.7	41.0	26.7	31.5	140
1964										25.4	32.7	29.7	
1965	40.0	210	275	384	235	69.3	63.7	65.8	24.0	13.0	11.5	12.2	116
1966	40.2	149	171	284	173	224	65.5	35.6	22.7	16.9	12.1	11.9	100
1967	61.0	158	416	334	186	169	89.6	34.4	21.3	13.3	8.09	8.95	125
1968	141	108	261	315	263	235	103	51.5	94.0	19.4	36.5	60.7	140
1977	18.6	35.0	57.9	55.0	94.7	218	51.6	59.5	57.8	19.3	24.4	51.5	61.8

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1946-1977)

MEAN	78.4	163.1	259.1	270.2	249.9	164.8	86.9	51.8	37.6	21.7	18.1	23.3	117.1
MAXIMUM	180.0	267.0	416.0	483.0	403.0	298.0	140.0	124.0	94.0	48.2	36.5	60.7	146.0
MINIMUM	9.3	27.6	57.9	55.0	94.7	69.3	49.0	27.9	16.0	10.6	7.1	8.9	61.8
STD DEVIATION	54.43	72.01	98.10	119.30	84.47	64.86	31.33	25.68	20.93	10.56	8.68	15.36	22.49
SKWENESS	0.667	-0.797	-0.276	-0.343	0.213	0.417	0.455	1.860	1.608	1.599	0.885	1.478	-1.065
STD ERR SKEW	0.616	0.616	0.616	0.616	0.597	0.597	0.597	0.597	0.597	0.580	0.580	0.580	0.616
SER CORR COEFF	-0.120	0.337	-0.365	0.111	0.201	-0.134	-0.656	-0.268	0.233	0.430	0.090	0.303	-0.306
COEFF OF VAR	0.694	0.441	0.379	0.442	0.338	0.394	0.361	0.496	0.556	0.487	0.480	0.660	0.192
MEAN LOGS	1.773	2.141	2.373	2.371	2.372	2.183	1.913	1.675	1.523	1.298	1.212	1.292	2.059
STD DEV LOGS	0.371	0.307	0.221	0.272	0.162	0.183	0.157	0.184	0.215	0.182	0.207	0.256	0.097
SKWENESS LOGS	-0.750	-1.704	-1.818	-1.505	-0.835	-0.431	0.083	0.800	0.539	0.816	0.030	0.509	-1.801
STD ERR SKEW LOGS	0.616	0.616	0.616	0.616	0.597	0.597	0.597	0.597	0.597	0.580	0.580	0.580	0.616
SER CORR LOGS	-0.188	0.183	-0.243	0.047	0.141	-0.121	-0.670	-0.320	0.287	0.405	0.040	0.134	-0.328
COEFF OF VAR LOGS	0.143	0.093	0.093	0.115	0.068	0.084	0.082	0.110	0.141	0.140	0.171	0.198	0.047
% OF AVE FLOW	5.5	11.4	18.2	19.0	17.5	11.6	6.1	3.6	2.6	1.5	1.3	1.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1946-1977)

0.99	5.2	12.1	39.7	29.0	79.4	50.1	36.0	22.7	12.9	9.6	5.4	6.2	52.4
0.95	12.4	34.3	86.2	69.1	118.3	72.7	45.4	26.2	16.0	11.1	7.5	8.2	73.6
0.90	19.0	54.3	120.9	101.8	143.0	87.4	51.6	28.8	18.3	12.2	8.9	9.6	85.4
0.80	30.3	86.9	170.4	152.5	176.3	108.2	60.2	32.9	21.8	13.9	10.9	11.8	99.3
0.50	66.0	167.3	272.5	273.3	247.9	157.1	81.3	44.7	31.9	18.8	16.2	18.6	122.1
0.20	123.4	245.0	353.6	394.3	324.0	218.7	110.7	65.8	49.7	27.5	24.3	31.6	137.1
0.10	162.0	274.4	380.3	444.8	362.9	255.7	130.5	83.3	64.2	34.8	30.0	42.8	141.6
0.04	208.2	295.5	397.7	485.0	402.1	298.5	155.7	110.0	86.3	45.9	37.7	60.5	146.5
0.02	240.0	304.2	404.2	503.5	425.6	327.8	174.8	133.6	105.6	55.7	43.6	76.8	145.6
0.01	269.3	309.4	407.8	515.9	445.3	355.2	194.1	160.8	127.7	67.0	49.8	95.9	146.2

STATION 12011000 NORTH NEMAH RIVER NEAR SOUTH BEND, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1947	12.0	12.0	13.0	14.0	16.0	17.0	20.0	30.0	35.0
1948	13.0	13.0	13.0	14.0	16.0	17.0	21.0	26.0	34.0
1949	11.0	11.0	11.0	12.0	13.0	14.0	16.0	22.0	44.0
1950	6.6	6.8	7.0	7.3	9.2	10.0	12.0	13.0	23.0
1951	11.0	11.0	12.0	12.0	15.0	18.0	18.0	20.0	39.0
1952	4.7	4.8	5.2	5.4	6.5	6.9	8.3	10.0	22.0
1953	5.8	6.2	7.1	7.3	7.9	9.4	11.0	18.0	18.0
1954	10.0	10.0	11.0	11.0	13.0	14.0	17.0	24.0	39.0
1966	7.1	7.5	7.7	8.1	9.8	11.0	12.0	14.0	27.0
1967	8.8	8.8	8.9	10.0	11.0	12.0	12.0	14.0	21.0
1968	5.3	5.5	6.0	6.7	7.4	8.3	10.0	13.0	29.0

LOWEST MEAN FLOW STATISTICS (YEARS 1947-1968)

MEAN	8.7	9.3	9.8	11.3	12.5	14.3	17.9	30.1
MAXIMUM	13.0	13.0	14.0	16.0	18.0	21.0	30.0	44.0
MINIMUM	4.7	5.2	5.4	6.5	6.9	8.3	10.0	18.0
STANDARD DEVIATION	2.91	2.80	3.01	3.47	3.78	4.27	6.77	8.64
SKWENESS	0.050	0.036	0.041	0.088	0.120	0.303	0.558	0.160
STD ERROR OF SKWENESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	0.160	0.178	0.067	0.165	-0.050	0.242	0.315	-0.217
COEFF OF VARIATION	0.336	0.319	0.307	0.306	0.302	0.299	0.378	0.287
MEAN LOGS	0.914	0.922	0.947	1.035	1.078	1.137	1.225	1.462
STD DEVIATION LOGS	0.154	0.146	0.140	0.139	0.137	0.132	0.163	0.129
SKWENESS LOGS	-0.266	-0.315	-0.267	-0.241	-0.293	-0.055	0.205	-0.167
STD ERR SKWENESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SER CORR COEFF LOGS	0.084	0.099	0.064	0.078	-0.064	0.177	0.226	-0.186
COEFF OF VAR LOGS	0.169	0.159	0.144	0.134	0.127	0.116	0.133	0.088

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1947-1968)

0.99	17.5	16.9	17.6	18.6	21.5	23.3	27.5	42.5	55.6
0.98	16.2	15.8	16.4	17.3	20.0	21.8	25.4	37.8	51.8
0.96	14.8	14.5	15.1	16.0	18.5	20.1	23.2	33.2	47.8
0.90	12.8	12.7	13.2	14.0	16.2	17.7	20.2	27.4	42.1
0.80	11.1	11.1	11.6	12.3	14.2	15.7	17.7	22.9	37.2
0.50	8.3	8.5	9.0	9.5	11.0	12.2	13.8	16.6	29.2
0.20	6.1	6.3	6.8	7.2	8.3	9.2	10.6	12.2	22.6
0.10	5.2	5.4	5.8	6.1	7.2	7.9	9.3	10.5	19.7
0.05	4.5	4.7	5.1	5.4	6.3	6.9	8.3	9.3	17.5
0.02	3.8	4.0	4.4	4.6	5.4	6.0	7.3	8.1	15.3
0.01	3.3	3.5	3.9	4.2	4.9	5.4	6.7	7.4	14.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1947-1968)

P95	P90	P75	P70	P50	P25	P10
9.8	13.0	23.0	28.0	59.0	150.0	300.0

STATION 12011000 NORTH NEMAH RIVER NEAR SOUTH BEND, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW (CFS)	DATE	REG. (R)
1947	1270.	898.	657.	457.	400.	266.	262.	230.	178.	1550.	12/11/46	
1948	740.	648.	481.	367.	316.	224.	234.	204.	190.	1180.	01/01/48	
1949	1150.	960.	735.	598.	459.	312.	273.	253.	199.	1550.	02/10/49	
1950	1000.	831.	582.	503.	455.	382.	355.	318.	259.	1330.	02/24/50	
1951	1180.	1010.	715.	461.	409.	387.	372.	330.	257.	1420.	02/09/51	
1952	964.	635.	572.	435.	322.	241.	226.	208.	185.	1200.	02/03/52	
1953	1260.	921.	690.	591.	506.	362.	302.	261.	197.	1700.	01/23/53	
1954	1100.	896.	727.	523.	378.	348.	344.	310.	240.	1490.	12/09/53	
1955										1610.	11/18/54	
1956										1480.	12/11/55	
1957										1320.	12/09/56	
1958										724.	01/14/58	
1960										1130.	02/06/60	
1961										1680.	02/21/61	
1965	1280.	1040.	747.	511.	385.	335.	327.	279.	205.	2000.	01/28/65	
1966	796.	638.	498.	431.	328.	252.	245.	217.	177.	1080.	01/05/66	
1967	1210.	860.	762.	625.	437.	379.	326.	284.	230.	1620.	12/13/66	
1968	1240.	1080.	667.	513.	385.	294.	283.	270.	221.	1590.	01/19/68	
1977	713.	626.	411.	319.	226.	161.	126.	111.	93.	1080.	03/07/77	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1947-1977)

	MEAN	W R C ESTIMATE	SYSTEMATIC RECORD
MAXIMUM	1069.5		
MINIMUM	1280.0		
STANDARD DEVIATION	207.29		
SKEWNESS	-0.764		
STD ERROR OF SKEWNESS	0.616		
SERIAL CORR COEFF	-0.597		
COEFF OF VARIATION	0.194		
MEAN LOGS	3.021		
STD DEVIATION LOGS	0.092		
SKEWNESS LOGS	-0.934		
STD ERR SKEWNESS LOGS	0.616		
SER CORR COEFF LOGS	-0.559		
COEFF OF VAR LOGS	0.030		
		3.1516	3.1379
		0.0715	0.0997
		0.1610	-1.1140

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1947-1977)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
MEAN	557.7	487.2	344.8	279.4	196.9	133.5	102.0	89.5	76.2	674.7
STD	706.4	584.3	431.4	338.2	253.5	180.6	156.2	138.7	117.0	888.7
SKEWNESS	789.6	639.4	479.2	371.0	285.0	208.0	188.3	167.8	140.6	1009.6
COEFF OF VAR	891.8	708.9	537.2	411.6	323.1	242.3	227.7	203.6	168.7	1158.1
MEAN LOGS	1083.4	847.8	643.7	489.7	392.6	308.0	296.0	264.7	213.9	1432.3
STD LOGS	1256.7	991.0	737.2	565.1	451.5	343.5	305.7	240.5	240.5	1668.9
SKEWNESS LOGS	1335.6	1065.9	778.6	602.2	476.4	394.2	358.6	318.0	247.4	1755.6
STD ERR LOGS	1409.0	1144.9	816.3	639.3	498.3	418.5	368.4	325.7	251.0	1908.6
SER CORR LOGS	1450.4	1194.9	837.1	661.7	509.8	431.8	372.2	328.5	252.1	1906.6
COEFF OF VAR LOGS	1483.4	1239.1	853.4	680.7	518.5	442.1	374.4	330.0	252.6	1942.4

STATION 12011100 NORTH NEMAH R TRIBUTARY NR SOUTH BEND, #ASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1966)			W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKEWNESS LOGS	ESTIMATE		
1949	60.0	2-16-1949				1.6855		1.6855
1950	50.0	12-27-1949				0.1506		0.1506
1951	57.0	2- 9-1951				0.156		-0.334
1952	50.0	2- 3-1952						
1953	55.0	1-23-1953						
1954	49.0	1-21-1954						
1955	33.0	2- 8-1955						
1956	62.0	12-11-1955						
1957	68.0	12- 9-1956						
1958	33.0	1-14-1958						
1959	46.0	11-12-1958						
1960	61.0	11-22-1959						
1961	58.0	2-21-1961						
1962	32.0	10-23-1961	0.99			22.5		19.9
1963	101.0	11-19-1962	0.95			27.8		26.6
1964	38.0	1-25-1964	0.90			31.3		30.8
1965	47.0	1- 2-1965	0.80			36.1		36.5
1966	22.0	3- 9-1966	0.50			48.0		49.4
			0.20			64.7		65.2
			0.10			76.0		74.5
			0.04			90.6		85.3
			0.02			101.7		92.7
			0.01			113.0		99.7

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1949-1966)

STATION 12011200 WILLIAMS CREEK NEAR SOUTH BEND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1964	27.7	104	132	192	142	48.6	36.0	35.3	19.1	22.2	26.2	22.8	63.9
1965	26.1	56.0	70.4	119	79.5	105	47.7	26.4	18.4	12.8	11.0	11.5	48.8
1966	28.0	57.7	182	192	122	99.1	55.2	24.6	17.8	14.7	11.9	11.0	61.4
1967	51.3	60.3	130	144	125	97.2	52.9	32.6	51.9	12.3	9.68	35.0	68.4
1968	46.7	89.4	162	121	117	57.3	50.7	36.4	19.7	26.3	15.9	18.6	64.4
1969	24.1	47.8	99.8	138	96.0	55.8	71.2	37.0	17.2	11.6	9.19	23.0	52.3
1970	47.5	68.4	203	135	101	147	70.9	32.6	26.1	18.9	13.3	24.3	88.4
1971	40.0	81.3	173	167	130	153	84.7	34.5	20.0	23.7	14.6	26.5	79.1
1972	17.6	53.4	132	102	49.7	64.6	36.9	34.8	38.4	23.3	14.5	15.9	48.7
1973	26.8	142	184	164	136	158	89.8	57.9	46.7	33.9	18.8	13.0	89.1
1974	11.8	18.8	24.1	26.0	38.7	84.1	36.4	33.8	33.7	17.5	20.0	25.3	30.8
1977													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1964-1977)

MEAN	31.6	70.8	135.7	151.8	103.4	97.2	57.5	35.1	29.4	19.7	15.6	19.7	63.8
MAXIMUM	51.3	142.0	203.0	305.0	142.0	158.0	89.8	57.9	51.9	33.9	26.2	35.0	89.1
MINIMUM	11.8	18.8	24.1	26.0	38.7	48.6	36.0	24.6	17.2	11.6	9.2	9.2	30.8
STD DEVIATION	12.90	32.66	54.00	69.04	34.58	40.32	19.11	8.52	12.42	6.60	5.31	7.79	17.85
SKEDNESS	0.250	0.840	-0.873	0.574	-0.911	0.437	0.516	1.987	0.679	0.690	0.718	0.361	-0.194
STD ERR SKEW	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.637	0.637	0.637	0.661
SER CORR COEFF	0.144	-0.669	-0.481	-0.120	-0.872	-0.180	-0.388	0.104	0.173	0.082	-0.112	-0.057	-0.554
COEFF OF VAR	0.408	0.461	0.398	0.455	0.335	0.445	0.332	0.233	0.422	0.334	0.339	0.336	0.280
MEAN LOGS	1.483	1.803	2.079	2.124	1.984	1.953	1.738	1.535	1.435	1.273	1.172	1.261	1.787
STD DEV LOGS	0.195	0.225	0.267	0.268	0.186	0.184	0.144	0.094	0.179	0.144	0.144	0.182	0.135
SKEDNESS LOGS	-0.568	-1.003	-0.056	-1.913	-1.392	-0.007	0.123	1.079	0.318	0.043	0.197	-0.254	-0.933
STD ERR SKEW LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.637	0.637	0.637	0.661
SER CORR LOGS	0.122	-0.788	-0.406	-0.135	-0.567	-0.169	-0.403	0.200	0.194	0.085	-0.090	0.054	-0.586
COEFF OF VAR LOGS	0.133	0.125	0.128	0.126	0.094	0.094	0.093	0.061	0.125	0.113	0.123	0.144	0.076
% OF AVE FLOW	4.1	9.2	17.7	19.8	13.5	12.7	7.5	4.6	3.8	2.6	2.0	2.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1977)

0.99	8.5	13.2	12.8	14.8	23.8	33.3	26.1	24.6	11.5	8.8	7.2	6.4	24.2
0.95	13.0	24.0	35.1	38.9	42.1	44.6	32.1	25.9	14.4	10.9	8.8	8.9	34.3
0.90	16.0	31.7	54.0	59.3	54.4	52.0	36.0	27.0	16.3	12.3	9.8	10.6	40.4
0.80	20.3	42.9	82.9	90.5	71.2	62.8	41.3	28.5	19.2	14.2	11.2	12.9	48.2
0.50	30.3	69.2	145.3	159.9	106.0	89.8	54.3	33.0	26.6	18.7	14.7	18.5	64.2
0.20	42.6	98.9	192.3	216.5	128.3	72.1	40.3	38.2	24.8	19.6	17.6	26.0	79.8
0.10	49.9	114.1	205.8	234.6	150.5	154.6	45.8	45.8	28.8	22.9	20.9	30.8	87.3
0.04	57.9	129.1	213.4	245.8	161.1	188.5	99.0	53.6	33.8	27.2	27.2	36.5	94.4
0.02	63.3	137.8	215.7	249.7	166.2	214.3	110.3	59.9	37.4	30.4	30.4	40.6	98.5
0.01	68.2	144.9	216.9	251.8	169.7	240.5	121.7	66.7	41.1	33.8	33.8	44.6	101.9

STATION 12011200 WILLIAMS CREEK NEAR SOUTH BEND, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1966	8.4	8.4	8.4	8.6	9.7	11.0	12.0	13.0	19.0
1967	9.3	9.6	9.8	10.0	11.0	11.0	11.0	13.0	17.0
1968	6.8	6.9	7.1	7.3	9.1	9.4	10.0	12.0	19.0
1969	14.0	14.0	14.0	14.0	16.0	19.0	23.0	27.0	34.0
1970	12.0	12.0	12.0	13.0	14.0	16.0	19.0	20.0	25.0
1971	8.4	8.5	8.6	8.8	9.1	10.0	12.0	15.0	22.0
1972	12.0	12.0	12.0	12.0	13.0	16.0	18.0	20.0	24.0
1973	12.0	12.0	12.0	12.0	13.0	15.0	18.0	19.0	22.0
1974	9.0	9.4	9.6	11.0	11.0	14.0	16.0	19.0	25.0

LOWEST MEAN FLOW STATISTICS (YEARS 1966-1974)

MEAN	10.2	10.3	10.4	10.7	11.8	13.5	15.4	17.6	23.0
MAXIMUM	14.0	14.0	14.0	14.0	16.0	19.0	23.0	27.0	34.0
MINIMUM	6.8	6.9	7.1	7.3	9.1	9.4	10.0	12.0	17.0
STANDARD DEVIATION	2.36	2.29	2.23	2.23	2.39	3.29	4.42	4.80	5.00
SKENNESS	0.214	0.146	0.142	-0.124	0.509	0.274	0.333	0.728	1.288
STD ERROR OF SKENNESS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SERIAL CORR COEFF	-0.170	-0.192	-0.204	-0.124	-0.165	-0.062	0.083	0.062	0.111
COEFF OF VARIATION	0.231	0.222	0.215	0.207	0.203	0.244	0.286	0.273	0.217
MEAN LOGS	0.999	1.004	1.007	1.022	1.063	1.118	1.173	1.230	1.353
STD DEVIATION LOGS	0.102	0.099	0.095	0.094	0.087	0.107	0.126	0.116	0.089
SKENNESS LOGS	-0.113	-0.202	-0.192	-0.425	0.236	-0.004	0.002	0.231	0.727
STD ERR SKENNESS LOGS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SER CORR COEFF LOGS	-0.189	-0.212	-0.224	-0.151	-0.206	-0.067	0.120	0.139	0.202
COEFF OF VAR LOGS	0.102	0.098	0.094	-0.092	-0.082	0.086	0.107	0.094	0.066

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1966-1974)

0.99	16.9	16.5	16.4	16.2	19.1	23.3	29.2	33.1	40.3
0.98	15.9	15.7	15.6	15.6	17.9	21.8	27.0	30.4	37.0
0.96	14.9	14.8	14.7	14.9	16.7	20.2	24.7	27.7	33.8
0.90	13.4	13.4	13.4	13.7	15.0	18.0	21.6	24.1	29.6
0.80	12.2	12.2	12.3	12.7	13.6	16.2	19.0	21.2	26.5
0.50	10.0	10.2	10.2	10.7	11.5	13.1	14.9	16.8	22.0
0.20	8.2	8.3	8.5	8.8	9.7	10.7	11.7	13.5	18.9
0.10	7.4	7.5	7.7	7.9	9.0	9.6	10.3	12.2	17.7
0.05	6.7	6.9	7.0	7.2	8.4	8.8	9.3	11.1	16.9
0.02	6.1	6.2	6.3	6.5	7.9	7.9	8.2	10.1	16.1
0.01	5.7	5.7	5.9	6.0	7.5	7.4	7.6	9.6	15.7

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1966-1974)

P95	P90	P75	P70	P50	P25	P10
11.0	13.0	20.0	23.0	39.0	81.0	150.0

STATION 12011200 WILLIAMS CREEK NEAR SOUTH BEND, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW(CFS)	PEAK-FLOW DATA DATE	REG. (R)
1965	594.	509.	382.	265.	205.	175.	163.	144.	108.	816.	01/28/65	
1966	265.	228.	186.	170.	133.	106.	106.	94.	79.	345.	01/05/66	
1967	462.	369.	305.	268.	195.	188.	168.	151.	119.	566.	12/13/66	
1968	419.	402.	274.	214.	170.	140.	134.	124.	103.	586.	01/20/68	
1969	401.	305.	236.	189.	174.	153.	138.	124.	100.	476.	12/03/68	
1970	308.	263.	225.	206.	156.	132.	114.	102.	85.	476.	02/16/70	
1971	995.	792.	566.	451.	325.	259.	206.	192.	153.	1380.	01/26/71	
1972	618.	439.	303.	234.	198.	173.	164.	159.	132.	755.	01/20/72	
1973	564.	386.	313.	230.	162.	124.	100.	89.	73.	792.	12/26/72	
1974	461.	369.	307.	264.	206.	184.	177.	169.	145.	550.	01/31/74	
1975										1290.	01/13/75	
1976	195.	181.	130.	103.	85.	66.	54.	50.	43.	1660.	12/01/75	
1977										290.	03/07/77	
1978										1570.	12/02/77	
1979										576.	02/06/79	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1965-1979)

W R C
ESTIMATESYSTEMATIC
RECORD

MEAN	480.2	385.7	293.4	235.8	182.6	154.5	138.5	127.1	103.6			
MAXIMUM	995.0	792.0	566.0	451.0	325.0	259.0	206.0	192.0	153.0			
MINIMUM	195.0	181.0	130.0	103.0	85.0	66.0	54.0	50.0	43.0			
STANDARD DEVIATION	217.26	165.01	113.82	86.34	59.22	50.51	42.96	41.21	32.85			
SKEWNESS	1.217	1.474	1.232	1.382	1.078	0.347	-0.448	-0.292	-0.192			
STD. ERROR OF SKEWNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661			
SERIAL CORR. COEFF	0.0	-0.128	-0.203	-0.198	-0.206	-0.358	-0.533	-0.516	-0.535			
COEFF OF VARIATION	0.452	0.428	0.388	0.366	0.324	0.327	0.310	0.324	0.317			
MEAN LOGS	2.643	2.554	2.439	2.347	2.241	2.166	2.118	2.079	1.992			
STD DEVIATION LOGS	0.194	0.174	0.166	0.156	0.143	0.155	0.161	0.165	0.158			
SKEWNESS LOGS	-0.109	0.213	-0.159	-0.295	-0.467	-0.861	-1.370	-1.173	-1.071			
STD ERR SKEWNESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661			
SER CORR COEFF LOGS	-0.046	-0.157	-0.229	-0.238	-0.266	-0.415	-0.545	-0.552	-0.581			
COEFF OF VAR LOGS	0.073	0.068	0.068	0.067	0.064	0.072	0.076	0.079	0.079			
										2.8488	2.8488	
										0.2328	0.2328	
										0.1640	0.1640	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1965-1979)

0.99	149.9	150.1	108.2	89.1	72.6	51.3	39.1	36.4	32.2	216.5	222.0	
0.95	207.8	189.9	144.3	119.6	97.5	75.5	63.9	58.1	49.4	299.9	303.0	
0.90	246.6	216.4	167.5	136.9	112.9	90.7	79.8	72.0	60.3	358.8	360.3	
0.80	302.4	254.6	200.0	165.4	133.5	111.1	100.8	90.6	74.8	447.9	447.4	
0.50	442.8	352.9	277.6	226.5	178.7	154.1	142.4	128.9	104.6	695.7	691.8	
0.20	641.0	499.2	379.9	302.6	230.7	198.9	178.8	163.3	133.7	1103.2	1100.8	
0.10	774.2	603.3	445.0	348.6	260.1	221.4	193.6	181.6	147.2	1415.6	1419.9	
0.04	943.7	743.0	524.7	402.5	292.6	243.8	205.7	196.1	159.6	1858.7	1879.4	
0.02	1070.5	852.9	582.3	440.0	314.1	257.0	211.5	203.8	166.5	2224.1	2263.9	
0.01	1197.5	967.9	638.5	475.4	333.6	268.0	215.6	209.6	171.8	2620.0	2685.5	

STATION 12011500 WILLAPA RIVER AT LEBAM, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1948													
1949	59.8	382	533	125	746	183	76.4	98.0	36.7	16.3	11.0	22.0	183
1950	23.1	337	441	497	661	555	233	77.1	20.3	11.5	7.63	6.09	236
1951	154	413	513	590	631	555	95.0	41.3	15.3	10.7	5.46	5.00	227
1952	161	313	462	377	345	199	116	69.2	22.6	11.3	8.41	5.00	174
1953	6.04	279	279	939	327	204	107	109	47.9	18.8	11.0	17.9	174
1954	76.1	262	456	628	772	213	202	37.9	45.9	26.8	17.1	26.9	227
1955	91.5	344	294	256	246	272	345	80.8	27.4	26.1	14.5	13.4	157
1956	161	633	688	610	270	605	169	39.8	56.5	16.3	10.0	18.6	274
1957	164	180	345	145	422	341	182	52.5	24.6	13.9	11.5	4.80	156
1958	29.8	110	443	450	424	160	254	55.4	21.0	8.07	5.99	5.99	163
1959	46.7	403	322	531	231	235	214	136	51.3	19.5	11.0	58.7	188
1960	116	285	269	234	431	272	285	160	44.4	14.9	13.2	12.7	177
1961	67.8	463	243	493	691	511	142	157	28.4	11.1	6.25	7.45	232
1962	63.4	180	410	201	186	245	165	104	54.8	16.4	13.8	18.1	138
1963	123	535	277	182	297	188	248	133	28.3	18.7	12.1	11.4	170
1964	102	449	200	705	220	341	109	62.0	38.2	18.5	17.2	14.6	190
1965	25.1	255	494	575	342	115	126	83.3	27.1	12.0	9.68	8.01	172
1966	29.9	195	293	542	268	460	112	40.2	20.8	13.0	5.75	8.15	166
1967	38.4	160	692	451	300	390	157	53.0	21.4	18.5	4.10	5.03	207
1968	173	181	398	453	505	318	143	65.3	135.4	21.3	24.7	45.0	204
1969	109	290	555	354	414	196	184	60.1	36.0	21.3	10.3	29.7	187
1970	72.0	170	433	543	341	178	206	79.5	22.2	9.66	4.51	12.4	172
1971	53.8	202	772	760	245	578	228	84.7	42.3	21.0	9.09	23.5	253

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1948-1971)

MEAN	84.6	293.9	426.6	471.3	404.1	305.7	178.2	81.7	37.3	15.4	10.7	16.4	192.9
MINIMUM	173.0	633.0	772.0	939.0	772.0	605.0	345.0	160.0	135.0	26.8	24.7	58.7	274.0
STD DEVIATION	52.05	145.65	152.06	211.24	177.32	144.43	67.21	36.68	24.09	5.34	4.74	13.15	33.99
SKENNESS	0.371	0.448	0.671	0.048	0.903	0.907	0.641	0.859	3.087	0.480	1.034	1.941	0.817
STD ERR SKEW	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.472	0.472	0.472	0.481
SER CORR COEFF	0.048	0.042	-0.118	-0.052	0.122	-0.154	0.093	0.463	-0.107	0.248	-0.114	-0.058	-0.288
COEFF OF VAR	0.615	0.495	0.356	0.448	0.439	0.473	0.377	0.449	0.646	0.346	0.442	0.801	0.176
MEAN LOGS	1.819	2.394	2.604	2.619	2.569	2.442	2.221	1.872	1.516	1.163	0.990	1.110	2.279
STD DEV LOGS	0.357	0.311	0.155	0.240	0.181	0.197	0.167	0.190	0.206	0.153	0.195	0.301	0.074
SKENNESS LOGS	-1.131	-2.151	-0.026	-0.866	0.355	0.247	-0.138	0.159	1.053	-0.099	-0.206	0.423	0.481
STD ERR SKEW LOGS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.472	0.472	0.472	0.472	0.481
SER CORR LOGS	-0.066	-0.005	-0.051	-0.075	0.088	-0.173	0.122	0.321	-0.080	0.141	-0.088	-0.038	-0.276
COEFF OF VAR LOGS	0.130	0.059	0.059	0.091	0.070	0.061	0.075	0.102	0.136	0.132	0.197	0.071	0.032
% OF AVE FLOW	3.6	12.6	18.3	20.3	17.4	13.1	7.7	3.5	1.6	0.7	0.5	0.7	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1948-1971)

0.99	5.1	17.8	174.0	82.5	157.3	104.7	65.5	28.3	15.8	6.2	3.2	3.2	136.2
0.95	13.9	59.1	222.8	149.9	195.7	135.7	87.1	37.0	17.8	8.1	4.6	4.5	147.6
0.90	21.9	98.6	254.1	199.0	221.8	156.8	101.1	42.9	19.3	9.2	5.4	5.5	154.7
0.80	35.9	163.4	297.6	271.8	260.1	188.1	120.7	51.4	22.0	10.8	6.7	7.1	164.5
0.50	76.7	312.6	402.3	450.4	362.1	271.5	167.8	73.6	30.3	14.6	9.9	12.3	187.7
0.20	132.2	426.3	542.5	667.1	521.9	402.3	230.3	107.3	46.9	19.6	14.3	22.6	218.2
0.10	182.8	457.3	633.8	786.5	640.9	499.5	270.5	131.5	62.0	22.8	17.2	32.1	238.0
0.04	193.5	473.5	747.6	911.5	806.8	634.4	319.9	164.1	86.9	26.7	20.7	47.6	262.7
0.02	211.3	478.3	831.5	988.6	941.9	743.7	355.7	190.0	110.7	23.3	23.3	62.1	281.0
0.01	225.4	480.4	914.7	1054.1	1087.2	860.7	390.9	217.1	139.7	32.3	25.9	79.6	299.3

STATION 12011500 WILLAPA RIVER AT LEBAM, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1950	3.6	4.2	4.3	4.8	6.1	6.8	7.4	9.5	18.0
1951	7.2	7.2	7.2	7.4	9.1	11.0	11.0	14.0	36.0
1952	2.2	2.7	3.1	3.2	4.4	5.0	6.4	8.6	23.0
1953	3.7	3.7	3.8	3.9	4.2	5.1	6.2	7.2	12.0
1954	6.4	7.0	7.3	7.6	9.5	10.0	13.0	22.0	47.0
1955	12.0	12.0	13.0	14.0	14.0	19.0	23.0	28.0	39.0
1956	5.6	6.0	6.3	6.9	8.6	13.0	17.0	45.0	45.0
1957	6.3	6.3	6.4	7.1	7.9	10.0	14.0	18.0	34.0
1958	3.0	3.2	3.6	3.7	4.7	6.4	8.4	10.0	21.0
1959	3.0	3.0	3.4	4.2	5.0	5.4	6.0	8.4	22.0
1960	8.5	9.2	9.7	10.0	11.0	14.0	20.0	31.0	55.0
1961	8.5	8.7	9.0	9.1	11.0	13.0	15.0	15.0	50.0
1962	4.1	4.6	4.8	5.2	5.9	6.8	7.4	10.0	33.0
1963	6.6	6.8	7.2	8.8	10.0	12.0	14.0	22.0	50.0
1964	6.4	6.8	7.8	9.4	11.0	12.0	13.0	15.0	43.0
1965	8.7	8.9	10.0	12.0	13.0	16.0	19.0	29.0	29.0
1966	4.4	5.1	5.2	6.0	7.7	8.7	13.0	27.0	20.0
1967	2.4	3.2	3.9	4.9	5.5	6.5	7.8	9.9	20.0
1968	2.8	2.9	3.0	3.2	3.7	4.5	5.6	9.2	32.0
1969	7.8	8.0	8.7	9.5	12.0	18.0	25.0	32.0	63.0
1970	7.6	7.6	8.0	9.0	9.8	11.0	18.0	23.0	37.0
1971	2.8	3.2	3.3	3.5	4.3	6.4	8.4	9.9	27.0

LOWEST MEAN FLOW STATISTICS (YEARS 1950-1971)

MEAN	5.6	5.9	6.3	7.0	8.1	10.0	12.3	16.1	34.7
MAXIMUM	12.0	12.0	13.0	14.0	14.0	19.0	25.0	32.0	63.0
MINIMUM	2.2	2.7	3.0	3.2	3.7	4.5	5.6	7.2	12.0
STANDARD DEVIATION	2.62	2.55	2.73	3.01	3.15	4.22	5.67	7.58	13.26
SKEWNESS	0.546	0.507	0.631	0.570	0.631	0.564	0.766	0.807	0.340
STD ERROR OF SKEWNESS	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
SERIAL CORR COEFF	0.044	0.063	0.067	0.113	0.137	0.079	0.115	0.024	0.133
COEFF OF VARIATION	0.466	0.430	0.432	0.432	0.389	0.423	0.461	0.472	0.382
MEAN LOGS	0.702	0.732	0.761	0.803	0.875	0.961	1.046	1.162	1.567
STD DEVIATION LOGS	0.213	0.195	0.191	0.193	0.181	0.188	0.198	0.199	0.180
SKEWNESS LOGS	-0.160	-0.122	-0.012	-0.095	-0.047	-0.042	0.129	0.249	-0.501
STD ERR SKEWNESS LOGS	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
SER CORR COEFF LOGS	0.085	0.112	0.107	0.127	0.131	0.105	0.111	0.050	0.138
COEFF OF VAR LOGS	0.304	0.266	0.251	0.241	0.206	0.196	0.190	0.171	0.119

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1950-1971)

0.99	14.9	14.7	16.0	17.4	18.3	24.7	33.6	45.9	72.1
0.98	13.2	13.2	14.2	15.5	16.6	22.0	29.3	39.6	67.0
0.96	11.6	11.6	12.4	13.7	15.0	19.4	25.2	33.7	61.4
0.90	9.4	9.5	10.1	11.2	12.6	15.9	20.1	26.4	53.1
0.80	7.6	7.9	8.4	9.3	10.7	13.2	16.3	21.2	45.8
0.50	5.1	5.4	5.8	6.4	7.6	9.2	11.0	14.2	33.3
0.20	3.3	3.7	4.0	4.4	5.3	6.4	7.6	9.8	23.0
0.10	2.7	3.0	3.3	3.6	4.4	5.2	6.2	8.2	18.6
0.05	2.2	2.5	2.8	3.0	3.7	4.5	5.3	7.1	15.4
0.02	1.8	2.1	2.3	2.5	3.0	3.7	4.5	6.0	12.4
0.01	1.5	1.8	2.1	2.2	2.6	3.3	4.0	5.4	10.6

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1950-1971)

P95	P90	P75	P70	P50	P25	P10
6.3	8.7	20.0	27.0	88.0	240.0	510.0

STATION 12011500 WILLAPA RIVER AT LEBAM, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	DATE	REG. (R)
1949	3500.	2450.	1670.	1230.	738.	474.	479.	442.	337.	4930.	02/22/49	
1950	1940.	1760.	1150.	893.	779.	658.	611.	560.	449.	3040.	11/27/49	
1951	3070.	2160.	1460.	922.	821.	674.	632.	550.	429.	3460.	02/09/51	
1952	1690.	1210.	1100.	817.	603.	430.	455.	393.	317.	2260.	01/30/52	
1953	2070.	1710.	1330.	1080.	957.	660.	523.	445.	328.	2780.	01/08/53	
1954	2420.	2110.	1530.	1160.	768.	689.	614.	547.	415.	2910.	02/19/54	
1955	1690.	1350.	925.	581.	418.	385.	339.	306.	293.	1890.	11/18/54	
1956	2060.	1760.	1310.	923.	857.	735.	662.	566.	509.	2850.	12/21/55	
1957	1820.	1710.	1080.	720.	543.	381.	324.	317.	280.	3340.	12/09/56	
1958	1560.	1320.	972.	736.	537.	496.	444.	373.	307.	2940.	12/25/57	
1959	1610.	1140.	900.	630.	543.	432.	431.	379.	330.	2240.	11/18/58	
1960	1820.	1310.	887.	723.	568.	396.	368.	333.	299.	2890.	11/21/59	
1961	1760.	1340.	1110.	864.	761.	635.	561.	537.	428.	2770.	11/20/60	
1962	1100.	843.	746.	578.	434.	352.	293.	266.	237.	1380.	03/24/62	
1963	2410.	1490.	1190.	891.	634.	458.	382.	327.	295.	4010.	11/25/62	
1964	2230.	1820.	1160.	973.	707.	499.	466.	411.	348.	2860.	01/25/64	
1965	1590.	1390.	902.	725.	576.	536.	509.	428.	317.	2180.	11/30/64	
1966	2340.	1550.	1070.	852.	625.	454.	458.	396.	312.	2940.	03/09/66	
1967	3520.	2140.	1250.	1100.	726.	670.	563.	520.	395.	4660.	12/13/66	
1968	1540.	1360.	871.	742.	629.	479.	454.	418.	344.	2510.	02/03/68	
1969	1540.	1160.	913.	679.	585.	499.	462.	406.	331.	1950.	12/03/68	
1970	1650.	1140.	1020.	896.	618.	536.	452.	385.	312.	2460.	01/14/70	
1971	3070.	2390.	1430.	1210.	857.	780.	611.	600.	468.	4010.	12/07/70	
1972										4430.	01/20/72	
1973										2500.	12/26/72	
1974										3140.	01/16/74	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1974)

W R C SYSTEMATIC
ESTIMATE RECORD

MEAN	2087.0	1591.9	1129.4	866.3	663.7	534.3	482.3	430.7	351.3			
MAXIMUM	3520.0	2450.0	1670.0	1230.0	957.0	780.0	662.0	600.0	509.0			
MINIMUM	1100.0	843.0	746.0	578.0	418.0	352.0	293.0	266.0	237.0			
STANDARD DEVIATION	653.16	430.91	238.77	191.79	137.74	126.59	102.83	95.07	68.24			
SKWENESS	1.037	0.508	0.606	0.410	0.237	0.391	0.015	0.246	0.784			
STD ERROR OF SKWENESS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481			
SERIAL CORR COEFF	-0.099	0.041	0.050	0.014	-0.151	-0.304	-0.230	-0.207	-0.278			
COEFF OF VARIATION	0.313	0.271	0.211	0.221	0.208	0.237	0.213	0.221	0.194			
MEAN LOGS	3.301	3.187	3.044	2.928	2.813	2.716	2.673	2.624	2.538			
STD DEVIATION LOGS	0.127	0.118	0.090	0.096	0.092	0.102	0.096	0.097	0.081			
SKWENESS LOGS	0.444	-0.038	0.209	0.020	-0.244	0.090	-0.418	-0.122	0.410			
STD ERR SKWENESS LOGS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481			
SER CORR COEFF LOGS	-0.083	0.081	0.050	-0.011	-0.172	-0.320	-0.218	-0.190	-0.268			
COEFF OF VAR LOGS	0.039	0.037	0.030	0.033	0.033	0.038	0.036	0.037	0.032			

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1949-1974)

0.99	1113.2	812.8	705.6	507.8	382.6	305.3	263.1	245.1	236.5	1491.2	1389.9
0.95	1284.3	982.1	797.0	589.2	452.5	355.1	319.4	289.0	259.8	1788.1	1760.5
0.90	1396.1	1085.5	852.7	637.9	493.1	385.5	331.9	314.9	274.3	1974.4	1954.8
0.80	1555.7	1224.8	927.6	702.6	531.5	428.2	393.4	348.9	294.2	2231.3	2242.2
0.50	1956.9	1540.0	1098.3	845.7	655.4	518.4	478.7	422.5	340.9	2838.7	2884.3
0.20	2538.3	1931.6	1313.6	1019.1	778.0	633.7	569.9	508.3	402.3	3644.4	3660.6
0.10	2945.2	2172.4	1448.5	1123.9	847.0	705.3	619.1	558.4	441.9	4168.1	4124.4
0.04	3485.4	2460.5	1612.8	1247.9	924.0	791.8	712.1	616.2	491.4	4823.2	4665.3
0.02	3907.4	2665.6	1731.7	1335.5	975.6	853.9	766.5	656.0	527.9	5308.3	5041.1
0.01	4346.8	2863.8	1848.4	1419.6	1023.1	914.5	737.3	693.5	564.3	5792.3	5397.3

STATION 12012000 FORK CREEK NEAR LEBAM, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1953													
1954	102	232	350	402	559	156	168	30.5	41.2	17.4	14.9	30.0	
1955	88.3	258	212	170	185	202	250	69.6	52.5	27.4	18.3	29.2	175
1956	180	435	426	416	158	466	131	69.6	25.9	36.2	22.1	20.9	128
1957	192	138	307	98.5	287	254	127	34.9	65.6	19.2	11.0	21.2	197
1958	47.9	107	347	327	307	107	195	37.4	18.9	22.0	7.77	10.4	125
1959	68.1	357	254	398	169	189	217	105	50.7	20.0	5.37	10.4	125
1960	123	243	229	187	340	214	216	121	46.4	16.8	14.7	11.2	146
1961	105	347	178	362	550	384	94.9	113	25.8	11.2	6.32	10.1	180
1962	93.7	154	281	162	124	169	128	83.0	36.7	14.3	19.9	23.7	107
1963	107	451	223	149	233	153	219	92.3	21.7	20.0	15.0	13.3	140
1964	103	301	133	437	152	240	82.0	50.2	33.9	20.8	24.8	19.8	133
1965	37.2	266	332	395	255	78.2	99.5	75.0	23.6	10.2	9.22	6.05	132
1966	43.3	163	204	374	188	314	85.7	34.1	20.4	16.0	7.17	9.12	122
1967	57.1	166	536	468	221	263	117	41.3	19.7	9.34	4.40	5.29	160
1968	179	136	279	305	353	242	112	50.7	98.8	18.3	38.9	57.5	155
1969	117	209	350	215	252	180	164	54.6	36.2	18.6	7.96	44.2	137
1970	75.9	111	243	315	203	118	157	55.4	18.3	7.04	3.01	24.9	111

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1953-1970)

MEAN	101.1	239.6	287.3	304.7	266.8	219.4	150.8	63.5	36.4	17.4	13.9	24.2	143.1
MAXIMUM	192.0	451.0	536.0	488.0	559.0	466.0	250.0	121.0	98.8	36.2	38.9	90.8	197.0
MINIMUM	37.2	107.0	133.0	98.5	124.0	78.2	82.0	30.5	18.3	7.0	3.0	5.3	107.0
STD DEVIATION	47.09	108.34	98.10	116.92	126.48	99.22	52.70	29.92	20.89	7.16	9.04	21.58	28.93
SKWENESS	0.665	0.661	0.922	-0.408	1.424	1.045	0.444	0.698	1.766	0.854	1.232	2.050	0.653
STD ERR SKEW	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.536	0.536	0.536	0.536	0.550
SER CORR COEFF	0.168	-0.068	-0.202	-0.231	-0.175	-0.071	0.175	0.524	-0.184	0.199	-0.239	-0.069	-0.328
COEFF OF VAR	0.466	0.452	0.341	0.384	0.474	0.452	0.350	0.471	0.574	0.413	0.648	0.893	0.174
MEAN LOGS	1.959	2.338	2.435	2.445	2.387	2.300	2.153	1.758	1.507	1.204	1.057	1.253	2.150
STD DEV LOGS	0.212	0.198	0.147	0.202	0.184	0.197	0.153	0.202	0.214	0.187	0.293	0.340	0.074
SKWENESS LOGS	-0.252	0.034	-0.084	-0.885	0.577	-0.170	0.021	0.202	0.702	-0.358	-0.204	0.328	0.329
STD ERR SKEW LOGS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.536	0.536	0.536	0.536	0.550
SER CORR LOGS	0.235	-0.008	-0.166	-0.246	-0.245	-0.119	0.215	0.425	-0.159	0.028	-0.104	0.039	-0.320
COEFF OF VAR LOGS	0.108	0.085	0.060	0.093	0.077	0.085	0.071	0.115	0.142	0.155	0.277	0.271	0.034
% OF AVE FLOW	5.9	13.9	16.7	17.7	15.5	12.7	8.7	3.7	2.1	1.0	0.8	1.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1953-1970)

0.99	26.7	76.2	121.6	70.8	109.2	65.9	63.0	20.8	13.2	5.3	2.2	3.5	99.1
0.95	39.4	103.2	155.0	117.7	131.1	92.9	79.8	27.4	16.0	7.6	3.6	5.3	108.6
0.90	48.1	121.5	176.1	149.7	146.4	110.9	90.6	31.9	18.0	9.1	4.7	6.8	114.3
0.80	60.7	148.1	205.3	194.9	169.6	137.0	105.7	38.6	21.1	11.2	6.5	9.2	122.1
0.50	92.8	217.0	273.7	298.3	234.2	202.3	142.1	56.4	30.4	16.4	11.7	17.1	139.8
0.20	137.7	319.1	362.5	414.8	342.5	293.2	191.4	84.3	47.4	23.1	20.2	34.0	182.3
0.10	167.4	391.0	418.7	475.8	428.0	353.5	223.8	105.0	61.9	27.2	26.6	49.9	176.4
0.04	204.4	486.0	487.3	537.8	553.1	429.2	264.5	133.6	84.6	32.1	35.3	76.6	193.6
0.02	231.6	559.7	537.0	575.0	659.6	485.2	294.8	156.6	105.1	35.5	42.2	102.1	206.0
0.01	258.2	635.8	585.5	606.2	778.5	540.7	325.1	181.2	129.1	38.7	49.4	133.1	218.2

STATION 12012000 FORK CREEK NEAR LEBAN, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1955	13.0	14.0	14.0	14.0	15.0	21.0	25.0	31.0	39.0
1956	9.0	9.3	9.4	9.6	12.0	19.0	25.0	26.0	49.0
1957	6.6	6.6	6.8	7.7	8.6	12.0	16.0	21.0	34.0
1958	5.4	5.6	5.9	5.9	7.3	9.9	14.0	16.0	23.0
1959	3.4	3.5	3.7	4.1	5.3	7.4	9.3	9.3	24.0
1960	5.9	6.5	7.1	7.3	7.9	13.0	24.0	34.0	58.0
1961	5.9	6.2	6.4	8.3	9.4	13.0	16.0	16.0	45.0
1962	4.6	4.6	4.8	4.8	5.4	8.1	18.5	11.0	36.0
1963	6.4	6.7	7.2	8.6	13.0	15.0	16.0	21.0	43.0
1964	6.5	6.7	7.5	9.3	13.0	15.0	16.0	16.0	35.0
1965	10.0	11.0	12.0	14.0	16.0	21.0	21.0	24.0	31.0
1966	4.4	4.4	4.5	5.0	5.9	7.6	8.1	11.0	27.0
1967	4.3	4.4	4.9	5.4	6.4	7.6	8.7	12.0	19.0
1968	2.5	2.5	2.7	3.1	3.9	4.7	6.2	9.3	32.0
1969	8.0	8.2	8.7	9.3	12.0	18.0	29.0	39.0	58.0
1970	3.4	3.4	3.6	4.0	5.8	8.0	14.0	23.0	39.0

LOWEST MEAN FLOW STATISTICS (YEARS 1955-1970)

MEAN	6.2	6.5	6.8	7.5	9.1	12.3	15.7	20.0	37.0
MAXIMUM	13.0	14.0	14.0	14.0	16.0	21.0	29.0	39.0	58.0
MINIMUM	2.5	2.5	2.7	3.1	3.9	4.7	6.2	9.3	19.0
STANDARD DEVIATION	2.73	3.01	3.07	3.28	3.86	5.36	7.20	9.11	11.54
SKEWNESS	1.062	1.142	0.992	0.745	0.598	0.384	0.430	0.678	0.438
STD ERROR OF SKEWNESS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SERIAL CORR COEFF	0.219	0.188	0.125	0.106	0.168	0.038	-0.060	-0.098	0.180
COEFF OF VARIATION	0.440	0.485	0.451	0.435	0.422	0.437	0.459	0.456	0.312
MEAN LOGS	0.755	0.769	0.793	0.838	0.923	1.046	1.149	1.258	1.548
STD DEVIATION LOGS	0.187	0.196	0.193	0.191	0.190	0.204	0.211	0.200	0.139
SKEWNESS LOGS	0.005	0.046	0.002	-0.069	-0.099	-0.304	-0.180	0.024	-0.217
STD ERR SKEWNESS LOGS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SER CORR COEFF LOGS	0.105	0.083	0.035	0.047	0.090	0.013	-0.037	-0.083	0.263
COEFF OF VAR LOGS	0.248	0.255	0.243	0.229	0.206	0.195	0.184	0.159	0.090

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1955-1970)

0.99	15.5	17.1	17.5	18.9	22.5	29.8	41.0	53.3	70.6
0.98	13.8	15.0	15.5	16.7	20.1	27.0	36.5	46.9	65.6
0.96	12.1	13.0	13.5	14.7	17.8	24.0	32.0	40.7	60.3
0.90	9.9	10.5	11.0	12.1	14.6	19.9	26.0	32.7	52.8
0.80	8.2	8.6	9.0	10.0	12.1	16.6	21.3	26.7	46.3
0.50	5.7	5.9	6.2	6.9	8.4	11.4	14.3	18.1	35.7
0.20	4.0	4.0	4.3	4.8	5.8	7.6	9.4	12.3	27.1
0.10	3.3	3.3	3.5	3.9	4.8	6.0	7.5	10.0	23.3
0.05	2.8	2.8	3.0	3.3	4.0	5.0	6.2	8.5	20.5
0.02	2.4	2.3	2.5	2.7	3.3	3.9	5.0	7.1	17.6
0.01	2.1	2.1	2.2	2.4	2.9	3.4	4.3	6.3	15.9

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1955-1970)

P95	P90	P75	P70	P50	P25	P10
6.4	9.7	22.0	29.0	74.0	180.0	360.0

STATION 12012000 FORK CREEK NEAR LEBAM, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (R)
1954	1730.	1460.	1180.	849.	541.	471.	435.	392.	309.	2430. 02/19/54
1955	1460.	1070.	696.	426.	300.	261.	244.	215.	213.	1820. 11/18/54
1956	1620.	1290.	804.	598.	547.	479.	447.	374.	356.	2270. 03/23/56
1957	1890.	1290.	784.	523.	379.	271.	248.	240.	221.	3500. 12/09/56
1958	1200.	940.	693.	555.	405.	366.	328.	281.	230.	1920. 12/25/57
1959	1620.	1120.	714.	545.	414.	330.	344.	299.	269.	2450. 11/12/58
1960	1580.	1100.	765.	542.	448.	311.	301.	270.	240.	2320. 02/06/60
1961	1970.	1340.	940.	703.	596.	486.	429.	401.	324.	2490. 02/21/61
1962	947.	620.	485.	400.	308.	252.	212.	190.	174.	1410. 11/22/61
1963	2270.	1590.	1030.	755.	523.	385.	314.	266.	242.	4400. 11/20/62
1964	1320.	903.	627.	437.	316.	272.	299.	272.	236.	2130. 01/24/64
1965	1970.	1440.	847.	632.	431.	373.	316.	272.	237.	2590. 11/30/64
1966	1470.	1070.	736.	593.	411.	301.	310.	274.	221.	2450. 03/08/66
1967	2500.	1550.	922.	862.	568.	505.	426.	383.	298.	4160. 12/13/66
1968	1190.	977.	654.	509.	416.	331.	315.	295.	249.	1660. 02/03/68
1969	955.	671.	492.	405.	365.	317.	286.	261.	229.	1670. 12/03/68
1970	857.	655.	584.	518.	358.	305.	262.	231.	191.	1580. 02/16/70
1971										3130. 12/07/70
1972										3190. 01/20/72
1973										1690. 12/26/72
1974										1700. 01/16/74
1975										3130. 02/13/75
1976										2850. 12/01/75
1977										1740. 03/07/77
1978										2720. 12/02/77
1979										2310. 02/06/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1954-1979)

	W R C ESTIMATE	SYSTEMATIC RECORD
MEAN	1561.7	291.8
MAXIMUM	2500.0	401.0
MINIMUM	857.0	174.0
STANDARD DEVIATION	464.18	62.87
SKENNESS	0.310	0.794
STD ERROR OF SKENNESS	0.550	0.550
SERIAL CORR COEFF	-0.286	-0.433
COEFF OF VARIATION	0.297	0.192
MEAN LOGS	3.175	2.590
STD DEVIATION LOGS	0.134	0.081
SKENNESS LOGS	-0.634	0.093
STD ERR SKENNESS LOGS	0.550	0.076
SER CORR COEFF LOGS	-0.158	0.550
COEFF OF VAR LOGS	0.042	-0.436

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1954-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
MEAN	473.1	423.3	352.0	266.1	223.6	191.9	175.8	167.3	145.2	124.2
MAXIMUM	686.0	631.8	499.7	400.8	308.8	223.1	201.9	184.4	146.0	108.0
MINIMUM	880.2	727.4	545.6	430.9	330.9	265.4	217.5	195.0	150.7	108.0
STANDARD DEVIATION	1159.8	852.3	606.7	472.0	362.3	288.0	238.4	209.3	182.4	130.7
SKENNESS	1517.1	1113.9	742.5	567.5	430.3	342.5	284.8	242.6	2325.8	2304.7
STD ERROR OF SKENNESS	1944.6	1392.7	907.4	691.6	510.0	416.8	385.7	341.5	304.7	3004.0
SERIAL CORR COEFF	2196.6	1539.5	1007.1	771.1	556.9	466.3	424.8	376.1	312.9	3466.7
COEFF OF VARIATION	2487.0	1693.1	1125.1	869.6	611.3	529.5	470.9	417.4	4036.0	4107.3
MEAN LOGS	2686.3	1789.3	1208.3	942.1	649.0	577.3	503.2	446.7	4460.2	4587.6
STD DEVIATION LOGS	2873.1	1873.1	1288.2	1014.0	684.7	534.2	475.0	396.0	4885.3	5081.2

STATION 12012200 GREEN CREEK NEAR LEBAM, WASH.

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1969)			W R C	
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	ESTIMATE	SYSTEMATIC RECORD
1950	158.0	11-26-1949			2.1080	2.1080
1951	224.0	2- 9-1951			0.1393	0.1393
1952	117.0	2- 4-1952			0.139	0.612
1953	106.0	1-22-1953				
1954	127.0	1- 5-1954				
1955	95.0	2- 8-1955				
1956	133.0	12-11-1955				
1957	223.0	12- 9-1956				
1958	87.0	12-25-1957				
1959	122.0	1-23-1959				
1960	126.0	11-20-1959				
1961	233.0	11-20-1960				
1962	110.0	11-22-1961				
1963	143.0	11-19-1962				
1964	119.0	1-25-1964				
1965	98.0	11-30-1964				
1966	90.0	1- 5-1966				
1967	191.0	12-13-1966				
1968	120.0	2- 3-1968				
1969	78.0	12- 3-1968				
			0.99		62.8	70.3
			0.95		76.6	80.4
			0.90		85.4	87.3
			0.80		97.7	97.4
			0.50		127.3	124.1
			0.20		167.6	165.7
			0.10		194.3	196.4
			0.04		228.3	239.1
			0.02		253.7	273.9
			0.01		279.4	311.2
			ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES			
			LOG-PEARSON III ANALYSIS (YEARS 1950-1969)			

STATION 12013500 WILLAPA RIVER NEAR WILLAPA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1948													
1949	251	1225	1890	395	2261	668	284	324	79.8	44.2	50.4	113	613
1950	115	1193	1690	1914	2082	1847	853	284	97.6	59.6	32.3	32.2	848
1951	542	1384	1831	2036	2123	1847	853	284	70.7	59.6	67.6	49.3	789
1952	693	964	1503	1292	1142	671	392	231	100	50.8	37.8	30.3	586
1953	31.0	92.8	954	3115	1163	693	369	371	178	73.6	50.4	69.7	597
1954	281	917	1786	2133	2523	750	730	145	208	126	73.5	109	805
1955	316	1141											
1961	261	682	1466	789	660	848	482	494	99.5	43.0	26.0	37.1	506
1962	409	1798	1039	707	1033	638	600	375	181	66.4	63.1	78.0	595
1963	381	1499	711	2238	792	1231	421	243	153	71.5	43.9	46.4	595
1964	115	887	1658	1915	1254	406	408	333	102	81.9	83.5	68.0	596
1965	121	558	904	1667	909	1461	393	154	82.6	56.0	34.5	28.8	539
1966	183	595	2344	2273	1087	1311	565	199	95.0	42.5	20.7	24.9	730
1967	620	638	1366	1588	1675	1186	520	244	486	81.7	117	177	723
1968	384	923	1796	1211	1344	665	642	244	153	83.5	38.5	120	630
1969	259	553	1349	1638	1114	568	742	279	83.9	36.5	20.5	77.1	558
1970	238	706	2402	2400	851	1772	743	282	162	91.0	38.8	119	821
1971	234	832	1637	2128	1562	1795	924	269	80.6	73.4	26.0	108	805
1972	63.8	411	1659	1299	402	720	334	267	227	92.1	43.5	66.7	468
1973	179	1889	2310	2093	1539	1642	1332	377	253	177	63.5	40.6	963
1974	34.5	559	1296	1674	1107	934	384	409	103	51.0	76.0	55.1	556
1975	793	1515	2279	1660	1048	1197	466	177	130	78.7	71.8	57.7	791
1976	54.7	127	240	213	437	1299	293	236	236	62.0	90.2	210	294
1977	257	1509	2318	738	752	605	593	428	177	72.2	66.6	378	657
1978	150	478	687	311	1930	907	434	292	85.9	63.7	42.3	111	448
1979													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1948-1979)

MEAN	278.6	927.0	1546.5	1556.8	1282.9	1031.9	552.8	291.7	148.8	70.3	51.2	88.5	649.0
MAXIMUM	793.0	1889.0	2402.0	3115.0	2523.0	1847.0	1332.0	494.0	486.0	177.0	117.0	378.0	963.0
MINIMUM	31.0	92.8	240.0	213.0	402.0	406.0	284.0	145.0	70.7	36.5	20.5	24.9	294.0
STD DEVIATION	204.02	482.01	580.96	739.41	572.48	431.85	212.80	94.52	89.10	30.51	24.47	74.82	151.96
SKWENESS	1.077	0.307	-0.375	-0.215	0.590	0.603	0.739	0.354	2.438	1.969	0.843	2.624	-0.099
STD ERR SKEW	0.464	0.464	0.472	0.472	0.472	0.472	0.464	0.464	0.464	0.464	0.456	0.456	0.472
SER CORR COEFF	-0.174	-0.277	-0.478	0.201	0.073	-0.116	-0.232	-0.035	-0.050	-0.032	-0.037	0.368	-0.234
COEFF OF VAR	0.732	0.520	0.376	0.475	0.446	0.419	0.385	0.324	0.599	0.434	0.478	0.846	0.234
MEAN LOGS	2.314	2.886	3.146	3.118	3.064	2.977	2.713	2.442	2.119	1.815	1.662	1.844	2.800
STD DEV LOGS	0.378	0.315	0.226	0.299	0.208	0.182	0.162	0.147	0.206	0.164	0.209	0.289	0.111
SKWENESS LOGS	-0.657	-1.542	-1.876	-1.378	-0.450	0.033	0.237	-0.320	0.908	0.575	-0.004	0.580	-0.988
STD ERR SKEW LOGS	0.464	0.464	0.472	0.472	0.472	0.472	0.464	0.464	0.464	0.464	0.456	0.456	0.472
SER CORR LOGS	-0.281	-0.285	-0.378	0.247	-0.003	-0.166	-0.235	-0.068	-0.020	-0.020	0.005	0.327	-0.325
COEFF OF VAR LOGS	0.163	0.109	0.072	0.096	0.068	0.061	0.060	0.060	0.097	0.090	0.116	0.157	0.040
% OF AVE FLOW	3.6	11.8	19.8	19.9	16.4	13.2	7.1	3.7	1.9	0.9	0.7	1.1	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1948-1979)

0.99	18.1	67.4	222.1	138.9	326.0	360.7	231.0	116.4	60.0	31.9	15.0	19.8	291.2
0.95	42.6	186.0	498.1	345.6	498.5	477.3	286.6	154.0	69.4	37.6	20.8	26.3	390.0
0.90	64.6	292.6	707.5	522.0	616.1	554.7	323.2	177.5	76.4	41.5	24.8	31.3	447.2
0.80	103.2	467.9	1008.5	805.3	785.1	665.9	375.7	209.4	87.8	47.3	30.6	39.5	519.0
0.50	226.4	918.8	1628.9	1529.0	1200.5	946.8	508.8	281.7	122.6	63.0	45.9	65.5	657.1
0.20	434.4	1395.3	2111.7	2330.4	1744.1	1350.6	703.8	369.3	189.6	88.4	68.8	119.1	784.0
0.10	580.8	1597.2	2655.5	2398.5	2079.6	1328.2	841.0	421.2	248.5	107.8	84.9	169.0	841.9
0.04	764.0	1757.0	2561.8	3015.5	2473.7	1589.5	1023.5	481.2	343.4	135.5	106.4	252.9	895.4
0.02	895.3	1829.9	2396.4	3173.8	2746.6	2265.8	1166.2	523.8	353.5	158.5	123.0	333.7	925.3
0.01	1020.4	1877.8	2415.1	3286.1	3003.0	2547.8	1314.7	561.0	536.9	183.6	140.2	433.1	946.8

STATION 12013500 WILLAPA RIVER NEAR WILLAPA, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1950	24.0	24.0	25.0	25.0	28.0	32.0	35.0	44.0	76.0
1951	30.0	30.0	32.0	34.0	43.0	57.0	57.0	66.0	147.0
1952	16.0	16.0	17.0	18.0	23.0	24.0	29.0	40.0	101.0
1953	23.0	23.0	23.0	25.0	25.0	29.0	32.0	36.0	57.0
1954	29.0	29.0	30.0	32.0	40.0	44.0	44.0	85.0	168.0
1962	22.0	23.0	23.0	24.0	25.0	31.0	33.0	42.0	127.0
1963	30.0	30.0	32.0	37.0	44.0	55.0	56.0	174.0	174.0
1964	24.0	25.0	28.0	35.0	41.0	45.0	49.0	150.0	150.0
1965	43.0	45.0	51.0	63.0	74.0	76.0	76.0	122.0	122.0
1966	20.0	20.0	21.0	23.0	26.0	32.0	34.0	47.0	104.0
1967	20.0	20.0	21.0	23.0	26.0	32.0	34.0	47.0	104.0
1968	14.0	15.0	16.0	19.0	19.0	23.0	29.0	44.0	124.0
1969	33.0	34.0	36.0	40.0	53.0	82.0	111.0	138.0	242.0
1970	25.0	25.0	26.0	28.0	32.0	38.0	67.0	95.0	145.0
1971	17.0	17.0	18.0	18.0	20.0	26.0	36.0	46.0	113.0
1972	28.0	29.0	31.0	34.0	38.0	63.0	76.0	91.0	150.0
1973	15.0	16.0	17.0	18.0	23.0	29.0	48.0	63.0	97.0
1974	26.0	26.0	26.0	29.0	33.0	42.0	60.0	84.0	142.0
1975	28.0	28.0	29.0	30.0	33.0	43.0	61.0	131.0	131.0
1976	24.0	24.0	27.0	30.0	33.0	47.0	59.0	68.0	162.0
1977	33.0	34.0	35.0	41.0	41.0	57.0	57.0	82.0	82.0
1978	24.0	24.0	26.0	26.0	31.0	53.0	96.0	119.0	167.0
1979	32.0	34.0	37.0	42.0	49.0	67.0	100.0	145.0	199.0

LOWEST MEAN FLOW STATISTICS (YEARS 1950-1979)

MEAN	25.2	25.7	27.3	29.7	34.3	44.0	55.6	71.8	133.1
MAXIMUM	43.0	45.0	51.0	57.0	63.0	82.0	111.0	145.0	242.0
MINIMUM	14.0	15.0	16.0	16.0	19.0	23.0	29.0	36.0	57.0
STANDARD DEVIATION	6.80	7.07	7.98	9.36	11.14	16.54	23.81	30.93	42.79
SKEWNESS	0.481	0.699	1.060	1.001	0.840	0.742	0.950	1.024	0.477
STD ERROR OF SKEWNESS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SERIAL CORR COEFF	-0.276	-0.253	-0.193	-0.119	-0.158	-0.236	-0.101	0.128	-0.033
COEFF OF VARIATION	0.270	0.275	0.293	0.315	0.324	0.376	0.428	0.431	0.321
MEAN LOGS	1.386	1.395	1.419	1.453	1.515	1.615	1.709	1.821	2.102
STD DEVIATION LOGS	0.120	0.119	0.123	0.133	0.137	0.160	0.178	0.177	0.147
SKEWNESS LOGS	-0.300	-0.103	0.130	0.060	0.178	0.182	0.298	0.353	-0.467
STD ERR SKEWNESS LOGS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SER CORR COEFF LOGS	-0.253	-0.235	-0.191	-0.141	-0.175	-0.203	0.059	0.056	-0.050
COEFF OF VAR LOGS	0.087	0.086	0.087	0.092	0.090	0.099	0.104	0.097	0.070

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1950-1979)

0.99	43.5	46.1	52.0	58.8	71.0	101.8	144.8	189.1	246.7
0.98	41.0	43.0	47.8	53.8	64.4	90.8	126.4	164.4	231.9
0.96	38.3	39.8	43.6	48.9	57.9	80.2	109.0	141.3	215.6
0.90	34.3	35.2	37.8	42.1	49.3	66.4	87.4	112.9	190.9
0.80	30.8	31.3	33.2	36.7	42.5	55.9	71.7	92.3	168.7
0.50	24.7	25.0	26.1	28.3	32.4	40.7	50.2	64.6	129.7
0.20	18.4	19.7	20.6	21.9	25.1	30.1	36.1	46.7	96.0
0.10	16.9	17.4	18.3	19.2	22.0	25.9	30.8	40.0	80.8
0.05	15.1	15.7	16.7	17.2	19.8	22.9	27.1	35.4	69.5
0.02	13.2	13.9	15.0	15.3	17.7	20.1	23.6	31.1	58.1
0.01	12.0	12.8	14.0	14.1	16.4	18.4	21.6	28.6	51.3

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1950-1979)

P95	P90	P75	P70	P50	P25	P10
30.0	39.0	85.0	110.0	300.0	810.0	1700.0

STATION 12014500 SOUTH FORK WILLAPA RIVER NEAR RAYMOND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1953													
1954	66.7	184	441	428	491	195	170	64.7	70.7	43.2	33.1	33.6	185
1955	63.3	202	234	250	241	249	294	92.6	53.8	49.1	42.1	30.5	149
1956	121	354	502	482	285	454	153	62.3	69.0	41.0	30.5	36.3	216
1957	171	193	345	148	251	286	156	72.4	46.1	33.1	27.0	21.1	145
1958	39.5	91.5	279	301	328	163	204	82.9	47.0	29.8	24.0	28.4	134
1959	70.0	327	250	364	209	199	225	150	90.1	52.3	34.5	27.5	166
1960	160	262	269	191	353	200	203	121	85.3	43.0	24.0	20.6	197
1961	60.7	352	201	343	597	446	151	121	52.0	33.5	32.1	27.5	172
1962	64.6	145	327	255	171	175	170	118	77.3	39.5	33.4	31.9	134
1963	86.4	312	237	185	201	145	192	114	51.1	37.7	29.5	24.9	134
1964	77.7	283	172	483	224	295	146	84.6	60.6	43.8	47.2	39.8	163
1965	51.5	178	386	504	395	141	100	95.6	49.0	31.5	27.4	25.5	164
1966	45.7	139	203	352	254	332	129	64.8	44.0	31.3	24.9	22.3	137
1967	63.0	130	495	517	328	279	160	69.3	41.1	27.4	21.2	21.4	179
1968	148	170	332	390	369	317	183	94.5	127.1	47.7	43.4	55.6	189
1969	101	190	396	329	307	141	137	83.1	74.5	58.0	36.2	44.8	157
1970	64.9	116	244	343	255	144	197	95.3	47.0	30.5	22.6	43.7	133
1971	99.8	175	510	705	252	394	206	88.5	62.8	44.5	30.0	47.8	219
1972													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1953-1972)

MEAN	86.4	211.3	323.5	365.0	306.2	253.1	176.4	95.8	63.8	40.2	31.8	36.8	165.2
MAXIMUM	171.0	354.0	510.0	705.0	597.0	454.0	294.0	170.0	127.0	58.0	47.2	93.0	239.0
MINIMUM	39.5	91.5	172.0	148.0	171.0	141.0	100.0	62.3	41.1	27.4	21.2	20.6	133.0
STD DEVIATION	39.44	82.90	109.60	139.72	107.17	103.84	43.23	29.43	21.00	8.61	7.48	17.34	27.84
SKENNESS	1.077	0.555	0.497	0.595	0.536	0.703	0.927	1.215	1.618	0.267	0.552	2.015	0.566
STD ERR SKEW	-0.061	0.536	-0.307	-0.075	-0.163	-0.177	0.132	0.536	0.524	0.524	-0.001	0.524	0.536
SER CORR COEFF	-0.061	0.038	-0.307	-0.075	-0.163	-0.177	0.132	0.536	-0.051	0.025	-0.001	-0.072	-0.301
COEFF OF VAR	0.457	0.392	0.339	0.383	0.350	0.410	0.245	0.307	0.329	0.214	0.235	0.471	0.169
MEAN LOGS	1.898	2.293	2.486	2.531	2.464	2.370	2.235	1.964	1.786	1.595	1.491	1.530	2.212
STD DEV LOGS	0.184	0.172	0.175	0.175	0.138	0.175	0.104	0.123	0.127	0.094	0.101	0.173	0.072
SKENNESS LOGS	0.452	-0.032	0.075	-0.409	0.600	0.222	-0.030	0.604	0.826	-0.054	0.170	0.815	0.329
STD ERR SKEN LOGS	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.524	0.524	0.524	0.524	0.536
SER CORR LOGS	-0.044	0.030	-0.304	-0.101	-0.125	-0.162	0.225	0.540	-0.051	0.025	0.003	0.017	-0.278
COEFF OF VAR LOGS	0.097	0.075	0.059	0.069	0.056	0.074	0.047	0.063	0.071	0.059	0.067	0.113	0.032
% OF AVE FLOW	4.3	10.6	16.3	18.3	15.4	12.7	8.9	4.8	3.2	2.0	1.6	1.9	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1953-1972)

0.99	34.0	77.4	142.1	117.7	160.1	98.2	97.6	54.0	37.0	23.6	18.6	17.1	115.6
0.95	41.8	102.0	176.9	167.2	183.1	124.2	115.3	60.9	40.9	27.5	21.4	19.6	126.3
0.90	47.1	118.0	199.2	199.3	198.7	141.4	126.0	65.5	43.5	29.8	23.1	21.4	132.9
0.80	55.0	140.8	230.3	244.1	221.6	166.4	140.3	72.1	47.6	32.8	25.4	24.1	141.6
0.50	76.6	196.8	305.2	348.7	282.0	230.8	171.9	89.4	58.7	39.4	30.8	32.2	161.6
0.20	111.5	274.3	407.0	479.3	375.4	326.9	210.3	115.4	76.7	47.2	37.6	46.2	186.7
0.10	138.3	326.0	474.2	557.6	444.2	395.6	233.5	134.1	90.4	51.8	41.8	57.7	202.4
0.04	176.5	591.4	559.2	648.1	539.5	487.9	261.0	159.6	109.7	57.2	47.1	75.0	221.5
0.02	208.3	440.3	622.6	710.2	616.7	560.7	280.3	179.8	125.6	60.9	50.9	90.2	235.3
0.01	243.1	489.3	686.3	768.1	699.4	637.0	298.9	201.2	143.0	64.5	54.6	107.5	248.8

STATION 12014500 SOUTH FORK WILLAPA RIVER NEAR RAYMOND, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1955	29.0	29.0	32.0	32.0	34.0	43.0	45.0	49.0	54.0
1956	26.0	26.0	27.0	28.0	30.0	34.0	39.0	43.0	61.0
1957	20.0	20.0	21.0	24.0	26.0	31.0	32.0	37.0	51.0
1958	19.0	19.0	19.0	19.0	21.0	23.0	25.0	27.0	37.0
1959	20.0	20.0	21.0	22.0	23.0	24.0	26.0	30.0	45.0
1960	29.0	30.0	30.0	32.0	34.0	41.0	51.0	63.0	90.0
1961	22.0	22.0	23.0	25.0	26.0	29.0	30.0	35.0	67.0
1962	17.0	17.0	17.0	18.0	19.0	22.0	24.0	29.0	48.0
1963	25.0	25.0	26.0	27.0	29.0	32.0	34.0	40.0	58.0
1964	21.0	21.0	22.0	23.0	24.0	26.0	27.0	31.0	53.0
1965	33.0	34.0	34.0	37.0	39.0	43.0	43.0	46.0	54.0
1966	20.0	20.0	21.0	20.0	24.0	26.0	27.0	31.0	44.0
1967	20.0	20.0	20.0	20.0	22.0	23.0	24.0	27.0	40.0
1968	18.0	18.0	18.0	19.0	21.0	21.0	23.0	27.0	47.0
1969	31.0	31.0	32.0	34.0	36.0	42.0	48.0	54.0	77.0
1970	29.0	30.0	30.0	30.0	32.0	37.0	45.0	49.0	59.0
1971	20.0	20.0	21.0	21.0	22.0	26.0	30.0	33.0	54.0

LOWEST MEAN FLOW STATISTICS (YEARS 1955-1971)

MEAN	23.5	23.6	24.4	25.5	27.2	30.8	33.7	38.3	55.2
MAXIMUM	33.0	34.0	34.0	37.0	39.0	43.0	51.0	63.0	90.0
MINIMUM	17.0	17.0	17.0	18.0	19.0	21.0	23.0	27.0	37.0
STANDARD DEVIATION	5.05	5.31	5.47	5.81	6.03	7.87	9.46	10.77	13.27
SKENNESS	0.587	0.637	0.486	0.554	0.582	0.472	0.589	0.869	1.245
STD ERROR OF SKENNESS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SERIAL CORR COEFF	-0.100	-0.106	-0.047	-0.116	-0.110	-0.075	-0.015	-0.054	0.137
COEFF OF VARIATION	0.215	0.225	0.224	0.228	0.222	0.256	0.281	0.281	0.240
MEAN LOGS	1.361	1.364	1.377	1.396	1.424	1.475	1.512	1.568	1.732
STD DEVIATION LOGS	0.091	0.094	0.096	0.097	0.094	0.109	0.118	0.116	0.097
SKENNESS LOGS	0.397	0.439	0.266	0.282	0.283	0.248	0.368	0.499	0.599
STD ERR SKENNESS LOGS	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
SER CORR COEFF LOGS	-0.092	-0.096	-0.037	-0.099	-0.095	-0.050	0.009	-0.015	0.198
COEFF OF VAR LOGS	0.067	0.069	0.069	0.069	0.066	0.074	0.078	0.074	0.056

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1955-1971)

0.99	39.7	41.0	41.4	43.7	46.1	56.1	65.9	75.7	100.0
0.98	36.9	37.9	38.6	40.6	42.9	51.7	59.9	68.5	91.5
0.96	34.0	34.9	35.7	37.5	39.7	47.3	54.1	61.6	83.3
0.90	30.3	30.8	31.7	33.3	35.3	41.4	46.5	52.7	72.6
0.80	27.3	27.6	28.5	29.9	31.8	36.8	40.6	45.9	64.5
0.50	22.7	22.8	23.6	24.6	26.3	29.5	32.0	36.2	52.7
0.20	19.2	19.2	19.7	20.6	22.1	24.1	25.8	29.4	44.5
0.10	17.8	17.7	18.1	18.8	20.3	21.8	23.2	26.7	41.2
0.05	16.7	16.7	16.9	17.6	18.9	20.1	21.4	24.8	38.8
0.02	15.7	15.6	15.6	16.3	17.6	18.4	19.7	23.0	36.6
0.01	15.0	15.0	14.9	15.5	16.8	17.4	18.6	21.9	35.3

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1955-1971)

P95	P90	P75	P70	P50	P25	P10
24.0	29.0	45.0	53.0	110.0	220.0	380.0

STATION 12015100 CLEARWATER CREEK NEAR RAYMOND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1964	10.3	29.7	48.4	80.2	60.1	17.8	13.9	14.0	7.64	7.61	8.18	7.64	24.5
1965	10.6	31.9	26.3	44.8	31.7	39.3	17.6	10.7	7.71	5.50	4.84	4.84	19.5
1966	11.5	17.6	60.0	82.0	44.8	32.6	22.6	10.1	6.53	5.59	4.85	4.83	24.9
1967	21.8	22.2	54.8	56.4	53.3	36.0	22.6	12.1	19.1	6.91	7.21	9.54	26.8
1968	14.3	32.1	34.5	47.4	41.3	19.6	16.8	12.6	12.6	9.78	5.04	8.06	22.8
1969	9.82	16.6	30.3	52.6	37.0	19.2	25.5	13.1	7.18	5.04	3.70	7.83	18.9
1970	11.4	21.1	62.0	92.9	38.0	44.4	22.6	10.2	7.84	6.72	4.77	8.56	27.6
1971	11.8	22.9	56.1	63.9	56.5	60.9	32.8	12.9	7.21	9.42	4.83	7.03	28.8
1972	5.22	14.4	45.2	37.4	46.7	20.7	12.9	12.2	13.5	8.26	5.05	5.55	16.6
1973	8.24	34.1	54.5	61.2	46.7	58.4	38.0	20.8	17.4	11.3	6.70	5.17	30.1
1974	4.61	16.9	35.2	63.3	38.8	30.6	14.8	14.8	8.59	5.89	6.01	5.57	20.4
1975	27.9												
1976													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1964-1976)

MEAN	12.3	23.6	47.9	62.0	42.4	34.5	21.8	13.0	10.5	7.2	5.4	6.5	23.7
MAXIMUM	27.9	34.1	62.0	92.9	60.1	60.9	38.0	20.8	19.1	11.3	8.2	9.5	30.1
MINIMUM	4.6	14.4	26.3	37.4	18.6	17.8	12.9	10.1	6.5	4.4	3.6	3.7	16.6
STD DEVIATION	6.59	7.15	12.22	17.10	11.83	15.28	7.95	2.97	4.46	2.15	1.40	1.87	4.44
SKEWNESS	1.435	0.310	-0.786	0.473	-0.400	0.647	0.934	1.910	1.107	0.596	0.665	0.097	-0.146
STD ERR SKEW	0.637	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.637	0.637	0.637	0.661
SER CORR COEFF	-0.126	-0.427	-0.368	-0.276	-0.562	-0.263	-0.599	0.176	0.056	0.037	-0.098	0.315	-0.550
COEFF OF VAR	0.536	0.303	0.255	0.276	0.279	0.443	0.364	0.228	0.426	0.300	0.258	0.289	0.187
MEAN LOGS	1.038	1.354	1.665	1.777	1.609	1.499	1.314	1.107	0.989	0.838	0.720	0.793	1.368
STD DEV LOGS	0.220	0.133	0.126	0.120	0.141	0.193	0.151	0.088	0.167	0.129	0.110	0.131	0.084
SKEWNESS LOGS	0.094	0.047	-1.056	-0.020	-1.349	0.107	0.363	1.299	0.832	0.165	0.184	-0.259	-0.391
STD ERR SKEW LOGS	0.637	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.637	0.637	0.637	0.661
SER CORR LOGS	-0.095	-0.454	-0.359	-0.307	-0.496	-0.248	-0.624	0.199	0.085	0.092	-0.096	0.316	-0.556
COEFF OF VAR LOGS	0.098	0.076	0.076	0.068	0.088	0.129	0.115	0.080	0.169	0.154	0.152	0.165	0.061
% OF AVE FLOW	4.3	8.2	16.7	21.6	14.8	12.0	7.6	4.5	3.7	2.5	1.9	2.3	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1976)

0.99	3.5	11.2	19.0	31.3	14.2	11.6	10.1	9.7	5.0	3.6	3.0	2.9	14.1
0.95	4.8	13.7	26.7	37.9	21.7	15.4	12.1	10.0	5.7	4.3	3.5	3.7	16.6
0.90	5.7	15.3	31.3	42.0	26.3	18.0	13.4	10.3	6.2	4.7	3.8	4.2	18.1
0.80	7.1	17.5	37.2	47.5	32.3	21.7	15.3	10.8	7.0	5.4	4.2	4.8	19.9
0.50	10.8	22.6	48.7	60.0	43.6	31.3	20.2	12.3	9.3	6.8	5.2	6.3	23.6
0.20	16.7	29.2	59.3	75.6	53.3	45.8	27.4	14.8	13.1	8.8	6.5	8.0	27.5
0.10	21.0	33.5	64.1	85.3	57.2	56.0	32.6	16.8	16.3	10.1	7.3	9.1	29.6
0.04	26.9	38.8	68.4	97.0	60.4	69.8	39.5	19.6	21.1	11.8	8.3	10.3	31.8
0.02	31.7	42.7	70.8	105.4	61.9	80.6	45.0	22.0	25.2	13.0	9.1	11.1	33.3
0.01	36.7	46.6	72.7	113.6	63.0	91.9	50.8	24.5	29.9	14.2	9.8	11.8	34.6

STATION 12015100 CLEARWATER CREEK NEAR RAYMOND, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1966	3.8	3.8	3.8	3.9	4.3	4.5	4.7	5.3	7.6
1967	3.8	3.8	3.9	4.2	4.4	4.5	4.6	5.0	7.0
1968	3.0	3.1	3.2	3.2	3.4	3.6	3.8	4.5	7.4
1969	5.0	5.0	5.1	5.2	5.7	6.6	7.4	8.4	11.0
1970	4.8	4.8	4.8	4.8	5.0	5.9	7.5	8.0	9.6
1971	3.3	3.3	3.3	3.3	3.6	4.2	4.9	5.5	7.8
1972	4.1	4.1	4.2	4.6	4.7	5.7	6.4	6.8	8.0
1973	3.8	3.8	3.9	4.1	4.3	4.9	5.6	6.6	7.6
1974	3.6	3.7	3.8	4.0	4.2	5.0	5.7	6.6	8.7
1975	4.1	4.1	4.2	4.4	4.5	4.8	5.3	6.1	9.7

LOWEST MEAN FLOW STATISTICS (YEARS 1966-1975)

MEAN	3.9	3.9	4.0	4.2	4.4	5.0	5.6	6.3	8.4
MAXIMUM	5.0	5.0	5.1	5.2	5.7	6.6	7.5	8.4	11.0
MINIMUM	3.0	3.1	3.2	3.2	3.4	3.6	3.8	4.5	7.0
STANDARD DEVIATION	0.61	0.59	0.59	0.62	0.65	0.88	1.21	1.26	1.28
SKENNESS	0.480	0.581	0.533	-0.092	0.399	0.462	0.447	0.391	0.977
STD ERROR OF SKENNESS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SERIAL CORR COEFF	-0.183	-0.167	-0.206	-0.396	-0.331	-0.175	0.075	0.134	0.234
COEFF OF VARIATION	0.156	0.150	0.147	0.150	0.148	0.177	0.216	0.201	0.152
MEAN LOGS	0.590	0.592	0.600	0.616	0.640	0.690	0.738	0.690	0.922
STD DEVIATION LOGS	0.067	0.064	0.063	0.067	0.064	0.077	0.093	0.087	0.063
SKENNESS LOGS	0.123	0.256	0.213	-0.406	-0.047	0.049	0.049	0.053	0.784
STD ERR SKENNESS LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SER CORR COEFF LOGS	-0.246	-0.229	-0.266	-0.432	-0.379	-0.201	0.063	0.144	0.258
COEFF OF VAR LOGS	0.114	0.108	0.105	0.108	0.101	0.111	0.127	0.110	0.068

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1966-1975)

0.99	5.6	5.7	5.7	5.6	6.1	7.4	9.1	9.9	12.7
0.98	5.4	5.4	5.5	5.5	5.9	7.1	8.6	9.4	11.9
0.96	5.1	5.1	5.2	5.3	5.6	6.7	8.0	8.8	11.2
0.90	4.7	4.7	4.8	5.0	5.3	6.1	7.2	8.0	10.1
0.80	4.4	4.4	4.5	4.7	4.9	5.7	6.6	7.3	9.4
0.50	3.9	3.9	4.0	4.2	4.4	4.9	5.5	6.2	8.2
0.20	3.4	3.4	3.5	3.6	3.9	4.2	4.6	5.2	7.4
0.10	3.2	3.3	3.3	3.4	3.6	3.9	4.2	4.8	7.1
0.05	3.0	3.1	3.2	3.2	3.4	3.7	3.9	4.4	6.8
0.02	2.9	3.0	3.0	2.9	3.2	3.4	3.5	4.1	6.6
0.01	2.8	2.9	2.9	2.8	3.1	3.3	3.5	3.9	6.5

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED MP% PERCENT OF THE TIME (YEARS 1966-1975)

P95	P90	P75	P70	P50	P25	P10
4.2	4.6	7.1	8.2	15.0	31.0	55.0

STATION 12015100 CLEARWATER CREEK NEAR RAYMOND, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	ANNUAL PEAK-FLOW DATA									
	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW (CFS) DATE REG. (R)
1965	267.	224.	167.	121.	90.	72.	65.	55.	41.	319. 01/28/65
1966	92.	86.	72.	61.	47.	40.	40.	36.	32.	185. 01/05/66
1967	146.	122.	97.	90.	83.	71.	63.	56.	43.	230. 01/19/67
1968	175.	152.	115.	85.	68.	56.	55.	50.	42.	285. 01/19/68
1969	116.	103.	96.	72.	60.	55.	50.	44.	35.	174. 12/03/68
1970	118.	105.	91.	82.	61.	47.	41.	36.	30.	220. 02/15/70
1971	309.	255.	174.	138.	99.	80.	65.	60.	47.	526. 01/25/71
1972	217.	154.	113.	100.	83.	70.	65.	60.	49.	305. 01/11/72
1973	180.	126.	111.	80.	59.	44.	36.	31.	25.	271. 12/26/72
1974	153.	134.	116.	99.	75.	66.	60.	56.	49.	215. 01/24/74
1975	165.	129.	98.	82.	65.	55.	48.	43.	34.	259. 01/18/75
1976										511. 12/01/75
1977										90. 03/07/77
1978										625. 12/02/77
1979										219. 02/06/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1965-1979)

	W R C ESTIMATE	SYSTEMATIC RECORD
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MEAN	176.2	144.5	113.6	91.8	71.8	59.6	53.5	47.9	38.8	2.4236	2.4236
MAXIMUM	309.0	255.0	174.0	138.0	99.0	80.0	65.0	60.0	49.0	0.2110	0.2110
MINIMUM	92.0	86.0	72.0	61.0	47.0	40.0	36.0	31.0	25.0	0.1580	-0.1200
STANDARD DEVIATION	65.76	51.56	30.96	21.97	15.58	13.00	11.04	10.43	8.12		
SKEWNESS	0.906	1.332	1.130	0.960	0.266	-0.027	-0.374	-0.370	-0.236		
STD ERROR OF SKEWNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661		
SERIAL CORR COEFF	-0.088	-0.228	-0.328	-0.187	-0.353	-0.479	-0.521	-0.479	-0.507		
COEFF OF VARIATION	0.373	0.357	0.272	0.239	0.217	0.218	0.207	0.218	0.209		
MEAN LOGS	2.220	2.138	2.042	1.952	1.847	1.766	1.719	1.670	1.580		
STD DEVIATION LOGS	0.157	0.140	0.111	0.100	0.095	0.098	0.095	0.101	0.096		
SKEWNESS LOGS	0.196	0.745	0.564	0.403	-0.149	-0.316	-0.560	-0.592	-0.547		
STD ERR SKEWNESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661		
SER CORR COEFF LOGS	-0.117	-0.260	-0.338	-0.227	-0.403	-0.518	-0.531	-0.500	-0.521		
COEFF OF VAR LOGS	0.071	0.066	0.054	0.051	0.052	0.055	0.055	0.060	0.061		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1965-1979)

0.99	75.3	77.5	67.7	56.3	41.2	32.8	28.8	24.8	20.9	90.6	82.1
0.95	93.4	87.2	75.7	63.2	48.5	39.5	35.4	30.9	25.6	122.0	117.3
0.90	105.2	94.0	81.0	67.6	52.9	43.4	39.2	34.4	28.4	143.5	141.4
0.80	122.0	104.2	88.5	73.6	58.5	48.4	43.9	38.9	31.8	175.6	176.7
0.50	163.9	132.1	107.6	88.2	70.7	59.0	53.4	47.9	38.8	261.8	267.8
0.20	224.1	177.2	135.3	108.0	84.7	70.7	63.1	57.1	45.9	397.5	400.2
0.10	265.6	211.6	154.7	121.2	92.8	77.2	68.1	61.8	49.6	498.1	491.1
0.04	320.1	260.6	180.4	137.9	102.1	84.3	73.4	66.7	53.5	637.1	608.3
0.02	362.1	301.3	220.5	150.5	108.4	89.1	76.6	69.8	55.9	749.1	697.1
0.01	405.4	345.8	221.4	163.3	114.4	93.4	79.5	72.5	58.0	868.5	786.7

STATION 12015500 NORTH RIVER NEAR BROOKLYN, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1953													
1954	31.2	147	339	322	374	133	124	33.2	39.7	16.5	11.8	13.5	133
1955	49.3	157	174	165	169	175	173	53.9	32.5	19.1	20.3	42.6	133
1956	109	292	366	316	155	306	94.8	29.1	25.8	20.3	11.6	12.0	98.3
1957	110	123	256	78.4	192	194	103	39.4	33.5	13.3	10.3	14.8	145
1958	22.1	62.9	212	214	206	105	144	43.1	20.2	12.2	9.62	6.87	95.0
1959	48.8	284	202	279	130	123	148	94.6	40.6	10.7	8.24	12.4	88.0
1960	91.6	233	240	141	255	148	139	98.2	35.3	12.0	10.4	8.74	118
1961	26.2	252	130	260	428	289	107	94.1	27.7	13.7	7.49	7.00	117
1962	35.8	104	273	154	97.9	132	105	66.9	38.3	15.2	16.3	16.3	135
1963	65.4	313	193	148	188	122	139	66.5	22.4	15.1	15.4	14.4	108
1964	58.6	224	120	386	130	199	71.5	40.3	35.1	20.7	19.0	17.4	110
1965	28.3	158	307	368	263	80.0	58.9	58.6	22.4	11.7	10.7	8.60	114

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1953-1965)

MEAN	56.4	195.8	234.3	235.9	215.7	167.2	117.3	59.8	30.6	15.3	12.5	16.8	112.4
MAXIMUM	110.0	313.0	366.0	386.0	428.0	306.0	173.0	98.2	40.6	20.7	20.3	43.5	145.0
MINIMUM	22.1	62.9	120.0	78.4	97.9	80.0	58.9	29.1	20.2	10.7	7.5	6.9	88.0
STD DEVIATION	31.64	81.36	77.71	100.00	99.89	70.15	33.53	24.71	7.12	3.39	4.02	12.14	18.50
SKWENESS	0.791	-0.061	0.213	0.061	1.145	1.063	-0.206	0.511	-0.049	0.386	0.893	1.820	0.303
STD ERR SKEW	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.616	0.616	0.616	0.616
SER CORR COEFF	0.005	-0.274	-0.380	-0.181	-0.225	-0.062	0.187	0.563	-0.290	-0.003	0.142	-0.227	-0.379
COEFF OF VAR	0.561	0.415	0.332	0.424	0.463	0.420	0.284	0.413	0.233	0.222	0.322	0.724	0.165
MEAN LOGS	1.689	2.250	2.346	2.331	2.295	2.191	2.051	1.742	1.474	1.174	1.077	1.147	2.046
STD DEV LOGS	0.242	0.211	0.153	0.210	0.189	0.172	0.137	0.182	0.105	0.096	0.133	0.253	0.071
SKWENESS LOGS	0.191	-0.814	-0.395	-0.657	0.347	0.342	-0.816	0.041	-0.262	0.136	0.444	0.946	0.047
STD ERR SKEW LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.616	0.616	0.616	0.616	0.637
SER CORR LOGS	-0.110	-0.191	-0.391	-0.281	-0.336	-0.085	0.326	0.432	-0.280	0.084	0.181	-0.183	-0.355
COEFF OF VAR LOGS	0.144	0.094	0.065	0.090	0.082	0.079	0.067	0.104	0.071	0.082	0.123	0.221	0.035
% DF AVE FLOW	4.2	14.4	17.3	17.4	15.9	12.3	8.6	4.4	2.3	1.1	0.9	1.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1953-1965)

0.99	14.4	43.4	88.7	55.6	80.2	68.2	45.1	21.2	16.3	9.1	6.5	5.4	76.2
0.95	20.1	72.6	120.1	89.4	100.9	84.2	63.0	27.9	19.7	10.5	7.5	6.4	85.0
0.90	24.2	92.8	139.8	112.7	115.0	95.0	73.8	32.4	21.8	11.3	8.2	7.2	90.1
0.80	30.4	121.8	166.6	146.0	136.0	110.6	88.0	38.8	24.4	12.4	9.2	8.5	96.7
0.50	48.0	189.9	227.2	225.7	192.3	151.8	117.3	55.1	30.1	14.8	11.7	12.8	110.9
0.20	77.7	269.7	299.8	324.0	281.8	214.9	147.2	78.1	36.6	17.9	15.3	21.9	127.5
0.10	101.0	313.1	342.2	380.6	349.2	261.2	162.1	94.6	40.3	19.8	17.9	30.6	137.2
0.04	134.6	358.7	390.6	443.0	443.9	324.8	176.9	115.6	44.5	22.2	21.3	45.8	148.5
0.02	162.7	386.9	423.2	483.8	521.5	376.1	185.8	131.7	47.3	23.8	24.0	60.9	156.3
0.01	193.6	411.0	453.5	520.2	605.6	430.7	193.2	148.1	49.9	25.5	26.8	80.1	163.7

STATION 12015500 NORTH RIVER NEAR BROOKLYN, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1955	12.0	12.0	12.0	12.0	14.0	18.0	23.0	25.0	33.0
1956	7.5	7.5	7.7	7.9	8.6	11.0	14.0	16.0	30.0
1957	6.2	6.5	6.6	7.2	7.9	10.0	12.0	15.0	23.0
1958	6.0	6.0	6.1	6.3	6.8	7.6	9.0	11.0	17.0
1959	5.4	5.6	5.7	6.0	6.6	8.0	9.9	12.0	24.0
1960	9.4	9.6	10.0	10.0	11.0	14.0	18.0	26.0	43.0
1961	5.8	5.9	6.3	6.7	7.9	9.3	9.9	12.0	30.0
1962	4.9	5.1	5.3	5.4	6.1	7.1	8.3	12.0	25.0
1963	8.9	9.0	10.0	10.0	12.0	14.0	15.0	19.0	33.0
1964	5.5	5.7	7.1	8.1	10.0	13.0	14.0	15.0	28.0
1965	12.0	12.0	13.0	14.0	15.0	17.0	18.0	21.0	27.0

LOWEST MEAN FLOW STATISTICS (YEARS 1955-1965)

MEAN	7.6	7.7	8.1	8.5	9.6	11.7	13.7	16.7	28.5
MAXIMUM	12.0	12.0	13.0	14.0	15.0	18.0	23.0	26.0	43.0
MINIMUM	4.9	5.1	5.3	5.4	6.1	7.1	8.3	11.0	17.0
STANDARD DEVIATION	2.61	2.55	2.60	2.70	3.04	3.75	4.56	5.33	6.73
SKEWNESS	0.870	0.878	0.940	0.924	0.650	0.411	0.729	0.757	0.592
STD ERROR OF SKEWNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	-0.306	-0.306	-0.144	-0.064	0.037	0.118	0.049	-0.250	0.109
COEFF OF VARIATION	0.343	0.330	0.323	0.318	0.316	0.320	0.332	0.319	0.236
MEAN LOGS	0.859	0.867	0.888	0.911	0.965	1.049	1.117	1.204	1.443
STD DEVIATION LOGS	0.140	0.135	0.132	0.131	0.134	0.140	0.141	0.133	0.104
SKEWNESS LOGS	0.581	0.610	0.606	0.477	0.294	0.032	0.201	0.435	-0.289
STD ERR SKEWNESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SER CORR COEFF LOGS	-0.333	-0.325	-0.125	-0.043	0.055	0.133	0.084	-0.197	0.195
COEFF OF VAR LOGS	0.163	0.156	0.148	0.144	0.139	0.134	0.127	0.110	0.072

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1955-1965)

	0.99	0.98	0.96	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
MEAN	17.6	17.4	17.4	17.8	18.2	20.1	23.9	29.3	35.9	46.0	51.1
MAXIMUM	15.5	15.4	15.4	15.8	16.3	18.2	21.8	26.4	32.1	43.7	51.1
MINIMUM	13.5	13.5	13.5	13.9	14.5	16.3	19.8	23.6	28.5	37.4	43.7
STANDARD DEVIATION	11.1	11.1	11.1	11.6	12.1	13.8	16.9	20.0	24.0	31.0	37.4
SKEWNESS	9.4	9.4	9.4	9.8	10.4	11.9	14.7	17.9	20.5	26.0	31.0
STD ERROR OF SKEWNESS	7.0	7.1	7.1	7.5	8.0	9.1	11.2	12.9	15.7	19.1	22.8
SERIAL CORR COEFF	5.5	5.6	5.6	6.0	6.3	7.1	8.5	9.9	12.3	15.7	18.4
COEFF OF VARIATION	4.9	5.1	5.1	5.4	5.6	6.3	7.4	8.7	11.0	14.0	16.4
MEAN LOGS	4.5	4.7	4.7	5.0	5.2	5.7	6.6	7.8	10.1	12.4	14.4
STD DEVIATION LOGS	4.1	4.3	4.3	4.6	4.8	5.1	5.8	6.9	8.2	9.2	10.1
SKEWNESS LOGS	3.9	4.1	4.1	4.4	4.5	4.8	5.3	6.4	7.7	8.7	9.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1955-1965)

P	P95	P90	P75	P70	P50	P25	P10
7.8	10.0	20.0	25.0	63.0	150.0	270.0	

STATION 12015500 NORTH RIVER NEAR BROOKLYN, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (R)
1954	1150.	935.	731.	512.	381.	345.	344.	304.	238.	1490. 12/09/53
1955	884.	558.	384.	257.	207.	196.	194.	182.	169.	1200. 02/08/55
1956	1240.	862.	603.	513.	450.	378.	340.	302.	266.	12/11/55
1957	1200.	882.	581.	416.	250.	199.	189.	182.	166.	12/09/56
1958	624.	514.	400.	333.	251.	238.	215.	185.	158.	12/25/57
1959	1250.	776.	512.	426.	308.	255.	263.	228.	198.	1950. 11/12/58
1960	1780.	1040.	725.	427.	392.	246.	259.	233.	194.	2160. 12/15/59
1961	1430.	1020.	761.	568.	472.	372.	324.	304.	247.	1800. 02/21/61
1962	668.	538.	506.	415.	317.	231.	188.	167.	148.	1010. 12/17/61
1963	1650.	1050.	724.	546.	376.	297.	245.	215.	185.	2320. 11/20/62
1964	1410.	847.	587.	503.	389.	276.	252.	229.	193.	1750. 01/25/64
1965	1110.	963.	761.	564.	404.	345.	334.	282.	205.	1390. 01/27/65

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1954-1965)

W R C
ESTIMATESYSTEMATIC
RECORD

MEAN	1199.7	832.1	606.2	456.7	350.9	281.5	262.2	234.4	197.2	3.2175
MAXIMUM	1780.0	1050.0	761.0	568.0	472.0	378.0	344.0	304.0	266.0	0.1510
MINIMUM	624.0	514.0	384.0	257.0	207.0	196.0	188.0	167.0	148.0	0.1200
STANDARD DEVIATION	352.30	196.17	135.95	95.65	81.58	64.92	60.21	51.74	36.73	
SKEWNESS	-0.162	-0.707	-0.389	-0.781	-0.339	0.277	0.195	0.289	0.619	
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	
SERIAL CORR COEFF	-0.110	-0.296	-0.162	-0.194	-0.185	-0.604	-0.531	-0.460	-0.437	
COEFF OF VARIATION	0.294	0.236	0.224	0.209	0.232	0.231	0.230	0.221	0.186	
MEAN LOGS	3.060	2.907	2.772	2.649	2.533	2.439	2.408	2.360	2.288	
STD DEVIATION LOGS	0.141	0.114	0.105	0.102	0.109	0.101	0.101	0.096	0.079	
SKEWNESS LOGS	-0.784	-0.923	-0.682	-1.261	-0.730	0.024	-0.025	0.084	0.325	
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	
SER CORR COEFF LOGS	-0.180	-0.308	-0.160	-0.207	-0.178	-0.607	-0.524	-0.449	-0.427	
COEFF OF VAR LOGS	0.046	0.039	0.038	0.039	0.043	0.041	0.042	0.041	0.035	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1954-1965)

0.99	449.4	369.6	300.0	210.5	167.1	160.9	148.5	139.1	132.9	758.0	643.5
0.95	631.2	494.9	381.6	283.8	215.9	188.0	174.4	160.3	146.6	942.8	886.1
0.90	742.7	568.0	428.7	325.3	244.2	204.3	190.0	173.1	155.0	1061.8	1041.0
0.80	889.5	660.4	488.3	376.1	280.2	226.0	210.6	190.2	166.3	1229.2	1247.0
0.50	1196.2	840.8	607.4	468.1	351.9	274.4	256.2	228.5	192.3	1638.5	1701.5
0.20	1515.3	1011.4	726.8	543.8	423.4	333.7	311.2	275.7	225.6	2205.7	2222.3
0.10	1677.3	1091.3	786.9	574.4	459.0	369.8	344.3	304.7	246.6	2586.8	2513.5
0.04	1840.8	1167.0	847.7	599.8	494.7	412.8	383.3	339.5	272.3	3075.2	2832.2
0.02	1939.5	1210.2	884.9	612.6	516.3	443.3	410.8	364.2	291.1	3444.5	3040.1
0.01	2022.8	1245.1	916.6	621.7	534.5	472.7	437.1	388.3	309.6	3818.6	3227.0

STATION 12016700 JOE CREEK NEAR COSMOPOLIS, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1970)			# R C		SYSTEMATIC RECORD
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKEWNESS LOGS	ESTIMATE		
1949	193.0	2-22-1949				2.1850		2.1850
1950	232.0	11-25-1949				0.1599		0.1599
1951	212.0	2- 9-1951				0.152		0.024
1952	88.0	2- 4-1952						
1953	138.0	1-22-1953						
1954	147.0	1- 6-1954						
1955	179.0	2- 8-1955						
1956	171.0	12-11-1955						
1957	329.0	12- 9-1956						
1958	120.0	12-25-1957	0.99			67.7		65.4
1959	183.0	11-12-1958	0.95			84.9		83.8
1960	261.0	11-20-1959	0.90			96.1		95.6
1961	168.0	2-21-1961	0.80			112.0		112.3
1962	100.0	11-22-1961	0.50			151.7		152.9
1963	218.0	11-19-1962	0.20			208.1		208.6
1964	114.0	1-25-1964	0.10			246.8		245.7
1965	120.0	12- 1-1964	0.04			297.3		292.6
1966	74.0	3- 8-1966	0.02			336.0		327.7
1967	126.0	12-13-1966	0.01			375.7		363.0
1968	174.0	1-19-1968						
1969	104.0	12- 3-1968						
1970	142.0	2-15-1970						

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1949-1970)

STATION 12017000 NORTH RIVER NEAR RAYMOND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1927-1977)

MEAN	501.5	1399.1	2197.7	2180.0	1848.9	1485.1	955.5	461.4	257.2	126.8	83.1	137.2	965.7
MAXIMUM	1469.0	3201.0	9450.0	4649.0	3766.0	3024.0	2109.0	1127.0	741.0	263.0	179.0	505.0	1610.0
MINIMUM	42.4	65.3	560.0	584.0	641.0	486.0	282.0	210.0	115.0	54.5	31.3	33.5	491.0
STD DEVIATION	387.10	795.70	1319.46	975.12	759.79	630.59	440.89	198.58	124.74	47.27	33.20	107.29	243.83
SKWENESS	0.901	0.274	3.444	0.303	0.428	0.695	0.771	1.362	1.619	0.811	1.019	1.741	0.331
STD ERR SKEW	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.333	0.333	0.337
SER CORR COEFF	-0.040	-0.048	0.051	0.270	-0.031	0.038	0.035	0.094	-0.099	0.033	0.136	-0.105	0.093
COEFF OF VAR	0.772	0.569	0.600	0.447	0.411	0.425	0.461	0.430	0.485	0.373	0.399	0.782	0.252
MEAN LOGS	2.555	3.036	3.287	3.288	3.228	3.133	2.934	2.630	2.369	2.075	1.888	2.038	2.971
STD DEV LOGS	0.385	0.378	0.219	0.223	0.193	0.187	0.206	0.171	0.186	0.159	0.168	0.281	0.112
SKWENESS LOGS	-0.388	-1.622	-0.043	-0.612	-0.436	-0.114	-0.187	0.398	0.567	0.061	0.023	0.662	-0.237
STD ERR SKEW LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.333	0.333	0.337
SER CORR LOGS	-0.040	0.046	0.056	0.196	-0.065	0.030	0.025	0.068	-0.125	0.037	0.086	-0.007	0.097
COEFF OF VAR LOGS	0.150	0.124	0.067	0.068	0.060	0.060	0.070	0.065	0.078	0.077	0.089	0.138	0.038
% OF AVE FLOW	4.3	12.0	18.9	18.7	15.9	12.8	8.2	4.0	2.2	1.1	0.7	1.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1927-1977)

0.99	35.7	56.5	588.7	471.5	521.6	480.2	267.8	191.9	103.6	51.5	31.5	33.3	490.6
0.95	76.4	197.0	838.4	772.6	772.2	659.0	385.0	234.2	124.8	65.4	40.9	43.1	601.5
0.90	112.0	342.5	1010.9	983.3	939.2	777.6	464.5	262.7	139.6	74.4	47.0	50.5	667.9
0.80	174.2	605.7	1266.4	1290.6	1176.1	947.4	579.9	304.6	162.1	87.1	55.7	62.7	755.3
0.50	380.3	1358.5	1941.2	2046.6	1744.4	1369.9	872.3	415.4	224.5	118.3	77.1	101.7	944.9
0.20	765.6	2206.7	2960.6	3014.4	2471.5	1957.9	1285.2	587.6	329.3	161.4	107.0	182.6	1165.2
0.10	1069.9	2566.2	3684.1	3589.9	2913.9	2349.1	1560.9	715.3	412.0	190.3	127.0	258.6	1292.9
0.04	1494.4	2843.4	4644.4	4240.8	3429.4	2842.9	1908.7	892.6	533.0	227.2	152.7	387.6	1438.4
0.02	1832.0	2965.2	5389.7	4674.1	3784.2	3209.7	2166.5	1036.6	636.1	255.0	172.1	512.8	1537.6
0.01	2182.9	3042.1	6158.3	5067.8	4116.4	3575.6	2422.7	1191.2	751.2	283.1	191.6	668.2	1630.2

STATION 12017000 NORTH RIVER NEAR RAYMOND, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1929	28.0	32.0	39.0	51.0	54.0	61.0	75.0	99.0	211.0
1930	46.0	51.0	53.0	56.0	59.0	67.0	69.0	72.0	116.0
1931	28.0	45.0	52.0	53.0	57.0	63.0	80.0	105.0	183.0
1932	59.0	61.0	70.0	72.0	79.0	110.0	166.0	216.0	275.0
1933	42.0	46.0	51.0	55.0	63.0	86.0	98.0	109.0	184.0
1934	54.0	54.0	57.0	61.0	66.0	83.0	117.0	159.0	305.0
1935	54.0	55.0	56.0	58.0	63.0	94.0	103.0	112.0	188.0
1936	41.0	41.0	42.0	47.0	52.0	61.0	82.0	95.0	125.0
1937	58.0	58.0	58.0	60.0	62.0	68.0	72.0	77.0	154.0
1938	68.0	68.0	69.0	75.0	108.0	112.0	134.0	175.0	309.0
1939	25.0	25.0	28.0	31.0	34.0	39.0	44.0	57.0	130.0
1940	45.0	45.0	47.0	51.0	59.0	62.0	76.0	100.0	157.0
1941	44.0	44.0	45.0	45.0	49.0	62.0	68.0	77.0	272.0
1942	42.0	42.0	44.0	49.0	59.0	77.0	121.0	184.0	255.0
1943	49.0	49.0	49.0	52.0	58.0	64.0	76.0	112.0	223.0
1944	53.0	54.0	56.0	58.0	60.0	71.0	77.0	100.0	186.0
1945	32.0	33.0	34.0	38.0	41.0	53.0	74.0	88.0	144.0
1946	35.0	36.0	38.0	40.0	42.0	59.0	82.0	86.0	207.0
1947	62.0	65.0	67.0	68.0	70.0	79.0	82.0	117.0	185.0
1948	48.0	48.0	49.0	53.0	66.0	72.0	88.0	118.0	198.0
1949	61.0	65.0	69.0	81.0	85.0	90.0	112.0	160.0	320.0
1950	35.0	35.0	36.0	39.0	47.0	58.0	64.0	78.0	147.0
1951	50.0	50.0	51.0	52.0	66.0	89.0	91.0	112.0	248.0
1952	22.0	22.0	23.0	25.0	30.0	33.0	41.0	60.0	162.0
1953	32.0	33.0	34.0	34.0	36.0	43.0	50.0	56.0	84.0
1954	49.0	50.0	51.0	52.0	66.0	76.0	94.0	141.0	254.0
1955	76.0	77.0	80.0	86.0	98.0	155.0	196.0	214.0	282.0
1956	58.0	58.0	60.0	62.0	71.0	95.0	126.0	139.0	263.0
1957	42.0	42.0	45.0	50.0	56.0	76.0	94.0	118.0	185.0
1958	41.0	41.0	42.0	43.0	51.0	59.0	70.0	80.0	142.0
1959	32.0	33.0	34.0	37.0	42.0	47.0	68.0	86.0	196.0
1960	61.0	62.0	63.0	65.0	69.0	100.0	149.0	219.0	406.0
1961	52.0	53.0	55.0	57.0	65.0	74.0	78.0	92.0	289.0
1962	38.0	38.0	39.0	41.0	44.0	50.0	55.0	74.0	187.0
1963	56.0	57.0	61.0	67.0	85.0	106.0	115.0	150.0	298.0
1964	65.0	66.0	69.0	72.0	83.0	99.0	112.0	119.0	234.0
1965	88.0	89.0	98.0	104.0	111.0	136.0	146.0	184.0	229.0
1966	43.0	43.0	45.0	48.0	55.0	62.0	65.0	84.0	183.0
1967	42.0	42.0	44.0	49.0	53.0	60.0	64.0	78.0	138.0
1968	25.0	25.0	25.0	26.0	29.0	36.0	46.0	67.0	204.0
1969	58.0	60.0	64.0	70.0	89.0	138.0	183.0	248.0	402.0
1970	45.0	45.0	46.0	48.0	56.0	69.0	118.0	156.0	219.0
1971	47.0	47.0	47.0	48.0	56.0	69.0	118.0	156.0	219.0
1972	60.0	60.0	66.0	70.0	77.0	120.0	142.0	169.0	237.0
1973	33.0	33.0	34.0	38.0	47.0	61.0	101.0	123.0	180.0
1974	58.0	59.0	59.0	60.0	62.0	75.0	104.0	149.0	231.0
1975	45.0	47.0	49.0	52.0	52.0	63.0	73.0	104.0	231.0
1976	46.0	47.0	49.0	53.0	60.0	88.0	98.0	113.0	219.0
1977	52.0	52.0	54.0	60.0	65.0	85.0	100.0	117.0	157.0

STATION 12017000 NORTH RIVER NEAR RAYMOND, WASH.

LOWEST MEAN FLOW STATISTICS (YEARS 1929-1977)

MEAN	47.4	48.6	51.0	54.3	61.2	76.4	94.2	120.1	215.4
MAXIMUM	88.0	89.0	98.0	104.0	111.0	155.0	196.0	248.0	406.0
MINIMUM	22.0	22.0	23.0	25.0	29.0	33.0	41.0	56.0	84.0
STANDARD DEVIATION	13.49	13.40	14.38	15.14	17.92	26.19	34.62	46.96	67.24
SKEWNESS	0.424	0.433	0.431	0.402	0.702	0.987	1.021	0.948	0.774
STD ERROR OF SKEWNESS	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340
SERIAL CORR COEFF	-0.012	-0.013	0.018	0.002	-0.019	-0.048	0.019	-0.078	0.006
COEFF OF VARIATION	0.284	0.276	0.282	0.279	0.293	0.343	0.368	0.391	0.312
MEAN LOGS	1.658	1.670	1.690	1.718	1.769	1.859	1.947	2.049	2.313
STD DEVIATION LOGS	0.129	0.125	0.126	0.123	0.127	0.145	0.154	0.162	0.137
SKEWNESS LOGS	-0.433	-0.479	-0.382	-0.365	-0.189	0.005	0.087	0.241	-0.241
STD ERR SKEWNESS LOGS	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340	0.340
SER CORR COEFF LOGS	-0.044	-0.031	-0.001	0.005	-0.027	-0.036	0.047	-0.029	0.027
COEFF OF VAR LOGS	0.078	0.075	0.074	0.072	0.072	0.078	0.079	0.079	0.059

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1977)

0.99	82.6	82.5	88.5	93.8	111.5	157.5	206.6	285.1	403.6
0.98	78.0	78.3	83.6	88.5	104.0	143.7	186.4	252.9	376.0
0.96	73.1	73.6	78.1	82.8	96.2	129.8	166.4	221.9	346.7
0.90	65.5	66.4	70.0	74.3	84.9	111.0	139.9	182.3	304.6
0.80	58.7	59.9	62.8	66.6	75.3	95.8	119.1	152.6	268.5
0.50	46.5	47.9	49.9	53.2	59.3	72.3	88.1	110.4	208.0
0.20	35.8	37.1	38.7	41.4	46.0	54.6	65.6	81.6	158.3
0.10	30.8	32.0	33.5	36.0	40.1	47.2	56.4	70.3	136.3
0.05	27.0	28.1	29.6	31.9	35.7	41.8	49.8	62.3	120.0
0.02	23.1	24.1	25.5	27.6	31.2	36.5	43.4	54.8	103.5
0.01	20.8	21.7	23.1	25.0	28.5	33.3	39.7	50.4	93.5

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1929-1977)

P95	P90	P75	P70	P50	P25	P10
55.0	68.0	140.0	180.0	480.0	1200.0	2500.0

STATION 12017000 NORTH RIVER NEAR RAYMOND, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1928-1979)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	8717.6	7596.4	5598.4	4266.4	3241.4	2575.8	2328.6	2080.9	1712.7
MAXIMUM	25500.0	22600.0	16300.0	15200.0	10000.0	6710.0	4920.0	4060.0	3010.0
MINIMUM	4210.0	3390.0	2760.0	2060.0	1510.0	1040.0	947.0	765.0	765.0
STANDARD DEVIATION	4362.67	3524.45	2294.00	1869.02	1246.86	894.76	702.74	604.30	473.26
SKENNESS	2.281	2.309	2.559	4.148	3.267	2.034	0.909	0.671	0.387
STD ERROR OF SKENNESS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SERIAL CORR. COEFF	0.149	0.138	0.207	0.196	0.231	0.177	0.155	0.155	0.095
COEFF OF VARIATION	0.500	0.464	0.410	0.438	0.385	0.347	0.302	0.290	0.276
MEAN LOGS	3.903	3.847	3.722	3.604	3.488	3.389	3.346	3.300	3.217
STD DEVIATION LOGS	0.170	0.163	0.144	0.142	0.138	0.135	0.131	0.127	0.124
SKENNESS LOGS	1.130	0.954	0.960	0.940	0.924	0.409	-0.204	-0.187	-0.327
STD ERR SKENNESS LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SER CORR COEFF LOGS	0.070	0.082	0.199	0.299	0.293	0.174	0.159	0.150	0.091
COEFF OF VAR LOGS	0.044	0.042	0.039	0.039	0.040	0.040	0.039	0.039	0.038

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1928-1979)

0.99	4443.9	3831.2	3077.0	2356.1	1660.5	1305.7	1055.6	970.9	793.7	4042.3	4859.6
0.95	4860.1	4247.3	3383.9	2593.0	1918.1	1526.6	1333.7	1215.3	1005.8	4858.6	5305.0
0.90	5191.3	4593.8	3611.8	2767.7	2090.3	1671.3	1504.6	1344.8	1134.0	5406.3	5854.4
0.80	5735.0	5108.9	3988.1	3039.4	2340.5	1878.0	1734.6	1565.6	1393.8	6205.0	6821.9
0.50	7435.5	6630.5	5000.3	3820.3	2989.0	2399.5	2251.6	2015.1	1673.7	8294.3	9631.1
0.20	10688.9	9355.9	6789.7	5160.5	3969.9	3159.1	2880.5	2560.5	2101.6	11498.3	11205.9
0.10	13519.3	11611.9	8227.8	6229.0	4680.5	3692.9	3257.8	2887.4	2347.3	13845.3	13963.3
0.04	18009.1	15046.1	10361.2	7803.6	5650.6	4403.9	3699.0	3269.6	2624.5	17076.1	18250.7
0.02	22124.3	18078.4	12200.9	9153.4	6427.4	4961.0	4006.1	3535.8	2811.4	19681.3	22109.0
0.01	27001.7	21563.3	14274.5	10667.3	7252.1	5542.1	4297.5	3788.6	2984.2	22461.7	26612.9

STATION 12019600 WATER MILL CREEK NEAR PE ELL, WASH.

ANNUAL PEAK FLOW DATA
ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1970)
W R C
ESTIMATE
SYSTEMATIC
RECORD

WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKENNESS LOGS
1950	140.0	11-26-1949			
1951	112.0	2- 0-1951			
1952	66.0	11-30-1951			
1953	77.0	1- 8-1953			
1954	115.0	2-13-1954			
1955	51.0	12-30-1954			
1956	114.0	12-11-1955			
1957	79.0	2-25-1957			
1958	80.0	12-25-1957			
1959	72.0	11-12-1958			
1960	97.0	11-21-1959			
1961	106.0	12-21-1961			
1962	50.0	11-28-1961			
1963	147.0	11-19-1962			
1964	93.0	1-25-1964			
1965	77.0	1-27-1965			
1966	146.0	1- 5-1966			
1967	134.0	12-13-1966			
1968	45.0	2- 3-1968			
1969	88.0	2-11-1969			
1970	80.0	1-14-1970			

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1950-1970)

0.99	40.7	36.4
0.95	50.7	48.6
0.90	57.1	56.3
0.80	66.1	66.7
0.50	88.2	90.4
0.20	118.6	119.3
0.10	139.0	136.5
0.04	165.1	156.4
0.02	184.8	170.1
0.01	204.7	182.9

STATION 12020000 CHEHALIS RIVER NEAR DOTY, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1940	73.1	144	1667	878	1771	1065	549	542	78.1	40.1	29.7	33.9	570
1941	262	500	750	1025	387	308	207	396	127	53.7	45.5	229	358
1942	244	741	1728	488	853	441	248	238	285	128	56.1	32.4	455
1943	131	1263	1310	533	1320	669	846	218	129	59.6	31.8	29.8	540
1944	156	220	653	849	646	433	508	166	108	47.5	32.5	36.1	321
1945	48.5	502	350	1039	1293	1528	536	324	104	46.6	33.1	105	488
1946	71.8	1179	1430	1563	1567	875	691	161	128	110	44.3	51.8	650
1947	271	1191	1471	948	1326	424	389	131	140	73.0	36.5	83.3	535
1948	591	891	842	1229	1129	773	698	700	122	56.6	43.8	124	624
1949	241	1189	1480	318	2054	819	312	304	77.5	48.1	34.5	36.6	566
1950	181	1114	1343	1125	1911	1724	753	275	93.5	53.7	86.7	56.5	719
1951	601	1234	1563	1545	2021	774	468	171	65.7	33.9	23.6	57.0	705
1952	662	809	1211	852	1175	624	438	203	80.6	48.5	31.1	25.3	512
1953	24.5	76.9	721	2888	1096	605	342	344	150	67.6	50.7	60.4	535
1954	335	1505	1634	2354	613	726	127	127	172	97.2	60.0	122	704
1955	290	1084	892	810	795	1069	332	332	119	100	68.7	82.3	535
1956	761	2131	2289	2004	509	1870	747	178	224	74.9	47.7	48.2	911
1957	536	337	1134	412	1330	1144	520	165	99.1	71.1	54.1	32.9	498
1958	143	385	1485	1412	1342	444	778	175	90.5	41.8	24.0	40.3	526
1959	244	1508	934	1695	733	758	846	412	182	79.8	59.4	357	647
1960	514	967	961	650	1333	965	961	454	171	60.9	57.1	45.5	591
1961	274	1495	658	1527	2311	1613	427	418	108	50.3	29.7	36.9	735
1962	278	613	1400	624	608	802	535	343	149	60.2	82.1	82.8	465
1963	471	1575	897	524	1101	551	831	353	92.1	61.3	48.1	71.1	542
1964	412	1429	606	2182	707	1077	341	193	135	75.2	83.6	71.0	610
1965	136	933	1547	1715	1063	344	302	261	90.7	42.2	39.9	31.0	540
1966	140	604	677	1721	824	1445	409	167	89.3	71.2	33.5	37.4	518
1967	217	511	1978	2095	937	1055	499	175	77.3	38.5	25.1	26.7	638
1968	660	528	1318	1346	1829	885	447	230	390	78.8	124	183	665
1969	397	881	1476	825	1005	1010	764	236	149	83.5	42.3	132	581
1970	267	464	1123	1788	981	562	588	229	179.4	59.5	25.9	82.8	518
1971	252	665	2046	2304	889	1698	745	271	174	100	46.3	119	778
1972	265	857	1271	2317	1565	1648	754	206	83.3	61.9	29.9	122	764
1973	68.1	355	1468	978	313	544	277	214	191	86.4	41.5	81.3	387
1974	210	1725	1835	1305	1305	859	859	320	231	173	58.7	37.3	828
1975	34.1	589	1173	1665	1040	863	318	325	93.5	51.0	64.0	55.3	521
1976	675	1308	2057	1546	943	1090	496	172	148	88.4	52.6	45.6	720
1977	65.2	141	217	176	342	1071	267	249	221	66.7	78.6	208	259
1978	234	1282	1833	781	665	533	525	384	145	62.2	58.5	339	578
1979	112	430	616	260	1573	749	413	274	75.3	55.1	31.7	72.5	380

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1940-1979)

MEAN	296.3	872.1	1250.4	1255.7	1173.6	911.5	560.7	275.9	136.7	68.5	48.5	88.1	575.4
MAXIMUM	891.0	2131.0	2289.0	2888.0	2354.0	1870.0	1069.0	700.0	390.0	173.0	124.0	357.0	911.0
MINIMUM	24.5	76.9	217.0	176.0	313.0	308.0	207.0	127.0	65.7	33.9	23.6	25.3	259.0
STD DEVIATION	217.34	477.00	495.70	652.77	520.38	417.10	218.16	118.74	65.03	27.22	20.81	77.70	136.87
SKWENESS	1.036	0.434	-0.018	0.349	0.512	0.734	0.346	1.476	1.923	1.767	1.529	2.205	0.075
STD ERR SKEW	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374
SER CORR COEFF	0.031	-0.113	-0.367	0.129	-0.011	-0.025	0.033	0.114	-0.059	-0.028	-0.145	0.027	-0.170
COEFF OF VAR	0.734	0.547	0.396	0.520	0.443	0.458	0.389	0.430	0.476	0.398	0.429	0.882	0.238
MEAN LOGS	2.340	2.854	3.054	3.026	3.023	2.915	2.714	2.407	2.098	1.808	1.652	1.830	2.747
STD DEV LOGS	-0.625	-1.211	0.315	-0.219	0.214	0.202	0.180	0.170	0.177	0.159	0.169	0.301	0.111
SKWENESS LOGS	-0.625	-1.211	-1.274	-0.886	-0.630	-1.103	-0.310	0.392	0.661	0.559	0.417	0.728	-0.801
STD ERR SKEW LOGS	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374	0.374
SER CORR LOGS	-0.033	-0.100	-0.296	0.088	-0.048	-0.041	0.023	0.091	-0.018	-0.027	-0.110	0.070	-0.148
COEFF OF VAR LOGS	0.160	0.110	0.070	0.092	0.071	0.069	0.066	0.071	0.084	0.084	0.102	0.164	0.040
% OF AVE FLOW	4.3	12.6	18.0	18.1	16.9	13.1	8.1	4.0	2.0	1.0	0.7	1.3	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1940-1979)

0.99	20.0	72.6	232.9	159.9	268.3	269.1	180.3	114.7	59.8	32.8	20.5	19.6	266.4
0.95	46.2	178.9	437.5	322.4	433.3	377.7	253.4	140.1	70.0	38.3	24.9	25.4	348.7
0.90	69.5	270.6	583.4	449.4	547.3	451.0	301.2	157.3	77.3	42.0	27.8	29.9	396.6
0.80	110.0	420.8	791.6	647.2	711.8	557.5	368.5	182.4	68.4	47.5	32.2	37.3	577.6
0.50	239.1	824.4	1253.8	1165.8	1109.9	829.2	529.1	248.7	119.6	62.2	43.7	62.2	695.2
0.20	457.9	1317.0	1715.5	1317.7	1608.6	1219.3	737.2	351.5	172.8	85.2	61.6	116.6	752.5
0.10	613.2	1567.9	1922.4	2221.4	1900.4	1485.0	866.6	427.6	275.2	102.3	74.9	170.2	808.8
0.04	809.6	1804.7	2102.9	2630.5	2226.3	1826.2	1129.5	533.1	277.9	126.4	93.4	265.2	842.1
0.02	951.8	1934.2	2195.7	2885.2	2441.1	2083.5	1129.5	618.7	331.9	146.1	104.5	361.1	869.8
0.01	1088.5	2033.3	2263.7	3103.1	2634.7	2342.8	1233.4	710.5	392.5	167.4	124.7	483.9	

STATION 12020000 CHEMALIS RIVER NEAR DOTY, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1941	22.0	22.0	23.0	25.0	27.0	31.0	34.0	39.0	128.0
1942	30.0	30.0	30.0	32.0	37.0	48.0	73.0	111.0	169.0
1943	28.0	28.0	28.0	29.0	31.0	36.0	43.0	48.0	130.0
1944	25.0	26.0	27.0	26.0	28.0	34.0	39.0	52.0	104.0
1945	24.0	24.0	25.0	27.0	28.0	36.0	39.0	39.0	72.0
1946	28.0	30.0	30.0	31.0	32.0	38.0	54.0	59.0	113.0
1947	37.0	37.0	39.0	39.0	43.0	48.0	75.0	75.0	111.0
1948	30.0	30.0	31.0	31.0	34.0	48.0	63.0	82.0	124.0
1949	31.0	33.0	36.0	38.0	38.0	45.0	83.0	83.0	168.0
1950	23.0	24.0	25.0	26.0	29.0	35.0	57.0	46.0	88.0
1951	37.0	37.0	39.0	41.0	49.0	58.0	63.0	70.0	160.0
1952	19.0	19.0	20.0	22.0	23.0	24.0	28.0	38.0	117.0
1953	18.0	19.0	19.0	20.0	20.0	24.0	26.0	29.0	47.0
1954	32.0	32.0	32.0	33.0	40.0	45.0	54.0	77.0	166.0
1955	44.0	45.0	47.0	48.0	53.0	69.0	90.0	106.0	142.0
1956	33.0	35.0	36.0	38.0	44.0	66.0	78.0	87.0	195.0
1957	27.0	27.0	28.0	32.0	36.0	45.0	49.0	70.0	145.0
1958	26.0	27.0	29.0	31.0	33.0	39.0	49.0	56.0	90.0
1959	18.0	18.0	18.0	19.0	22.0	26.0	33.0	43.0	99.0
1960	32.0	33.0	35.0	36.0	39.0	56.0	93.0	123.0	231.0
1961	32.0	33.0	34.0	36.0	39.0	51.0	60.0	60.0	163.0
1962	19.0	20.0	21.0	23.0	28.0	33.0	47.0	47.0	126.0
1963	32.0	34.0	36.0	41.0	48.0	65.0	64.0	86.0	179.0
1964	28.0	28.0	31.0	32.0	42.0	49.0	56.0	60.0	133.0
1965	47.0	48.0	52.0	58.0	62.0	74.0	74.0	89.0	114.0
1966	26.0	26.0	27.0	26.0	31.0	36.0	36.0	46.0	98.0
1967	26.0	27.0	27.0	30.0	31.0	35.0	37.0	49.0	86.0
1968	20.0	21.0	21.0	22.0	24.0	26.0	30.0	41.0	125.0
1969	37.0	37.0	39.0	43.0	52.0	76.0	111.0	136.0	219.0
1970	30.0	30.0	31.0	32.0	36.0	43.0	68.0	96.0	148.0
1971	22.0	23.0	23.0	23.0	25.0	31.0	38.0	50.0	110.0
1972	37.0	38.0	40.0	42.0	46.0	70.0	79.0	99.0	150.0
1973	19.0	19.0	20.0	22.0	26.0	31.0	45.0	58.0	91.0
1974	25.0	25.0	25.0	28.0	32.0	40.0	64.0	90.0	130.0
1975	27.0	27.0	27.0	28.0	29.0	34.0	41.0	60.0	120.0
1976	29.0	30.0	31.0	33.0	35.0	47.0	55.0	63.0	136.0
1977	30.0	30.0	31.0	33.0	35.0	41.0	45.0	57.0	84.0
1978	27.0	28.0	30.0	30.0	38.0	56.0	93.0	117.0	159.0
1979	31.0	32.0	34.0	38.0	45.0	58.0	84.0	136.0	169.0

LOWEST MEAN FLOW STATISTICS (YEARS 1941-1979)

MEAN	28.4	29.0	30.1	31.9	35.7	44.7	55.3	71.5	131.8
MAXIMUM	47.0	48.0	52.0	56.0	62.0	76.0	111.0	136.0	231.0
MINIMUM	18.0	18.0	18.0	19.0	20.0	24.0	26.0	29.0	47.0
STANDARD DEVIATION	6.71	6.84	7.44	7.99	9.47	14.23	20.75	28.04	39.03
SKWENESS	0.627	0.643	0.736	0.800	0.659	0.614	0.789	0.752	0.416
STD ERROR OF SKWENESS	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378
SERIAL CORR COEFF	-0.120	-0.128	-0.110	-0.175	-0.043	-0.066	-0.033	0.015	0.025
COEFF OF VARIATION	0.236	0.236	0.247	0.250	0.265	0.318	0.375	0.392	0.296
MEAN LOGS	1.442	1.450	1.466	1.491	1.538	1.630	1.714	1.823	2.100
STD DEVIATION LOGS	0.102	0.106	0.106	0.106	0.114	0.137	0.159	0.168	0.137
SKWENESS LOGS	-0.036	-0.014	0.024	0.011	0.054	0.062	0.133	0.066	-0.659
STD ERR SKWENESS LOGS	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378
SER CORR COEFF LOGS	-0.124	-0.132	-0.112	-0.177	-0.041	-0.045	-0.024	0.016	0.006
COEFF OF VAR LOGS	0.071	0.070	0.072	0.071	0.074	0.084	0.093	0.092	0.065

STATION 12020000 CHEHALIS RIVER NEAR DOTY, WASH.

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1941-1979)

	0.99	47.5	48.5	51.8	55.8	64.1	90.0	125.9	166.7	224.4
0.98		44.6	45.6	48.4	51.9	59.6	82.3	112.8	149.2	214.1
0.96		41.6	42.5	44.9	48.0	54.9	74.5	100.0	132.0	202.2
0.90		37.3	38.1	40.0	42.5	48.4	64.0	83.2	109.5	183.1
0.80		33.7	34.4	35.9	38.0	43.0	55.5	70.3	92.0	164.9
0.50		27.7	28.2	29.2	30.9	34.4	42.5	51.4	66.2	130.3
0.20		22.7	23.2	23.8	25.2	27.7	32.7	37.9	48.0	98.1
0.10		20.5	20.9	21.4	22.7	24.7	28.5	32.5	40.6	82.8
0.05		18.8	19.2	19.6	20.9	22.5	25.5	28.7	35.4	71.2
0.02		17.0	17.4	17.8	19.0	20.3	22.6	25.0	30.5	59.4
0.01		15.9	16.3	16.7	17.9	19.0	20.8	22.9	27.5	52.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1941-1979)

P95	P90	P75	P70	P50	P25	P10
31.0	39.0	80.0	100.0	260.0	670.0	1500.0

STATION 12020000 CHEHALIS RIVER NEAR DOTY, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-FLOW DATA DATE	REG. (R)
1940	9780.	7020.	4140.	2660.	2020.	1480.	1530.	1370.	1080.	15100.	12/15/39	
1941	5420.	4190.	2420.	1630.	1090.	918.	774.	697.	553.	9140.	01/17/41	
1942	7670.	5170.	3540.	2280.	1780.	1270.	1150.	974.	753.	8780.	12/19/41	
1943	5560.	3730.	3060.	1980.	1540.	1330.	1230.	1120.	991.	6260.	02/06/43	
1944	4520.	2990.	1720.	1110.	1000.	778.	722.	651.	552.	5670.	12/03/43	
1945	9240.	5790.	3420.	2500.	1610.	1410.	1290.	1100.	865.	21400.	02/07/45	
1946	6540.	4520.	3480.	3090.	2000.	1760.	1620.	1500.	1210.	8170.	12/28/45	
1947	6580.	4750.	3530.	2470.	2340.	1390.	1500.	1270.	970.	9980.	02/02/47	
1948	6380.	4420.	3120.	2170.	1710.	1180.	1190.	1030.	985.	8720.	01/02/48	
1949	10800.	6690.	5190.	3350.	2140.	1420.	1320.	1270.	1020.	12800.	02/22/49	
1950	8170.	5050.	3120.	2970.	2470.	1960.	1740.	1630.	1330.	11400.	11/27/49	
1951	12600.	8020.	5050.	3130.	2490.	1990.	1880.	1630.	1300.	15700.	02/09/51	
1952	6640.	4430.	4010.	2640.	1620.	1160.	1210.	1080.	899.	9320.	02/04/52	
1953	5530.	4420.	3590.	3210.	2350.	2040.	1590.	1350.	998.	7540.	01/08/53	
1954	7600.	6080.	4540.	3490.	2250.	1960.	1820.	1620.	1260.	9100.	01/05/54	
1955	5550.	4320.	3020.	1860.	1280.	1140.	1080.	935.	917.	6400.	02/08/55	
1956	6890.	5660.	4130.	3130.	2790.	2490.	2240.	1840.	1650.	11000.	12/11/55	
1957	6140.	5200.	3310.	2440.	1770.	1240.	1050.	1020.	884.	12600.	12/09/56	
1958	5260.	4400.	3110.	2450.	1760.	1620.	1420.	1200.	972.	5540.	12/24/57	
1959	6220.	4600.	2840.	2300.	1740.	1340.	1190.	1040.	1100.	7940.	11/12/58	
1960	7020.	4380.	3060.	2060.	1690.	1230.	1100.	1070.	978.	9180.	12/15/59	
1961	7050.	4830.	3560.	2850.	2410.	2030.	1800.	1670.	1340.	8400.	02/21/61	
1962	4010.	3220.	2660.	2060.	1450.	1160.	982.	885.	784.	5940.	11/22/61	
1963	7690.	4960.	3760.	2890.	1940.	1390.	1220.	1030.	924.	12400.	11/25/62	
1964	7950.	4600.	3340.	2930.	2190.	1550.	1460.	1300.	1100.	9450.	01/25/64	
1965	6100.	5180.	3850.	2620.	1920.	1650.	1600.	1340.	986.	8360.	12/22/64	
1966	7030.	5180.	3470.	2770.	1940.	1330.	1380.	1180.	946.	8950.	03/09/66	
1967	10300.	6570.	4000.	3090.	2130.	2050.	1700.	1540.	1190.	13400.	12/13/66	
1968	7150.	5070.	3100.	2240.	1590.	1580.	1500.	1340.	1100.	12000.	02/04/68	
1969	4020.	3150.	2260.	1900.	1540.	1360.	1140.	1080.	991.	6620.	12/03/68	
1970	5090.	3820.	3280.	3040.	2020.	1600.	1340.	1150.	918.	6410.	01/14/70	
1971	8000.	5660.	3900.	3680.	2570.	2220.	1800.	1770.	1410.	11700.	12/07/70	
1972	14700.	9500.	5750.	3830.	2470.	2280.	1950.	1770.	1400.	22800.	01/20/72	
1973	5850.	4330.	3970.	2810.	1870.	1290.	1010.	846.	650.	9040.	12/21/72	
1974	7440.	6430.	4620.	2990.	2410.	2040.	2000.	1790.	1490.	8230.	01/15/74	
1975	5360.	4100.	2960.	2490.	2040.	1550.	1370.	1240.	970.	7580.	12/21/74	
1976	10300.	7970.	4990.	3090.	2260.	1950.	1780.	1540.	1310.	17400.	12/04/75	
1977	3950.	3400.	2260.	1580.	1110.	761.	584.	511.	403.	5590.	03/08/77	
1978	5960.	4790.	4040.	3180.	2310.	1670.	1370.	1190.	962.	8130.	12/02/77	
1979	4470.	3230.	2330.	2010.	1880.	1150.	893.	825.	666.	7150.	02/06/79	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1940-1979)

	MEAN	W R C ESTIMATE	SYSTEMATIC RECORD
MEAN	7058.2		
MAXIMUM	14700.0		
MINIMUM	3950.0		
STANDARD DEVIATION	2308.65		
SKEWNESS	1.342		
STD ERROR OF SKEWNESS	0.374		
SERIAL CORR COEFF	-0.052		
COEFF OF VARIATION	0.327		
MEAN LOGS	3.829		
STD DEVIATION LOGS	0.131		
SKEWNESS LOGS	0.423		
STD ERR SKEWNESS LOGS	0.374		
SER CORR COEFF LOGS	-0.065		
COEFF OF VAR LOGS	0.034		
		3.9746	3.9746
		0.1493	0.1493
		0.2350	0.2350
			0.7540

STATION 12020000 CHEHALIS RIVER NEAR DOTY, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1940-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	3671.5	2852.2	1805.9	1174.4	937.2	725.7	583.9	520.1	419.4	4500.7
	4264.4	3255.3	2224.6	1580.1	1210.0	918.9	791.2	702.5	577.3	5139.2
	4652.2	3514.3	2471.6	1814.3	1368.1	1034.8	914.8	811.4	671.0	5488.0
	5205.4	3878.3	2792.9	2106.7	1568.6	1187.2	1074.1	952.1	790.9	6129.5
	6597.6	4770.3	3472.7	2662.3	1966.8	1514.4	1396.8	1238.6	1028.1	7039.6
	8617.8	6017.3	4231.1	3161.1	1884.8	1720.1	1528.8	1254.7	1028.1	9305.5
	10033.3	6864.9	4654.8	3382.5	2556.3	2093.4	1879.9	1673.9	1361.2	12350.2
	11914.3	7964.7	5124.0	3582.7	2751.2	2325.2	2038.2	1815.1	1462.1	14763.8
	13385.0	8806.6	5435.2	3691.6	2866.2	2476.2	2136.3	1906.3	1515.4	17681.4
	14916.9	9665.3	5715.6	3776.0	2966.8	2620.1	2210.8	1979.6	1565.5	19931.5
										22248.5
										25202.4

STATION 12020500 ELK CREEK NEAR DOTY, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1942										43.1	20.5	12.9	
1943	55.2									27.6	18.5	16.8	
1944	42.7									20.1	13.8	16.9	
1945	26.5	145	117	275	305	278	162	105	42.1	19.5	15.0	27.9	125
1946	28.4	245	349	386	412	248	171	59.2	46.8	33.7	16.3	23.5	167
1947	79.4	285	460	279	378	134	108	44.0	40.2	21.7	15.5	17.3	154
1948	127	278	245	347	326	236	181	187	59.0	28.9	22.2	28.7	172
1949	60.4	243	509	121	553	198	95.8	86.8	32.6	20.2	16.9	15.5	160
1950	42.3	229	390	361	652	470	198	89.9	40.1	25.8	21.8	19.2	209
1951									116	27.7	42.9	62.8	176
1952													
1953													
1954													
1955													
1956													
1957													
1958													
1959													
1960													
1961													
1962													
1963													
1964													
1965													
1966													
1967													
1968													
1969													
1970	55.3	111	297	407	309	146	182	95.7	34.8	16.1	10.7	28.4	140

STATION 12020500 ELK CREEK NEAR DDTY, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1945-1979)			W R C ESTIMATE		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	W R C ESTIMATE	SYSTEMATIC RECORD		
1945	1370.0	2- 7-1945			3.2388	3.2388	3.2388	
1946	1720.0	12-28-1945			0.1733	0.1733	0.1733	
1947	1820.0	12-11-1946			0.129	0.129	0.289	
1948	1320.0	3-21-1948						
1949	2380.0	2-22-1949						
1950	1770.0	12-28-1949						
1952	1160.0	2- 4-1952						
1953	1190.0	1- 8-1953						
1954	2240.0	1- 5-1954						
1955	1120.0	2- 8-1955						
1956	1640.0	12-11-1955						
1957	1220.0	12- 9-1956						
1958	990.0	12-24-1957						
1959	1760.0	11-12-1958						
1960	2430.0	12-15-1959						
1961	2010.0	2-21-1961						
1962	778.0	11-22-1961						
1963	3400.0	11-20-1962						
1964	2410.0	1-25-1964						
1965	1950.0	1-27-1965						
1966	1560.0	1- 6-1966						
1967	2250.0	12-13-1966						
1968	1270.0	2- 4-1968						
1969	1220.0	2-11-1969						
1970	1190.0	1-27-1970						
1971	2830.0	12-30-1970						
1972	2420.0	1-20-1972						
1974	1570.0	1-15-1974						
1975	2560.0	2-12-1975						
1976	3080.0	12- 4-1975						
1977	1030.0	3- 7-1977						
1978	4600.0	12- 2-1977						
1979	1670.0	2- 7-1979						
ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1945-1979)			0.99		711.4		745.9	
			0.95		912.4		930.3	
			0.90		1045.2		1053.7	
			0.80		1235.8		1233.2	
			0.50		1718.2		1700.1	
			0.20		2418.1		2408.3	
			0.10		2905.1		2921.2	
			0.04		3546.2		3620.0	
			0.02		4042.1		4177.8	
			0.01		4553.4		4767.8	

STATION 12020900 SOUTH FORK CHEHALIS RIVER NEAR BOISTFORD, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1966	15.5	110	198	544	224	450	99.3	37.6	18.7	12.9	2.92	5.51	143
1967	34.8	126	604	645	286	280	172	57.6	22.0	5.36	1.24	2.34	187
1968	105	144	419	385	591	292	155	67.5	102	16.0	21.6	40.0	194
1969	131	295	473	303	328	300	177	65.1	26.6	11.2	4.16	16.0	177
1970	42.5	104	320	641	362	201	179	76.1	21.4	5.50	2.51	8.91	162
1971	31.6	170	749	786	277	563	231	60.0	34.5	16.0	4.32	17.7	246
1972	53.4	258	462	778	445	522	229	69.3	32.1	9.37	2.55	13.2	239
1973	12.0	65.6	448	297	99.1	153	83.5	55.5	36.8	14.3	4.13	18.9	108
1974	47.8	571	589	640	436	346	269	87.2	57.9	32.1	9.05	6.63	256
1975	9.13	125	351	606	348	285	89.2	73.6	20.1	7.85	9.79	8.21	161
1976	112	351	748	571	396	414	159	56.4	36.2	16.0	14.3	10.8	241
1977	13.6	30.4	49.6	44.9	91.0	302	74.0	54.5	56.9	11.0	11.3	39.6	64.8
1978	42.1	432	689	296	230	178	155	118	43.8	16.0	10.4	61.2	189
1979	25.9	127	194	89.5	466	250	99.3	65.4	15.0	7.79	6.02	13.8	111

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1966-1979)

MEAN	48.3	207.8	449.5	473.3	325.6	324.0	155.1	67.6	36.9	13.0	7.4	18.8	177.1
MAXIMUM	131.0	571.0	749.0	786.0	591.0	563.0	269.0	118.0	102.0	32.1	21.6	61.2	256.0
MINIMUM	9.1	30.4	49.6	44.9	91.0	153.0	74.0	37.6	15.0	5.4	1.2	2.3	64.8
STD DEVIATION	39.52	154.52	214.13	238.31	139.24	123.25	60.65	18.78	23.13	6.74	5.68	16.68	57.39
SKEWNESS	1.166	1.227	-0.239	-0.497	-0.060	0.651	0.328	1.404	1.905	1.741	1.261	1.615	-0.357
STD ERR SKEW	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR COEFF	-0.034	-0.610	-0.773	0.287	-0.283	-0.063	-0.332	-0.160	-0.236	-0.292	0.011	0.161	-0.463
COEFF OF VAR	0.818	0.744	0.476	0.504	0.428	0.380	0.391	0.278	0.628	0.521	0.763	0.888	0.324
MEAN LOGS	1.548	2.058	2.577	2.578	2.463	2.481	2.158	1.815	1.504	1.065	0.752	1.129	2.222
STD DEV LOGS	0.366	0.338	0.316	0.365	0.237	0.167	0.179	0.114	0.230	0.209	0.348	0.375	0.167
SKEWNESS LOGS	0.005	-0.311	-1.841	-1.705	-1.206	-0.081	-0.232	0.256	0.706	0.146	-0.144	-0.074	-1.182
STD ERR SKEW LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR LOGS	-0.281	-0.703	-0.509	0.148	-0.238	-0.176	-0.368	-0.105	-0.228	-0.389	0.150	0.141	-0.614
COEFF OF VAR LOGS	0.237	0.153	0.122	0.142	0.096	0.067	0.083	0.063	0.153	0.197	0.463	0.332	0.075
% OF AVE FLOW	2.3	9.8	21.1	22.2	15.3	15.2	7.3	3.2	1.7	0.6	0.4	0.9	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1966-1979)

0.99	5.0	21.9	29.3	20.8	51.9	121.1	51.3	37.4	12.3	4.0	0.8	1.7	49.8
0.95	8.8	41.7	89.4	72.0	102.4	159.6	71.0	43.3	15.0	5.4	1.5	3.2	79.9
0.90	12.0	57.7	145.4	124.0	136.7	184.6	83.9	47.1	17.1	9.3	2.0	4.4	99.4
0.80	17.3	84.4	237.9	217.6	194.8	219.6	102.1	52.3	20.3	7.7	2.9	6.5	125.6
0.50	35.3	166.8	465.3	475.0	323.3	304.5	146.1	64.7	30.0	11.5	5.8	13.6	179.5
0.20	71.8	311.5	672.7	747.7	460.2	419.1	204.3	81.2	44.6	17.3	11.1	27.9	230.7
0.10	104.1	422.2	744.9	855.8	525.0	493.8	241.3	92.1	64.8	21.7	15.5	40.4	253.6
0.04	154.8	574.6	792.3	934.5	584.0	587.0	286.3	105.8	90.8	27.6	22.0	59.7	273.9
0.02	200.0	695.1	810.0	967.1	615.4	655.5	318.6	116.0	114.7	32.4	27.4	76.6	284.6
0.01	252.0	820.1	819.8	986.7	639.2	723.4	350.0	126.3	143.2	37.5	33.4	95.6	292.6

STATION 12020900 SOUTH FORK CHEHALIS RIVER NEAR HOISTFORD, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1967	0.70	0.83	1.19	1.80	2.50	3.90	5.00	7.70	17.00
1968	0.10	0.21	0.37	0.69	1.10	1.80	2.80	7.00	25.00
1969	4.00	4.30	5.30	5.80	9.00	15.00	22.00	30.00	58.00
1970	1.90	2.20	2.50	2.90	3.40	4.00	8.80	14.00	26.00
1971	0.78	0.96	1.50	1.80	2.30	3.30	5.20	6.30	21.00
1972	2.10	2.20	3.20	3.50	4.20	9.50	11.00	16.00	31.00
1973	0.39	0.54	0.89	1.30	2.20	3.10	6.50	8.70	20.00
1974	2.10	2.20	2.40	2.80	3.70	4.30	11.00	17.00	29.00
1975	4.70	4.70	5.00	5.60	6.20	6.80	7.80	12.00	27.00
1976	1.30	2.00	2.70	3.10	3.80	7.40	8.10	11.00	26.00
1977	6.30	6.80	6.90	7.50	9.20	11.00	11.00	15.00	18.00
1978	0.37	0.53	1.10	1.80	2.90	8.50	15.00	34.00	40.00
1979	4.10	4.50	5.20	6.60	9.90	13.00	19.00	28.00	40.00

LOWEST MEAN FLOW STATISTICS (YEARS 1967-1979)

MEAN	2.2	2.5	2.9	3.5	4.6	7.0	10.2	14.7	28.6
MINIMUM	6.3	6.8	6.9	7.5	9.2	15.0	22.0	30.0	58.0
MAXIMUM	0.1	0.2	0.4	0.7	1.1	1.8	2.8	6.3	17.0
STANDARD DEVIATION	1.96	2.02	2.05	2.19	2.83	4.15	5.58	7.62	10.94
SKWENESS	0.867	0.882	0.624	0.664	0.836	0.628	0.926	0.983	1.735
STD ERROR OF SKWENESS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SERIAL CORR COEFF	-0.400	-0.326	-0.335	-0.317	-0.333	-0.155	-0.053	-0.018	-0.090
COEFF OF VARIATION	0.884	0.823	0.698	0.631	0.618	0.589	0.545	0.517	0.382
MEAN LOGS	0.125	0.215	0.346	0.452	0.583	0.772	0.949	1.118	1.432
STD DEVIATION LOGS	0.526	0.450	0.370	0.305	0.277	0.229	0.247	0.218	0.146
SKWENESS LOGS	-0.723	-0.529	-0.613	-0.375	-0.111	-0.229	-0.309	0.206	0.792
STD ERR SKWENESS LOGS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SER CORR COEFF LOGS	-0.313	-0.262	-0.227	-0.235	-0.260	-0.103	-0.036	-0.052	-0.098
COEFF OF VAR LOGS	4.218	2.088	1.068	0.675	0.475	0.360	0.260	0.195	0.102

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1967-1979)

0.99	11.6	12.2	10.9	11.9	16.0	23.4	29.3	45.4	71.4
0.98	9.8	10.2	9.5	10.3	13.6	20.3	26.0	38.8	61.6
0.96	8.0	8.2	8.1	8.8	11.4	17.2	22.6	32.7	52.8
0.90	5.6	5.8	6.2	6.7	8.6	13.2	18.1	25.2	42.4
0.80	3.8	4.0	4.6	5.2	6.6	10.2	14.5	19.9	35.2
0.50	1.5	1.8	2.4	3.0	3.9	6.1	9.2	12.9	25.9
0.20	0.5	0.7	1.1	1.6	2.2	3.5	5.6	8.6	20.3
0.10	0.3	0.4	0.7	1.1	1.7	2.6	4.2	7.0	18.3
0.05	0.1	0.3	0.5	0.8	1.3	2.0	3.3	5.9	16.9
0.02	0.1	0.1	0.3	0.6	1.0	1.5	2.5	5.0	15.7
0.01	0.0	0.1	0.2	0.5	0.8	1.2	2.1	4.4	15.1

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1967-1979)

P95	P90	P75	P70	P50	P25	P10
3.3	5.8	18.0	24.0	70.0	220.0	470.0

STATION 12021000 SOUTH FORK CHEHALIS R AT BUISTFORT, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1942													
1943	26.0									33.8	15.8	10.5	
1944	43.3									20.2	13.5	9.13	
1945	15.8	144	120	368	487	558	217	96.4	38.3	12.7	7.85	8.88	
1946	17.2	395	526	572	545	311	233	52.2		26.0	10.6	12.8	172
1947	49.9	371	321	470	483	173	127	44.0		17.1	10.2	14.0	226
1948	226	276	282	483	441	283	185	230		18.4	11.6	15.9	208
1949	38.3	380	660	146	829	245	213	100		13.7	8.83	8.81	208
1950	32.7	412	545	515	737	541	148	73.3		16.7	12.5	8.87	259
1961													
1962	37.0	133	499	231	216	304	194	134		11.4	3.96	4.82	
1963	116	549	347	220	433	226	302	129		13.7	17.2	17.7	153
1964	88.1	486	227	917	244	379	302	129		14.9	9.93	10.6	197
1965	25.3	283	637	538	289	114	80.4	64.0		14.5	12.0	10.5	214
1966	16.8	117								6.30	4.86	4.95	172

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1942-1966)

MEAN	56.5	322.4	439.0	431.1	469.1	313.4	172.1	101.1	33.8	16.8	10.5	11.9	198.9
MAXIMUM	226.0	549.0	660.0	917.0	829.0	558.0	302.0	230.0	47.9	33.8	17.2	22.7	259.0
MINIMUM	15.8	117.0	120.0	146.0	216.0	114.0	80.4	44.0	21.9	6.3	4.0	4.8	153.0
STD DEVIATION	58.94	145.15	183.16	225.86	199.06	144.82	68.82	53.62	6.58	6.64	3.69	5.05	31.01
SKEWNESS	2.336	-0.154	-0.560	0.932	0.577	0.686	0.317	1.412	0.465	1.318	-0.039	0.601	0.464
STD ERR SKEW	0.616	0.661	0.687	0.687	0.687	0.687	0.661	0.661	0.661	0.597	0.597	0.597	0.687
SER CORR COEFF	0.010	-0.200	-0.277	-0.207	0.231	-0.182	-0.141	-0.120	-0.160	0.293	-0.421	0.023	-0.506
COEFF OF VAR	1.043	0.450	0.417	0.524	0.424	0.462	0.400	0.530	0.195	0.396	0.350	0.425	0.156
MEAN LOGS	1.604	2.457	2.594	2.579	2.635	2.452	2.201	1.955	1.521	1.195	0.993	1.036	2.294
STD DEV LOGS	0.346	0.236	0.238	0.238	0.192	0.211	0.186	0.214	0.086	0.169	0.177	0.195	0.067
SKEWNESS LOGS	0.902	-0.729	-1.280	-0.265	-0.208	-0.344	-0.314	0.344	-0.349	-0.297	-1.033	-0.375	0.107
STD ERR SKEW LOGS	0.616	0.661	0.687	0.687	0.687	0.687	0.661	0.661	0.661	0.597	0.597	0.597	0.687
SER CORR LOGS	0.224	-0.244	-0.268	-0.264	0.166	-0.221	-0.076	-0.045	-0.136	0.271	-0.436	0.044	-0.508
COEFF OF VAR LOGS	0.096	0.096	0.092	0.092	0.073	0.086	0.084	0.110	0.056	0.141	0.179	0.189	0.029
% OF AVE FLOW	2.4	13.6	18.5	18.1	19.7	13.2	7.2	4.3	1.4	0.7	0.4	0.5	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1942-1966)

0.99	10.7	61.2	68.3	95.3	144.3	81.2	53.4	32.5	19.9	5.8	2.8	3.4	139.0
0.95	13.7	106.4	137.3	148.0	203.3	122.0	75.9	42.1	23.6	8.0	4.6	5.0	153.3
0.90	16.1	138.9	188.8	185.3	242.6	149.9	90.8	48.9	28.6	9.4	5.7	6.0	161.7
0.80	20.3	186.9	264.7	241.1	298.8	190.3	111.9	59.2	25.2	11.4	7.2	7.5	172.6
0.50	35.7	306.0	440.1	388.5	437.7	291.4	162.6	87.7	33.6	16.0	10.5	11.2	196.2
0.20	74.1	456.4	622.0	604.9	627.4	428.9	229.0	135.2	39.3	21.8	13.9	16.0	223.9
0.10	116.7	543.5	705.0	752.4	751.0	517.1	270.5	172.4	42.4	25.4	15.6	18.9	240.3
0.04	200.6	639.2	778.0	940.2	903.9	624.2	320.3	226.2	45.8	29.7	17.1	22.5	259.4
0.02	294.1	701.0	815.7	1080.0	1015.4	700.7	355.4	271.5	48.0	32.7	18.0	24.9	272.7
0.01	424.2	755.6	843.3	1219.2	1124.8	774.5	389.1	321.5	49.9	35.6	18.7	27.3	285.4

STATION 12021000 SOUTH FORK CHEHALIS R AT HOISTFORT, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1946	6.1	6.4	6.9	7.4	8.3	11.0	14.0	15.0	32.0
1947	7.5	7.7	7.9	8.8	10.0	12.0	13.0	18.0	31.0
1948	7.5	7.8	8.6	9.0	9.7	12.0	13.0	18.0	31.0
1949	3.7	3.9	4.4	5.9	8.7	10.0	14.0	21.0	42.0
1950	4.9	5.5	5.9	6.3	7.0	8.8	9.8	13.0	24.0
1962	1.5	1.5	1.7	2.8	3.6	4.3	5.5	9.6	25.0
1963	4.3	4.8	5.2	6.6	10.0	13.0	14.0	20.0	48.0
1964	3.2	3.5	3.8	4.2	6.7	10.0	13.0	14.0	43.0
1965	5.0	5.2	6.3	7.6	9.3	11.0	12.0	15.0	24.0

LOWEST MEAN FLOW STATISTICS (YEARS 1946-1965)

MEAN	4.9	5.1	5.6	6.5	8.1	10.2	12.0	16.0	33.3
MAXIMUM	7.5	7.8	8.6	9.0	10.0	13.0	14.0	21.0	48.0
MINIMUM	1.5	1.5	1.7	2.8	3.6	4.3	5.5	9.6	24.0
STANDARD DEVIATION	1.98	2.03	2.14	2.03	2.09	2.56	2.79	3.62	8.94
SKENNESS	-0.107	-0.334	-0.474	-0.659	-1.405	-1.712	-1.966	-0.271	0.556
STD ERROR OF SKENNESS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SERIAL CORR COEFF	0.315	0.208	0.162	0.124	-0.123	-0.085	0.066	-0.149	-0.148
COEFF OF VARIATION	0.407	0.394	0.380	0.312	0.257	0.250	0.231	0.227	0.268
MEAN LOGS	0.645	0.670	0.712	0.790	0.893	0.993	1.066	1.192	1.509
STD DEVIATION LOGS	0.217	0.220	0.214	0.163	0.142	0.144	0.131	0.106	0.114
SKENNESS LOGS	-1.250	-1.495	-1.554	-1.321	-1.981	-2.320	-2.337	-0.788	0.298
STD ERR SKENNESS LOGS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SER CORR COEFF LOGS	0.114	0.017	0.005	0.0	-0.111	-0.082	0.049	-0.109	-0.168
COEFF OF VAR LOGS	0.336	0.328	0.300	0.206	0.158	0.145	0.123	0.089	0.076

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1946-1965)

0.99	9.0	8.9	9.4	10.3	10.8	13.1	15.1	23.8	63.1
0.98	8.7	8.7	9.3	10.1	10.8	13.1	15.0	23.1	57.8
0.96	8.3	8.4	9.0	9.8	10.7	13.0	15.0	22.2	52.5
0.90	7.6	7.8	8.5	9.2	10.5	12.9	14.9	20.7	45.6
0.80	6.7	7.1	7.7	8.4	10.1	12.5	14.5	19.2	40.1
0.50	4.9	5.3	5.8	6.7	8.6	11.0	12.9	16.1	31.9
0.20	3.1	3.3	3.7	4.7	6.4	8.2	9.9	12.9	25.8
0.10	2.3	2.4	2.7	3.7	5.1	6.4	7.9	11.2	23.3
0.05	1.7	1.7	2.0	3.0	4.1	5.0	6.3	9.9	21.5
0.02	1.2	1.2	1.3	2.3	3.0	3.6	4.7	8.6	19.7
0.01	0.9	0.9	1.0	1.8	2.4	2.8	3.7	7.7	18.6

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1946-1965)

P95	P90	P75	P70	P50	P25	P10
7.3	9.7	19.0	26.0	81.0	230.0	510.0

STATION 12021000 SOUTH FORK CHEHALIS R AT ROISTFORT, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-FLow DATA DATE	REG. (R)
1945	2760.	2140.	1230.	907.	597.	523.	474.	408.	312.	5700.	02/07/45	
1946	1980.	1620.	1210.	1060.	716.	626.	596.	537.	428.	2770.	12/29/45	
1947	2320.	1550.	1210.	910.	806.	473.	519.	449.	333.	2980.	02/02/47	
1948	2270.	1510.	1110.	841.	628.	463.	416.	382.	342.	2840.	01/02/48	
1949	4750.	2590.	1940.	1370.	849.	556.	562.	510.	387.	4920.	02/17/49	
1950	3840.	2180.	1320.	1050.	891.	721.	672.	638.	491.	4040.	11/27/49	
1951										3690.	02/09/51	
1952										2490.	02/04/52	
1953										2270.	01/08/53	
1954										3120.	01/05/54	
1955										2480.	02/08/55	
1956										3720.	12/11/55	
1957										3940.	12/09/56	
1958										2670.	12/24/57	
1959										2640.	11/12/58	
1960										3170.	11/22/59	
1961	1660.	1260.	961.	752.	537.	397.	334.	317.	275.	3110.	02/21/61	
1962	2880.	1870.	1400.	1070.	714.	514.	460.	391.	349.	1910.	12/21/61	
1963	3740.	2470.	1560.	1310.	929.	622.	567.	493.	402.	3460.	02/03/63	
1964	2860.	1970.	1370.	865.	681.	573.	552.	453.	324.	4330.	01/25/64	
1965										3780.	12/23/64	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1945-1965)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKENNESS	STD. ERROR OF SKENNESS	SERIAL CORR. COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKENNESS LOGS	STD ERR SKENNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
0.99	1349.5	1051.3	915.7	677.1	455.0	355.9	280.8	283.4	254.7	1772.4	1815.4					
0.90	1650.7	1259.7	991.1	744.6	533.5	403.8	349.0	324.3	277.7	2099.2	2119.6					
0.80	1842.5	1382.6	1040.3	787.0	572.9	431.5	386.9	348.6	291.9	2301.1	2310.2					
0.50	2109.7	1543.0	1110.1	845.3	623.3	466.9	433.5	380.4	311.2	2575.5	2572.4					
0.20	2753.7	1886.3	1282.7	982.9	728.1	541.2	521.0	449.6	355.7	3209.5	3192.3					
0.10	3629.1	2279.2	1524.7	1165.3	844.1	624.6	601.3	531.6	412.9	4023.9	4016.1					
0.04	4208.9	2504.7	1688.7	1284.0	909.2	671.9	638.5	580.4	449.2	4539.8	4553.3					
0.02	4944.2	2760.5	1900.7	1432.9	982.0	725.4	673.9	637.3	493.8	5172.7	5227.9					
0.01	5495.3	2934.0	2062.4	1543.4	1030.9	761.7	694.2	677.0	526.4	5633.4	5729.4					
0.01	6050.0	3095.6	2227.5	1654.0	1076.0	795.4	710.7	687.0	558.7	6087.0	6231.4					

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1965)

	0.99	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
MEAN	1349.5	1051.3	915.7	677.1	455.0	355.9	280.8	283.4	254.7
MAXIMUM	1650.7	1259.7	991.1	744.6	533.5	403.8	349.0	324.3	277.7
MINIMUM	915.7	787.0	677.1	572.9	431.5	386.9	348.6	291.9	2301.1
STANDARD DEVIATION	744.6	533.5	403.8	349.0	324.3	277.7	254.7	2301.1	2119.6
SKENNESS	533.5	403.8	349.0	324.3	277.7	254.7	2301.1	2119.6	1815.4
STD. ERROR OF SKENNESS	403.8	349.0	324.3	277.7	254.7	2301.1	2119.6	1815.4	1650.7
SERIAL CORR. COEFF	349.0	324.3	277.7	254.7	2301.1	2119.6	1815.4	1650.7	1543.0
COEFF OF VARIATION	324.3	277.7	254.7	2301.1	2119.6	1815.4	1650.7	1543.0	1432.9
MEAN LOGS	254.7	2301.1	2119.6	1815.4	1650.7	1543.0	1432.9	1300.9	1165.3
STD DEVIATION LOGS	2301.1	2119.6	1815.4	1650.7	1543.0	1432.9	1300.9	1165.3	1030.9
SKENNESS LOGS	2119.6	1815.4	1650.7	1543.0	1432.9	1300.9	1165.3	1030.9	982.0
STD ERR SKENNESS LOGS	1815.4	1650.7	1543.0	1432.9	1300.9	1165.3	1030.9	982.0	909.2
SER CORR COEFF LOGS	1650.7	1543.0	1432.9	1300.9	1165.3	1030.9	982.0	909.2	844.1
COEFF OF VAR LOGS	1543.0	1432.9	1300.9	1165.3	1030.9	982.0	909.2	844.1	795.4

STATION 12024000 SOUTH FORK NEWAUKUM RIVER NEAR ONALASKA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1944													
1945	45.3	152	143	398	388	414	304	230	75.4	34.6	27.4	39.9	188
1946	53.4	448	383	486	525	336	161	95.4	107	87.6	33.3	50.2	188
1947	165	298	612	332	334	195	249	75.0	73.1	43.5	38.4	37.8	228
1948	231	481	309	420	378	244	241	218	94.0	58.1	51.7	72.9	232
1949	108												
1957	53.1	168	389	352	374	189	280	93.8	84.7	50.4	38.1	26.3	170
1958	60.7	429	348	458	262	257	250	187	65.6	39.5	23.3	29.3	170
1959	226	408	308	195	361	265	329	272	128	60.8	37.5	119	216
1960	104	495	216	341	610	422	242	196	102	43.3	47.0	40.9	215
1961	68.1	143	382	279	179	218	218	162	62.3	36.7	26.4	27.9	229
1962	101	387	287	174	282	199	308	136	93.6	42.8	47.9	38.0	156
1963	75.6	312	233	635	303	309	230	159	66.9	72.0	45.4	45.4	174
1964	73.1	250	518	514	401	130	108	90.7	155	73.2	53.4	56.6	216
1965	64.1	138	201	430	237	366	192	94.8	48.4	38.9	32.4	34.0	185
1966	105	201	509	655	351	266	195	113	62.4	34.5	32.0	30.7	160
1967	113	130	294	304	463	234	195	116	75.6	38.8	22.7	21.2	212
1968	216	303	425	351	272	276	219	139	124	84.1	84.1	120	184
1969	132	144	249	533	351	168	198	135	125	82.0	38.6	70.1	210
1970	94.9	213	444	763	333	384	249	144	51.1	30.0	23.7	46.3	171
1971									120	76.7	45.9	70.1	245

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1944-1971)

MEAN	110.0	283.3	347.2	423.3	355.8	270.7	231.6	147.6	89.7	52.2	39.0	51.4	199.7
MINIMUM	231.0	495.0	612.0	763.0	610.0	422.0	329.0	272.0	155.0	87.6	84.1	120.0	245.0
MAXIMUM	45.3	130.0	143.0	174.0	179.0	130.0	108.0	75.0	46.4	30.0	22.7	21.2	156.0
STD DEVIATION	59.01	129.94	123.09	156.19	102.65	85.43	54.25	54.74	30.28	16.82	14.25	27.58	26.84
STDEV	1.113	0.331	0.443	0.508	0.824	0.386	0.230	0.776	0.515	0.639	1.049	1.577	-0.111
SKEWNESS	0.524	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.524	0.512	0.512	0.512	0.536
SER CORR COEFF	0.163	-0.075	-0.440	0.083	-0.243	-0.286	0.102	0.171	-0.382	-0.455	-0.227	-0.114	-0.313
COEFF OF VAR	0.537	0.459	0.354	0.369	0.289	0.316	0.234	0.371	0.338	0.361	0.365	0.337	0.134
MEAN LOGS	1.988	2.406	2.513	2.597	2.534	2.411	2.352	2.142	1.929	1.692	1.568	1.662	2.297
STD DEV LOGS	0.217	0.209	0.162	0.169	0.125	0.141	0.113	0.158	0.147	0.152	0.143	0.204	0.059
SKEWNESS LOGS	0.394	-0.047	-0.392	-0.450	-0.157	-0.229	-1.170	0.158	-0.002	0.342	0.512	0.592	-0.280
STD ERR SKEN LOGS	0.524	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.524	0.512	0.512	0.512	0.536
SER CORR LOGS	0.252	-0.098	-0.463	0.055	-0.240	-0.351	0.100	0.080	-0.388	-0.492	-0.257	-0.085	-0.286
COEFF OF VAR LOGS	0.087	0.064	0.064	0.065	0.049	0.058	0.074	0.074	0.076	0.090	0.091	0.123	0.026
% OF AVE FLOW	4.6	11.8	14.5	17.6	14.8	11.3	9.6	6.1	3.7	2.2	1.6	2.1	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1944-1971)

0.99	35.2	81.7	123.3	140.6	169.7	114.8	99.3	62.2	38.6	23.9	19.5	19.0	140.0
0.95	45.4	114.7	169.9	198.8	210.7	148.1	136.7	77.6	48.6	28.7	22.6	23.2	156.4
0.90	52.6	137.1	199.7	236.3	235.8	168.9	158.4	87.7	55.0	31.9	24.8	26.1	165.5
0.80	63.5	170.1	240.5	288.0	269.4	197.0	185.5	101.9	63.9	36.5	27.9	30.7	176.8
0.50	94.1	255.8	334.2	407.2	348.9	261.1	236.3	137.3	85.0	48.2	36.0	43.9	199.2
0.20	146.3	382.6	448.6	552.3	436.8	339.9	280.3	187.6	113.1	65.5	48.3	66.9	222.5
0.10	187.7	471.2	516.3	637.5	492.2	387.5	299.0	222.0	131.3	77.8	57.2	85.7	234.9
0.04	248.6	587.5	594.1	734.5	557.2	443.4	313.2	266.8	153.9	94.2	69.5	114.0	248.2
0.02	300.5	676.9	647.2	800.0	602.7	482.4	327.7	301.1	170.6	107.2	79.4	138.7	256.8
0.01	358.4	768.4	696.5	860.5	646.1	513.4	330.0	336.2	187.1	120.7	89.9	166.9	264.6

STATION 12024000 SOUTH FORK NEWAUKUM RIVER NEAR ONALASKA, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1946	28.0	28.0	29.0	31.0	33.0	36.0	39.0	41.0	79.0
1947	32.0	32.0	33.0	34.0	36.0	37.0	40.0	41.0	74.0
1948	28.0	28.0	29.0	29.0	30.0	35.0	41.0	49.0	75.0
1949	19.0	19.0	19.0	20.0	21.0	24.0	28.0	36.0	49.0
1960	31.0	33.0	35.0	35.0	37.0	46.0	61.0	80.0	116.0
1961	30.0	30.0	31.0	32.0	34.0	42.0	62.0	44.0	99.0
1962	21.0	22.0	22.0	23.0	25.0	27.0	29.0	34.0	53.0
1963	28.0	28.0	29.0	32.0	34.0	41.0	42.0	49.0	75.0
1964	31.0	31.0	33.0	33.0	37.0	42.0	44.0	52.0	72.0
1965	39.0	40.0	43.0	45.0	51.0	54.0	59.0	63.0	90.0
1966	24.0	24.0	24.0	25.0	30.0	30.0	32.0	34.0	49.0
1967	27.0	27.0	27.0	28.0	30.0	31.0	33.0	46.0	61.0
1968	18.0	18.0	19.0	19.0	21.0	22.0	26.0	35.0	59.0
1969	24.0	24.0	25.0	27.0	30.0	40.0	62.0	79.0	106.0
1970	28.0	28.0	28.0	29.0	32.0	39.0	61.0	77.0	96.0
1971	22.0	22.0	22.0	22.0	23.0	26.0	30.0	35.0	59.0

LOWEST MEAN FLOW STATISTICS (YEARS 1946-1971)

MEAN	26.9	27.1	27.9	29.0	31.3	35.8	41.8	50.9	75.8
MAXIMUM	39.0	40.0	43.0	45.0	51.0	54.0	62.0	80.0	116.0
MINIMUM	18.0	18.0	19.0	19.0	21.0	22.0	26.0	34.0	49.0
STANDARD DEVIATION	5.40	5.67	6.23	6.54	7.47	8.68	12.58	16.42	20.73
SKEWNESS	0.261	0.378	0.628	0.599	0.920	0.208	0.591	0.767	0.462
STD ERROR OF SKEWNESS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SERIAL CORR COEFF	-0.015	-0.034	0.003	-0.025	0.009	-0.084	-0.137	-0.194	-0.104
COEFF OF VARIATION	0.201	0.210	0.223	0.226	0.239	0.243	0.301	0.322	0.274
MEAN LOGS	1.421	1.423	1.436	1.452	1.485	1.541	1.603	1.687	1.864
STD DEVIATION LOGS	0.089	0.092	0.096	0.098	0.101	0.109	0.128	0.134	0.118
SKEWNESS LOGS	-0.274	-0.180	0.016	-0.067	0.122	-0.293	0.243	0.431	0.068
STD ERR SKEWNESS LOGS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SER CORR COEFF LOGS	-0.043	-0.059	-0.030	-0.048	-0.024	-0.114	-0.172	-0.248	-0.157
COEFF OF VAR LOGS	0.063	0.065	0.067	0.067	0.068	0.071	0.080	0.079	0.064

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1946-1971)

0.99	40.7	42.2	45.8	47.3	53.5	58.9	63.8	109.6	139.9
0.98	38.9	40.1	43.1	44.6	50.0	55.8	76.3	98.1	129.4
0.96	37.0	37.9	40.3	41.8	46.3	52.4	68.8	87.1	118.7
0.90	34.0	34.6	36.3	37.7	41.2	47.4	58.9	73.0	104.0
0.80	31.4	31.7	32.9	34.3	37.1	43.0	51.2	62.5	91.9
0.50	26.6	26.7	27.3	28.4	30.4	35.2	39.7	47.6	72.9
0.20	22.3	22.2	22.7	23.5	25.1	28.3	31.2	37.4	58.1
0.10	20.2	20.1	20.6	21.2	22.7	25.0	27.8	33.4	51.7
0.05	18.5	18.5	19.0	19.5	21.0	22.6	25.3	30.5	47.0
0.02	16.8	16.8	17.4	17.7	19.2	20.0	22.8	27.8	42.2
0.01	15.7	15.7	16.4	16.6	18.1	18.4	21.3	26.2	39.3

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1946-1971)

P95	P90	P75	P70	P50	P25	P10
29.0	34.0	56.0	68.0	140.0	260.0	440.0

STATION 12024500 NORTH FORK NEWAUKUM RIVER NEAR FOREST, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1961	37.5	275	102	227	420	309	147	113	27.8	10.6	4.84	5.29	138
1962	28.8	77.6	263	156	105	139	109	86.0	43.4	13.5	31.9	18.5	89.4
1963	50.9	247	160	85.2	159	113	171	74.9	28.0	25.3	14.2	12.7	94.3
1964	30.3	155	118	379	145	168	102	54.9	58.0	28.0	21.3	21.0	107
1965	29.2	151	312	325	241	74.9	65.3	44.9	18.4	8.71	7.67	7.22	107
1966	20.4	65.8	104	244	138	235	93.4	35.0	22.2	27.2	6.52	9.23	83.3

STATION 12024500 NORTH FORK NEWAUKUM RIVER NEAR FOREST, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1958	594.0	12-25-1957
1959	1720.0	11-12-1958
1960	1490.0	11-20-1959
1961	1500.0	11-20-1960
1962	872.0	12-24-1961
1963	2520.0	11-19-1962
1964	2770.0	1-25-1964
1965	1330.0	12-22-1964
1966	1000.0	1- 5-1966

STATION 12025000 NEMAUKUM RIVER NR CHEHALIS, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1929													
1930	41.3	47.6	513	437	1130	781	696	246	160	59.1	39.0	35.8	
1931	69.1	262	298	914	624	604	302	273	145	57.4	35.0	37.2	297
1932						771	849	151	169	73.0	39.0	54.7	354
1943	69.1	1114	1118	635	1232	587	603	227	145	153	71.5	45.2	486
1944	135	216	690	705	629	414	411	181	111	51.4	53.6	40.0	304
1945	79.0	336	368	844	1038	1040	635	440	144	55.4	43.6	68.1	304
1946	80.0	797	965	1290	1333	1001	380	158	232	147	56.6	87.9	423
1947	297	966	1318	937	934	516	563	130	115	68.2	42.0	71.3	537
1948	461	1088	796	1216	1109	673	627	618	178	80.8	79.3	137	587
1949	233	1109	1678	399	1582	815	328	300	97.4	42.3	33.2	47.4	549
1950	187	688	1188	1334	1824	1283	683	259	135	71.0	46.6	40.3	638
1951	349	1387	1382	1488	1439	913	333	181	73.6	36.1	21.6	20.0	632
1952	371	713	1115	764	959	636	358	183	96.7	67.5	41.5	29.1	443
1953	35.1	56.1	360	2169	1034	426	372	337	233	102	77.3	58.0	436
1954	200	730	1803	1602	1516	499	582	157	287	137	74.7	94.0	636
1955	149	656	835	1717	861	801	1022	344	189	137	69.7	69.8	497
1956	613	1717	1861	1493	753	1444	536	179	187	76.4	49.4	48.6	748
1957	302	495	1145	472	1041	1220	498	252	142	78.0	60.6	38.6	476
1958	91.5	397	1195	1078	1210	491	654	192	135	63.7	30.0	46.1	461
1959	118	1121	976	1480	738	684	574	429	265	109	56.7	167	559
1960	486	1043	869	555	1101	831	943	680	185	63.0	63.7	65.4	571
1961	205	1422	543	1064	1875	1253	675	484	118	54.7	32.3	41.4	638
1962	109	282	1107	636	481	632	508	380	185	72.4	53.3	53.3	376
1963	192	1165	769	416	868	590	788	304	117	116	65.4	71.6	451
1964	156	843	633	1902	683	831	462	279	285	124	83.3	88.0	531
1965	144	707	1615	1460	1023	312	309	190	76.9	133	55.4	41.2	701
1966	95.0	310	618	1220	582	1076	391	162	106	121	38.8	43.4	495
1967	186	461	1460	1900	909	709	476	191	119	49.3	24.9	48.0	398
1968	197	316	860	834	1264	668	452	258	335	82.0	159	24.3	543
1969	562	896	1298	1132	1019	581	433	236	227	133	48.3	91.8	553
1970	235	322	862	1602	913	422	455	305	95.5	41.4	22.5	66.9	444
1971	146	445	1350	2108	818	1225	641	236	187	109	51.4	110	620
1972	241	790	1287	1788	1451	1609	726	265	120	78.6	43.4	65.8	704
1973	52.2	191	1242	725	347	489	282	195	198	92.2	40.2	60.3	327
1974	133	1215	1482	1683	1174	982	810	430	307	133	55.4	41.2	701
1975	44.1	366	1015	1670	922	785	332	288	113	66.4	69.1	60.4	477
1976	332	912	2081	1652	955	871	573	281	158	94.5	81.1	65.7	672
1977	72.8	114	194	192	262	820	296	354	324	77.1	67.9	153	244
1978	147	1079	1870	813	634	371	522	272	179	89.0	63.7	225	521
1979	99.3	462	753	351	1249	523	452	254	87.9	62.0	40.2	83.4	362

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1929-1979)

MEAN	197.8	698.4	1064.4	1123.6	1013.3	779.5	538.3	282.0	169.1	84.1	54.5	73.6	504.0
MAXIMUM	613.0	1717.0	2081.0	2169.0	1875.0	1609.0	1022.0	680.0	335.0	153.0	159.0	243.0	748.0
MINIMUM	35.1	47.6	194.0	192.0	262.0	312.0	282.0	130.0	73.6	36.1	21.6	28.6	244.0
STD DEVIATION	144.2	419.10	463.94	531.20	365.24	306.23	183.33	121.35	67.75	32.53	23.72	45.23	120.38
SKEWNESS	1.339	0.356	0.189	0.170	0.301	0.833	0.698	1.547	0.872	0.644	2.125	2.179	-0.064
STD ERR SKEW	0.378	0.378	0.378	0.378	0.378	0.378	0.374	0.374	0.374	0.369	0.369	0.369	0.378
SER CORR COEFF	0.116	-0.146	-0.338	0.091	0.0	0.085	-0.137	0.182	-0.038	-0.091	-0.088	0.165	-0.136
COEFF OF VAR	0.730	0.600	0.436	0.473	0.358	0.393	0.341	0.430	0.413	0.387	0.435	0.655	0.239
MEAN LOGS	2.188	2.733	2.976	2.992	2.974	2.860	2.707	2.417	2.194	1.893	1.702	1.804	2.689
STD DEV LOGS	0.317	0.365	0.232	0.247	0.179	0.169	0.147	0.167	0.174	0.168	0.171	0.222	0.111
SKEWNESS LOGS	-0.076	-1.208	-1.051	-0.812	-1.035	-0.003	0.040	0.507	0.163	0.008	0.124	0.927	-0.685
STD ERR SKEW LOGS	0.378	0.378	0.378	0.378	0.378	0.374	0.374	0.374	0.374	0.369	0.369	0.369	0.378
SER CORR LOGS	0.105	-0.106	-0.259	0.010	-0.049	0.021	-0.178	0.107	-0.027	-0.118	-0.057	0.242	-0.117
COEFF OF VAR LOGS	0.134	0.134	0.078	0.083	0.060	0.059	0.054	0.069	0.079	0.089	0.101	0.123	0.041
% OF AVE FLOW	3.3	11.5	17.5	18.5	16.7	12.8	8.9	4.6	2.8	1.4	0.9	1.2	100.0

STATION 12025000 NEWAUKUM RIVER NR CHEHALIS, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
27.2	27.2	45.8	60.2	83.8	155.7	285.8	390.5	542.7	669.9	808.4
38.2	38.2	108.5	175.2	292.3	637.5	1097.8	1344.3	1583.1	1716.0	1818.8
185.8	185.8	346.6	463.4	634.4	1037.9	1489.8	1718.1	1939.6	2066.1	2167.2
188.9	188.9	344.5	458.9	630.3	1037.9	1489.8	1718.1	1939.6	2066.1	2167.2
269.3	269.3	434.3	542.8	691.1	1010.1	1336.5	1493.5	1642.1	1755.7	1791.9
293.8	293.8	440.5	522.5	588.1	724.4	1004.6	1192.0	1430.5	1609.5	1769.7
234.5	234.5	330.9	383.1	383.1	508.1	676.2	786.1	924.0	1026.3	1128.3
123.6	123.6	187.5	188.0	111.3	253.0	356.4	434.6	544.9	635.9	734.9
64.7	64.7	82.5	94.3	111.3	154.6	218.0	262.5	321.6	367.6	415.3
31.9	31.9	41.5	47.7	56.5	78.2	108.2	128.4	154.0	173.2	192.6
20.8	20.8	26.7	30.6	36.1	50.0	60.2	84.0	102.3	116.4	130.9
27.6	27.6	32.1	35.5	41.2	58.9	60.2	126.0	178.8	229.0	290.4
237.5	237.5	306.8	347.3	399.0	503.3	609.2	662.9	717.5	751.0	779.6

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1930	32.0	32.0	32.0	32.0	35.0	37.0	38.0	40.0	60.0
1931	27.0	28.0	29.0	32.0	33.0	35.0	40.0	48.0	93.0
1944	34.0	35.0	36.0	37.0	38.0	44.0	48.0	67.0	111.0
1945	33.0	34.0	35.0	40.0	40.0	43.0	51.0	60.0	88.0
1946	33.0	33.0	35.0	37.0	42.0	49.0	59.0	62.0	140.0
1947	44.0	44.0	46.0	49.0	54.0	56.0	61.0	107.0	132.0
1948	34.0	34.0	36.0	37.0	40.0	50.0	59.0	73.0	123.0
1949	52.0	52.0	55.0	56.0	64.0	73.0	79.0	110.0	189.0
1950	14.0	15.0	20.0	22.0	25.0	34.0	39.0	51.0	95.0
1951	25.0	27.0	28.0	29.0	32.0	43.0	50.0	68.0	131.0
1952	14.0	15.0	16.0	18.0	21.0	23.0	28.0	40.0	91.0
1953	20.0	20.0	22.0	24.0	25.0	31.0	34.0	39.0	54.0
1954	42.0	43.0	44.0	46.0	58.0	66.0	77.0	105.0	164.0
1955	56.0	57.0	59.0	62.0	72.0	80.0	88.0	109.0	149.0
1956	34.0	35.0	37.0	39.0	47.0	66.0	85.0	109.0	206.0
1957	30.0	31.0	33.0	39.0	40.0	46.0	51.0	73.0	122.0
1958	30.0	31.0	34.0	35.0	38.0	45.0	53.0	62.0	106.0
1959	22.0	22.0	23.0	25.0	29.0	33.0	43.0	60.0	92.0
1960	47.0	48.0	50.0	52.0	56.0	75.0	104.0	138.0	225.0
1961	33.0	34.0	35.0	39.0	42.0	61.0	61.0	68.0	205.0
1962	29.0	30.0	30.0	31.0	32.0	36.0	39.0	49.0	89.0
1963	37.0	38.0	40.0	44.0	48.0	59.0	62.0	76.0	141.0
1964	40.0	40.0	42.0	48.0	60.0	67.0	68.0	83.0	131.0
1965	55.0	57.0	64.0	70.0	78.0	85.0	96.0	108.0	163.0
1966	22.0	23.0	25.0	25.0	32.0	36.0	40.0	46.0	77.0
1967	27.0	28.0	29.0	35.0	37.0	45.0	50.0	71.0	103.0
1968	17.0	18.0	18.0	19.0	22.0	27.0	33.0	49.0	94.0
1969	31.0	31.0	34.0	41.0	54.0	79.0	124.0	160.0	233.0
1970	28.0	28.0	29.0	31.0	36.0	49.0	86.0	121.0	158.0
1971	16.0	17.0	18.0	19.0	21.0	29.0	40.0	48.0	98.0
1972	42.0	43.0	44.0	45.0	51.0	68.0	81.0	105.0	147.0
1973	28.0	28.0	29.0	33.0	39.0	44.0	52.0	59.0	84.0
1974	22.0	23.0	23.0	27.0	30.0	39.0	56.0	77.0	118.0
1975	32.0	32.0	33.0	35.0	36.0	40.0	46.0	59.0	139.0
1976	32.0	32.0	36.0	39.0	44.0	62.0	62.0	73.0	129.0
1977	47.0	47.0	48.0	53.0	54.0	62.0	67.0	76.0	89.0
1978	28.0	28.0	30.0	31.0	39.0	64.0	83.0	100.0	182.0
1979	44.0	45.0	47.0	53.0	62.0	74.0	102.0	118.0	151.0

STATION 12025000 NEWAUKUM RIVER NR CHEHALIS, WASH.

LOWEST MEAN FLOW STATISTICS (YEARS 1930-1979)

MEAN	32.4	33.1	34.8	37.6	42.3	51.4	61.4	78.1	129.0
MAXIMUM	56.0	57.0	64.0	70.0	78.0	85.0	124.0	160.0	233.0
MINIMUM	14.0	15.0	16.0	18.0	21.0	23.0	28.0	39.0	54.0
STANDARD DEVIATION	10.75	10.77	11.27	12.01	13.94	16.70	22.63	29.57	44.16
SKWENESS	0.377	0.440	0.613	0.576	0.636	0.286	0.831	0.811	0.638
STD ERROR OF SKWENESS	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383
SERIAL CORR COEFF	0.034	0.015	0.041	0.013	0.106	0.098	0.096	0.040	0.018
COEFF OF VARIATION	0.331	0.325	0.324	0.319	0.330	0.325	0.368	0.379	0.342
MEAN LOGS	1.486	1.496	1.520	1.553	1.603	1.688	1.761	1.863	2.086
STD DEVIATION LOGS	0.153	0.148	0.143	0.142	0.144	0.146	0.156	0.160	0.150
SKWENESS LOGS	-0.479	-0.389	-0.225	-0.249	-0.105	-0.220	0.139	0.156	-0.149
STD ERR SKWENESS LOGS	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383
SER CORR COEFF LOGS	0.059	0.037	0.072	0.031	0.098	0.093	0.108	0.045	0.006
COEFF OF VAR LOGS	0.103	0.099	0.094	0.091	0.090	0.087	0.088	0.086	0.072

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1979)

0.99	61.3	62.7	67.4	72.0	84.6	101.1	137.8	179.7	262.2
0.98	57.5	58.7	62.5	66.9	77.8	93.6	123.7	160.6	241.0
0.96	53.4	54.2	57.4	61.6	70.8	85.7	109.9	142.0	219.2
0.90	47.1	47.7	50.0	53.8	61.1	74.4	91.8	117.8	188.7
0.80	41.4	42.0	43.8	47.2	53.1	64.9	77.8	99.3	163.4
0.50	31.5	32.1	33.5	36.2	40.3	49.4	57.2	72.3	122.9
0.20	23.0	23.8	25.2	27.3	30.4	36.9	42.6	53.4	91.3
0.10	19.2	20.0	21.5	23.3	26.1	31.4	36.6	45.8	77.8
0.05	16.4	17.3	18.9	20.4	23.0	27.5	32.4	40.5	68.0
0.02	13.6	14.6	16.2	17.5	19.9	23.5	28.4	35.3	58.3
0.01	12.0	12.9	14.6	15.8	18.1	21.1	26.0	32.3	52.5

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED *PM PERCENT OF THE TIME (YEARS 1930-1979)

P95	P90	P75	P70	P50	P25	P10
37.0	46.0	86.0	110.0	260.0	640.0	1300.0

STATION 12025000 NEWAUKUM RIVER NR CHEHALIS, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1929										
1930	2670.	2270.	1600.	1360.	1090.	848.	711.	682.	540.	3090. 03/27/29
1931	4600.	3710.	2260.	1640.	1240.	968.	893.	798.	622.	6750. 04/01/31
1932	4010.	3010.	2380.	1870.	1430.	1190.	1160.	1020.	872.	4990. 11/23/42
1933	4080.	2670.	1590.	947.	787.	708.	679.	615.	512.	4500. 12/03/43
1934	4160.	3010.	2130.	1550.	1100.	1030.	888.	728.	608.	6080. 02/08/45
1935	3710.	3120.	2510.	2240.	1820.	1340.	1300.	1190.	952.	5900. 02/06/46
1936	4810.	4180.	3050.	2150.	1880.	1220.	1250.	1080.	890.	6350. 12/11/46
1937	3830.	3470.	2810.	2090.	1560.	1160.	1100.	1050.	923.	5630. 03/22/48
1938	5460.	3790.	3290.	2690.	2110.	1440.	1250.	1210.	980.	6950. 02/17/49
1939	4920.	4630.	3070.	2480.	2110.	1740.	1620.	1460.	1160.	5720. 02/24/50
1940	4200.	4110.	2920.	2160.	1800.	1580.	1640.	1460.	1170.	5240. 02/09/51
1941	3700.	3260.	2100.	1590.	1240.	975.	1000.	909.	781.	3980. 02/04/52
1942	4060.	3230.	2750.	2620.	2430.	1620.	1220.	1020.	781.	4540. 01/23/53
1943	5380.	4460.	3750.	2610.	1940.	1720.	1650.	1460.	1110.	7880. 12/09/53
1944	3990.	3260.	2160.	1440.	1150.	1020.	945.	845.	700.	4780. 02/08/55
1945	5070.	4360.	3090.	2390.	2270.	1960.	1750.	1490.	1350.	7200. 12/12/55
1946	3300.	3070.	2310.	2050.	1540.	1130.	1010.	992.	826.	4300. 12/10/56
1947	2920.	2370.	2060.	1710.	1300.	1230.	1160.	1020.	837.	3590. 12/26/57
1948	3800.	3170.	2150.	1740.	1520.	1260.	1240.	1100.	941.	6290. 11/12/58
1949	4230.	3840.	2900.	1890.	1480.	1000.	1030.	965.	908.	5950. 11/21/59
1950	4320.	3400.	3170.	2380.	1890.	1560.	1400.	1330.	1150.	6460. 11/20/60
1951	3030.	2310.	1690.	1290.	909.	766.	731.	637.	3820.	12/24/61
1952	6170.	3500.	2920.	2210.	1530.	1060.	944.	827.	777.	6960. 11/20/62
1953	6530.	4240.	2860.	2530.	1930.	1370.	1200.	1080.	895.	7970. 01/25/64
1954	5200.	4490.	3540.	2340.	1690.	1530.	1480.	1290.	901.	6500. 12/23/64
1955	3640.	2850.	2140.	1920.	1500.	1020.	1050.	907.	702.	4520. 01/06/66
1956	4600.	3400.	2380.	2250.	1930.	1680.	1450.	1270.	991.	5450. 01/20/67
1957	4000.	3150.	2370.	1890.	1240.	1040.	984.	903.	736.	4810. 02/19/68
1958	3560.	3140.	2570.	1850.	1410.	1330.	1180.	1100.	927.	4300. 12/04/68
1959	4490.	3660.	2750.	2720.	1840.	1360.	1150.	965.	764.	5300. 01/14/70
1960	6690.	5750.	3870.	3120.	2270.	1760.	1450.	1100.	8390.	01/26/71
1961	7220.	6130.	4200.	2890.	2270.	1970.	1700.	1590.	1270.	9770. 01/21/72
1962	4250.	3500.	3290.	2380.	1580.	1050.	853.	718.	556.	6330. 12/21/72
1963	6230.	5060.	4570.	3260.	2450.	1730.	1620.	1470.	1220.	8440. 01/15/74
1964	6090.	4570.	3390.	2320.	1900.	1450.	1260.	1120.	870.	7400. 01/14/75
1965	7020.	6040.	4290.	2760.	2150.	1950.	1610.	1430.	1200.	8020. 12/04/75
1966	2380.	1780.	1300.	1090.	843.	601.	506.	481.	389.	2570. 03/09/77
1967	8190.	5410.	3440.	3050.	2230.	1510.	1280.	1110.	883.	10300. 12/02/77
1968	4910.	3030.	2250.	1690.	1340.	894.	780.	755.	624.	7280. 02/07/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1929-1979)

	W R C ESTIMATE	SYSTEMATIC RECORD
MEAN	4651.8	3.7530
MAXIMUM	8190.0	0.1380
MINIMUM	2380.0	-0.0310
STANDARD DEVIATION	1317.14	
STANDARD ERROR OF SKEWNESS	0.764	
STD ERROR OF SKEWNESS	0.378	
SERIAL CORR COEFF	0.043	
COEFF OF VARIATION	0.283	
MEAN LOGS	3.651	
STD DEVIATION LOGS	0.061	
SKEWNESS LOGS	-0.053	
STD ERR SKEWNESS LOGS	0.378	
SER CORR COEFF LOGS	-0.017	
COEFF OF VAR LOGS	0.033	

STATION 12025000 NEHAUKUM RIVER NEAR CHEHALIS, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1979)										
0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01	
2378.5	2851.9	3145.0	3543.9	4467.2	5653.4	6404.3	7324.2	7893.0	8650.6	
1823.4	2222.7	2467.9	2798.7	3550.4	4488.4	5066.5	5759.2	6252.8	6730.2	
1309.5	1662.4	1871.5	2143.0	2712.1	3331.5	3667.9	4031.0	4265.7	4475.8	
928.9	1238.4	1420.5	1653.1	2117.8	2575.9	2799.8	3020.0	3150.1	3258.1	
747.1	973.2	1107.4	1281.2	1640.6	2020.1	2192.2	2427.7	2558.4	2672.6	
596.3	764.3	865.3	998.3	1283.7	1605.2	1785.0	1983.5	2114.4	2233.5	
516.1	684.2	784.4	914.0	1180.4	1456.9	1599.0	1745.0	1834.8	1912.1	
489.9	635.7	722.0	833.6	1063.6	1305.6	1432.3	1564.7	1647.7	1720.1	
396.3	519.8	592.7	686.5	877.5	1073.4	1173.3	1275.3	1337.8	1391.3	
2683.9	3347.8	3764.1	4335.6	5671.6	7402.0	8499.5	9842.8	10817.4	11773.1	
2443.7	3236.2	3723.0	4372.8	5795.7	7431.8	8357.4	9385.3	10666.2	10666.7	

STATION 12025300 SALZER CREEK NEAR CENTRALIA, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1969-1979)			M R C SYSTEMATIC RECORD	
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKEWNESS LOGS	ESTIMATE	RECORD
1969	275.0	12-4-1968					
1970	297.0	1-14-1970				2.4811	2.4811
1971	315.0	1-26-1971				0.0245	0.0245
1972	320.0	1-20-1972				0.061	-0.946
1973	294.0	12-27-1972					
1974	313.0	1-15-1974					
1975	318.0	1-14-1975					
1976	318.0	12-4-1975					
1977	274.0	3-9-1977					
1978	311.0	12-2-1977	0.99			266.2	255.8
1979	300.0	2-7-1979	0.95			276.2	272.5
			0.90			281.7	280.7
			0.80			288.7	290.0
			0.50			302.6	305.4
			0.20			317.4	317.7
			0.10			325.6	322.8
			0.04			334.6	327.4
			0.02			340.6	329.9
			0.01			346.1	331.8

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1969-1979)

STATION 12025700 SKOOKUMCHUCK RIVER NEAR VAIL, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1968	154	157	341	331	531	315	198	100	140	41.2	71.2	95.7	205
1969	187	294	463	327	275	311	280	149	94.6	34.2	34.2	66.3	212
1970	123	133	313	524	336	169	199	127	47.6	29.0	20.5	36.3	171
1971	91.0	215	549	756	324	436	293	172	112	70.0	35.5	60.0	260
1972	112	332	368	696	653	621	317	154	61.8	46.5	29.3	46.5	286
1973	29.0	104	497	329	134	202	112	92.8	94.2	48.8	29.2	34.3	143
1974	67.5	445	553	702	433	467	301	158	145	81.5	41.5	27.9	285
1975	25.0	203	369	587	346	262	139	148	60.8	36.5	40.1	36.1	187
1976	209	424	697	546	321	334	264	162	75.8	50.5	41.5	32.3	263
1977	38.1	51.5	78.4	68.6	92.5	320	148	142	135	39.6	38.8	76.7	103
1978	85.4	409	692	290	268	167	210	135	74.3	40.4	34.5	95.5	208
1979	43.1	126	241	119	488	231	200	121	42.5	34.0	24.1	39.7	140

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1968-1979)

MEAN	97.0	241.1	430.1	439.6	350.1	319.6	221.7	138.4	90.3	48.3	36.7	53.9	205.2
MAXIMUM	209.0	445.0	697.0	756.0	653.0	621.0	317.0	172.0	145.0	81.5	71.2	95.7	286.0
MINIMUM	25.0	51.5	78.4	68.6	92.5	167.0	112.0	92.8	42.5	29.0	20.5	27.9	103.0
STD DEVIATION	61.80	135.90	181.74	228.51	158.84	133.96	68.51	24.36	35.96	15.59	12.78	24.49	59.82
SKENNESS	0.584	0.320	-0.222	-0.182	0.236	1.030	-0.112	-0.707	0.336	1.032	1.788	0.807	-0.124
STD ERR SKEW	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR COEFF	-0.071	-0.789	-0.840	0.330	-0.355	-0.154	-0.564	-0.273	-0.256	-0.422	0.119	0.287	-0.448
COEFF OF VAR	0.637	0.564	0.423	0.520	0.454	0.419	0.309	0.176	0.398	0.323	0.348	0.454	0.291
MEAN LOGS	1.893	2.305	2.580	2.560	2.492	2.472	2.325	2.134	1.922	1.665	1.544	1.693	2.293
STD DEV LOGS	-0.280	-0.606	-1.825	-1.301	-1.076	0.201	-0.558	-1.004	-0.167	0.132	0.136	0.189	0.138
SKENNESS LOGS	0.313	0.288	0.257	0.322	0.241	0.176	0.146	0.083	0.181	0.132	0.136	0.423	-0.656
STD ERR SKEW LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR LOGS	-0.159	-0.730	-0.604	0.196	-0.274	-0.212	-0.583	-0.278	-0.242	-0.462	0.113	0.304	-0.435
COEFF OF VAR LOGS	0.166	0.125	0.100	0.126	0.097	0.071	0.063	0.039	0.094	0.079	0.088	0.111	0.060
% OF AVE FLOW	3.9	9.8	17.4	17.8	14.2	13.0	9.0	5.6	3.7	2.0	1.5	2.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1968-1979)

0.99	12.6	32.5	47.4	33.7	56.5	122.8	84.5	76.5	30.2	25.5	19.2	20.6	81.0
0.95	22.6	61.4	117.5	87.3	108.9	156.0	115.9	95.2	41.4	29.4	22.0	25.5	110.7
0.90	30.4	83.8	174.5	134.7	147.7	178.1	135.3	115.5	48.7	32.0	29.0	29.0	152.8
0.80	43.1	119.0	260.6	213.2	205.1	210.1	161.3	117.9	59.1	35.7	26.8	34.0	128.7
0.50	80.8	216.0	450.5	424.2	342.6	292.3	217.9	140.6	84.6	45.1	34.0	47.9	203.4
0.20	144.5	356.6	610.0	675.2	497.6	414.4	281.7	160.2	119.1	59.1	45.0	70.3	258.0
0.10	192.3	447.4	663.8	797.9	575.8	501.3	316.8	168.9	141.4	69.1	53.0	87.5	286.8
0.04	257.2	555.6	698.9	908.9	651.3	617.7	354.9	176.7	169.1	82.6	64.0	112.0	317.0
0.02	308.0	630.6	712.1	967.0	694.1	709.3	379.4	181.0	189.3	93.2	72.8	132.4	335.9
0.01	360.6	700.7	719.4	1009.7	728.0	805.0	401.4	184.3	209.2	104.4	82.1	154.7	352.3

STATION 12025700 SKOOKUMCHUCK RIVER NEAR VAIL, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1969	26.0	26.0	26.0	26.0	31.0	40.0	59.0	70.0	99.0
1970	25.0	25.0	26.0	26.0	29.0	34.0	50.0	62.0	84.0
1971	18.0	19.0	19.0	19.0	20.0	24.0	27.0	29.0	54.0
1972	30.0	30.0	31.0	33.0	35.0	43.0	48.0	61.0	91.0
1973	23.0	23.0	24.0	24.0	26.0	30.0	35.0	38.0	52.0
1974	23.0	23.0	24.0	25.0	26.0	29.0	34.0	43.0	60.0
1975	20.0	20.0	21.0	22.0	23.0	26.0	30.0	39.0	71.0
1976	22.0	22.0	23.0	24.0	27.0	34.0	36.0	41.0	70.0
1977	25.0	25.0	25.0	27.0	28.0	31.0	34.0	39.0	44.0
1978	24.0	25.0	25.0	26.0	28.0	36.0	45.0	52.0	82.0
1979	27.0	27.0	28.0	29.0	32.0	37.0	47.0	53.0	64.0

LOWEST MEAN FLOW STATISTICS (YEARS 1969-1979)

MEAN	23.9	24.1	24.7	25.7	27.7	33.1	40.5	47.9	70.1
MAXIMUM	30.0	30.0	31.0	33.0	35.0	43.0	59.0	70.0	99.0
MINIMUM	18.0	19.0	19.0	19.0	20.0	24.0	27.0	29.0	44.0
STANDARD DEVIATION	3.30	3.15	3.23	3.69	4.15	5.79	9.89	12.60	17.36
SKEWNESS	-0.025	0.110	0.147	0.162	-0.133	0.110	0.465	0.393	0.200
STD ERROR OF SKEWNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	-0.358	-0.262	-0.374	-0.424	-0.385	-0.290	0.097	-0.112	-0.291
COEFF OF VARIATION	0.138	0.131	0.131	0.143	0.150	0.175	0.245	0.263	0.248
MEAN LOGS	1.375	1.376	1.390	1.406	1.438	1.514	1.595	1.667	1.833
STD DEVIATION LOGS	0.061	0.057	0.057	0.063	0.067	0.077	0.106	0.115	0.110
SKEWNESS LOGS	-0.423	-0.215	-0.279	-0.335	-0.572	-0.226	0.108	-0.048	-0.191
STD ERR SKEWNESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SER CORR COEFF LOGS	-0.358	-0.258	-0.380	-0.423	-0.389	-0.290	0.0	-0.234	-0.336
COEFF OF VAR LOGS	0.045	0.042	0.041	0.045	0.047	0.051	0.066	0.069	0.060

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1969-1979)

0.99	31.5	31.8	32.5	34.5	36.8	47.9	70.6	85.1	118.5
0.98	30.6	30.9	31.5	33.5	35.9	46.0	65.8	79.4	111.6
0.96	29.7	29.8	30.5	32.3	34.8	43.9	60.8	73.5	104.3
0.90	28.2	28.2	28.9	30.5	33.1	40.8	53.9	65.1	93.7
0.80	26.7	26.7	27.5	28.9	31.3	38.0	48.2	58.0	84.5
0.50	23.9	24.0	24.7	25.7	27.8	32.8	39.2	46.5	68.7
0.20	21.1	21.4	22.0	22.6	24.2	28.2	32.1	37.2	55.2
0.10	19.7	20.1	20.6	21.1	22.3	25.9	28.9	33.0	49.0
0.05	18.5	19.1	19.6	19.8	20.8	24.1	26.6	29.9	44.3
0.02	17.2	18.0	18.4	18.4	19.1	22.2	24.3	26.8	39.4
0.01	16.4	17.2	17.6	17.5	18.0	21.0	22.8	24.8	36.5

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1969-1979)

P95	P90	P75	P70	P50	P25	P10
26.0	31.0	49.0	59.0	120.0	250.0	470.0

STATION 12025700 SKOOKUMCHUCK RIVER NEAR VAIL, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30												ANNUAL PEAK-FLOW DATA	
YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW (CFS)	DATE	REG. (R)	
1968	1790.	1300.	844.	537.	521.	431.	400.	379.	317.	2670.	02/04/68		
1969	1090.	1030.	775.	624.	500.	464.	385.	348.	325.	2060.	12/03/68		
1970	1670.	1030.	913.	867.	608.	464.	401.	345.	280.	2100.	01/14/70		
1971	2380.	1990.	1300.	1140.	814.	675.	557.	529.	434.	3790.	01/25/71		
1972	4340.	3020.	1860.	1170.	941.	826.	674.	606.	497.	6900.	01/20/72		
1973	1830.	1420.	1290.	939.	647.	435.	355.	297.	231.	2680.	12/21/72		
1974	3040.	2240.	1480.	1010.	868.	676.	628.	567.	483.	4630.	01/15/74		
1975	1640.	1380.	1200.	853.	652.	516.	454.	410.	329.	2420.	01/13/75		
1976	3000.	2570.	1710.	1080.	770.	669.	595.	518.	448.	3620.	12/04/75		
1977	972.	791.	560.	411.	325.	246.	208.	196.	156.	1260.	03/09/77		
1978	2940.	1770.	1180.	1110.	815.	569.	477.	422.	342.	4200.	12/02/77		
1979	1290.	941.	794.	642.	548.	361.	303.	273.	237.	2580.	02/06/79		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1968-1979)

	MEAN	MINIMUM	STANDARD DEVIATION	SKWENESS	STD ERROR OF SKWENESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	STD ERR SKWENESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	2165.2	434.0	972.0	0.883	0.637	-0.311	0.461	3.294	0.198	0.087	-0.332	0.060	3.4710	3.4710
	1623.5	3020.0	791.0	0.778	0.637	-0.191	0.434	3.174	0.185	0.203	-0.205	0.058	0.1942	0.1942
	1158.8	1860.0	560.0	0.321	0.637	0.055	0.343	3.039	0.156	-0.294	0.637	0.051	0.0340	0.0520
	865.2	1170.0	411.0	-0.500	0.637	-0.123	0.296	2.916	0.147	-0.905	-0.138	0.050		
	667.4	941.0	325.0	-0.263	0.637	-0.160	0.269	2.808	0.130	-0.946	-0.179	0.046		
	527.7	826.0	246.0	0.173	0.637	-0.224	0.306	2.702	0.146	-0.655	-0.264	0.053		
	453.1	674.0	208.0	0.019	0.637	-0.295	0.307	2.635	0.145	-0.727	-0.306	0.055		
	407.5	606.0	196.0	0.071	0.637	-0.277	0.310	2.589	0.150	-0.560	-0.382	0.060		
	339.9	497.0	156.0	0.006	0.637	-0.380	0.315	2.509	0.160	-0.670	-0.382	0.060		
	107.21	107.21	107.21	0.006	0.637	-0.380	0.315	2.509	0.160	-0.670	-0.382	0.060		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1968-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	701.5	940.5	1102.2	1338.8	1956.1	2884.6	3547.3	4435.2	5131.9	5857.8
	592.2	761.4	875.0	1040.7	1472.2	2125.6	2596.8	3235.3	3742.1	4275.5
	440.5	590.1	684.8	814.8	1114.2	1486.4	1711.4	2158.4	2584.1	3331.8
	302.9	439.7	524.3	636.0	867.4	1101.2	1215.5	1391.6	1612.7	1944.5
	263.3	368.0	430.7	511.6	673.2	829.2	902.9	1012.7	1127.9	1344.8
	200.4	277.3	324.6	387.4	521.8	668.0	745.8	827.6	923.7	1044.8
	166.3	234.0	275.9	331.5	449.5	575.7	641.4	709.2	786.7	893.7
	156.6	214.1	249.7	297.2	400.6	516.6	580.5	649.5	733.7	846.4
	123.1	173.1	204.3	245.9	335.7	434.0	486.5	541.6	603.8	686.4
	1063.5	1423.8	1670.4	2028.7	2950.3	4305.9	5254.2	6503.8	7469.4	8463.2
	1427.2	1671.9	2043.3	2528.0	3596.3	5304.0	6522.1	7502.3	8514.5	

STATION 12026000 SKOOKUMCHUCK RIVER NEAR CENTRALIA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1929													
1930	26.8	25.7	27.3	178	551	309	333	152	104	45.9	30.1	24.8	
1931	36.1	107	115	441	296	392	411	134	174	38.0	26.5	23.7	149
1932	174	475	627	681	671	620	411	91.6	98.1	56.1	33.2	42.1	176
1933	65.8	659	729	565	257	570	238	243	185	72.0	40.3	31.7	333
1934	44.7	72.7	545	202	621	429	246	223	51.5	65.9	49.2	102	311
1941	75.0	181	257	296	149	129	110	155	84.7	33.9	26.1	25.2	209
1942	141	297	632	211	296	197	114	139	212	41.1	32.1	79.3	132
1943	46.2	528	531	268	516	294	335	97.5	94.5	89.9	44.5	28.8	200
1944	61.0	104	346	404	261	195	220	101	101	55.3	35.0	26.0	233
1945	35.4	195	154	442	465	503	343	249	74.8	30.1	24.2	30.6	153
1946	44.9	521	525	642	630	454	213	109	130	46.4	26.0	41.8	233
1947	134	464	778	450	489	227	253	110	64.6	102	41.3	36.7	285
1948	282	409	401	525	504	339	331	285	64.6	42.6	29.2	38.0	252
1949	129	459	691	166	802	452	206	195	96.0	49.4	47.8	70.9	268
1950	66.1	346	592	595	938	712	451	182	60.0	36.6	28.8	26.4	278
1951	220	630	598	642	713	346	229	109	98.7	27.3	36.1	31.9	338
1952	220	355	464	331	469	246	229	138	49.4	27.4	22.3	28.9	296
1953	21.4	28.5	222	1156	492	254	185	187	133	42.5	25.8	21.9	216
1954	139	313	769	662	840	274	373	104	156	59.4	39.4	35.3	334
1955	96.2	349	426	406	382	333	524	246	140	83.3	50.5	53.3	315
1956	319	715	908	662	346	667	376	148	116	88.8	49.3	53.1	257
1957	146	229	481	166	529	512	271	140	77.3	47.7	35.1	33.0	365
1958	56.9	186	523	505	536	210	338	96.9	54.3	32.7	22.6	26.2	220
1959	71.8	591	398	750	300	320	290	185	115	50.0	34.0	88.0	266
1960	167	433	386	239	505	389	434	260	99.4	46.4	45.5	40.2	252
1961	102	694	274	533	883	619	273	242	69.5	39.1	28.3	30.5	312
1962	94.6	221	537	302	207	264	268	190	94.0	41.7	42.0	38.3	192
1963	130	616	407	222	379	243	399	198	64.4	58.5	38.0	36.5	231
1964	85.2	531	305	915	348	382	250	166	149	67.7	51.7	48.1	275
1965	77.5	379	733	694	437	152	156	108	46.9	30.9	29.2	24.0	238
1966	52.6	166	258	592	275	607	262	108	59.0	69.5	31.1	32.7	210
1967	103	237	780	929	401	382	231	134	79.5	38.2	23.8	22.7	281
1968	178	190	424	427	714	404	241	121	185	48.2	84.7	116	259
1969	222	378	616	467	426	370	321	171	103	65.1			

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1929-1969)

MEAN	113.7	355.4	491.3	490.2	489.1	376.4	285.3	160.6	97.6	52.5	36.6	41.7	247.4
MINIMUM	319.0	715.0	908.0	1156.0	938.0	712.0	524.0	285.0	212.0	102.0	84.7	116.0	365.0
STO DEVIATION	21.4	25.7	115.0	166.0	149.0	129.0	110.0	71.0	46.9	27.4	22.3	21.9	132.0
STO DEVIATION	74.19	187.84	197.54	238.30	198.04	153.19	97.72	55.98	41.75	18.24	12.21	23.19	55.84
SKENNESS	1.064	0.116	0.066	0.711	0.552	0.538	0.351	0.546	1.098	1.038	1.918	1.939	-0.020
STD ERR SKEW	0.403	0.403	0.403	0.403	0.403	0.403	0.398	0.398	0.398	0.398	0.403	0.403	0.403
SER CORR COEFF	0.137	0.036	-0.175	0.015	0.032	0.133	0.064	0.106	-0.098	0.039	-0.141	-0.240	0.194
COEFF OF VAR	0.653	0.557	0.402	0.486	0.405	0.407	0.343	0.349	0.347	0.334	0.334	0.556	0.226
MEAN LOGS	1.964	2.448	2.649	2.637	2.653	2.539	2.428	2.180	1.954	1.697	1.543	1.573	2.382
STD DEV LOGS	0.296	0.360	0.208	0.227	0.186	0.195	0.160	0.152	0.174	0.142	0.128	0.190	0.104
SKENNESS LOGS	-1.176	-1.438	-0.983	-0.336	-0.416	-0.295	-0.563	-0.022	0.357	0.355	0.696	1.172	-0.624
STD ERR SKEW LOGS	0.403	0.403	0.403	0.403	0.403	0.403	0.398	0.398	0.398	0.398	0.403	0.403	0.403
SER CORR LOGS	0.116	-0.098	-0.098	-0.001	-0.033	0.120	0.099	0.099	-0.097	0.016	-0.109	-0.234	0.409
COEFF OF VAR LOGS	0.150	0.147	0.079	0.086	0.070	0.073	0.066	0.070	0.089	0.084	-0.083	0.121	0.044
COEFF OF AVE FLOW	3.8	11.9	16.4	16.4	16.4	12.6	9.5	5.4	3.3	1.8	1.2	1.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1969)

0.99	17.3	18.3	106.0	113.2	145.6	117.2	98.1	66.6	39.4	25.3	20.5	19.7	123.9
0.95	29.1	56.1	182.0	175.1	211.7	165.9	138.8	84.9	48.6	30.1	23.0	21.6	156.4
0.90	38.0	92.8	234.7	218.4	255.3	198.1	164.5	96.6	54.9	33.2	24.7	23.2	175.1
0.80	52.2	157.0	309.6	282.2	316.8	243.5	199.5	112.8	63.9	37.6	27.2	25.8	199.0
0.50	93.9	339.3	481.2	446.1	463.1	353.3	277.6	151.6	87.9	48.8	33.8	34.4	246.9
0.20	164.0	556.9	671.2	676.7	648.9	497.6	367.8	203.4	125.0	65.1	44.1	51.7	295.8
0.10	217.0	658.9	768.4	828.0	761.8	588.3	418.4	237.0	152.3	76.5	51.7	67.4	320.9
0.04	290.3	746.1	864.7	1014.9	893.3	697.5	473.6	278.6	190.1	91.6	62.3	93.2	346.6
0.02	348.7	788.8	921.1	1150.2	983.8	775.0	509.6	309.8	220.6	103.5	70.9	117.8	362.6
0.01	410.0	818.6	967.2	1282.0	1068.8	849.5	541.8	340.1	253.3	115.8	80.2	147.7	376.4

STATION 12026000 SKOOKUNCHUCK RIVER NEAR CENTRALIA, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1930	22.0	22.0	22.0	22.0	24.0	25.0	25.0	26.0	40.0
1931	21.0	22.0	22.0	22.0	23.0	23.0	27.0	30.0	48.0
1932	29.0	29.0	29.0	30.0	32.0	38.0	43.0	57.0	80.0
1933	26.0	26.0	26.0	27.0	30.0	32.0	40.0	47.0	69.0
1941	21.0	21.0	22.0	24.0	25.0	25.0	27.0	30.0	57.0
1942	25.0	25.0	26.0	28.0	31.0	36.0	38.0	58.0	82.0
1943	24.0	25.0	25.0	27.0	28.0	29.0	34.0	48.0	91.0
1944	23.0	24.0	24.0	24.0	25.0	28.0	33.0	43.0	60.0
1945	18.0	18.0	20.0	22.0	23.0	24.0	28.0	30.0	47.0
1946	20.0	20.0	21.0	23.0	25.0	25.0	32.0	37.0	76.0
1947	27.0	28.0	29.0	31.0	33.0	36.0	40.0	68.0	85.0
1948	25.0	25.0	26.0	26.0	28.0	33.0	36.0	43.0	66.0
1949	32.0	32.0	33.0	36.0	42.0	44.0	48.0	62.0	100.0
1950	23.0	23.0	24.0	24.0	26.0	28.0	30.0	36.0	53.0
1951	24.0	24.0	24.0	24.0	26.0	28.0	37.0	36.0	91.0
1952	19.0	19.0	19.0	19.0	20.0	22.0	24.0	30.0	66.0
1953	19.0	19.0	19.0	19.0	20.0	21.0	23.0	33.0	33.0
1954	25.0	26.0	27.0	27.0	32.0	35.0	43.0	63.0	97.0
1955	41.0	43.0	44.0	46.0	49.0	51.0	54.0	68.0	89.0
1956	32.0	32.0	32.0	33.0	32.0	37.0	60.0	76.0	136.0
1957	29.0	29.0	29.0	29.0	32.0	33.0	35.0	46.0	87.0
1958	25.0	25.0	26.0	26.0	27.0	29.0	33.0	38.0	60.0
1959	20.0	20.0	21.0	21.0	22.0	24.0	26.0	31.0	48.0
1960	34.0	34.0	34.0	34.0	34.0	42.0	56.0	67.0	96.0
1961	29.0	30.0	30.0	31.0	31.0	43.0	41.0	44.0	97.0
1962	23.0	24.0	24.0	24.0	27.0	29.0	31.0	36.0	64.0
1963	26.0	26.0	27.0	29.0	30.0	36.0	38.0	48.0	80.0
1964	27.0	27.0	28.0	29.0	31.0	35.0	37.0	43.0	75.0
1965	35.0	36.0	36.0	41.0	44.0	49.0	55.0	61.0	90.0
1966	19.0	19.0	20.0	20.0	24.0	26.0	27.0	31.0	47.0
1967	25.0	26.0	26.0	29.0	29.0	31.0	33.0	43.0	63.0
1968	19.0	19.0	19.0	20.0	22.0	20.0	28.0	40.0	72.0
1969	28.0	28.0	29.0	30.0	36.0	47.0	69.0	83.0	122.0

LOWEST MEAN FLOW STATISTICS (YEARS 1930-1969)

MEAN	25.3	25.6	26.2	27.3	29.4	33.1	37.6	46.5	74.6
MAXIMUM	41.0	43.0	44.0	46.0	49.0	51.0	69.0	83.0	136.0
MINIMUM	16.0	16.0	19.0	19.0	20.0	21.0	23.0	23.0	35.0
STANDARD DEVIATION	5.29	5.55	5.69	6.08	6.73	8.44	11.33	15.31	23.10
SKENNESS	0.962	1.065	1.201	1.161	1.105	0.616	1.028	0.612	0.496
STD ERROR OF SKENNESS	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409
SERIAL CORR COEFF	0.146	0.132	0.125	0.056	0.138	0.118	-0.012	-0.005	0.053
COEFF OF VARIATION	0.209	0.217	0.217	0.223	0.229	0.255	0.302	0.329	0.309
MEAN LOGS	1.395	1.399	1.409	1.426	1.429	1.507	1.557	1.645	1.852
STD DEVIATION LOGS	0.087	0.088	0.088	0.091	0.093	0.108	0.123	0.142	0.139
SKENNESS LOGS	0.441	0.450	0.583	0.549	0.554	0.209	0.472	0.066	-0.335
STD ERR SKENNESS LOGS	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409
SER CORR COEFF LOGS	0.140	0.123	0.127	0.061	0.148	0.105	-0.002	0.004	0.040
COEFF OF VAR LOGS	0.062	0.064	0.063	0.064	0.064	0.072	0.079	0.086	0.075

STATION 12026000 SKOOKUMCHUCK RIVER NEAR CENTRALIA, WASH.

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1969)

0.99	42.1	43.3	44.9	47.2	51.6	59.6	76.7	95.9	138.4
0.98	39.1	40.1	41.4	43.5	47.5	55.1	69.1	87.4	129.5
0.96	36.2	37.0	38.1	39.9	43.5	50.6	61.8	78.8	119.9
0.90	32.3	32.9	33.6	35.2	38.2	44.4	52.4	67.3	105.8
0.80	29.2	29.6	30.2	31.6	34.2	39.5	45.4	58.1	93.5
0.50	24.4	24.7	25.2	26.2	28.2	31.9	35.3	44.0	72.4
0.20	20.9	21.0	21.6	22.3	23.9	26.0	28.3	33.6	54.7
0.10	19.4	19.5	20.1	20.7	22.2	23.5	25.6	29.2	46.7
0.05	18.3	18.4	19.1	19.6	20.9	21.7	23.6	26.0	40.8
0.02	17.3	17.3	18.0	18.5	19.8	19.8	21.7	22.9	34.8
0.01	16.6	16.6	17.5	17.8	19.1	18.7	20.6	21.0	31.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED 10^6 PERCENT OF THE TIME (YEARS 1930-1969)

P95	P90	P75	P70	P50	P25	P10
26.0	30.0	51.0	64.0	140.0	310.0	600.0

STATION 12026000 SKOOKUNCHUCK RIVER NEAR CENTRALIA, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (R)
1930	1760.	1230.	851.	651.	529.	421.	339.	334.	265.	2020. 03/22/30
1931	2380.	1700.	1010.	781.	613.	473.	437.	387.	295.	3240. 03/31/31
1932	3740.	2540.	1980.	1400.	948.	738.	679.	651.	579.	4180. 02/26/32
1933	3440.	1930.	1380.	1010.	908.	797.	660.	572.	505.	4070. 11/13/32
1934	1880.	1780.	1250.	863.	630.	542.	485.	459.	376.	2740. 12/15/39
1941	1440.	904.	585.	420.	315.	289.	252.	227.	191.	1880. 01/18/41
1942	2930.	1930.	1460.	947.	648.	478.	427.	369.	297.	3800. 12/19/41
1943	2040.	1430.	1190.	787.	667.	558.	511.	462.	409.	2930. 11/23/42
1944	2260.	1410.	840.	502.	427.	381.	306.	256.	2780.	12/21/61
1945	1730.	1460.	994.	760.	560.	488.	479.	442.	363.	2780. 02/07/45
1946	2050.	1770.	1340.	1190.	807.	690.	646.	617.	495.	3080. 12/28/45
1947	3160.	2390.	1880.	1340.	1060.	656.	658.	564.	450.	3880. 12/11/46
1948	2080.	1540.	1210.	901.	754.	515.	495.	460.	425.	3880. 03/22/48
1949	3670.	2190.	1820.	1280.	883.	630.	555.	554.	463.	5770. 02/17/49
1950	3220.	2390.	1530.	1370.	1140.	895.	834.	754.	607.	5350. 12/28/49
1951	2750.	2480.	1630.	1060.	906.	731.	752.	661.	530.	3980. 02/09/51
1952	2160.	1430.	1320.	900.	596.	444.	466.	414.	357.	2850. 02/04/52
1953	2200.	1820.	1470.	1370.	1290.	834.	639.	539.	415.	2680. 01/09/53
1954	3870.	2380.	1670.	1150.	876.	741.	755.	664.	531.	6710. 12/09/53
1955	2000.	1570.	1020.	723.	594.	492.	468.	438.	413.	4010. 02/08/55
1956	2660.	2300.	1550.	1260.	1090.	913.	791.	668.	629.	6230. 12/11/55
1957	1870.	1790.	1190.	969.	709.	536.	434.	437.	367.	3390. 12/09/56
1958	1540.	1190.	975.	800.	593.	584.	522.	455.	383.	1950. 12/25/57
1959	2930.	1810.	1330.	923.	750.	584.	599.	525.	444.	4260. 11/12/58
1960	2400.	2080.	1370.	805.	666.	452.	468.	422.	410.	3860. 11/22/59
1961	2700.	1840.	1600.	1180.	906.	754.	678.	653.	552.	4100. 11/20/60
1962	1470.	1110.	1040.	806.	619.	466.	381.	335.	310.	2020. 12/21/61
1963	2810.	1840.	1450.	1160.	809.	571.	485.	412.	388.	4000. 01/20/62
1964	4470.	2510.	1690.	1270.	941.	679.	618.	540.	456.	5990. 01/25/64
1965	2760.	2120.	1650.	1090.	815.	694.	687.	572.	424.	4420. 12/22/64
1966	2570.	1540.	1120.	922.	662.	471.	511.	463.	363.	3170. 03/09/66
1967	3390.	2150.	1340.	1150.	941.	856.	722.	636.	499.	4460. 12/13/66
1968	2750.	1900.	1190.	703.	698.	569.	523.	491.	405.	3960. 02/04/68
1969										2970. 12/03/68

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HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1930-1969)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	2578.2	1831.9	1324.1	983.1	770.1	603.6	554.5	499.5	419.8	
MAXIMUM	4470.0	2540.0	1980.0	1400.0	1290.0	913.0	834.0	754.0	629.0	
MINIMUM	1440.0	904.0	585.0	420.0	315.0	289.0	252.0	227.0	191.0	
STANDARD DEVIATION	749.53	432.39	322.94	256.29	209.11	156.37	141.23	122.80	102.14	
SKEWNESS	0.549	-0.128	-0.031	-0.150	0.314	0.287	0.050	-0.005	0.012	
STD ERROR OF SKEWNESS	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	
SERIAL CORR COEFF	0.037	0.018	0.040	0.125	0.090	-0.035	0.079	0.120	0.150	
COEFF OF VARIATION	0.291	0.236	0.244	0.261	0.272	0.259	0.255	0.246	0.243	
MEAN LOGS	3.394	3.250	3.108	2.976	2.870	2.766	2.729	2.685	2.609	
STD DEVIATION LOGS	0.126	0.110	0.114	0.125	0.115	0.116	0.118	0.115	0.114	
SKEWNESS LOGS	-0.036	-0.683	-0.779	-0.849	-0.662	-0.315	-0.616	-0.698	-0.763	3.5530
STD ERR SKEWNESS LOGS	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.409	0.1407
SER CORR COEFF LOGS	0.038	0.0	0.057	0.142	0.134	0.006	0.122	0.156	0.208	0.0150
COEFF OF VAR LOGS	0.037	0.034	0.037	0.042	0.044	0.042	0.043	0.043	0.044	0.0150

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1969)

0.99	1247.8	871.0	601.1	409.1	331.1	295.1	252.8	229.8	191.9	1687.3
0.95	1528.8	1121.9	791.1	557.0	440.1	367.9	328.6	299.5	251.7	2099.5
0.90	1702.5	1268.2	902.3	645.1	505.2	411.4	373.5	340.4	286.7	2346.2
0.80	1938.3	1454.8	1044.0	758.3	589.8	468.6	431.5	392.7	331.2	2719.1
0.50	2479.4	1830.3	1327.0	986.1	765.1	591.9	551.0	498.8	420.4	3569.5
0.20	3163.9	2210.8	1607.5	1211.1	948.9	733.0	676.5	606.6	509.2	4691.3
0.10	3590.4	2403.6	1745.8	1320.6	1044.4	813.3	742.1	661.2	553.2	5414.1
0.04	4105.9	2599.6	1883.1	1427.8	1143.1	903.7	810.4	716.7	597.0	6310.4
0.02	4475.7	2719.5	1964.9	1490.7	1204.4	964.4	853.2	750.6	623.2	6968.1
0.01	4835.6	2822.1	2033.4	1542.5	1257.4	1020.4	890.5	779.5	645.3	7619.1

1617.6	2066.3	2346.2	2727.6	3603.9	4703.0	5378.6	6183.9	6753.7	7301.3
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STATION 12026150 SKOOKUMCHUCK R BLW BLDY RN CR N CENTRALIA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1969	141	164	404	754	467	224	261	148	52.4	30.0	34.7	71.6	225
1970	106	120	377	1075	456	617	406	196	144	106	21.1	42.3	321
1971	162	255	528	905	831	829	452	231	144	104	114	139	386
1972	130	166	264	474	233	168	145	118	126	106	84.1	118	177
1973	155	350	787	910	606	601	388	204	184	104	96.7	124	375
1974	144	159	240	855	447	346	166	179	138	109	79.0	115	248
1975	150	382	959	775	425	454	309	197	115	102	104	129	342
1976	128	123	95.8	92.6	62.5	88.0	153	201	190	88.3	85.6	119	119
1977	154	310	1100	406	335	127	259	158	113	104	106	140	276
1978	192	137	216	157	459	289	243	159	81.7	81.1	90.2	143	187

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1969-1979)

MEAN	146.2	216.6	497.1	640.4	432.1	374.3	278.2	179.1	124.5	94.0	83.1	116.9	265.6
MAXIMUM	192.0	382.0	1100.0	1075.0	831.0	829.0	452.0	231.0	190.0	109.0	114.0	145.0	386.0
MINIMUM	106.0	120.0	95.8	92.6	62.5	88.0	145.0	118.0	52.4	30.0	21.1	42.3	119.0
STD DEVIATION	22.95	99.12	340.82	337.48	204.89	244.89	109.27	33.25	42.24	23.70	29.36	32.12	90.04
SKEWNESS	0.297	0.724	0.783	-0.581	0.153	0.653	0.308	-0.376	0.090	-2.640	-1.426	-1.634	-0.139
STD ERR SKEW	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.661	0.661	0.687
SER CORR COEFF	-0.202	-0.680	-0.864	0.382	-0.174	-0.015	-0.323	-0.442	-0.205	-0.230	0.377	0.307	-0.483
COEFF OF VAR	0.157	0.458	0.686	0.527	0.474	0.654	0.393	0.186	0.339	0.252	0.353	0.275	0.339
MEAN LOGS	2.160	2.297	2.594	2.709	2.566	2.477	2.412	2.246	2.069	1.951	1.878	2.045	2.398
STD DEV LOGS	0.069	0.191	0.329	0.360	0.307	0.320	0.179	0.086	0.164	0.170	0.230	0.163	0.164
SKEWNESS LOGS	-0.276	0.437	-0.332	-1.374	-1.960	-0.297	-0.170	-0.794	-0.876	-2.947	-1.926	-2.125	-0.728
STD ERR SKEW LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.661	0.661	0.687
SER CORR LOGS	-0.231	-0.693	-0.907	0.217	-0.082	0.055	-0.430	-0.637	-0.200	-0.232	0.414	0.278	-0.447
COEFF OF VAR LOGS	0.032	0.083	0.127	0.133	0.119	0.129	0.074	0.038	0.079	0.087	0.123	0.080	0.069
% OF AVE FLOW	4.6	6.8	15.6	20.1	13.6	11.8	8.7	5.6	3.9	3.0	2.6	3.7	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1969-1979)

0.99	96.8	81.9	56.1	34.5	29.3	46.0	94.4	99.7	38.5	18.5	11.4	28.0	85.4
0.95	110.0	101.7	105.5	103.1	90.2	84.0	128.9	122.6	58.2	40.8	26.3	52.4	125.5
0.90	117.5	115.3	145.2	169.2	146.4	114.2	151.5	135.3	70.7	56.1	37.7	68.4	151.1
0.80	126.8	135.8	210.7	284.7	238.2	163.3	183.6	151.0	87.6	75.5	54.3	89.1	185.8
0.50	145.6	191.7	409.6	615.0	455.5	310.9	261.5	180.7	123.9	104.2	88.4	125.2	261.9
0.20	165.5	283.4	750.6	1021.2	638.9	562.3	366.4	208.5	162.2	114.9	114.5	147.7	346.1
0.10	176.2	354.1	1006.9	1218.7	697.0	751.2	434.3	221.7	181.5	116.2	122.5	153.5	391.0
0.04	187.9	455.7	1354.2	1393.6	732.0	1008.1	518.1	234.4	200.7	116.3	127.4	156.4	437.8
0.02	195.5	540.8	1625.2	1482.6	743.9	1205.5	578.1	241.9	212.0	116.5	129.1	157.3	466.9
0.01	202.5	634.3	1903.6	1546.4	750.1	1417.3	639.0	248.1	221.5	116.5	129.9	157.7	492.0

STATION 12026150 SKOOKUMCHUCK R BLW BLDY RN CR N CENTRALIA WASH

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31												
YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS			
1971	17.0	18.0	18.0	19.0	21.0	25.0	29.0	32.0	56.0			
1972	85.0	90.0	90.0	91.0	92.0	100.0	115.0	123.0	142.0			
1973	74.0	81.0	87.0	90.0	92.0	99.0	104.0	111.0	124.0			
1974	76.0	80.0	82.0	83.0	83.0	90.0	101.0	105.0	116.0			
1975	85.0	86.0	87.0	87.0	88.0	96.0	105.0	114.0	132.0			
1976	76.0	76.0	76.0	76.0	78.0	84.0	98.0	108.0	127.0			
1977	52.0	52.0	53.0	54.0	59.0	73.0	81.0	85.0	99.0			
1978	79.0	80.0	81.0	83.0	85.0	87.0	93.0	102.0	138.0			
1979	99.0	99.0	100.0	101.0	102.0	103.0	107.0	113.0	132.0			

LOWEST MEAN FLOW STATISTICS (YEARS 1971-1979)

MEAN	71.4	73.6	74.9	76.0	77.8	84.1	92.6	99.2	118.4
MAXIMUM	99.0	99.0	100.0	101.0	102.0	103.0	115.0	123.0	142.0
MINIMUM	17.0	18.0	18.0	19.0	21.0	25.0	29.0	32.0	56.0
STANDARD DEVIATION	23.91	24.41	24.89	24.99	24.37	24.07	25.67	27.27	26.67
SKEWNESS	-1.671	-1.741	-1.784	-1.771	-1.866	-2.214	-2.278	-2.256	-1.901
STD ERROR OF SKEWNESS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SERIAL CORR COEFF	-0.190	-0.211	-0.134	-0.113	-0.125	-0.222	-0.442	-0.469	-0.541
COEFF OF VARIATION	0.335	0.332	0.332	0.329	0.313	0.286	0.277	0.275	0.225
MEAN LOGS	1.814	1.828	1.835	1.843	1.857	1.897	1.940	1.971	2.060
STD DEVIATION LOGS	0.232	0.228	0.231	0.225	0.211	0.193	0.184	0.180	0.126
SKEWNESS LOGS	-2.458	-2.431	-2.450	-2.429	-2.495	-2.685	-2.705	-2.678	-2.313
STD ERR SKEWNESS LOGS	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
SER CORR COEFF LOGS	-0.213	-0.238	-0.180	-0.167	-0.174	-0.265	-0.463	-0.469	-0.504
COEFF OF VAR LOGS	0.128	0.125	0.126	0.122	0.114	0.102	0.095	0.092	0.061

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1971-1979)

0.99	100.6	103.6	105.5	106.7	106.3	109.7	119.3	127.7	147.4
0.98	100.5	103.5	105.4	106.5	106.2	109.7	119.3	127.7	147.2
0.96	100.2	103.2	105.1	106.2	105.9	109.5	119.1	127.5	146.9
0.90	98.9	101.7	103.7	104.8	104.8	108.9	118.5	126.8	145.4
0.80	95.6	98.2	100.1	101.2	101.7	106.7	116.3	124.4	142.1
0.50	78.8	81.0	82.6	83.7	85.7	93.1	102.3	109.4	126.7
0.20	49.3	50.9	51.7	52.9	55.9	63.6	71.2	76.6	97.8
0.10	33.4	34.7	35.1	36.3	39.2	45.7	51.9	56.2	79.4
0.05	22.3	23.4	24.5	24.6	27.0	32.3	37.1	40.6	64.1
0.02	12.9	13.7	13.7	14.5	16.3	20.0	23.4	26.0	48.1
0.01	8.5	9.1	9.0	9.7	11.1	13.8	16.4	18.4	38.6

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED WPM PERCENT OF THE TIME (YEARS 1971-1979)

P95	P90	P75	P70	P50	P25	P10
68.0	84.0	110.0	120.0	150.0	300.0	540.0

STATION 12026150 SKOOKUMCHUCK R BLW BLDY RN CR N CENTRALIA, WASH

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

ANNUAL PEAK-FLOW DATA

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW(CFS)	DATE	REG.(R)
1930										2020.	03/22/30	
1931										3240.	03/31/31	
1932										4180.	02/26/32	
1933										4070.	11/13/32	
1940										2740.	12/15/39	
1941										1880.	01/18/41	
1942										3800.	12/19/41	
1943										2930.	11/23/42	
1944										2780.	12/03/43	
1945										3080.	02/07/45	
1946										3080.	12/28/45	
1947										3880.	12/11/46	
1948										3880.	03/22/48	
1949										5770.	02/17/49	
1950										5350.	12/28/49	
1951										3980.	02/09/51	
1952										2850.	02/04/52	
1953										2680.	01/09/53	
1954										6710.	12/09/53	
1955										4010.	02/08/55	
1956										6230.	12/11/55	
1957										3390.	12/09/56	
1958										1950.	12/25/57	
1959										4260.	11/12/58	
1960										3860.	11/22/59	
1961										4100.	11/20/60	
1962										2020.	12/21/61	
1963										4000.	11/20/62	
1964										5990.	01/25/64	
1965										4420.	12/22/64	
1966										3170.	03/09/66	
1967										4460.	12/13/66	
1968										3960.	02/04/68	
1969										2970.	12/03/68	
1970	2370.	1590.	1330.	1290.	886.	650.	556.	475.	380.	2910.	01/14/70	R
1971	3460.	2740.	1860.	1600.	1110.	802.	732.	680.	522.	4200.	01/26/71	R
1972	4430.	3670.	2270.	1450.	1210.	1070.	880.	782.	639.	6120.	01/20/72	R
1973	1230.	980.	735.	566.	541.	424.	332.	288.	241.	1550.	12/28/72	R
1974	3390.	2820.	1790.	1260.	1110.	922.	798.	746.	605.	4910.	01/15/74	R
1975	2820.	2040.	1730.	1220.	877.	669.	557.	475.	374.	3170.	01/14/75	R
1976	4170.	3720.	2470.	1560.	998.	917.	736.	660.	556.	4950.	12/04/75	R
1977	522.	450.	369.	292.	251.	208.	184.	161.	139.	550.	01/02/77	R
1978	4150.	2810.	1840.	1700.	1140.	780.	646.	545.	423.	5680.	12/02/77	R
1979	1180.	1010.	777.	652.	579.	369.	336.	287.	254.	1290.	02/12/79	R

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1930-1979)

W R C SYSTEMATIC ESTIMATE RECORD

MEAN	2772.2	2183.0	1517.1	1159.0	870.2	681.1	575.7	509.9	413.3
MAXIMUM	4430.0	3720.0	2470.0	1700.0	1210.0	1070.0	880.0	782.0	639.0
MINIMUM	522.0	450.0	369.0	292.0	251.0	208.0	184.0	161.0	139.0
STANDARD DEVIATION	1398.26	1148.97	693.55	485.81	315.61	274.42	228.06	212.28	167.64
SKWENESS	-0.442	-0.108	-0.420	-0.792	-0.924	-0.435	-0.479	-0.333	-0.211
STD ERROR OF SKWENESS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SERIAL CORR COEFF	-0.689	-0.635	-0.517	-0.559	-0.504	-0.507	-0.457	-0.423	-0.454
COEFF OF VARIATION	0.504	0.526	0.457	0.419	0.363	0.403	0.396	0.416	0.406
MEAN LOGS	3.366	3.263	3.122	3.012	2.902	2.790	2.715	2.663	2.576
STD DEVIATION LOGS	0.308	0.299	0.264	0.251	0.214	0.222	0.216	0.223	0.211
SKWENESS LOGS	-1.207	-0.987	-1.189	-1.397	-1.666	-1.203	-1.159	-1.023	-0.957
STD ERR SKWENESS LOGS	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
SER CORR COEFF LOGS	-0.546	-0.547	-0.459	-0.468	-0.400	-0.428	-0.404	-0.384	-0.406
COEFF OF VAR LOGS	0.092	0.092	0.085	0.083	0.074	0.079	0.079	0.084	0.082

3.5442
0.1667
-0.6210

3.5308
0.2028
-1.5790

STATION 12026150 SKOOKUMCHUCK R BLW BLDY RN CR N CENTRALIA, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1979)												
0.99	248.0	230.2	195.9	155.1	147.7	123.7	110.8	96.8	87.9	0.0	701.4	
0.95	598.7	504.5	415.1	335.0	302.5	232.9	203.3	175.3	151.9	1753.4	1359.2	
0.90	897.4	728.7	586.3	474.4	415.2	311.5	268.9	231.3	196.4	2101.7	1824.2	
0.80	1381.8	1087.1	847.8	683.4	574.6	424.8	362.9	312.5	260.0	2577.6	2472.9	
0.50	2668.4	2049.1	1490.3	1170.5	907.5	681.9	575.3	501.8	406.5	3641.6	3817.9	
0.20	4222.7	3294.9	2213.6	1663.3	1188.4	948.9	797.4	712.7	569.9	4864.3	4976.9	
0.10	5010.9	3990.4	2568.0	1877.8	1290.1	1073.5	902.6	819.6	653.9	5561.4	5414.0	
0.04	5753.6	4710.7	2897.2	2057.0	1362.4	1186.1	995.3	923.9	737.5	6273.1	5739.3	
0.02	6159.7	5144.9	3076.2	2144.4	1392.4	1246.0	1051.7	983.9	786.6	6743.3	5880.9	
0.01	6470.4	5505.5	3212.8	2205.4	1410.7	1291.1	1091.8	1032.2	826.9	7160.3	5970.9	

STATION 12026300 SKOOKUMCHUCK R TRIBUTARY NEAR BUCODA, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1961-1975)			W R C		SYSTEMATIC	
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKEWNESS LOGS	ESTIMATE	RECORD		
1961	39.0	11-2-1960				1.5115	1.5115		
1962	11.0	12-20-1961				0.1917	0.1917		
1963	53.0	11-19-1962				0.049	-0.944		
1964	39.0	1-25-1964							
1965	45.0	1-26-1965							
1966	27.0	1-5-1966							
1967	33.0	12-13-1966							
1968	28.0	2-4-1968							
1969	20.0	2-9-1969	0.99			11.8	8.7		
1970	33.0	1-14-1970	0.95			15.8	14.2		
1971	49.0	1-25-1971	0.90			18.5	18.0		
1972	59.0	1-20-1972	0.80			22.4	23.2		
1973	45.0	12-21-1972	0.50			32.4	34.8		
1974	22.0	1-15-1974	0.20			47.0	47.3		
1975	25.0	1-13-1975	0.10			57.3	53.7		
			0.04			70.9	60.0		
			0.02			81.3	63.6		
			0.01			92.1	66.6		

STATION 12026400 SKOOKUMCHUCK RIVER NEAR BUCODA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1968				645	1097	607	356	161	250	55.2	94.0	131	
1969	292	581	955	853	729	439	409	198	112	71.4	34.7	72.2	394
1970	162	198	649	1112	680	318	347	189	162.9	33.9	25.7	46.2	317
1971	110	166	676	1617	619	886	562	219	157	110	90.3	139	446
1972	169	371	844	1351	1298	1446	625	270	109	108	121	152	571
1973	137	184	478	1590	271	240	180	125	141	108	81.6	104	220
1974	151	553	1088	1264	931	858	601	287	248	122	103	143	527
1975	149	194	442	1243	638	513	234	230	157	107	62.8	109	339
1976	170	505	1356	1117	644	636	408	240	125	107	104	120	462
1977	122	122	105	95.0	85.7	243	184	257	253	91.5	81.7	138	148
1978	177	524	1539	602	441	222	366	219	139	121	109	180	387
1979	193	205	377	237	710	420	319	189	78.5	78.7	79.8	125	248

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1968-1979)

MEAN	166.5	327.5	773.5	893.8	678.6	569.0	382.6	215.3	152.7	92.8	82.3	121.6	369.0
MAXIMUM	292.0	581.0	1539.0	1617.0	1298.0	1446.0	625.0	287.0	253.0	122.0	121.0	180.0	571.0
MINIMUM	110.0	122.0	105.0	95.0	85.7	222.0	180.0	125.0	62.9	33.9	25.7	46.2	148.0
STD DEVIATION	48.16	180.45	434.56	467.00	331.18	356.66	150.41	46.23	65.28	27.55	28.87	35.75	130.61
SKEWNESS	1.850	0.390	0.383	-0.292	0.111	1.436	0.344	-0.350	0.583	-1.070	-0.900	-0.739	-0.141
STD ERR SKEW	0.661	0.661	0.661	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.661
SER CORR COEFF	-0.046	-0.745	-0.912	0.319	-0.205	-0.024	-0.386	-0.351	-0.095	0.283	0.114	0.174	-0.477
COEFF OF VAR	0.289	0.551	0.562	0.522	0.488	0.627	0.393	0.215	0.427	0.297	0.351	0.294	0.354
MEAN LOGS	2.208	2.451	2.802	2.856	2.757	2.685	2.550	2.323	2.146	1.943	1.879	2.062	2.538
STD DEV LOGS	0.112	0.250	0.326	0.359	0.313	0.255	0.182	0.101	0.192	0.166	0.205	0.159	0.176
SKEWNESS LOGS	0.960	0.108	-1.348	-1.617	-1.824	0.284	-0.347	-0.916	-0.185	-1.679	-1.574	-1.628	-0.879
STD ERR SKEW LOGS	0.661	0.661	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.661
SER CORR LOGS	-0.114	-0.767	0.131	-0.079	-0.061	-0.461	-0.461	-0.355	-0.029	0.218	0.239	0.209	-0.849
COEFF OF VAR LOGS	0.051	0.102	0.116	0.126	0.114	0.095	0.071	0.044	0.089	0.085	0.109	0.077	0.070
% DF AVE FLOW	3.7	7.3	17.4	20.1	15.2	12.8	8.6	4.8	3.4	2.1	1.8	2.7	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1968-1979)

0.99	106.5	77.7	55.9	43.4	45.3	139.5	120.5	105.4	47.3	23.7	15.4	33.1	104.3
0.95	114.6	111.8	149.1	141.9	136.6	193.4	171.3	136.4	66.3	41.4	30.0	56.1	162.3
0.90	120.5	136.3	232.7	239.8	221.1	232.5	204.6	154.0	79.0	52.9	40.4	70.9	200.2
0.80	129.6	173.8	371.9	412.0	380.3	293.3	251.5	175.9	97.1	68.1	55.0	90.2	252.1
0.50	154.9	279.9	747.0	887.3	701.9	470.7	363.1	217.9	142.0	97.1	85.3	126.9	365.7
0.20	196.2	457.3	1187.0	1407.6	1015.3	786.0	506.8	256.6	203.7	119.6	111.5	155.6	488.0
0.10	227.5	594.6	1397.9	1635.7	1125.3	1044.1	595.3	274.6	244.2	132.7	128.9	173.1	550.5
0.04	271.9	790.3	1584.4	1793.1	1198.5	1431.1	700.1	291.5	294.6	132.7	128.9	173.1	613.0
0.02	308.5	952.0	1679.8	1866.6	1226.1	1766.4	773.3	301.1	331.5	134.9	132.2	176.1	650.2
0.01	348.2	1127.4	1748.7	1913.1	1241.6	2144.7	842.9	308.8	367.9	136.3	134.3	178.0	681.2

STATION 12026400 SKOOKUMCHUCK RIVER NEAR BUCODA, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1969	33.0	33.0	34.0	36.0	41.0	53.0	78.0	95.0	153.0
1970	25.0	26.0	26.0	27.0	28.0	35.0	57.0	70.0	104.0
1971	23.0	23.0	24.0	24.0	26.0	29.0	33.0	36.0	64.0
1972	59.0	71.0	79.0	83.0	87.0	96.0	111.0	123.0	147.0
1973	79.0	83.0	92.0	99.0	103.0	107.0	112.0	120.0	133.0
1974	46.0	47.0	56.0	61.0	73.0	85.0	97.0	108.0	118.0
1975	84.0	86.0	87.0	89.0	91.0	105.0	119.0	128.0	153.0
1976	51.0	52.0	52.0	53.0	56.0	70.0	91.0	104.0	136.0
1977	56.0	59.0	61.0	62.0	76.0	90.0	95.0	101.0	107.0
1978	65.0	67.0	69.0	73.0	77.0	85.0	97.0	110.0	162.0
1979	95.0	96.0	98.0	101.0	103.0	113.0	121.0	133.0	152.0

LOWEST MEAN FLOW STATISTICS (YEARS 1969-1979)

MEAN	56.0	58.5	61.6	64.4	69.2	78.9	91.9	102.5	129.9
MAXIMUM	95.0	96.0	98.0	101.0	103.0	113.0	121.0	133.0	162.0
MINIMUM	23.0	23.0	24.0	24.0	26.0	29.0	33.0	36.0	64.0
STANDARD DEVIATION	23.72	24.76	26.11	27.47	27.81	28.79	27.01	28.15	29.33
SKEWNESS	0.139	-0.047	-0.156	-0.174	-0.459	-0.720	-1.178	-1.471	-1.180
STD ERROR OF SKEWNESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	0.335	0.298	0.355	0.379	0.453	0.456	0.330	0.254	-0.044
COEFF OF VARIATION	0.424	0.424	0.424	0.427	0.402	0.365	0.294	0.275	0.226
MEAN LOGS	1.707	1.724	1.746	1.764	1.798	1.861	1.939	1.988	2.101
STD DEVIATION LOGS	0.206	0.212	0.216	0.220	0.215	0.200	0.168	0.162	0.118
SKEWNESS LOGS	-0.546	-0.629	-0.706	-0.743	-0.948	-1.197	-1.868	-2.205	-1.748
STD ERR SKEWNESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SER CORR COEFF LOGS	0.480	0.430	0.476	0.480	0.520	0.491	0.287	0.195	-0.020
COEFF OF VAR LOGS	0.121	0.123	0.124	0.125	0.120	0.108	0.087	0.082	0.056

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1969-1979)

	0.99	0.98	0.96	0.90	0.80	0.75	0.70	0.50	0.25	0.10	0.05	0.02	0.01
127.0	131.3	136.8	142.6	140.6	142.0	130.6	130.6	136.5	170.6				
117.1	121.8	127.4	133.1	133.6	137.5	129.8	129.8	136.2	169.6				
106.4	111.1	116.9	122.3	125.0	131.4	128.4	128.4	135.6	167.9				
90.5	95.0	100.5	105.3	110.4	120.0	124.4	124.4	133.4	163.5				
76.6	80.5	85.4	89.6	95.9	107.3	118.0	118.0	128.9	156.8				
53.2	55.8	59.1	61.8	67.8	79.5	97.2	97.2	110.2	135.9				
34.8	35.9	37.6	39.0	43.0	51.8	68.1	68.1	78.6	105.7				
27.1	27.7	28.7	29.5	32.3	39.1	52.3	52.3	60.2	88.2				
21.8	22.0	22.5	23.0	24.9	30.1	40.3	40.3	46.0	73.9				
16.8	16.6	16.8	17.0	18.0	21.6	28.7	28.7	32.0	58.6				
14.0	13.7	13.6	13.7	14.3	17.0	22.2	22.2	24.3	49.3				

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1969-1979)

P95	P90	P75	P70	P50	P25	P10
56.0	80.0	120.0	130.0	180.0	450.0	820.0

STATION 12026400 SKOOKUNCHUCK RIVER NEAR BUCODA, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (R)
1968										4850. 02/04/68
1969	3050.	2380.	1840.	1350.	1070.	972.	875.	787.	660.	3680. 12/04/68
1970	3300.	2560.	1940.	1480.	1270.	978.	837.	706.	553.	3810. 01/14/70
1971	6090.	4660.	3010.	2470.	1680.	1190.	1060.	986.	768.	6630. 01/26/71
1972	7170.	5180.	3230.	2300.	1890.	1690.	1390.	1240.	997.	8190. 01/21/72
1973	1440.	1340.	1100.	913.	774.	600.	464.	400.	324.	1770. 12/21/72
1974	5250.	3750.	2460.	1770.	1610.	1310.	1130.	1060.	880.	5950. 01/16/74
1975	4190.	3070.	2440.	1750.	1270.	967.	827.	715.	556.	4610. 01/14/75
1976	5790.	4880.	3300.	2050.	1370.	1280.	1050.	948.	785.	6110. 12/04/75
1977	723.	667.	532.	404.	335.	267.	251.	238.	188.	764. 03/09/77
1978	5040.	3900.	2720.	2430.	1650.	1130.	922.	787.	617.	7170. 12/02/77
1979	1610.	1370.	1050.	889.	830.	560.	475.	439.	381.	2000. 02/07/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1968-1979)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKWENESS	STD ERROR OF SKWENESS	SERIAL CORR. COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKWENESS LOGS	STD ERR SKWENESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	# R C ESTIMATE	SYSTEMATIC RECORD
	3968.5	3068.8	2147.5	1655.1	1249.9	994.9	843.7	755.1	609.9						3.5899	3.5899
	7170.0	5180.0	3300.0	2470.0	1890.0	1690.0	1390.0	1240.0	997.0						0.3040	0.3040
	723.0	667.0	532.0	404.0	335.0	267.0	251.0	238.0	188.0						-1.3090	-1.3090
	2113.94	1542.76	938.30	685.94	466.04	399.57	332.96	303.00	244.80							
	-0.165	-0.137	-0.450	-0.566	-0.603	-0.648	-0.355	-0.232	-0.197							
	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661							
	-0.447	-0.447	-0.454	-0.452	-0.407	-0.436	-0.392	-0.379	-0.422							
	0.533	0.563	0.444	0.373	0.305	0.242	0.217	0.214	0.214							
	3.516	3.418	3.278	3.169	3.058	2.954	2.885	2.837	2.744							
	0.315	0.283	0.251	0.242	0.216	0.225	0.217	0.214	0.214							
	-1.051	-0.998	-1.227	-1.418	-1.639	-1.401	-1.258	-1.088	-1.121							
	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661							
	-0.424	-0.454	-0.430	-0.408	-0.347	-0.376	-0.358	-0.363	-0.385							
	0.090	0.083	0.076	0.076	0.071	0.076	0.075	0.075	0.078							

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1968-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01
	357.8	365.3	305.4	236.7	209.4	165.7	155.9	150.7	120.6	409.3
	835.6	770.5	629.0	500.2	429.4	330.2	293.8	270.4	218.0	1010.2
	1240.6	1092.7	875.9	700.8	590.1	450.8	392.4	354.8	286.7	1523.8
	1902.2	1597.3	1246.1	998.0	818.4	625.1	533.7	475.4	384.9	2353.4
	3715.8	2911.8	2128.6	1677.2	1298.9	1011.5	849.3	749.7	607.2	4511.5
	6074.8	4558.8	3084.8	2348.2	1711.1	1384.3	1167.8	1043.3	842.3	6992.6
	7374.9	5458.1	3538.6	2634.8	1862.9	1542.4	1312.0	1186.6	955.3	8180.6
	8696.7	6376.1	3950.2	2870.8	1972.7	1672.7	1438.9	1322.0	1060.7	9242.3
	9476.7	6923.0	4169.1	2984.5	2019.1	1735.6	1504.7	1397.6	1118.8	9792.8
	10112.2	7373.4	4333.4	3063.0	2047.7	1779.3	1553.2	1457.0	1163.8	10195.1

STATION 12027000 LINCOLN CREEK NEAR ROCHESTER, WASH.
MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1942										12.0	5.05	2.50	
1943	9.41									7.32	3.91	2.41	
1944	8.78									4.38	2.18	3.41	
1945	5.21	58.8	55.0	139	152	145	68.9	32.5	12.1	3.47	1.22	4.92	56.0
1946	5.87	112	160	190	173	106	70.5	17.8	10.2	7.37	2.53	3.12	71.0
1947	16.9	126	200	127	157	53.9	49.8	17.4	11.2	6.48	1.63	2.75	63.6
1948	52.4	114	101	154	150	105	77.7	80.7	16.9	4.44	2.71	7.76	72.0
1949	23.7	142	269	51.6	251	96.6	40.0	30.7	8.21	2.70	1.70	1.56	75.4
1950	21.8	116	213	171	299	218	85.1	28.2	9.73	4.94	3.39	2.03	96.5

STATION 12027000 LINCOLN CREEK NEAR ROCHESTER, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW (CFS)	DATE
1945	830.0	2-7-1945
1946	890.0	12-28-1945
1947	934.0	1-25-1947
1948	699.0	3-22-1948
1949	930.0	2-17-1949
1950	990.0	12-28-1949

STATION 12027500 CHEMALIS RIVER NEAR GRAND MOUND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1929		1101	2737	2804	2296	3940	4392	1237	901	405	193	197	
1930	272	326	2886	2072	6828	3095	1566	1204	710	287	195	189	1600
1931	350	1201	1233	5654	3858	4483	5179	1709	885	409	235	314	2028
1932	1474	4125	5605	6053	6850	7340	4318	1716	588	399	252	242	3168
1933	532	7539	9152	8265	4372	6931	2377	1756	1117	436	295	650	3620
1934	1790	2792	19280	9445	2020	3453	1565	891	243	283	189	229	3358
1935	2457	9192	7475	9647	3946	5127	2038	745	414	262	171	283	3482
1936	294	837	1921	10320	5141	5522	1577	1567	2482	550	264	268	2561
1937	224	221	3777	2160	7859	4251	6787	1570	1902	604	312	357	2460
1938	664	8107	8822	5817	4193	5290	3366	983	381	223	159	131	3172
1939	374	2098	3581	6401	8174	3664	1086	549	650	330	189	172	2238
1940	201	497	5812	3803	9047	5422	3205	2870	489	259	180	214	2656
1941	735	2139	3785	4627	1884	1482	1098	1451	640	299	212	786	1596
1942	1051	3278	8181	2812	4209	2266	1134	1233	1589	625	282	180	2225
1943	249	5551	5936	4107	6935	2687	4161	1123	762	369	254	208	2661
1944	615	1018	3115	4153	3232	2281	2406	887	571	240	154	193	1569
1945	284	1866	1850	4813	6226	6151	2577	1951	572	256	173	368	2235
1946	298	3675	5453	7870	7731	4583	2600	840	710	609	237	257	2878
1947	1043	5365	8042	5109	6497	2569	2403	710	536	300	172	286	2728
1948	2429	4636	4531	6863	6400	4272	3389	3496	821	348	273	469	3152
1949	995	5268	10260	2131	11060	3956	1568	1414	426	243	173	172	3088
1950	502	4175	7414	8138	10680	8497	3832	1238	536	265	274	209	3774
1951	2110	7087	8545	9597	9289	5048	1834	819	356	182	123	155	3732
1952	2137	3776	6909	4417	6054	3071	1886	955	436	257	153	135	2507
1953	125	257	2454	12800	6298	2734	1752	1571	882	361	248	218	2462
1954	1097	3753	9070	9707	11100	3163	3452	766	1033	538	312	481	3662
1955	834	4058	4227	5098	4362	4877	5554	1590	717	534	297	319	2594
1956	2635	9697	12400	9791	3829	9060	3343	826	803	322	228	229	4444
1957	1580	2542	5987	2253	6030	6470	2746	971	556	305	245	155	2868
1958	399	1488	6595	6465	6911	2645	3806	967	589	229	129	184	2509
1959	657	6750	5375	9044	4589	3668	3602	2263	912	422	205	876	3187
1960	1754	5177	4962	3281	6908	4937	5171	2629	857	327	283	252	3026
1961	717	7319	3177	6743	11490	8173	2959	2397	553	255	135	178	3620
1962	709	1877	6564	3399	2876	3893	2829	1882	773	283	317	212	2141
1963	1436	7803	5016	2773	5597	3205	4689	1899	514	401	276	324	2799
1964	1163	6440	3498	11880	3971	5324	2020	1114	931	416	343	309	3120
1965	533	3380	9288	9037	6136	1903	1506	1085	383	187	178	173	2803
1966	434	1938	3389	8095	3499	7475	2107	746	421	395	157	172	2407
1967	752	1972	9843	11040	5370	4679	2691	928	502	214	118	117	3188
1968	1807	2065	5551	6184	8720	4544	2548	1232	1750	376	570	869	3000
1969	2075	4627	7981	6090	6317	3676	2784	1101	778	442	200	434	3025
1970	960	1691	5562	9398	5625	2600	2692	1323	414	174	132	301	2562
1971	732	2307	9359	13900	4623	8246	4138	1255	840	515	255	524	3906
1972	940	3441	7579	11060	7499	9477	4176	1310	528	372	247	481	3926
1973	375	1235	6653	4662	7681	2492	1378	871	778	397	209	338	1766
1974	691	8032	9811	9718	7681	6428	5029	1867	1251	639	294	278	4289
1975	206	1823	5058	9579	5371	4548	1560	1498	532	323	271	322	2585
1976	1727	5432	10800	8540	5269	5461	2899	1213	734	435	350	329	3589
1977	346	606	884	860	1201	4431	1261	1201	1201	344	368	788	1122
1978	854	5363	11290	4457	3486	2507	2590	1628	805	426	214	1289	2921
1979	662	1948	3632	1660	7555	3625	2029	1227	395	284		398	1932

STATION 12027500 CHEHALIS RIVER NEAR GRAND MOUND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1929-1979)

MEAN	949.6	3703.7	6315.8	6560.2	5854.8	4618.5	2895.2	1344.3	770.2	359.1	234.3	338.7	2836.8
MAXIMUM	2635.0	9697.0	19280.0	13900.0	11490.0	9477.0	6787.0	3496.0	2482.0	639.0	570.0	1289.0	4444.0
MINIMUM	125.0	221.0	884.0	860.0	1201.0	1462.0	1886.0	549.0	353.0	174.0	118.0	117.0	1122.0
STD DEVIATION	677.98	2554.27	3352.66	3220.15	2478.10	1951.70	1308.73	589.36	416.39	120.08	80.84	230.77	726.71
STANDARD ERROR	0.975	0.611	1.151	0.210	0.360	0.764	0.794	1.596	2.172	0.695	1.397	2.191	-0.036
SKEDNESS	0.337	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.337
SER CORR COEFF	0.118	-0.110	-0.072	0.206	0.062	0.075	-0.069	0.073	0.097	-0.036	-0.030	0.165	-0.036
COEFF OF VAR	0.714	0.690	0.531	0.491	0.423	0.423	0.452	0.438	0.541	0.334	0.345	0.681	0.256
MEAN LOGS	2.866	3.429	3.734	3.752	3.722	3.627	3.418	3.094	2.840	2.532	2.347	2.460	3.437
STD DEV LOGS	0.325	0.402	0.260	0.262	0.215	0.186	0.199	0.170	0.192	0.144	0.142	0.234	0.122
SKEDNESS LOGS	-0.104	-0.936	-0.808	-0.888	-0.916	-0.135	-0.098	0.475	0.755	0.038	0.126	0.806	-0.855
STD ERR SKEW LOGS	0.337	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.333	0.337
SER CORR LOGS	0.056	0.012	-0.082	0.114	0.007	0.065	-0.080	0.037	0.015	-0.052	-0.003	0.195	-0.031
COEFF OF VAR LOGS	0.113	0.117	0.070	0.070	0.058	0.051	0.058	0.055	0.068	0.057	0.061	0.095	0.035
% OF AVE FLOW	2.8	10.9	18.6	19.3	17.2	13.6	8.5	4.0	2.3	1.1	0.7	1.0	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1979)

0.99	121.7	169.7	959.8	952.2	1214.8	1501.6	871.6	574.6	317.1	159.3	106.7	113.6	1203.0
0.95	209.9	477.0	1804.2	1841.4	2059.8	2042.5	1216.0	691.5	372.1	198.4	131.1	136.6	1628.1
0.90	279.2	776.4	2438.8	2516.4	2718.9	2433.7	1448.0	771.2	412.0	223.2	146.6	153.9	1879.9
0.80	392.7	1322.2	3403.9	3545.6	3608.1	2963.2	1784.1	888.9	474.1	257.6	168.2	181.8	2202.3
0.50	743.3	3097.1	5873.0	6163.8	5681.7	4273.2	2638.2	1204.3	655.3	339.7	220.6	288.3	2847.2
0.20	1381.6	5921.5	9046.9	9451.4	8046.3	6079.3	3860.1	1704.5	979.5	449.3	292.1	438.5	3479.4
0.10	1896.4	7723.7	10878.2	11292.6	9288.6	7270.3	4690.0	2081.2	1249.4	520.7	339.6	592.0	3785.6
0.04	2644.1	9756.6	12865.0	13233.7	10546.2	8763.4	5754.4	2611.7	1662.6	609.9	400.0	843.7	4083.8
0.02	3267.7	11067.0	14127.7	14432.4	11298.2	9865.8	6556.0	3048.3	2029.5	675.8	445.4	1081.5	4258.2
0.01	3945.5	12207.4	15227.8	15451.6	11923.4	10959.5	7363.5	3521.9	2452.8	741.4	491.1	1370.1	4401.7

STATION 12027500 CHEHALIS RIVER NEAR GRAND MOUND, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1930	170.0	172.0	175.0	180.0	187.0	192.0	218.0	240.0	366.0
1931	147.0	149.0	150.0	151.0	152.0	162.0	192.0	235.0	442.0
1932	212.0	212.0	216.0	225.0	229.0	264.0	294.0	320.0	520.0
1933	209.0	210.0	221.0	236.0	267.0	305.0	389.0	499.0	865.0
1934	212.0	219.0	225.0	236.0	267.0	305.0	389.0	499.0	865.0
1935	131.0	133.0	141.0	150.0	162.0	197.0	225.0	245.0	320.0
1936	131.0	134.0	135.0	144.0	153.0	174.0	217.0	245.0	320.0
1937	193.0	199.0	207.0	214.0	217.0	221.0	228.0	240.0	485.0
1938	243.0	249.0	261.0	278.0	309.0	334.0	360.0	440.0	848.0
1939	111.0	114.0	116.0	117.0	131.0	143.0	157.0	195.0	370.0
1940	133.0	134.0	137.0	140.0	156.0	177.0	199.0	239.0	351.0
1941	124.0	126.0	131.0	135.0	149.0	183.0	204.0	243.0	353.0
1942	152.0	156.0	159.0	164.0	187.0	248.0	363.0	463.0	712.0
1943	160.0	163.0	166.0	169.0	173.0	185.0	204.0	243.0	353.0
1944	179.0	183.0	186.0	191.0	195.0	217.0	242.0	310.0	535.0
1945	116.0	116.0	119.0	130.0	136.0	161.0	191.0	215.0	382.0
1946	140.0	145.0	148.0	159.0	169.0	201.0	247.0	257.0	577.0
1947	186.0	188.0	192.0	200.0	222.0	236.0	251.0	392.0	557.0
1948	140.0	141.0	144.0	150.0	160.0	208.0	244.0	316.0	554.0
1949	186.0	189.0	199.0	223.0	254.0	267.0	321.0	450.0	848.0
1950	131.0	132.0	133.0	135.0	147.0	171.0	186.0	232.0	375.0
1951	141.0	142.0	145.0	146.0	178.0	235.0	244.0	301.0	648.0
1952	90.0	90.0	94.0	105.0	120.0	126.0	147.0	197.0	448.0
1953	104.0	105.0	107.0	109.0	112.0	129.0	137.0	150.0	222.0
1954	156.0	158.0	162.0	167.0	200.0	226.0	269.0	410.0	718.0
1955	230.0	231.0	239.0	252.0	283.0	357.0	403.0	516.0	651.0
1956	160.0	166.0	175.0	181.0	185.0	291.0	358.0	432.0	882.0
1957	142.0	144.0	150.0	159.0	169.0	223.0	238.0	312.0	575.0
1958	135.0	138.0	145.0	153.0	178.0	178.0	211.0	244.0	399.0
1959	99.0	102.0	103.0	107.0	126.0	143.0	163.0	227.0	425.0
1960	184.0	188.0	193.0	197.0	203.0	275.0	399.0	561.0	871.0
1961	173.0	173.0	177.0	188.0	204.0	265.0	264.0	295.0	817.0
1962	115.0	116.0	119.0	128.0	134.0	156.0	168.0	223.0	478.0
1963	156.0	159.0	167.0	187.0	214.0	265.0	273.0	360.0	714.0
1964	179.0	183.0	196.0	202.0	253.0	278.0	293.0	331.0	712.0
1965	232.0	238.0	256.0	270.0	293.0	324.0	353.0	398.0	587.0
1966	118.0	120.0	125.0	125.0	167.0	165.0	175.0	210.0	382.0
1967	120.0	120.0	124.0	140.0	145.0	163.0	176.0	242.0	412.0
1968	85.0	87.0	91.0	95.0	102.0	117.0	145.0	227.0	520.0
1969	165.0	170.0	178.0	179.0	227.0	351.0	510.0	629.0	1070.0
1970	140.0	141.0	145.0	151.0	172.0	199.0	345.0	447.0	627.0
1971	114.0	117.0	118.0	120.0	130.0	145.0	180.0	210.0	455.0
1972	196.0	205.0	217.0	228.0	252.0	362.0	395.0	486.0	718.0
1973	202.0	211.0	220.0	220.0	236.0	259.0	319.0	364.0	506.0
1974	145.0	149.0	163.0	171.0	186.0	214.0	293.0	388.0	543.0
1975	225.0	232.0	236.0	256.0	271.0	276.0	284.0	338.0	630.0
1976	146.0	147.0	162.0	171.0	194.0	276.0	345.0	338.0	630.0
1977	260.0	260.0	267.0	282.0	289.0	314.0	323.0	357.0	435.0
1978	147.0	150.0	162.0	162.0	196.0	292.0	408.0	505.0	750.0
1979	253.0	256.0	267.0	294.0	331.0	385.0	490.0	675.0	815.0

STATION 12027500 CHEHALIS RIVER NEAR GRAND MOUND, WASH.

LOWEST MEAN FLOW STATISTICS (YEARS 1930-1979)

MEAN	160.4	163.1	169.0	177.4	194.7	229.6	268.9	337.0	577.5
MAXIMUM	260.0	260.0	267.0	294.0	331.0	385.0	510.0	675.0	1070.0
MINIMUM	85.0	87.0	91.0	95.0	102.0	117.0	137.0	150.0	222.0
STANDARD DEVIATION	43.3	44.1	46.4	49.8	55.0	68.3	89.9	120.2	180.6
SKEWNESS	0.521	0.490	0.487	0.587	0.552	0.397	0.720	0.833	0.487
STD ERROR OF SKEWNESS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SERIAL CORR COEFF	0.053	0.058	0.089	0.055	0.081	0.099	0.119	0.086	0.014
COEFF OF VARIATION	0.270	0.270	0.274	0.281	0.282	0.297	0.334	0.357	0.313
MEAN LOGS	2.190	2.197	2.212	2.233	2.273	2.342	2.407	2.502	2.740
STD DEVIATION LOGS	0.117	0.118	0.119	0.121	0.122	0.131	0.143	0.150	0.159
SKEWNESS LOGS	-0.028	-0.044	-0.038	0.040	0.010	-0.121	0.090	0.185	-0.271
STD ERR SKEWNESS LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SER CORR COEFF LOGS	0.095	0.102	0.126	0.094	0.104	0.106	0.118	0.085	0.043
COEFF OF VAR LOGS	0.053	0.054	0.054	0.054	0.054	0.056	0.059	0.060	0.051

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1979)

0.99	288.3	292.9	306.5	329.2	361.0	432.5	559.8	743.5	1087.9
0.98	268.2	272.7	284.9	304.4	334.2	401.1	508.8	668.0	1013.8
0.96	247.5	251.8	262.7	279.2	306.7	368.5	458.0	594.2	935.1
0.90	218.5	222.4	231.5	244.3	268.6	322.5	389.8	497.7	821.1
0.80	194.3	197.8	205.4	215.8	237.3	283.9	335.8	423.4	722.9
0.50	155.0	157.7	163.2	170.5	187.2	221.0	253.8	314.3	557.9
0.20	123.4	125.4	129.3	135.1	147.8	170.6	193.2	236.9	421.9
0.10	109.5	111.1	114.4	119.7	130.7	148.5	167.9	205.5	361.5
0.05	99.1	100.5	103.3	108.4	118.1	132.2	149.8	183.3	316.8
0.02	88.6	89.7	92.1	97.0	105.3	115.7	131.9	161.7	271.7
0.01	82.2	83.1	85.3	90.1	97.6	105.8	121.3	149.1	244.6

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED MPN PERCENT OF THE TIME (YEARS 1930-1979)

P95	P90	P75	P70	P50	P25	P10
170.0	210.0	380.0	490.0	1200.0	3500.0	7700.0

STATION 12027500 CHEHALIS RIVER NEAR GRAND MOUND, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW(CFS)	DATE	REG. (R)
1929	12000.	10100.	8460.	7950.	6540.	4820.	3990.	3780.	2910.	13700.	03/27/29	
1930	19400.	17600.	12500.	9630.	7450.	5960.	5540.	4820.	3590.	12200.	02/08/30	
1931	21800.	18700.	13700.	12700.	9260.	7620.	6950.	6710.	5750.	19400.	04/01/31	
1932	23500.	19300.	16600.	13700.	12000.	10100.	8470.	7690.	6440.	23500.	02/27/32	
1933	22600.	19300.	16600.	13700.	12000.	10100.	8470.	7690.	6440.	24900.	12/03/32	
1934	45000.	42700.	36800.	27400.	20700.	14800.	10800.	8850.	6680.	45700.	12/21/33	
1935	36300.	29100.	20600.	12800.	10000.	8670.	8880.	7870.	6520.	38000.	01/23/35	
1936	32600.	26500.	19500.	15900.	11000.	7930.	7090.	5900.	4540.	26300.	01/15/36	
1937	22700.	20100.	14600.	10500.	8480.	6650.	6210.	5380.	4320.	24300.	04/15/37	
1938	46300.	36300.	25400.	18000.	12000.	9380.	7910.	6900.	5940.	48400.	12/29/37	
1939	22700.	21000.	18100.	11800.	8760.	7300.	6150.	5420.	4100.	24800.	02/16/39	
1940	21900.	19700.	15400.	11800.	10100.	7490.	6900.	6280.	5000.	22700.	12/17/39	
1941	18100.	15500.	10000.	6850.	4960.	4390.	3660.	3160.	2540.	18800.	01/19/41	
1942	25600.	21900.	17500.	11800.	8390.	6030.	5570.	4740.	3650.	26900.	12/20/41	
1943	19500.	16500.	13200.	10500.	7400.	6350.	6400.	5600.	4830.	20200.	02/07/43	
1944	15800.	12300.	7690.	5120.	4590.	3810.	3530.	3220.	2710.	16400.	12/04/43	
1945	24200.	20400.	13900.	9710.	6380.	6130.	5720.	4940.	3950.	27000.	02/09/45	
1946	22000.	19900.	15900.	14700.	11400.	8480.	7340.	6600.	5280.	23100.	12/30/45	
1947	23000.	20900.	17900.	13100.	11400.	7140.	7550.	6510.	5010.	24200.	01/26/47	
1948	19300.	17900.	14900.	11600.	9030.	6650.	6120.	5680.	5050.	20000.	01/03/48	
1949	34800.	28100.	23800.	17600.	12000.	8130.	7830.	7250.	5650.	36500.	02/18/49	
1950	26000.	24300.	18000.	15500.	13200.	10600.	9930.	9010.	7100.	26300.	02/26/50	
1951	33100.	30400.	21300.	13700.	12400.	10400.	10100.	8860.	7000.	38000.	02/10/51	
1952	18300.	15100.	14500.	10900.	7790.	6000.	6210.	5420.	4500.	18800.	02/05/52	
1953	19900.	18200.	15700.	15100.	14300.	9660.	7330.	6160.	4580.	20500.	01/10/53	
1954	31300.	27400.	19900.	15300.	10800.	10300.	9920.	8700.	6610.	34700.	01/06/54	
1955	17000.	15700.	11400.	7670.	6300.	5490.	5310.	5170.	4730.	18100.	02/09/55	
1956	32000.	28700.	22000.	16400.	14100.	12500.	10900.	9190.	8230.	35100.	12/22/55	
1957	19700.	18300.	13700.	11300.	8730.	7300.	6370.	5320.	4390.	20900.	02/27/57	
1958	17800.	16200.	13300.	10800.	7990.	7000.	6750.	5670.	4660.	18500.	12/27/57	
1959	21300.	18200.	14100.	10700.	9200.	7350.	7350.	6580.	5620.	22500.	11/13/59	
1960	22300.	21500.	16100.	9770.	8410.	6350.	6090.	5660.	5140.	24700.	11/24/59	
1961	25000.	21100.	17900.	14300.	12200.	9930.	8750.	8150.	6690.	27000.	02/22/61	
1962	14300.	13400.	12400.	9870.	7310.	5340.	4490.	4230.	3710.	15900.	11/21/61	
1963	27800.	22800.	18400.	15200.	10200.	7210.	6280.	5420.	4930.	29800.	11/21/62	
1964	32800.	24300.	17800.	16100.	12100.	8480.	7730.	6800.	5600.	35700.	12/26/64	
1965	25600.	24000.	19600.	14100.	9880.	9340.	8700.	7190.	5190.	26200.	12/24/64	
1966	21300.	19900.	15500.	12700.	9340.	6410.	6770.	5730.	4430.	21900.	01/07/66	
1967	31200.	24500.	16900.	14200.	11400.	10400.	8880.	7820.	5970.	34400.	12/14/66	
1968	23500.	19900.	14100.	9690.	9060.	7450.	6810.	6240.	5010.	24800.	02/05/68	
1969	17100.	15200.	13000.	10600.	8260.	7630.	6950.	6340.	5240.	17500.	02/12/69	
1970	22300.	19900.	16900.	15700.	10900.	8330.	7050.	5920.	4600.	23300.	01/28/70	
1971	36100.	31600.	23000.	20500.	14400.	11900.	9450.	9260.	7150.	40800.	01/26/71	
1972	41100.	36100.	25100.	17400.	12600.	11400.	9970.	9170.	7250.	49200.	01/21/72	
1973	20900.	19000.	17100.	12900.	8760.	6050.	4740.	3970.	3040.	21900.	12/28/72	
1974	35000.	29500.	21700.	14900.	12700.	10800.	10300.	9310.	7740.	37400.	01/17/74	
1975	26300.	22900.	17900.	13600.	10700.	8250.	7080.	6230.	4770.	27100.	01/15/75	
1976	39100.	33500.	24400.	15500.	10900.	10000.	8450.	7640.	6500.	44100.	12/05/75	
1977	13900.	12500.	8870.	6410.	4500.	3070.	2420.	2190.	1750.	15200.	03/09/77	
1978	30900.	24600.	20700.	17500.	12800.	8590.	7200.	6230.	4970.	36500.	12/03/77	
1979	17400.	14900.	12200.	10100.	8820.	5560.	4410.	4200.	3360.	18300.	02/08/79	

STATION 12D27500 CHEHALIS RIVER NEAR GRAND MOUND, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1929-1979)

	MEAN	25318.0	21962.0	16998.4	12961.4	9973.6	7928.4	7086.0	6301.6	5097.8		W R C ESTIMATE	SYSTEMATIC RECORD
MAXIMUM		46300.0	42700.0	36800.0	27400.0	20700.0	14800.0	10900.0	9310.0	8230.0			
MINIMUM		12000.0	10100.0	7690.0	5120.0	4500.0	3070.0	2420.0	2190.0	1750.0			
STANDARD DEVIATION		8068.44	6734.30	5099.68	3790.11	2881.93	2329.97	1964.22	1726.85	1403.01			
SKEWNESS		0.797	0.907	1.145	0.931	0.848	0.488	-0.040	-0.018	-0.016			
STD ERROR OF SKEWNESS		0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337			
SERIAL CORR COEFF		-0.008	0.039	0.066	0.065	0.086	0.022	-0.008	0.023	-0.021			
COEFF OF VARIATION		0.319	0.307	0.300	0.292	0.289	0.294	0.277	0.274	0.275			
MEAN LOGS		4.383	4.323	4.212	4.094	3.981	3.880	3.832	3.781	3.689		4.4056	
STD DEVIATION LOGS		0.135	0.130	0.128	0.130	0.128	0.133	0.135	0.132	0.133		0.1459	
SKEWNESS LOGS		0.139	0.060	-0.177	-0.496	-0.442	-0.486	-0.974	-0.944	-0.973		0.0840	
STD ERR SKEWNESS LOGS		0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337			
SER CORR COEFF LOGS		-0.031	0.025	0.069	0.065	0.092	-0.003	-0.022	0.003	-0.020			
COEFF OF VAR LOGS		0.031	0.030	0.030	0.032	0.032	0.034	0.035	0.035	0.036			

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1979)

	0.99	12122.1	10636.7	7887.0	5563.6	4377.7	3339.6	2673.3	2435.5	1942.5	11889.2	12017.1
0.95		14686.1	12931.4	9876.6	7305.8	5686.3	4401.7	3799.1	3428.4	2750.7	14760.3	14823.2
0.90		16310.7	14366.6	11100.2	8361.1	6478.5	5058.0	4480.5	4020.4	3238.7	16593.4	16621.5
0.80		18566.3	16336.5	12743.1	9753.2	7525.0	5919.3	5362.2	4790.3	3869.2	19140.7	19140.7
0.50		23970.3	20956.1	16436.2	12735.8	9780.0	7776.8	7132.7	6336.7	5132.5	25325.5	25264.8
0.20		31263.3	26996.0	20940.6	16058.2	12325.1	9864.6	8840.4	7836.8	6348.7	33712.7	33685.3
0.10		36068.4	30870.0	23652.4	17887.6	13746.6	11022.3	9643.0	8548.1	6919.8	39255.6	39310.6
0.04		42141.1	35661.8	26835.5	19876.7	15312.2	12287.7	10400.1	9225.1	7458.3	46268.2	46492.0
0.02		46678.5	39173.8	29059.3	21169.6	16342.6	13113.9	10827.8	9611.4	7762.6	51508.8	51903.2
0.01		51235.8	42648.0	31176.1	22330.2	17277.3	13858.3	11169.6	9922.6	8005.8	56771.1	57372.7

STATION 12029000 BLACK RIVER AT LITTLE ROCK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1942										25.5	11.1	8.83	
1943	17.8									22.2	12.2	9.84	
1944	32.5									10.8	8.57	10.6	
1945	15.9	89.4	105	291	318	278	149	83.4	37.9	13.4	8.15	14.4	116
1946	20.1	169	289	413	364	271	193	64.0	46.5	31.2	12.6	11.3	156
1947	35.5	143	346	313	377	154	120	51.6	34.2	16.4	11.5	13.7	133
1948	116	175	202	347	307	267	180	193	68.5	29.7	22.8	36.4	162
1949	72.6	252	652	151	516	249	111	77.7	32.2	17.4	12.8	11.7	178
1950	30.2	232	465	490	583	523	220	98.5	45.9	22.8	23.1	13.9	227

STATION 12029000 BLACK RIVER AT LITTLE ROCK, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1945	840.0	2- 8-1945
1946	840.0	1- 4-1946
1947	1220.0	1-25-1947
1948	695.0	1- 4-1948
1949	1350.0	2-23-1949
1950	1700.0	12-28-1949

STATION 12030000 ROCK CREEK AT CEDARVILLE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1942										10.5	4.25		
1943	11.1									5.08	2.71	1.99	
1944	22.6									4.15	1.62	2.92	
1945	5.33	90.1	72.6	202	186	147	62.2	30.2	5.61	3.33	1.47	4.38	66.8
1946	5.80	131	198	207	192	125	101	22.3	11.6	6.40	1.51	1.22	82.9
1947	13.8	110	209	167	191	165.6	68.1	14.7	12.1	5.36	2.80	3.30	71.2
1948	81.9	127	141	188	198	121	85.7	100.0	9.06	6.63	4.20	7.69	89.6
1949	29.4	190	287	57.3	283	82.1	39.2	37.4	11.3	3.60	2.02	2.11	83.8
1950	12.2	148	249	214	295	222	97.9	31.1	11.3	3.53	3.14	2.96	106
1951	47.0	174	245	274	274	164	44.0	14.7	8.21	1.66	0.95	3.28	103
1952	77.2	142	206	170	149	86.0	53.5	27.0	10.9	3.54	1.97	1.37	77.3
1953	1.81	5.20	74.2	427	205	75.5	58.4	51.9	19.6	5.79	2.88	2.60	77.1
1954	14.3	125	281	260	340	92.1	99.2	16.8	14.8	7.52	6.39	21.3	105
1955	37.0	164	155	136	141	118	137	29.6	11.7	8.49	4.52	4.14	78.4
1956	84.5	286	291	245	117	252	73.7	15.4	13.8	4.04	3.05	4.46	116
1957	81.3	102	216	70.4	175	178	82.7	22.7	9.38	4.40	3.36	1.80	78.5
1958	10.6	45.3	202	215	208	82.0	120	26.6	10.7	3.91	1.76	3.35	76.8
1959	23.3	264	199	279	126	116	121	65.4	22.4	7.81	3.10	19.3	104
1960	65.2	211	170	141	224	124	133	76.2	22.8	5.47	3.58	2.58	97.6
1961	10.5	234	117	265	381	228	66.5	63.7	12.8	4.10	1.80	2.01	114
1962	13.2	66.6	242	130	81.6	122	77.6	49.3	18.1	6.45	5.40	7.73	68.3
1963	43.8	251	157	98.5	153	119	48.0	48.0	10.4	6.79	4.91	7.44	82.1
1964	53.6	231	124	334	103	164	50.0	25.3	19.0	8.93	7.08	4.66	93.9
1965	12.2	108	248	301	220	54.4	40.7	37.2	11.2	3.76	2.51	1.73	86.1
1966	8.78	82.9	129	238	102	211	48.4	20.9	8.36	5.98	1.62	1.90	71.3
1967	19.3	62.1	307	350	182	148	66.7	20.9	7.97	2.73	1.08	1.26	97.3
1968	73.9	89.3	203	238	246	164	71.1	30.7	58.8	8.36	10.9	18.0	101
1969	52.3	179	234	189	182	105	90.2	29.7	13.0	6.21	2.82	6.84	90.3
1970	16.9	50.4	147	267	161	77.0	99.9	38.5	10.8	3.65	1.63	7.07	73.1
1971	16.1	86.4	324	390	141	241	71.4	21.9	15.0	8.45	3.15	6.77	111
1972													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1942-1972)

MEAN	32.6	139.1	201.0	224.2	194.7	135.6	80.7	35.7	14.7	5.6	3.3	5.2	89.0
MAXIMUM	84.5	286.0	324.0	427.0	381.0	252.0	137.0	100.0	58.8	10.5	10.9	21.3	116.0
MINIMUM	1.8	5.2	72.6	57.3	81.6	54.4	39.2	14.7	5.6	1.7	0.9	1.2	66.8
STO DEVIATION	27.15	73.02	67.96	90.74	72.45	56.63	28.49	20.81	9.85	2.14	2.09	5.24	14.80
SKEWNESS	0.821	0.357	-0.111	0.241	0.828	0.651	0.429	1.543	3.687	0.420	1.962	2.219	0.274
STD ERR SKEW	0.434	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.427	0.427	0.427	0.448
SEF CORR COEFF	0.101	0.070	-0.361	0.007	-0.003	-0.107	0.209	0.210	-0.100	0.005	0.009	-0.075	-0.201
COEFF OF VAR	0.833	0.525	0.338	0.405	0.372	0.418	0.353	0.583	0.670	0.384	0.640	1.008	0.166
MEAN LOGS	1.342	2.055	2.275	2.309	2.261	2.096	1.880	1.493	1.115	0.711	0.445	0.572	1.944
STD DEV LOGS	0.422	0.346	0.170	0.208	0.162	0.182	0.158	0.226	0.195	0.179	0.245	0.334	0.072
SKEWNESS LOGS	-0.386	-2.285	-0.941	-1.015	-0.110	-0.007	-0.143	0.454	1.337	-0.510	0.277	0.758	0.074
STD ERR SKEW LOGS	0.434	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.427	0.427	0.427	0.448
SEK CORR LOGS	0.096	-0.015	-0.324	-0.025	-0.034	-0.138	0.220	0.189	-0.067	0.074	0.089	0.035	-0.193
COEFF OF VAR LOGS	0.314	0.168	0.075	0.090	0.071	0.087	0.084	0.151	0.175	0.252	0.551	0.584	0.037
% OF AVE FLOW	3.0	13.0	18.7	20.9	18.2	12.6	7.5	3.3	1.4	0.5	0.3	0.5	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1942-1972)

0.99	1.8	5.7	58.4	47.5	74.5	46.8	31.4	11.1	7.1	1.7	0.8	1.0	60.2
0.95	4.0	22.9	90.6	82.7	97.8	62.4	41.2	14.2	7.6	2.5	1.2	1.3	67.1
0.90	6.1	41.1	111.3	107.1	112.7	77.4	47.4	16.5	8.1	3.0	1.4	1.5	71.1
0.80	10.0	72.8	139.5	141.7	133.6	87.5	56.0	19.9	8.9	3.7	1.7	1.9	76.3
0.50	23.4	148.9	200.0	220.6	183.6	124.7	76.5	29.9	11.8	5.3	2.7	3.4	87.6
0.20	50.4	205.1	262.9	306.4	249.8	177.5	103.1	47.4	17.9	7.3	4.4	6.8	100.9
0.10	72.8	219.0	294.1	349.4	292.3	213.5	120.0	61.7	23.8	8.5	5.8	10.4	108.7
0.04	105.1	225.5	324.5	391.1	344.7	259.8	140.6	83.3	33.7	9.8	7.9	17.2	117.9
0.02	131.4	227.2	342.2	415.0	382.8	294.9	155.3	102.1	43.4	10.7	9.7	24.3	124.2
0.01	159.3	227.8	356.5	434.2	420.2	330.5	169.8	123.5	55.7	11.5	11.6	33.8	130.3

STATION 12030000 ROCK CREEK AT CEDARVILLE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1946	0.90	0.97	1.10	1.40	1.40	2.10	2.70	3.10	8.40
1947	0.40	0.47	0.57	0.76	1.00	1.30	1.60	1.60	8.40
1948	1.60	1.70	1.90	2.10	2.60	3.00	3.80	3.70	12.00
1949	1.90	1.90	2.00	2.80	3.90	4.00	5.40	5.70	23.00
1950	1.10	1.10	1.19	1.19	1.50	2.00	2.40	3.00	7.90
1951	1.10	1.10	1.30	1.30	1.60	2.60	3.00	4.70	14.00
1952	0.40	0.47	0.51	0.64	0.89	1.00	1.30	3.10	9.10
1953	1.00	1.00	1.00	1.10	1.10	1.30	1.60	2.00	4.00
1954	0.90	0.97	1.00	1.10	1.10	1.30	1.60	2.00	16.00
1955	3.00	3.10	3.30	3.40	4.10	2.30	3.40	5.50	17.00
1956	2.40	2.50	2.60	2.70	3.00	3.90	5.20	6.40	16.00
1957	1.10	1.10	1.19	1.40	1.80	2.70	3.60	5.30	11.00
1958	1.50	1.60	1.60	1.60	1.80	2.40	3.00	3.60	7.40
1959	0.90	0.97	1.00	1.10	1.40	1.90	2.60	3.60	11.00
1960	2.40	2.60	2.70	2.80	3.00	4.80	7.20	12.00	25.00
1961	1.50	1.50	1.70	2.10	2.30	2.90	3.10	4.20	18.00
1962	1.10	1.10	1.19	1.19	1.70	1.80	2.20	3.40	12.00
1963	1.80	1.80	2.10	2.50	3.30	4.60	5.30	7.60	18.00
1964	1.80	2.00	2.60	2.70	3.80	5.00	5.90	6.40	17.00
1965	2.90	3.00	3.40	3.90	4.40	5.80	6.80	8.20	13.00
1966	1.00	1.10	1.19	1.30	1.70	2.10	2.50	3.60	9.90
1967	1.10	1.10	1.10	1.40	1.60	1.70	2.10	3.40	8.10
1968	0.65	0.65	0.68	0.69	0.81	1.19	1.60	3.10	11.00
1969	2.80	3.10	3.40	3.40	4.80	8.40	11.00	14.00	28.00
1970	1.50	1.50	1.70	1.70	2.20	2.70	5.00	6.90	12.00
1971	1.19	1.19	1.30	1.30	1.50	2.40	3.40	4.30	11.00

LOWEST MEAN FLOW STATISTICS (YEARS 1946-1971)

MEAN	1.5	1.5	1.6	1.8	2.3	3.1	4.0	5.6	13.4
MAXIMUM	3.0	3.1	3.4	3.9	4.8	8.4	11.0	14.0	28.0
MINIMUM	0.4	0.5	0.5	0.6	0.8	1.0	1.3	2.0	4.0
STANDARD DEVIATION	0.73	0.75	0.84	0.92	1.16	1.81	2.42	2.94	5.71
SKWENESS	0.771	0.802	0.802	0.753	0.811	1.358	1.352	1.411	0.956
STD ERROR OF SKWENESS	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456
SERIAL CORR COEFF	0.041	0.060	0.109	0.064	0.130	0.022	0.069	-0.021	0.031
COEFF OF VARIATION	0.503	0.500	0.514	0.500	0.510	0.587	0.600	0.525	0.426
MEAN LOGS	0.109	0.127	0.160	0.210	0.303	0.427	0.538	0.699	1.090
STD DEVIATION LOGS	0.231	0.223	0.226	0.219	0.219	0.237	0.244	0.206	0.186
SKWENESS LOGS	-0.406	-0.202	-0.061	0.013	0.101	0.250	0.240	0.438	-0.262
STD ERR SKWENESS LOGS	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456
SER CORR COEFF LOGS	0.075	0.087	0.121	0.069	0.170	0.123	0.178	0.074	0.087
COEFF OF VAR LOGS	2.124	1.759	1.413	1.039	0.723	0.556	0.453	0.295	0.171

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1946-1971)

0.99	3.8	4.1	4.7	5.3	6.7	10.5	14.1	17.5	30.7
0.98	3.4	3.6	4.1	4.6	5.8	8.8	11.7	14.7	27.9
0.96	3.0	3.2	3.5	3.9	4.9	7.3	9.6	12.2	25.0
0.90	2.5	2.6	2.8	3.1	3.9	5.4	7.2	9.3	21.0
0.80	2.0	2.1	2.2	2.5	3.1	4.2	5.5	7.3	17.7
0.50	1.3	1.4	1.5	1.6	2.0	2.6	3.4	4.8	12.5
0.20	0.8	0.9	0.9	1.1	1.3	1.7	2.1	3.3	8.6
0.10	0.6	0.7	0.7	0.9	1.1	1.3	1.7	2.8	7.0
0.05	0.5	0.6	0.6	0.7	0.9	1.1	1.4	2.4	5.9
0.02	0.4	0.4	0.5	0.6	0.7	0.9	1.2	2.1	4.8
0.01	0.3	0.4	0.4	0.5	0.6	0.8	1.0	1.9	4.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1946-1971)

P95	P90	P75	P70	P50	P25	P10
1.7	2.5	7.0	9.9	38.0	110.0	250.0

STATION 12030000 ROCK CREEK AT CEDARVILLE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1945	929.	700.	432.	306.	221.	192.	178.	155.	125.	1260. 02/07/45
1946	852.	634.	417.	366.	257.	219.	213.	195.	158.	909. 12/28/45
1947	984.	746.	478.	387.	287.	237.	211.	178.	134.	1140. 02/02/47
1948	699.	472.	351.	316.	257.	193.	179.	164.	148.	1010. 03/22/48
1949	1130.	768.	599.	462.	369.	245.	217.	203.	155.	1210. 02/17/49
1950	1100.	792.	558.	429.	349.	288.	276.	258.	203.	1220. 12/28/49
1951	1370.	1030.	640.	399.	362.	307.	284.	255.	197.	1430. 02/09/51
1952	628.	473.	454.	345.	258.	190.	199.	176.	142.	746. 02/04/52
1953	886.	638.	538.	512.	433.	321.	238.	199.	148.	1120. 01/23/53
1954	864.	792.	614.	491.	330.	255.	232.	257.	197.	1020. 12/09/53
1955	700.	519.	373.	272.	201.	186.	178.	159.	141.	878. 02/08/55
1956	817.	652.	490.	396.	343.	312.	288.	244.	221.	1220. 12/11/55
1957	858.	668.	462.	351.	233.	175.	168.	161.	143.	1380. 12/09/56
1958	618.	490.	408.	329.	252.	224.	212.	177.	146.	770. 12/26/57
1959	1030.	748.	499.	407.	293.	244.	255.	221.	188.	1260. 11/12/58
1960	1080.	942.	672.	396.	322.	213.	225.	201.	168.	1460. 11/21/59
1961	1040.	788.	601.	472.	388.	332.	292.	280.	217.	1240. 02/21/61
1962	697.	549.	472.	386.	290.	199.	160.	146.	124.	804. 12/23/61
1963	1100.	767.	551.	421.	306.	236.	192.	170.	147.	1310. 11/20/62
1964	945.	606.	453.	407.	335.	247.	235.	207.	174.	1050. 01/25/64
1965	1010.	817.	651.	481.	357.	290.	270.	227.	162.	1080. 01/27/65
1966	741.	618.	442.	391.	272.	195.	196.	173.	135.	774. 01/08/66
1967	1200.	758.	528.	422.	356.	328.	284.	251.	186.	1340. 12/13/66
1968	952.	886.	556.	391.	311.	283.	231.	200.	175.	1190. 01/19/68
1969	624.	563.	448.	344.	262.	249.	213.	200.	162.	750. 12/03/68
1970	780.	607.	484.	456.	306.	230.	196.	171.	134.	946. 01/27/70
1971	1280.	1070.	742.	632.	434.	365.	292.	279.	210.	1480. 01/26/71
1972										1640. 01/20/72
1973										1480. 12/21/72
1974										1070. 01/15/74

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1945-1974)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	STANDARD ERROR OF MEAN	STANDARD ERROR OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	STD ERR SKEWNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	922.7	1370.0	618.0	202.99	0.292	0.137	2.955	0.097	-0.115	-0.159	0.033	3.0465	3.0465
	707.1	1070.0	472.0	158.18	0.530	-0.218	2.839	0.096	0.034	-0.241	0.034	0.0976	0.0976
	515.3	742.0	351.0	96.14	0.502	-0.085	2.485	0.080	0.108	-0.084	0.030	0.0600	-0.3810
	404.8	632.0	272.0	73.75	0.989	0.448	2.501	0.076	0.279	0.001	0.029		
	311.3	463.0	201.0	62.23	0.503	0.448	2.485	0.086	-0.014	-0.045	0.038		
	249.6	365.0	175.0	53.29	0.515	0.448	2.388	0.091	0.082	-0.356	0.036		
	228.7	292.0	160.0	42.98	0.215	0.448	2.352	0.088	0.083	-0.268	0.036		
	204.4	280.0	145.0	39.81	0.473	0.448	2.303	0.083	0.075	-0.238	0.034		
	164.4	221.0	124.0	28.84	0.531	0.448	2.210	0.083	0.075	-0.255	0.034		
	132.8	183.1	103.1	22.84	0.448	0.448	2.175	0.083	0.075	-0.255	0.034		
	113.1	158.7	85.7	17.06	0.448	0.448	2.083	0.083	0.075	-0.255	0.034		
	92.0	128.9	62.0	14.00	0.448	0.448	2.000	0.083	0.075	-0.255	0.034		
	75.1	107.0	47.0	11.00	0.448	0.448	1.918	0.083	0.075	-0.255	0.034		
	62.0	92.0	39.0	9.00	0.448	0.448	1.836	0.083	0.075	-0.255	0.034		
	51.8	85.7	31.0	7.50	0.448	0.448	1.750	0.083	0.075	-0.255	0.034		
	42.0	77.0	24.0	6.00	0.448	0.448	1.667	0.083	0.075	-0.255	0.034		
	33.0	66.0	19.0	4.50	0.448	0.448	1.583	0.083	0.075	-0.255	0.034		
	24.0	55.0	14.0	3.00	0.448	0.448	1.500	0.083	0.075	-0.255	0.034		
	15.0	44.0	10.0	1.50	0.448	0.448	1.417	0.083	0.075	-0.255	0.034		
	6.0	33.0	6.0	0.00	0.448	0.448	1.333	0.083	0.075	-0.255	0.034		
	0.0	22.0	0.0	0.00	0.448	0.448	1.250	0.083	0.075	-0.255	0.034		
	0.0	11.0	0.0	0.00	0.448	0.448	1.167	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	1.083	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	1.000	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.917	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.833	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.750	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.667	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.583	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.500	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.417	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.333	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.250	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.167	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.083	0.083	0.075	-0.255	0.034		
	0.0	0.0	0.0	0.00	0.448	0.448	0.000	0.083	0.075	-0.255	0.034		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1974)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
	527.0	620.5	675.8	748.3	905.1	1088.1	1195.2	1318.7	1403.8	1484.1
	414.2	480.3	519.9	569.7	689.7	832.1	918.6	1021.4	1094.1	1164.2
	334.9	376.4	401.1	433.6	505.2	591.4	643.4	704.8	748.2	790.0
	274.6	302.9	320.1	343.2	395.5	461.0	501.9	551.4	587.2	622.2
	191.8	219.9	236.6	258.3	305.5	361.1	394.0	432.3	459.0	484.3
	155.8	175.7	187.9	204.4	242.3	290.6	321.1	358.4	385.6	412.5
	144.7	164.7	176.5	191.8	224.8	263.5	286.3	312.7	331.0	348.3
	132.8	148.4	157.9	170.6	195.4	235.4	257.8	284.9	304.4	323.6
	113.1	124.2	130.9	140.0	160.7	186.7	203.0	222.7	237.1	251.1
	666.5	772.0	835.7	920.6	1110.4	1343.6	1486.5	1656.7	1778.1	1895.4
	620.3	751.8	828.2	926.1	1128.9	1348.5	1468.3	1598.9	1684.3	1761.4

STATION 12030900 PORTER CREEK AT PORTER, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1942										37.3	18.8	14.1	
1943	30.1									25.8			
1944										14.5	9.72	24.3	
1945	33.1	164	120	259	268	270	138	91.7	36.1	16.7	14.3	19.4	118
1946	28.9	224	263	315	322	223	182	49.8	40.5	32.7	15.1	15.2	140
1947	56.8	203	352	297	362	132	98.5	36.3	29.0	15.7	11.5	14.1	133
1948	152	187	196	224	211	157	153	165	51.4	26.7	24.2	47.0	133
1949	79.2												

STATION 12031000 CHEHALIS RIVER AT PORTER, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1952					9243	4563	3048	1552	677	391	228	199	
1953	196	376	3362	17270	10370	4079	2897	2472	1398	579	323	305	3606
1954	1355	5079	12880	12780	14650	4985	4852	1451	1451	774	487	729	5058
1955	1210	5540	12597	7095	6051	6440	7371	2320	1072	719	465	448	3680
1956	3117	12490	16090	13390	5222	12170	4747	1374	1258	549	351	344	5942
1957	2107	3655	8811	3466	7754	9486	4009	1519	802	477	392	276	3543
1958	547	1906	8396	8689	9655	4198	5299	1525	815	371	230	277	3457
1959	864	9151	7589	12420	6729	4941	5299	1525	815	371	230	277	3457
1960	2261	7347	7652	4893	10160	6376	6929	3718	1411	634	338	386	4493
1961	995	9735	4748	9618	16380	12370	4245	3519	950	466	286	327	4317
1962	932	2406	9097	5272	4021	5487	4002	2899	1189	503	518	415	3065
1963	1969	10410	7626	4477	7565	4275	8632	2820	857	649	472	524	4004
1964	1555	8123	5035	16470	6171	7540	2181	1685	1598	677	539	485	4431
1965	757	4179	13010	12300	9955	3086	2185	1550	677	355	301	276	4037
1966	612	42575	4464	11170	4921	10120	3248	1230	719	602	267	285	3356
1967	993	2593	13250	14810	8664	6573	3935	1523	811	409	223	228	4480
1968	2390	2993	7554	8845	11880	6511	3925	1896	2456	617	838	1264	4240
1969	2823	6397	11010	9004	8663	5219	3978	1649	1070	680	345	596	4264
1970	1194	2150	6954	12280	8369	4050	4954	2113	713	365	244	480	3560
1971	955	3054	12390	19050	6889	11050	5932	1876	1238	753	382	651	5368
1972	1188	4345	10600	15000	10150	12920	6111	2055	832	609	426	734	5415
1975								2032	781	511	427	493	
1976	2206	7525	14960	13280	7916	7807	4369	1846	1106	656	535	500	5231
1977	504	809	1273	1360	1711	6559	2025	1695	1123	508	487	1074	1646
1978	1131	7795	17710	7088	5398	3822	3822	1879	1879	584	486	1879	4433
1979	919	2633	5292	2675	10530	5827	2950	1744	637	480	350	558	2833

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1952-1979)

MEAN	1365.8	5161.1	8972.9	10112.6	8352.7	6818.2	4358.8	2074.7	1098.5	560.9	398.9	572.5	4153.6
MAXIMUM	3117.0	12490.0	17710.0	19050.0	16380.0	12920.0	7371.0	3718.0	2456.0	819.0	838.0	1879.0	5942.0
MINIMUM	196.0	376.0	1273.0	1360.0	1711.0	3086.0	2025.0	1230.0	637.0	355.0	223.0	199.0	1646.0
STO DEVIATION	770.13	3307.28	4234.98	4859.71	3202.44	2910.98	1444.82	704.50	406.95	127.58	134.22	385.85	965.59
SKENNESS	0.783	0.573	0.331	-0.080	0.477	0.912	0.520	1.157	1.547	0.117	1.249	1.987	-0.424
STD ERR SKEW	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472
SER CORR COEFF	0.087	-0.100	-0.648	0.177	-0.030	0.136	0.269	0.518	-0.100	-0.104	-0.064	0.171	-0.263
COEFF OF VAR	0.564	0.641	0.472	0.491	0.383	0.427	0.331	0.340	0.370	0.227	0.336	0.674	0.232
MEAN LOGS	3.062	3.600	3.894	3.935	3.885	3.799	3.616	3.296	3.016	2.738	2.579	2.686	3.605
STO DEV LOGS	0.274	0.362	0.255	0.294	0.198	0.176	0.147	0.135	0.146	0.102	0.140	0.242	0.117
SKENNESS LOGS	-0.730	-1.076	-1.261	-1.263	-1.402	0.342	-0.212	0.654	0.540	-0.319	0.136	0.656	-1.538
STD ERR SKEW LOGS	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472
SER CORR LOGS	0.028	-0.173	-0.589	0.064	0.017	0.083	0.313	0.410	-0.072	-0.168	0.014	0.243	-0.261
COEFF OF VAR LOGS	0.090	0.100	0.065	0.072	0.051	0.046	0.041	0.041	0.048	0.037	0.054	0.090	0.032
% OF AVE FLOW	2.7	10.4	18.0	20.3	16.8	13.7	8.7	4.2	2.2	1.1	0.8	1.1	100.0

MONTHLY AND ANNUAL DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1952-1979)

0.99	191.3	308.3	1210.1	1074.0	1725.5	2717.7	1781.9	1116.4	544.4	299.4	185.3	173.8	1631.8
0.95	364.2	824.6	2544.9	2459.8	3170.5	3368.6	2319.5	1264.3	632.5	363.8	226.2	217.4	2377.9
0.90	496.7	1302.8	3574.1	3591.7	4172.2	3807.6	2656.9	1365.4	691.9	401.5	252.3	249.6	2812.9
0.80	701.8	2134.1	5126.3	5368.6	5565.4	4450.5	3118.2	1514.5	778.7	450.4	288.7	300.8	3348.5
0.50	1245.4	4608.7	8836.9	9847.4	8507.4	6144.6	4180.3	1910.5	1007.1	553.4	376.5	456.8	4302.2
0.20	1983.1	8074.1	12830.7	14914.6	11218.1	8765.5	5510.3	2527.7	1359.0	668.0	496.2	756.1	5025.4
0.10	2429.6	10054.1	14702.4	17353.9	12339.5	10696.6	6324.3	2985.4	1618.0	732.1	575.5	1020.3	5294.8
0.04	2923.5	12097.3	16377.2	19564.7	13253.2	13674.7	7289.3	3621.8	1975.9	803.1	676.4	1445.0	5476.3
0.02	3265.5	13311.1	17254.6	20732.3	13691.6	15821.9	7668.4	4139.8	2265.8	850.3	752.1	1838.4	5560.2
0.01	3563.2	14301.3	17904.8	21601.2	13994.5	17827.8	8617.9	4697.2	2576.3	893.5	828.3	2308.1	5614.2

STATION 12031000 CHEHALIS RIVER AT PORTER, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1953	166.0	167.0	169.0	169.0	172.0	195.0	206.0	228.0	337.0
1954	227.0	229.0	230.0	237.0	291.0	304.0	314.0	391.0	1060.0
1955	398.0	401.0	406.0	422.0	457.0	552.0	614.0	768.0	970.0
1956	285.0	292.0	299.0	307.0	337.0	427.0	522.0	627.0	1220.0
1957	225.0	225.0	229.0	253.0	275.0	338.0	367.0	494.0	893.0
1958	236.0	237.0	243.0	252.0	266.0	302.0	339.0	387.0	598.0
1959	197.0	199.0	203.0	210.0	223.0	242.0	267.0	352.0	619.0
1960	310.0	316.0	320.0	324.0	337.0	435.0	596.0	805.0	1240.0
1961	304.0	305.0	312.0	327.0	356.0	405.0	404.0	469.0	1190.0
1962	258.0	259.0	262.0	271.0	284.0	305.0	327.0	409.0	751.0
1963	288.0	292.0	308.0	331.0	366.0	443.0	467.0	580.0	1080.0
1964	342.0	351.0	363.0	375.0	445.0	480.0	488.0	542.0	1100.0
1965	388.0	395.0	414.0	436.0	463.0	510.0	561.0	610.0	887.0
1966	225.0	227.0	231.0	244.0	276.0	289.0	302.0	356.0	609.0
1967	202.0	205.0	212.0	235.0	238.0	271.0	294.0	390.0	636.0
1968	186.0	187.0	187.0	189.0	202.0	224.0	279.0	397.0	820.0
1969	310.0	315.0	334.0	353.0	424.0	588.0	806.0	965.0	1580.0
1970	255.0	256.0	260.0	271.0	300.0	344.0	521.0	647.0	883.0
1971	215.0	217.0	218.0	220.0	237.0	285.0	342.0	375.0	713.0
1972	329.0	334.0	343.0	356.0	379.0	495.0	532.0	669.0	1010.0
1977	389.0	393.9	402.0	421.0	436.0	476.0	492.0	540.0	630.0
1978	270.0	271.0	276.0	286.0	326.0	445.0	594.0	713.0	1060.0
1979	365.0	369.0	377.0	410.0	461.0	526.0	672.0	924.0	1150.0

LOWEST MEAN FLOW STATISTICS (YEARS 1953-1979)

MEAN	277.0	280.1	286.9	300.0	328.3	386.1	451.4	558.1	914.6
MAXIMUM	398.0	401.0	414.0	436.0	463.0	588.0	806.0	965.0	1580.0
MINIMUM	166.0	167.0	169.0	169.0	172.0	195.0	206.0	228.0	337.0
STANDARD DEVIATION	68.8	70.4	73.7	78.5	88.7	113.6	150.4	190.9	281.3
SKEWNESS	0.299	0.291	0.267	0.251	0.117	0.043	0.426	0.498	0.162
STD ERROR OF SKEWNESS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SERIAL CORR COEFF	0.162	0.164	0.151	0.123	0.173	0.087	0.091	0.045	-0.015
COEFF OF VARIATION	0.249	0.251	0.257	0.252	0.276	0.294	0.333	0.342	0.308
MEAN LOGS	2.429	2.434	2.444	2.462	2.500	2.567	2.631	2.722	2.939
STD DEVIATION LOGS	0.109	0.110	0.113	0.116	0.123	0.135	0.150	0.154	0.147
SKEWNESS LOGS	-0.079	-0.079	-0.097	-0.174	-0.338	-0.366	-0.231	-0.292	-0.851
STD ERR SKEWNESS LOGS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SER CORR COEFF LOGS	0.202	0.199	0.184	0.153	0.188	0.134	0.128	0.042	-0.006
COEFF OF VAR LOGS	0.045	0.045	0.046	0.047	0.049	0.053	0.057	0.056	0.050

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1953-1979)

	P95	P90	P75	P70	P50	P25	P10
0.99	475.4	483.7	500.4	522.5	568.5	700.7	897.6
0.98	445.7	453.1	468.4	490.2	536.2	658.0	830.0
0.96	414.6	421.1	434.8	456.0	501.2	611.6	759.1
0.90	370.2	375.5	387.0	406.0	449.0	542.9	658.1
0.80	332.4	336.8	346.4	364.1	402.6	482.0	572.7
0.50	269.7	272.6	279.0	292.3	321.5	376.4	433.0
0.20	217.7	219.5	223.3	232.1	251.0	286.1	321.2
0.10	194.3	195.7	198.3	204.8	218.5	245.2	272.7
0.05	176.8	177.8	179.5	184.3	193.9	214.6	237.3
0.02	158.7	159.4	160.3	163.3	168.6	183.5	202.0
0.01	147.6	148.1	148.6	150.4	153.1	164.7	181.0
							214.7

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1953-1979)

	P95	P90	P75	P70	P50	P25	P10
290.0	360.0	650.0	800.0	2100.0	5400.0	11000.0	

STATION 12031000 CHEHALIS RIVER AT PORTER, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	DATE	REG.(R)
1947	24200.	24000.	22200.	21300.	20000.	13900.	10600.	8890.	6700.	26300.	01/26/47	
1948	30800.	28600.	23600.	19600.	14200.	13600.	13400.	11800.	9080.	23000.	01/05/48	
1949	17200.	16100.	14300.	9960.	8140.	7350.	7180.	6400.	6400.	33500.	02/24/49	
1950	33100.	30200.	25400.	19500.	17800.	16200.	14300.	12200.	10900.	32500.	02/27/50	
1951	23200.	22000.	18100.	15000.	13000.	8710.	7590.	7580.	6250.	36100.	02/11/51	
1952	21500.	20400.	17400.	14000.	10500.	10100.	9160.	7740.	6380.	21900.	02/06/52	
1953	24100.	22800.	18700.	14400.	12600.	10200.	10000.	9190.	7880.	24800.	01/31/53	
1954	27800.	27200.	22400.	14000.	12000.	8970.	8960.	8280.	7330.	40800.	01/07/54	
1955	29000.	27400.	25100.	20400.	17900.	14500.	12700.	11700.	9590.	19200.	01/02/55	
1956	28000.	26100.	23000.	20500.	14200.	7520.	6340.	6030.	5270.	38900.	12/23/55	
1957	27900.	26100.	23000.	20500.	14200.	10300.	8840.	7730.	6980.	23600.	12/12/56	
1958	36700.	30600.	24500.	22500.	16900.	12000.	10800.	9610.	7900.	22000.	12/28/57	
1959	33300.	31700.	27600.	20600.	14500.	13400.	12300.	10300.	7420.	24300.	01/27/64	
1960	25400.	23800.	19700.	16800.	12500.	8710.	9170.	7850.	6110.	34000.	01/31/65	
1961	34000.	29900.	22500.	19000.	15600.	14200.	12300.	10900.	8330.	26300.	01/08/66	
1962	26600.	23800.	18200.	13300.	10400.	10400.	9430.	8710.	7030.	35700.	12/15/66	
1963	20500.	19700.	17700.	14200.	11300.	10700.	9740.	8900.	7350.	27800.	02/06/68	
1964	28200.	27900.	22900.	20200.	14600.	11000.	9300.	8100.	6320.	22200.	01/08/69	
1965	46500.	40300.	30800.	27600.	19200.	16200.	13000.	12700.	9800.	29200.	01/28/70	
1966	50400.	41500.	31800.	22800.	16700.	15300.	13500.	12400.	9880.	49600.	01/27/71	
1967	43300.	39300.	31700.	20800.	15500.	14600.	12200.	11200.	9460.	55600.	01/22/72	
1968	17200.	16100.	12300.	8980.	6630.	4580.	3600.	3230.	2600.	28100.	12/28/72	
1969	36900.	35300.	31500.	26000.	19700.	13300.	11200.	9620.	7610.	39100.	01/17/74	
1970	20500.	18700.	16300.	14000.	12500.	8150.	6460.	6130.	4930.	48100.	01/16/75	
1971										17500.	12/05/75	
1972										38900.	03/10/77	
1973										22300.	12/15/77	
1974											02/09/79	
1975												
1976												
1977												
1978												
1979												

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1947-1979)

M R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	29170.8	26854.2	22304.2	17893.3	14077.9	11412.1	10102.9	9072.1	7395.8
MAXIMUM	50400.0	41500.0	31800.0	27600.0	20000.0	16200.0	14300.0	12700.0	10900.0
MINIMUM	17200.0	16100.0	12300.0	8980.0	6630.0	4580.0	3600.0	3230.0	2600.0
STANDARD DEVIATION	8789.64	7110.91	5555.68	4742.30	3510.36	3113.33	2648.60	2321.88	1842.65
SKWENESS	0.900	0.597	0.285	0.064	-0.102	-0.217	-0.511	-0.388	-0.340
STD ERROR OF SKWENESS	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472
SERIAL CORR COEFF	0.199	0.078	-0.114	-0.075	-0.295	-0.320	-0.328	-0.233	-0.246
COEFF OF VARIATION	0.301	0.265	0.249	0.265	0.249	0.273	0.282	0.256	0.249
MEAN LOGS	4.447	4.415	4.335	4.237	4.134	4.040	3.941	3.853	3.765
STD DEVIATION LOGS	0.125	0.113	0.111	0.123	0.118	0.133	0.135	0.131	0.128
SKWENESS LOGS	0.335	0.109	-0.232	-0.552	-0.818	-0.961	-1.481	-1.531	-1.678
STD ERR SKWENESS LOGS	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472
SER CORR COEFF LOGS	0.038	-0.062	-0.212	-0.148	-0.308	-0.352	-0.301	-0.240	-0.242
COEFF OF VAR LOGS	0.028	0.026	0.026	0.029	0.029	0.033	0.034	0.033	0.033

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1947-1979)

0.99	15402.8	14456.1	11456.6	8002.3	6191.4	4382.5	3448.6	3186.6	2595.0	15789.6	16173.4
0.95	17959.3	17052.7	14000.8	10421.8	8257.7	6185.3	5285.7	4848.1	3991.9	19095.6	18911.4
0.90	19600.7	18655.3	15519.7	11867.6	9473.6	7272.7	6401.1	5847.2	4827.5	20857.6	20940.2
0.80	21907.4	20833.1	17518.0	13752.5	11026.6	8677.4	7815.2	7102.9	5866.8	23495.0	23960.4
0.50	27562.1	25863.9	21847.9	17706.7	14128.5	11494.3	10443.3	9398.6	7711.3	29760.3	29600.4
0.20	35474.4	32325.6	26871.9	21976.2	17183.0	14214.6	12548.0	11186.6	9054.7	37905.3	37831.7
0.10	40855.8	36421.0	29780.2	24265.1	18674.7	15497.3	13338.2	11838.2	9504.9	43132.0	43260.6
0.04	47840.4	41446.8	33095.9	26702.4	20140.6	16711.7	13942.3	12323.5	9814.6	49604.5	50135.0
0.02	53188.4	45107.6	35354.7	28257.3	21005.9	17400.8	14216.4	12537.7	9940.0	54355.3	55283.4
0.01	58667.0	48713.5	37463.7	29632.6	21724.1	17953.4	14397.7	12676.3	10015.3	59061.4	60465.7

STATION 12031890 EAST FORK WILDCAT CREEK AT MCCLEARY, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1970	174.0	1-27-1970
1971	339.0	1-26-1971
1972	437.0	3-6-1972
1973	585.0	12-26-1972
1974	243.0	1-14-1974
1975	241.0	1-13-1975

STATION 12032500 CLOQUALLUM RIVER AT ELMA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1942										50.6	29.3	21.7	
1943	46.0									42.2	31.8	26.4	
1944	50.7									27.6	20.0	37.0	
1945	50.0	292	193	568	481	372	221	178	77.0	32.6	26.3	26.3	208
1946	46.5	383	569	570	627	462	372	107	86.1	64.0	31.5	30.3	277
1947	69.2	255	477	553	617	225	203	78.4	57.8	34.9	24.6	26.0	216
1948	214	284	366	440	415	331	225	302	53.1	53.1	41.7	57.8	254
1949	111	405	780	208	834	307	157	142	53.6	38.3	35.6	31.9	296
1950	60.3	326	602	498	768	732	301	125	65.3	38.3	35.6	31.9	296
1951	213	526	704	790	916	443	156	91.7	51.3	30.8	23.4	26.9	328
1952	196	296	459	396	463	255	161	96.2	59.1	33.6	31.8	23.7	205
1953	24.4	34.6	202	1199	695	346	194	170	93.5	44.3	30.5	29.4	245
1954	91.3	343	751	714	844	355	346	92.0	76.5	57.0	40.5	56.3	311
1955	106	414	343	389	366	370	421	122.0	65.9	56.3	40.6	30.6	226
1956	314	798	944	739	302	739	255	88.2	98.6	47.7	33.4	36.4	367
1957	279	270	671	253	454	580	247	93.6	53.2	38.0	33.5	24.7	250
1958	64.5	155	526	582	557	263	312	97.6	55.8	33.6	27.9	27.9	223
1959	82.9	697	596	815	434	354	478	276	103	49.2	32.4	75.4	332
1960	192	660	695	533	678	333	398	230	94.6	43.0	36.1	32.3	325
1961	63.1	480	307	662	1181	750	242	195	67.4	41.5	30.0	26.5	332
1962	78.6	204	586	386	222	340	243	198	79.4	43.6	51.2	35.9	206
1963	157	671	586	433	396	306	396	178	86.1	50.4	43.7	42.4	276
1964	218	702	428	970	318	504	174	103	86.0	52.4	45.4	41.3	304
1965	70.0	337	694	770	652	200	187	169	70.9	39.2	31.4	21.9	268
1966	60.5	257	344	781	326	572	173	80.7	50.0	39.9	25.0	28.8	228
1967	84.3	217	901	974	597	435	241	109	61.9	36.1	24.6	25.1	308
1968	259	248	564	759	705	462	261	127	145	55.4	34.8	91.3	311
1969	220	395	572	597	480	292	269	117	71.4	47.5	33.8	65.2	262
1970	94.4	175	339	569	467	275	346	144	59.4	36.8	29.9	45.3	214
1971	60.3	304	750	872	506	637	287	106	75.2	48.4	30.1	36.4	309
1972	54.8	317	631	841	784	918	415	126	60.4	64.8	33.2	64.6	358
1973													

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1942-1973)

MEAN	121.0	373.1	556.4	637.9	574.5	430.6	274.3	140.8	74.4	44.1	33.5	37.9	274.1
MINIMUM	314.0	798.0	944.0	1199.0	1181.0	918.0	478.0	302.0	145.0	64.8	64.8	91.3	367.0
MAXIMUM	24.4	34.6	193.0	208.0	222.0	200.0	156.0	78.4	50.0	27.6	20.0	21.7	205.0
STD DEVIATION	81.74	186.95	193.03	228.74	216.61	185.33	91.25	57.86	20.60	9.61	9.06	17.08	49.33
SKWENESS	0.931	0.776	-0.070	0.286	0.778	1.058	0.583	1.350	1.590	0.408	1.582	1.650	0.164
STD ERR SKEW	0.427	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.421	0.421	0.421	0.441
SER CORR COEFF	0.222	0.148	-0.361	0.063	-0.018	0.054	0.248	0.441	-0.149	0.049	0.049	0.112	-0.110
COEFF OF VAR	0.675	0.501	0.347	0.359	0.377	0.430	0.333	0.411	0.277	0.218	0.270	0.450	0.180
MEAN LOGS	1.990	2.509	2.715	2.774	2.729	2.599	2.415	2.118	1.958	1.635	1.512	1.546	2.431
STD DEV LOGS	0.288	0.266	0.176	0.174	0.165	0.175	0.143	0.159	0.108	0.095	0.107	0.165	0.079
SKWENESS LOGS	0.193	-1.614	-0.939	-0.790	-0.195	0.390	0.106	0.677	0.780	-0.001	0.661	1.000	-0.041
STD ERR SKEW LOGS	0.427	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.421	0.421	0.421	0.441
SER CORR LOGS	0.205	0.057	-0.328	0.076	-0.012	-0.003	0.274	0.126	-0.133	0.082	0.074	0.118	-0.122
COEFF OF VAR LOGS	0.145	0.106	0.065	0.063	0.061	0.067	0.059	0.075	0.058	0.058	0.070	0.106	0.032
% OF AVE FLOW	3.7	11.3	16.9	19.3	17.4	13.1	8.3	4.3	2.3	1.3	1.0	1.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1942-1973)

0.99	23.0	40.2	155.4	187.4	208.6	175.0	124.1	67.3	46.6	26.0	22.7	19.2	176.0
0.95	34.1	96.8	244.1	285.0	280.1	214.9	152.9	77.7	50.9	30.2	22.9	21.3	199.8
0.90	42.4	143.0	301.9	348.3	326.2	241.9	171.3	85.0	53.8	32.6	24.3	22.9	213.7
0.80	55.6	213.7	380.9	435.0	390.4	281.6	197.0	95.9	58.2	35.9	26.4	25.4	231.7
0.50	95.7	377.9	552.2	626.5	543.0	384.9	258.8	126.1	69.8	43.1	31.7	33.0	270.1
0.20	169.8	532.7	732.5	831.7	742.3	551.7	342.9	175.7	87.6	51.8	38.5	46.8	314.4
0.10	231.8	593.1	822.3	948.9	868.0	674.3	398.5	214.2	108.6	57.0	45.1	58.4	340.1
0.04	326.3	638.1	910.3	1063.5	1020.3	845.1	469.0	269.7	118.4	63.2	52.6	76.1	369.6
0.02	409.0	657.5	961.5	1133.6	1129.5	984.2	521.7	316.4	132.6	67.5	58.4	92.0	389.9
0.01	502.9	669.8	1003.4	1193.4	1235.4	1133.9	574.8	368.1	147.8	71.6	64.6	110.4	409.1

STATION 12032500 CLOQUALLUM RIVER AT ELMA, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1946	12.0	12.0	13.0	15.0	23.0	25.0	26.0	29.0	64.0
1947	24.0	25.0	27.0	27.0	28.0	30.0	30.0	32.0	60.0
1948	21.0	21.0	21.0	21.0	23.0	25.0	28.0	35.0	57.0
1949	29.0	29.0	30.0	33.0	39.0	41.0	47.0	59.0	94.0
1950	22.0	23.0	24.0	24.0	26.0	29.0	31.0	34.0	48.0
1951	24.0	24.0	24.0	24.0	27.0	32.0	35.0	41.0	76.0
1952	14.0	15.0	15.0	16.0	20.0	22.0	25.0	32.0	54.0
1953	19.0	19.0	19.0	19.0	20.0	23.0	26.0	28.0	34.0
1954	21.0	22.0	22.0	22.0	24.0	27.0	28.0	30.0	34.0
1955	33.0	34.0	34.0	35.0	38.0	45.0	49.0	56.0	70.0
1956	21.0	21.0	23.0	24.0	28.0	33.0	41.0	46.0	77.0
1957	23.0	24.0	24.0	25.0	28.0	33.0	36.0	44.0	67.0
1958	22.0	22.0	23.0	24.0	24.0	26.0	30.0	34.0	48.0
1959	20.0	20.0	21.0	22.0	25.0	29.0	27.0	32.0	52.0
1960	29.0	30.0	31.0	31.0	32.0	39.0	47.0	58.0	97.0
1961	29.0	29.0	29.0	30.0	34.0	36.0	35.0	39.0	77.0
1962	21.0	20.0	20.0	20.0	23.0	28.0	30.0	36.0	63.0
1963	21.0	21.0	22.0	25.0	28.0	40.0	42.0	49.0	85.0
1964	31.0	31.0	33.0	33.0	38.0	43.0	45.0	45.0	80.0
1965	28.0	31.0	31.0	35.0	35.0	42.0	45.0	52.0	66.0
1966	16.0	16.0	16.0	18.0	22.0	26.0	30.0	36.0	63.0
1967	20.0	21.0	21.0	23.0	23.0	26.0	27.0	32.0	49.0
1968	18.0	19.0	22.0	23.0	23.0	25.0	28.0	36.0	69.0
1969	36.0	36.0	38.0	39.0	45.0	54.0	64.0	75.0	112.0
1970	24.0	25.0	25.0	26.0	29.0	33.0	41.0	53.0	70.0
1971	26.0	27.0	27.0	27.0	29.0	32.0	36.0	37.0	57.0
1972	26.0	26.0	26.0	29.0	30.0	35.0	35.0	41.0	58.0

LOWEST MEAN FLOW STATISTICS (YEARS 1946-1972)

MEAN	23.3	23.8	24.5	25.6	28.1	32.3	35.8	42.4	67.5
MAXIMUM	36.0	36.0	38.0	39.0	45.0	54.0	64.0	75.0	112.0
MINIMUM	12.0	12.0	13.0	15.0	20.0	25.0	28.0	34.0	57.0
STANDARD DEVIATION	5.69	5.67	5.89	5.95	6.37	7.88	9.15	10.94	16.91
SKENNESS	0.241	0.178	0.292	0.393	1.006	0.981	1.245	1.147	0.634
STD. ERROR OF SKENNESS	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448
SERIAL CORR. COEFF	-0.062	-0.054	0.002	-0.026	0.007	0.040	0.049	-0.009	-0.033
COEFF OF VARIATION	0.244	0.239	0.241	0.232	0.226	0.244	0.256	0.258	0.250
MEAN LOGS	1.355	1.364	1.376	1.397	1.440	1.497	1.541	1.615	1.816
STD DEVIATION LOGS	0.110	0.109	0.102	0.102	0.093	0.100	0.103	0.105	0.109
SKENNESS LOGS	-0.466	-0.542	-0.416	-0.187	0.592	0.527	0.560	0.555	-0.236
STD ERR SKENNESS LOGS	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448
SER CORR COEFF LOGS	-0.038	-0.035	0.029	0.008	0.057	0.086	0.096	0.005	-0.014
COEFF OF VAR LOGS	0.081	0.080	0.079	0.073	0.064	0.067	0.067	0.065	0.060

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1946-1972)

0.99	37.4	37.4	39.3	41.8	49.5	58.6	67.4	79.5	112.7
0.96	35.7	35.8	37.5	39.5	45.5	53.7	61.2	72.4	106.5
0.90	33.8	34.1	35.4	37.1	41.6	48.9	55.3	65.6	99.7
0.80	30.9	31.3	32.3	33.6	36.5	42.6	47.7	56.8	89.9
0.50	28.1	28.6	29.4	30.5	32.6	37.8	42.0	50.0	81.2
0.20	23.1	23.6	24.2	25.1	26.9	30.8	33.9	40.3	66.2
0.10	18.4	18.9	19.4	20.5	22.9	25.8	28.4	33.5	53.2
0.05	16.2	16.8	17.1	18.4	21.3	23.8	26.2	30.8	47.2
0.02	14.5	14.8	15.4	16.8	20.2	22.3	24.8	28.9	42.6
0.01	12.6	12.9	13.5	15.1	19.0	20.9	23.3	27.1	37.8
0.001	11.5	11.7	12.4	14.0	18.4	20.1	22.5	26.0	34.9

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1946-1972)

P95	P90	P75	P70	P50	P25	P10
26.0	30.0	50.0	61.0	150.0	360.0	690.0

STATION 12032500 CLOQUALLUM RIVER AT ELMA, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

ANNUAL PEAK-FLOW DATA
FLOW(CFS) DATE REG.(R)

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
1945	2150.	1750.	1140.	910.	624.	520.	475.	410.	351.	3050.
1946	1840.	1660.	1210.	989.	716.	631.	601.	581.	494.	2440.
1947	2570.	2170.	1530.	1200.	923.	599.	583.	500.	384.	3290.
1948	1410.	1090.	868.	700.	597.	420.	419.	393.	353.	1810.
1949	2780.	2080.	1580.	1290.	925.	609.	609.	562.	445.	3110.
1950	3220.	2240.	1480.	1230.	983.	785.	744.	672.	537.	3750.
1951	3570.	3150.	2050.	1320.	1130.	924.	858.	762.	598.	4470.
1952	1350.	1180.	1050.	818.	596.	464.	453.	410.	352.	1800.
1953	2980.	2400.	1960.	1720.	1400.	947.	714.	591.	448.	3390.
1954	2300.	1980.	1450.	1180.	879.	770.	768.	691.	554.	2820.
1955	1740.	1210.	828.	641.	469.	438.	438.	408.	383.	2080.
1956	2610.	2000.	1420.	1240.	1030.	911.	868.	731.	664.	3950.
1957	2590.	1970.	1420.	1090.	710.	521.	508.	502.	436.	4880.
1958	1490.	1230.	1010.	810.	660.	619.	565.	483.	400.	1800.
1959	2600.	2090.	1470.	1020.	859.	713.	727.	651.	577.	2810.
1960	3500.	2470.	1980.	1240.	1070.	732.	771.	677.	554.	5080.
1961	4150.	2840.	2120.	1530.	1240.	1000.	860.	748.	603.	4900.
1962	1950.	1510.	1140.	907.	726.	508.	420.	390.	344.	2230.
1963	3100.	2120.	1440.	1180.	900.	761.	610.	535.	471.	3940.
1964	2630.	1810.	1370.	1240.	975.	745.	710.	641.	541.	2950.
1965	2730.	2270.	1740.	1290.	941.	761.	745.	632.	475.	3070.
1966	2300.	1820.	1350.	1190.	835.	581.	584.	513.	409.	2450.
1967	3190.	2260.	1580.	1150.	985.	946.	841.	739.	563.	3510.
1968	3150.	2870.	1810.	1220.	925.	744.	680.	625.	517.	3820.
1969	1760.	1470.	1260.	925.	670.	638.	571.	521.	434.	2100.
1970	1480.	1150.	1010.	888.	684.	533.	475.	437.	361.	1710.
1971	2730.	2150.	1540.	1340.	920.	825.	720.	699.	561.	3110.
1972	3210.	2740.	1890.	1640.	1270.	1040.	880.	815.	650.	3840.
1973										4350.
1974										12/26/72
1975										01/16/74
1976										2860.
1977										02/12/75
1978										2250.
1979										12/04/75
										4090.
										03/09/77
										2040.
										4890.
										12/02/77
										3460.
										02/07/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1945-1979)

W R C
ESTIMATESYSTEMATIC
RECORD

MEAN	2538.6	1988.6	1453.4	1139.2	880.9	703.7	649.9	582.8	480.7	3.4843
MAXIMUM	4150.0	3150.0	2120.0	1720.0	1400.0	1040.0	880.0	815.0	664.0	0.1401
MINIMUM	1350.0	1090.0	828.0	641.0	469.0	428.0	419.0	390.0	344.0	0.0540
STANDARD DEVIATION	725.47	551.00	354.00	259.74	220.78	175.80	147.77	126.71	96.69	
SKENNESS	0.054	0.116	0.154	0.169	0.380	0.238	-0.035	-0.012	0.177	
STD ERROR OF SKENNESS	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	
SERIAL CORR. COEFF.	-0.011	-0.155	-0.093	-0.140	-0.143	-0.210	-0.160	-0.111	-0.115	
COEFF OF VARIATION	0.286	0.277	0.244	0.228	0.251	0.236	0.227	0.217	0.201	
MEAN LOGS	3.386	3.281	3.149	3.045	2.931	2.834	2.801	2.755	2.673	
STD DEVIATION LOGS	0.133	0.128	0.110	0.103	0.111	0.111	0.103	0.098	0.088	
SKENNESS LOGS	-0.481	-0.451	-0.350	-0.460	-0.254	-0.160	-0.330	-0.293	-0.072	
STD ERR SKENNESS LOGS	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	
SER CORR COEFF LOGS	-0.073	-0.180	-0.123	-0.161	-0.154	-0.222	-0.172	-0.134	-0.118	
COEFF OF VAR LOGS	0.039	0.039	0.035	0.034	0.038	0.039	0.037	0.035	0.033	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1945-1979)

0.99	1074.3	877.3	734.7	590.1	449.0	365.9	344.8	321.3	290.5	1458.6
0.95	1415.7	1138.9	909.0	729.6	550.7	443.5	419.9	386.0	335.9	1803.1
0.90	1623.5	1297.0	1012.1	810.8	611.4	490.1	464.0	423.8	362.6	2021.0
0.80	1898.7	1505.5	1146.5	915.0	691.1	551.8	521.1	472.7	397.4	2322.8
0.50	2492.2	1953.6	1431.5	1130.0	863.3	687.0	641.3	575.4	472.4	3085.7
0.20	3160.0	2457.2	1750.5	1359.9	1062.1	847.2	774.9	689.5	559.6	3997.2
0.10	3530.7	2737.4	1929.1	1483.5	1176.5	941.8	849.3	753.4	610.6	4618.9
0.04	3936.4	3045.1	2126.9	1616.2	1306.4	1051.3	931.8	824.3	669.4	5395.5
0.02	4201.6	3247.1	2258.3	1701.8	1394.5	1127.1	986.4	871.6	709.9	5969.3
0.01	4440.7	3429.9	2378.4	1778.2	1476.5	1198.6	1036.4	915.0	748.2	6540.5

1367.8
1759.8
2003.5
2334.0
3085.7
4012.2
4572.4
5231.0
5691.0
6128.7

STATION 12033000 CHEHALIS RIVER AT SOUTH ELMA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1942													
1943	483	8057	9340							978	514	348	
1944	915									686			
1945	478	2931	2980							450	293	363	
1947	1389	6764	11660	7965	10940	3947	3412	1262	944	588	341	429	4095
1948	3351	6141	6856	10590	9352	6852	4934	5493	1541	736	576	845	4763
1949	1703	7395	16190	3599	15440	6476	2783	2329	806	491	357	341	4760
1950	1771	5499	11370	12670	15520	14170	5925	2346	1069	561	501	399	5851
1951	2838	9795	13590	14960	14580	8060	3254	1566	752	391	254	310	5816
1952	3257	5178	9713	6602	9717								

STATION 12033000 CHEHALIS RIVER AT SOUTH ELMA, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1947	28000.0	1-26-1947
1948	24400.0	1-5-1948
1949	35600.0	2-24-1949
1950	34500.0	2-27-1950
1951	38400.0	2-11-1951
1952	23100.0	2-6-1952

STATION 1203+200 EAST FORK SATSOP RIVER NEAR ELMA, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1957					326	699	368	196	139	110	96.9	74.5	
1958	80.9	174	559	748	701	368	388	218	148	110	86.7	79.9	303
1959	117	547	670	909	506	444	584	413	205	137	104	112	395
1960	187	742	756	617	884	485	544	355	237	146	113	95.1	429
1961	130	575	506	918	1446	964	311	289	174	128	101	89.9	463
1962	125	343	275	508	345	430	345	297	166	117	105	90.2	293
1963	178	721	721	575	515	382	486	281	159	122	94.9	77.4	358
1964	210	796	623	1085	523	592	298	191	148	113	106	81.1	397
1965	107	362	442	707	906	362	298	284	170	122	96.2	79.7	341
1966	85.1	258	432	906	461	703	279	169	126	118	79.4	71.8	306
1967	106	239	1095	1126	785	621	371	229	156	118	93.6	86.3	418
1968	307	388	762	1109	966	693	412	234	210	130	114	149	455
1969	246	429	699	649	519	526	462	241	158	118	100.0	112	354
1970	157	267	460	693	543	444	467	232	150	113	91.7	89.7	301
1971	105	317	853	1038	646	883	526	243	173	134	103	96.7	426

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1957-1971)

MEAN	152.9	432.6	678.2	827.7	671.3	570.4	409.3	258.1	167.9	121.1	99.0	92.4	374.2
MAXIMUM	307.0	796.0	1095.0	1126.0	1446.0	964.0	584.0	413.0	237.0	146.0	114.0	149.0	463.0
MINIMUM	80.9	174.0	432.0	508.0	326.0	362.0	279.0	169.0	126.0	98.4	79.4	71.8	293.0
STD DEVIATION	65.90	209.42	170.71	211.39	291.11	188.48	97.63	64.13	29.30	12.24	9.25	19.76	59.75
SKENNESS	1.138	0.617	0.845	0.079	1.374	0.786	0.341	1.050	1.089	0.317	-0.339	1.854	-0.009
STD ERR SKEW	0.597	0.597	0.597	0.597	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.597
SER CORR COEFF	0.242	0.265	-0.330	-0.076	-0.145	-0.296	0.338	0.276	0.221	0.203	0.051	0.278	-0.079
COEFF OF VAR	0.431	0.484	0.252	0.255	0.434	0.330	0.239	0.248	0.174	0.101	0.093	0.214	0.160
MEAN LOGS	2.151	2.588	2.819	2.904	2.793	2.735	2.600	2.400	2.219	2.081	1.994	1.958	2.568
STD DEV LOGS	0.174	0.212	0.107	0.114	0.175	0.138	0.104	0.102	0.072	0.044	0.042	0.083	0.070
SKENNESS LOGS	0.478	0.078	0.062	-0.201	0.345	0.342	0.353	0.447	0.701	0.046	-0.608	1.330	-0.160
STD ERR SKEW LOGS	0.597	0.597	0.597	0.597	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.597
SER CORR LOGS	0.268	0.192	-0.384	-0.071	-0.215	-0.291	0.358	0.225	0.211	0.183	0.065	0.333	-0.101
COEFF OF VAR LOGS	0.081	0.082	0.038	0.039	0.062	0.051	0.040	0.043	0.032	0.021	0.021	0.042	0.027
% OF AVE FLOW	3.4	9.7	15.1	18.5	15.0	12.7	9.1	5.8	3.7	2.7	2.2	2.1	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1971)

0.99	64.3	127.8	375.2	418.1	270.2	281.1	230.8	157.0	122.9	95.7	75.7	69.9	248.8
0.95	77.7	175.3	441.0	512.5	334.3	332.8	270.1	176.1	131.0	102.3	83.0	72.2	281.2
0.90	86.9	208.0	481.1	569.3	377.4	366.4	293.9	188.3	136.3	106.0	86.8	74.1	299.6
0.80	100.4	256.4	535.1	644.5	440.6	414.2	325.8	205.4	143.8	110.7	91.4	77.3	323.0
0.50	137.1	385.1	657.5	809.1	606.8	533.8	397.7	247.0	162.6	120.4	99.6	87.0	371.3
0.20	195.7	583.8	810.9	1003.2	463.5	705.6	486.9	304.4	188.9	131.1	107.0	103.9	424.2
0.10	240.2	728.3	906.2	1117.1	1052.4	825.2	541.9	343.1	206.6	137.2	110.6	117.0	453.7
0.04	303.2	924.5	1021.2	1248.2	1313.1	983.0	607.9	392.9	229.5	144.0	114.1	135.7	486.6
0.02	355.3	1080.2	1103.9	1338.3	1523.6	1105.6	655.1	430.7	246.8	148.6	116.2	151.1	508.6
0.01	412.1	1243.7	1184.5	1423.1	1748.5	1232.8	700.9	449.3	244.5	152.9	118.0	167.8	528.8

STATION 1203+200 EAST FORK SATSOP RIVER NEAR ELMA, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1958	65.0	67.0	68.0	69.0	71.0	74.0	80.0	88.0	107.0
1959	68.0	68.0	69.0	73.0	78.0	81.0	87.0	97.0	122.0
1960	88.0	89.0	91.0	95.0	97.0	104.0	112.0	123.0	161.0
1961	84.0	85.0	86.0	88.0	89.0	95.0	102.0	115.0	171.0
1962	83.0	83.0	84.0	84.0	86.0	92.0	108.0	113.0	140.0
1963	83.0	83.0	84.0	86.0	89.0	95.0	101.0	113.0	146.0
1964	68.0	68.0	68.0	69.0	73.0	79.0	86.0	97.0	148.0
1965	70.0	71.0	73.0	77.0	80.0	91.0	97.0	101.0	121.0
1966	70.0	71.0	73.0	75.0	78.0	82.0	86.0	94.0	130.0
1967	66.0	66.0	66.0	67.0	68.0	72.0	75.0	83.0	103.0
1968	78.0	79.0	80.0	80.0	86.0	90.0	98.0	109.0	150.0
1969	98.0	99.0	99.0	103.0	111.0	114.0	126.0	139.0	178.0
1970	79.0	80.0	81.0	82.0	88.0	97.0	106.0	119.0	144.0
1971	73.0	74.0	76.0	78.0	84.0	86.0	90.0	97.0	123.0

LOWEST MEAN FLOW STATISTICS (YEARS 1958-1971)

MEAN	76.6	77.4	78.4	80.4	84.1	89.4	96.0	105.9	138.9
MAXIMUM	98.0	99.0	99.0	103.0	111.0	114.0	126.0	139.0	178.0
MINIMUM	65.0	66.0	66.0	67.0	68.0	72.0	75.0	83.0	103.0
STANDARD DEVIATION	9.72	9.76	9.75	10.26	11.11	11.55	13.42	15.08	22.49
SKENNESS	0.726	0.750	0.594	0.765	0.876	0.442	0.597	0.596	0.103
STD ERROR OF SKENNESS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SERIAL CORR COEFF	0.300	0.284	0.257	0.175	0.213	0.201	0.233	0.308	0.241
COEFF OF VARIATION	0.127	0.126	0.124	0.128	0.132	0.129	0.140	0.142	0.162
MEAN LOGS	1.881	1.885	1.891	1.902	1.922	1.948	1.978	2.021	2.137
STD DEVIATION LOGS	0.054	0.053	0.053	0.054	0.056	0.056	0.060	0.061	0.071
SKENNESS LOGS	0.513	0.531	0.378	0.497	0.475	0.132	0.230	0.265	-0.196
STD ERR SKENNESS LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR COEFF LOGS	0.334	0.312	0.276	0.199	0.234	0.214	0.243	0.320	0.233
COEFF OF VAR LOGS	0.028	0.028	0.028	0.028	0.029	0.029	0.030	0.030	0.033

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1958-1971)

0.99	106.1	107.1	106.9	111.4	117.6	121.0	134.1	149.3	196.2
0.98	101.3	102.2	102.5	106.4	112.1	116.5	128.3	142.6	188.8
0.96	96.4	97.2	97.9	101.2	106.6	111.7	122.3	135.7	180.8
0.90	89.6	90.4	91.4	94.1	98.9	104.7	113.8	126.0	168.6
0.80	84.1	84.8	86.0	88.3	92.6	98.8	106.6	117.8	157.7
0.50	75.3	76.0	77.3	79.0	82.6	88.5	94.7	104.3	137.9
0.20	68.5	69.1	70.2	71.8	74.8	79.6	84.6	93.2	119.7
0.10	65.5	66.2	67.0	68.6	71.4	75.5	80.1	88.1	110.8
0.05	63.3	64.0	64.6	66.3	68.9	72.3	76.6	81.3	103.8
0.02	61.2	61.9	62.2	64.0	66.4	68.9	73.0	80.4	96.2
0.01	59.9	60.6	60.7	62.6	64.8	66.7	70.7	77.9	91.4

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1958-1971)

P95	P90	P75	P70	P50	P25	P10
82.0	91.0	120.0	140.0	250.0	480.0	830.0

STATION 12034200 EAST FORK SAISOP RIVER NEAR ELMA, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	PEAK-FLOW DATA DATE	REG. (R)
1958	1740.	1620.	1190.	960.	827.	755.	685.	596.	496.	2090.	01/17/58	
1959	2700.	2040.	1570.	1080.	945.	795.	744.	678.	630.	3580.	04/30/59	
1960	3210.	2740.	2120.	1340.	1150.	809.	883.	796.	684.	3650.	12/15/59	
1961	3680.	2710.	2090.	1630.	1440.	1260.	1100.	968.	781.	4150.	02/21/61	
1962	3600.	1600.	1180.	1000.	817.	624.	537.	503.	449.	1680.	12/24/61	
1963	3080.	2140.	1480.	1280.	1020.	872.	731.	654.	576.	3740.	11/20/62	
1964	2230.	1650.	1370.	1290.	1080.	910.	861.	773.	665.	2460.	01/25/64	
1965	2500.	2070.	1670.	1400.	1100.	807.	768.	692.	554.	2780.	11/30/64	
1966	2840.	2320.	1660.	1310.	920.	697.	701.	631.	508.	3040.	01/13/66	
1967	3060.	2140.	1690.	1340.	1180.	1140.	1010.	916.	714.	3420.	12/13/66	
1968	4270.	3780.	2440.	1760.	1330.	1060.	951.	887.	735.	5030.	01/19/68	
1969	1720.	1490.	1240.	929.	770.	717.	637.	607.	549.	1890.	01/05/69	
1970	1370.	1300.	1240.	1070.	812.	648.	593.	560.	466.	1870.	04/09/70	
1971	2640.	2150.	1620.	1510.	1080.	974.	879.	875.	717.	2840.	01/26/71	
1972										3600.	01/20/72	
1973										4220.	12/26/72	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1958-1973)

W R C SYSTEMATIC
ESTIMATE RECORD

MEAN	2617.1	2113.6	1611.4	1278.5	1033.6	862.0	791.4	724.0	608.9			
MAXIMUM	4270.0	3780.0	2440.0	1760.0	1440.0	1260.0	1100.0	968.0	781.0			
MINIMUM	1370.0	1300.0	1180.0	929.0	770.0	624.0	537.0	503.0	449.0			
STANDARD DEVIATION	832.43	652.85	382.62	250.61	201.12	188.58	162.49	145.67	108.87			
SKWENESS	0.260	1.222	0.860	0.321	0.529	0.818	0.322	0.281	0.019			
STD ERROR OF SKWENESS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597			
SERIAL CORR COEFF	-0.078	-0.105	0.004	-0.173	-0.075	-0.249	-0.100	-0.118	-0.145			
COEFF OF VARIATION	0.318	0.309	0.237	0.196	0.195	0.219	0.205	0.201	0.179			
MEAN LOGS	3.396	3.307	3.197	3.099	3.007	2.926	2.890	2.852	2.778			
STD DEVIATION LOGS	0.145	0.126	0.099	0.085	0.083	0.091	0.090	0.088	0.079			
SKWENESS LOGS	-0.344	0.424	0.464	-0.021	0.193	0.459	-0.061	0.018	-0.172			
STD ERR SKWENESS LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597			
SER CORR COEFF LOGS	-0.051	-0.075	0.012	-0.133	-0.061	-0.267	-0.111	-0.129	-0.157			
COEFF OF VAR LOGS	0.043	0.038	0.031	0.028	0.028	0.031	0.031	0.031	0.028			

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1958-1973)

0.99	1052.5	1133.0	1002.0	792.6	668.5	556.1	475.7	445.7	393.8	1424.9	1268.7
0.95	1393.2	1308.1	1117.3	907.9	749.3	615.3	550.7	510.5	440.7	1755.6	1681.5
0.90	1605.4	1422.0	1191.1	975.8	798.1	652.9	594.9	549.0	473.5	1966.1	1937.1
0.80	1892.5	1584.1	1294.3	1064.6	863.3	705.1	652.7	599.5	515.4	2259.4	2280.8
0.50	2538.0	1988.9	1544.9	1256.7	1009.8	830.6	777.6	710.1	602.8	2964.8	3044.7
0.20	3312.4	2570.7	1890.5	1482.0	1191.4	1001.0	923.7	841.7	699.8	3920.2	3943.9
0.10	3767.6	2975.1	2122.6	1614.9	1303.7	1114.0	1009.6	920.3	754.5	4550.3	4463.2
0.04	4289.1	3509.2	2421.0	1769.1	1438.9	1257.8	1108.9	1012.4	815.6	5346.9	5049.8
0.02	4644.6	3924.5	2647.4	1876.3	1535.9	1366.0	1177.6	1076.9	856.8	5941.7	5444.4
0.01	4975.9	4355.1	2877.9	1977.9	1630.5	1475.5	1242.7	1138.6	894.9	6538.7	5808.4

STATION 12034700 WEST FORK SATSOP RIV TRIBUTARY NR MATLOCK, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1958-1977)			W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKEWNESS LOGS	ESTIMATE		
1958	21.0	0- 0-1958				1.5957		1.5957
1959	70.0	4-29-1959				0.2366		0.2366
1960	68.0	11-20-1959				0.126		-0.416
1961	65.0	2-21-1961						
1962	14.0	12-23-1961						
1963	58.0	11-19-1962						
1964	27.0	11-26-1963						
1965	28.0	11-30-1964						
1966	61.0	1-12-1966						
1967	64.0	12-13-1966						
1968	77.0	1-19-1968						
1969	67.0	1- 4-1969						
1970	24.0	1-19-1970						
1971	38.0	1-26-1971	0.99			11.7		9.4
1972	57.0	1-20-1972	0.95			16.4		15.2
1973	54.0	12-26-1972	0.90			19.8		19.2
1974	23.0	12-16-1973	0.80			24.8		25.3
1975	22.0	12-21-1974	0.50			39.0		40.9
1976	40.0	12-26-1975	0.20			62.1		62.8
1977	18.0	3- 7-1977	0.10			79.8		77.0
			0.04			104.7		94.2
			0.02			125.2		106.5
			0.01			147.2		118.3

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1958-1977)

STATION 12035000 SATSOP RIVER NEAR SATSOP, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1929							2493	992	794	413	284	227	
1930	314	280	2032	1541	4850	1891	2049	894	556	543	250	296	1250
1931	678	1342	1408	4739	2819	3652	3169	674	1393	587	321	590	1774
1932	1991	3747	4974	4694	4874	4958	3184	888	488	422	372	273	2557
1933	523	3703	4028	4512	2805	4132	1824	1637	870	445	293	809	2130
1934	2062	2481	9296	6413	2269	2787	1187	976	420	462	314	327	2432
1935	1808	4200	3913	9002	2986	3166	1508	830	501	329	242	451	2415
1936	491	1006	2298	5807	2677	2980	1112	1178	1382	645	317	374	1687
1937	315	268	3318	1276	3558	2977	4038	1671	1388	578	355	266	1653
1938	1703	6372	5060	3567	2821	3324	2702	1031	510	230	258	208	2320
1939	654	1913	2768	3535	3341	2199	928	711	600	367	253	281	1580
1940	691	1637	5069	2973	4726	3097	1770	1435	438	313	272	261	1884
1941	1739	2065	3097	3451	1990	1478	911	1330	563	330	278	892	1511
1942	1258	2149	4483	1654	2546	1513	898	870	968	654	345	246	1461
1943	409	3235	3756	2047	3766	2023	2888	944	657	422	303	243	1707
1944	642	841	2789	3032	1996	1674	1726	832	474	289	225	336	1238
1945	421	2653	1916	4046	4057	3829	1784	1649	597	346	265	373	1815
1946	702	3449	4333	4206	4048	3661	3829	958	614	619	309	269	2171
1947	681	2344	4090	4073	4983	1601	1769	855	555	462	282	356	1818
1948	2825	1967	3370	3341	3037	2287	2071	2696	669	397	352	929	1996
1949	1153	3743	4619	1127	4794	3291	1545	1355	488	351	284	338	1905
1950	837	4246	5228	3722	6123	5983	2848	1246	644	383	390	321	2643
1951	1862	3935	6107	5343	6753	2362	1321	742	430	287	231	314	2449
1952	2176	2373	3064	2760	3744	1841	1660	1061	601	341	357	289	1683
1953	244	553	3017	9598	4688	1848	1387	1425	737	415	291	317	2036
1954	1004	3211	5345	4733	6672	2451	2205	688	588	550	346	432	2325
1955	1092	4786	3163	2892	2938	2128	3499	1116	575	542	508	348	1954
1956	2490	5845	5404	4998	1843	4914	2388	913	1033	471	317	447	2595
1957	2541	2162	4575	1632	3544	3710	1987	724	464	412	419	294	1865
1958	623	1376	3799	4644	4211	1830	2250	752	426	300	242	294	1715
1959	912	3635	3903	5106	2460	2553	3279	1880	849	462	297	1001	2192
1960	1407	4350	4013	3417	4683	2427	2959	1606	862	417	354	335	2224
1961	1134	3667	3045	5676	8050	4964	1616	1504	562	376	259	310	2564
1962	953	2000	4563	2763	1818	2318	1860	1577	628	401	443	410	1648
1963	1575	4605	4165	2709	3035	1897	2584	1288	470	462	320	285	1940
1964	1829	5294	3681	6075	2591	3268	1522	905	695	538	574	412	2284
1965	904	2469	3869	3967	5113	1475	1765	1393	565	345	288	239	1846
1966	769	2157	2903	5603	2690	3965	1394	690	450	368	255	242	1791
1967	902	1729	7305	6475	3837	3393	1603	842	482	328	234	251	2283
1968	2713	2140	4607	6463	5356	3830	1802	879	972	460	539	1065	2565
1969	1769	2885	4640	3239	2714	3008	2943	1034	674	407	299	1050	2052
1970	1116	1519	3135	4031	3030	2112	2722	905	482	323	239	481	1668
1971	907	2487	4893	5937	3561	4768	2535	1224	746	555	328	623	2379
1972	901	3322	4128	5452	5201	6229	2329	955	481	739	334	686	2632
1973	394	2071	5815	3947	1656	2181	1018	932	915	485	295	408	1683
1974	968	4066	6195	5688	4895	5039	3284	1766	1151	837	389	312	2873
1975	256	1992	4240	4623	3145	2675	1337	1224	493	328	485	417	1764
1976	3814	5577	7840	5922	3729	3235	1865	907	697	515	408	344	2908
1977	343	816	1487	1795	1897	3400	1157	986	898	385	434	824	1199
1978	1008	5190	6741	3100	2591	1795	1700	1470	798	454	470	1791	2255
1979	696	1584	2147	1253	5196	3735	1251	900	408	356	256	437	1495

STATION 12035000 SATSOP RIVER NEAR SATSOP, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1929-1979)

MEAN	1184.0	2828.7	4192.7	4202.0	3731.7	3037.1	2069.7	1136.1	679.2	438.5	328.9	457.3	2016.3
MAXIMUM	3814.0	6372.0	9296.0	9598.0	8050.0	6229.0	4038.0	2696.0	1393.0	837.0	574.0	1791.0	2908.0
MINIMUM	244.0	268.0	1408.0	1127.0	1656.0	1475.0	898.0	674.0	408.0	287.0	225.0	208.0	1199.0
STD DEVIATION	781.87	1485.38	1573.85	1836.16	1416.28	1184.43	783.53	389.92	248.68	118.14	82.70	297.96	424.20
SKEWNESS	1.227	0.416	0.862	0.559	0.849	0.823	0.493	1.554	1.405	1.282	1.188	2.443	0.145
STD ERR SKEW	0.337	0.337	0.337	0.337	0.337	0.337	0.333	0.333	0.333	0.333	0.333	0.333	0.337
SER CORR COEFF	-0.101	-0.115	-0.185	0.142	-0.024	0.039	0.048	0.033	-0.028	0.048	0.001	0.155	-0.113
COEFF OF VAR	0.660	0.525	0.375	0.437	0.380	0.390	0.379	0.343	0.366	0.269	0.251	0.652	0.210
MEAN LOGS	2.982	3.372	3.592	3.577	3.542	3.451	3.285	3.034	2.808	2.628	2.505	2.500	3.295
STD DEV LOGS	0.291	0.301	0.170	0.216	0.163	0.166	0.169	0.134	0.141	0.107	0.101	0.211	0.094
SKEWNESS LOGS	-0.123	-1.328	-0.477	-0.740	0.020	0.114	-0.137	0.630	0.760	0.863	0.701	1.206	-0.299
STD ERR SKEW LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.333	0.333	0.333	0.333	0.333	0.333	0.337
SER CORR LOGS	-0.116	-0.049	-0.151	0.103	-0.083	0.053	0.049	0.040	-0.095	0.058	0.010	0.170	-0.099
COEFF OF VAR LOGS	0.098	0.089	0.047	0.060	0.046	0.048	0.051	0.044	0.050	0.041	0.040	0.081	0.028
% OF AVE FLOW	4.9	11.6	17.3	17.3	15.4	12.5	8.5	4.7	2.8	1.8	1.4	1.9	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1929-1979)

0.99	190.3	250.8	1377.5	912.2	1466.4	1201.3	749.8	610.0	362.7	270.1	210.5	197.4	1137.5
0.95	311.8	618.1	1958.2	1518.8	1886.4	1528.0	1001.2	692.3	407.6	297.9	230.0	218.1	1357.7
0.90	403.5	930.9	2331.8	1941.0	2158.4	1741.8	1163.9	748.2	439.2	316.6	245.2	235.3	1865.5
0.80	548.7	1434.7	2847.2	2550.5	2542.0	2046.3	1392.4	830.4	486.6	343.8	262.3	264.5	1849.9
0.50	973.2	2735.3	4029.2	4009.1	3480.6	2806.6	1942.9	1047.1	616.9	413.6	311.4	362.2	1993.0
0.20	1693.2	4212.1	5456.9	5779.2	4774.1	3889.0	2677.2	1382.2	828.7	517.0	384.2	568.5	2370.8
0.10	2244.3	4910.5	6288.7	6776.6	5635.6	4631.2	3149.9	1628.9	990.9	590.6	435.8	764.0	2580.7
0.04	3013.8	5528.3	7227.8	7852.6	6729.9	5597.1	3732.5	1970.2	1222.6	689.3	504.8	1098.9	2812.7
0.02	3634.7	5845.5	7857.2	8537.7	7549.7	6336.6	4156.7	2246.7	1415.8	767.2	559.0	1428.4	2966.7
0.01	4292.9	6075.6	8434.8	9137.9	8373.6	7093.3	4573.1	2543.0	1627.5	848.9	615.8	1842.8	3107.4

STATION 12035000 SATSOP RIVER NEAR SATSOP, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1930	220.0	220.0	220.0	222.0	225.0	248.0	267.0	276.0	376.0
1931	203.0	207.0	212.0	220.0	224.0	242.0	280.0	313.0	490.0
1932	270.0	270.0	272.0	281.0	305.0	372.0	462.0	690.0	767.0
1933	242.0	242.0	242.0	248.0	257.0	242.0	293.0	330.0	483.0
1934	242.0	250.0	257.0	264.0	269.0	304.0	377.0	538.0	825.0
1935	248.0	248.0	253.0	261.0	278.0	308.0	345.0	367.0	505.0
1936	205.0	205.0	208.0	217.0	228.0	250.0	304.0	349.0	434.0
1937	222.0	223.0	230.0	243.0	263.0	278.0	298.0	312.0	505.0
1938	206.0	210.0	212.0	220.0	265.0	308.0	379.0	544.0	911.0
1939	182.0	186.0	190.0	195.0	196.0	220.0	248.0	295.0	479.0
1940	225.0	226.0	229.0	241.0	242.0	285.0	290.0	339.0	469.0
1941	244.0	245.0	250.0	255.0	244.0	254.0	274.0	296.0	603.0
1942	237.0	240.0	244.0	252.0	270.0	299.0	380.0	499.0	686.0
1943	218.0	221.0	229.0	233.0	244.0	254.0	284.0	376.0	559.0
1944	208.0	214.0	226.0	229.0	233.0	259.0	292.0	345.0	517.0
1945	192.0	193.0	197.0	202.0	209.0	231.0	269.0	307.0	424.0
1946	220.0	223.0	225.0	230.0	262.0	295.0	299.0	318.0	620.0
1947	217.0	219.0	222.0	231.0	241.0	259.0	291.0	398.0	536.0
1948	249.0	249.0	250.0	252.0	269.0	318.0	365.0	410.0	692.0
1949	295.0	298.0	307.0	320.0	335.0	359.0	405.0	538.0	890.0
1950	191.0	193.0	197.0	207.0	241.0	287.0	317.0	349.0	533.0
1951	212.0	216.0	222.0	230.0	260.0	333.0	356.0	412.0	757.0
1952	197.0	197.0	197.0	200.0	214.0	225.0	247.0	293.0	521.0
1953	210.0	210.0	214.0	220.0	233.0	262.0	295.0	301.0	394.0
1954	203.0	205.0	207.0	215.0	233.0	263.0	317.0	422.0	675.0
1955	313.0	317.0	322.0	324.0	341.0	368.0	433.0	467.0	611.0
1956	271.0	276.0	277.0	288.0	331.0	379.0	456.0	477.0	743.0
1957	236.0	236.0	242.0	251.0	275.0	306.0	373.0	465.0	732.0
1958	252.0	252.0	252.0	258.0	266.0	308.0	349.0	368.0	472.0
1959	212.0	217.0	223.0	232.0	235.0	248.0	272.0	299.0	479.0
1960	258.0	267.0	271.0	276.0	290.0	357.0	451.0	579.0	832.0
1961	292.0	297.0	301.0	310.0	320.0	342.0	353.0	393.0	756.0
1962	235.0	235.0	239.0	246.0	255.0	283.0	294.0	341.0	601.0
1963	285.0	287.0	291.0	304.0	341.0	389.0	400.0	486.0	767.0
1964	250.0	250.0	255.0	264.0	284.0	295.0	338.0	358.0	600.0
1965	307.0	310.0	322.0	335.0	370.0	477.0	498.0	546.0	666.0
1966	214.0	217.0	221.0	224.0	237.0	260.0	282.0	335.0	589.0
1967	207.0	209.0	214.0	223.0	237.0	243.0	256.0	295.0	425.0
1968	208.0	209.0	210.0	215.0	225.0	241.0	269.0	318.0	617.0
1969	297.0	301.0	312.0	328.0	363.0	451.0	539.0	660.0	879.0
1970	230.0	234.0	237.0	247.0	275.0	295.0	359.0	483.0	749.0
1971	206.0	206.0	210.0	214.0	232.0	269.0	301.0	345.0	535.0
1972	268.0	270.0	284.0	297.0	325.0	432.0	459.0	518.0	718.0
1973	251.0	251.0	257.0	272.0	280.0	336.0	468.0	585.0	950.0
1974	230.0	231.0	234.0	241.0	252.0	292.0	359.0	485.0	630.0
1975	228.0	230.0	234.0	247.0	287.0	303.0	303.0	407.0	712.0
1976	253.0	254.0	259.0	270.0	280.0	326.0	386.0	420.0	681.0
1977	261.0	262.0	264.0	276.0	287.0	325.0	352.0	396.0	494.0
1978	267.0	270.0	271.0	276.0	295.0	358.0	483.0	544.0	694.0
1979	351.0	352.0	357.0	370.0	395.0	444.0	558.0	781.0	928.0

LOWEST MEAN FLOW STATISTICS (YEARS 1930-1979)

MEAN	238.4	240.6	245.0	253.0	270.0	305.8	351.2	417.8	622.9
MAXIMUM	351.0	352.0	357.0	370.0	395.0	477.0	558.0	781.0	928.0
MINIMUM	182.0	186.0	190.0	195.0	196.0	220.0	247.0	276.0	376.0
STANDARD DEVIATION	35.9	36.2	37.2	39.0	44.1	60.8	78.6	113.5	143.3
SKWENESS	0.958	0.962	0.978	0.971	0.926	1.033	0.863	1.123	0.336
STD ERROR OF SKWENESS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SERIAL CORR COEFF	0.198	0.191	0.151	0.131	0.096	0.037	0.147	-0.040	-0.016
COEFF OF VARIATION	0.151	0.151	0.152	0.154	0.163	0.199	0.224	0.272	0.230
MEAN LOGS	2.373	2.377	2.385	2.398	2.426	2.478	2.536	2.607	2.783
STD DEVIATION LOGS	0.063	0.062	0.063	0.064	0.068	0.081	0.092	0.101	0.101
SKWENESS LOGS	0.611	0.630	0.648	0.642	0.569	0.620	0.501	0.577	-0.060
STD ERR SKWENESS LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337
SER CORR COEFF LOGS	0.220	0.213	0.177	0.157	0.113	0.070	0.007	0.007	-0.009
COEFF OF VAR LOGS	0.026	0.026	0.026	0.027	0.028	0.033	0.036	0.042	0.036

STATION 12035000 SATSOP RIVER NEAR SATSOP, WASH.

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1979)

0.99	351.4	354.9	363.1	376.7	408.7	504.9	607.9	807.7	1030.0
0.98	331.8	335.0	342.3	355.0	384.6	468.4	561.3	731.7	969.3
0.96	312.2	315.1	321.7	333.3	360.5	432.6	515.4	658.8	906.0
0.90	285.7	288.3	294.0	304.3	328.1	385.4	454.9	565.4	815.4
0.80	264.7	267.0	272.0	281.3	302.3	348.8	407.7	495.1	738.0
0.50	232.5	234.6	238.7	246.4	262.8	294.6	337.3	394.7	608.3
0.20	208.5	210.5	214.1	220.6	233.2	255.8	286.1	325.7	499.7
0.10	198.5	200.5	204.0	210.0	220.9	240.0	265.1	298.3	450.4
0.05	191.3	193.3	196.8	202.4	212.0	228.8	250.0	279.3	413.0
0.02	184.2	186.4	189.7	195.0	203.2	218.0	235.3	261.0	374.4
0.01	180.1	182.2	185.6	190.7	198.1	211.7	226.6	250.4	350.5

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FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1930-1979)

P95	P90	P75	P70	P50	P25	P10
250.0	290.0	450.0	540.0	1200.0	2600.0	4800.0

STATION 12035000 SATSOP RIVER NEAR SATSOP, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30										ANNUAL PEAK-FLOW DATA		
YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW(CFS)	DATE	REG. (R)
1930	9870.	7200.	6310.	5310.	4660.	3270.	2880.	2780.	2170.	11300.	12/23/29	
1931	16600.	12600.	10300.	6870.	5010.	4110.	4070.	3620.	2850.	19200.	01/23/31	
1932	27000.	18900.	12300.	9120.	6780.	5350.	5300.	5080.	4500.	30900.	02/26/32	
1933	13900.	13200.	9800.	7130.	6280.	4730.	4210.	3930.	3510.	15300.	01/08/33	
1934	21200.	18800.	15700.	12600.	10000.	8110.	6320.	5490.	4330.	24600.	12/21/33	
1935	45900.	36300.	22700.	12800.	9160.	6550.	5760.	4290.	4290.	46600.	01/22/35	
1936	16600.	11600.	9470.	8740.	6660.	4320.	4110.	3520.	2720.	16600.	01/04/36	
1937	13300.	10700.	7310.	5570.	4510.	3930.	3560.	3140.	2790.	15200.	04/14/37	
1938	30100.	19400.	12100.	8550.	6620.	6040.	5170.	4570.	4060.	30100.	12/28/37	
1939	19000.	14400.	9780.	6580.	5140.	4420.	3730.	3350.	2710.	25600.	01/01/39	
1940	15600.	12600.	9000.	7030.	5750.	4290.	4400.	3970.	3290.	18700.	12/15/39	
1941	16800.	11500.	7020.	5020.	3810.	3370.	2950.	2850.	2350.	25200.	01/18/41	
1942	12400.	8860.	7220.	5200.	4600.	3410.	3100.	2730.	2280.	13200.	12/19/41	
1943	11000.	9500.	7840.	5650.	4110.	3690.	3480.	3210.	2940.	13100.	04/01/43	
1944	16900.	10800.	6410.	4280.	3420.	2960.	2640.	2400.	2020.	19900.	12/03/43	
1945	18700.	14000.	8870.	6450.	4780.	4010.	3990.	3510.	3020.	31500.	02/07/45	
1946	13500.	10200.	7720.	6670.	5080.	4750.	4330.	4310.	3780.	17200.	04/11/46	
1947	19200.	15400.	11300.	8180.	7200.	4620.	4750.	4030.	3130.	24000.	01/25/47	
1948	12200.	9230.	7120.	5930.	5290.	3430.	3380.	3070.	2810.	17300.	10/19/47	
1949	23900.	17000.	11000.	8220.	5970.	4260.	3580.	3690.	3190.	29500.	02/22/49	
1950	26400.	18100.	11600.	9880.	7940.	6280.	5840.	5570.	4670.	27600.	12/28/49	
1951	32000.	26600.	16600.	10100.	8260.	7080.	6570.	5570.	4390.	39600.	02/09/51	
1952	13700.	11500.	9890.	7150.	4910.	3450.	3350.	3100.	2700.	15800.	01/30/52	
1953	22700.	16000.	12100.	11600.	10300.	7280.	5830.	4850.	3650.	26700.	01/23/53	
1954	17400.	14300.	13000.	9870.	6690.	5610.	5570.	5110.	4060.	24300.	12/12/53	
1955	21900.	16700.	10800.	7670.	5220.	4320.	4020.	3480.	3220.	29300.	11/18/54	
1956	25400.	18600.	11200.	8490.	6050.	5850.	5700.	4820.	4440.	30700.	11/03/55	
1957	21000.	14100.	9400.	7360.	5210.	3750.	3550.	3450.	3150.	35000.	12/10/56	
1958	10800.	10200.	7240.	5830.	5020.	4660.	4260.	3650.	3010.	14200.	12/26/57	
1959	18000.	13500.	9090.	5990.	5410.	4540.	4340.	3890.	3580.	28600.	04/30/59	
1960	21900.	17800.	13200.	8020.	6650.	4410.	4930.	4310.	3670.	28700.	11/20/59	
1961	25000.	16800.	11900.	8950.	8050.	7100.	6210.	5600.	4490.	29300.	02/21/61	
1962	11700.	9680.	7890.	6510.	5020.	3940.	3250.	2960.	2650.	12700.	12/23/61	
1963	24200.	14900.	9670.	7870.	6180.	5170.	4190.	3690.	3200.	32800.	11/20/62	
1964	12600.	9110.	7880.	7120.	6060.	5240.	5130.	4680.	3920.	14300.	01/25/64	
1965	16200.	14200.	9600.	8180.	6320.	4510.	4510.	3910.	3100.	19500.	11/30/64	
1966	23400.	17100.	11600.	8730.	5710.	4290.	4160.	3830.	3120.	26700.	01/13/66	
1967	25400.	16200.	12200.	9300.	7570.	6890.	6060.	5360.	4090.	29200.	12/13/66	
1968	34700.	26800.	15600.	11000.	7850.	6050.	5510.	5090.	4200.	43100.	01/19/68	
1969	12400.	9130.	7220.	5610.	4820.	4480.	3740.	3500.	3230.	16200.	12/03/68	
1970	11600.	8750.	7570.	6370.	4830.	4020.	3520.	3340.	2750.	18200.	04/09/70	
1971	17400.	14100.	10100.	9140.	6270.	5610.	4900.	4050.	4050.	20200.	12/07/70	
1972	21100.	18700.	12500.	10300.	8250.	6820.	5800.	5420.	4590.	31000.	01/20/72	
1973	28900.	18100.	14900.	10800.	7470.	5130.	4130.	3490.	2790.	35900.	12/26/72	
1974	18800.	15200.	12300.	8770.	7450.	6380.	5930.	5580.	4840.	22400.	12/16/73	
1975	15700.	10200.	7310.	6040.	5410.	4370.	4200.	3850.	3080.	21000.	12/21/74	
1976	26100.	23800.	15500.	10100.	7910.	7220.	6920.	6130.	5110.	34200.	12/26/75	
1977	11300.	10200.	6980.	4750.	3510.	2750.	2430.	2210.	1820.	15100.	03/07/77	
1978	18700.	16300.	13200.	10600.	7970.	6150.	5160.	4510.	3560.	25000.	12/02/77	
1979	22700.	15200.	9870.	8100.	6900.	4470.	3460.	3100.	2480.	30700.	03/05/79	

STATION 12035000 SATSOP RIVER NEAR SATSOP, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1930-1979)

	W R C ESTIMATE	SYSTEMATIC RECORD
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MEAN	19655.4	14861.2	10543.8	7922.0	6199.6	4952.2	4498.2	4066.6	3407.0		
MAXIMUM	45900.0	36300.0	22700.0	12800.0	10300.0	8110.0	6920.0	6130.0	5110.0		
MINIMUM	9870.0	7200.0	6310.0	4280.0	3420.0	2750.0	2430.0	2210.0	1820.0		
STANDARD DEVIATION	7120.43	5364.14	3197.17	2057.97	1543.29	1290.82	1113.79	976.55	797.55		
SKEWNESS	1.207	1.630	1.302	0.416	0.560	0.550	0.273	0.261	0.192		
STD ERROR OF SKEWNESS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337		
SERIAL CORR COEFF	-0.035	-0.006	0.148	0.261	0.189	-0.004	-0.071	-0.051	-0.089		
COEFF OF VARIATION	0.362	0.360	0.303	0.260	0.255	0.261	0.248	0.240	0.234		
MEAN LOGS	4.268	4.149	4.003	3.884	3.779	3.681	3.640	3.597	3.520	4.3631	4.3631
STD DEVIATION LOGS	0.149	0.142	0.123	0.114	0.111	0.112	0.110	0.106	0.105	0.1520	0.1520
SKEWNESS LOGS	0.210	0.396	0.402	-0.103	-0.042	0.078	-0.175	-0.162	-0.283	0.0180	-0.1720
STD ERR SKEWNESS LOGS	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337	0.337		
SER CORR COEFF LOGS	-0.036	0.017	0.141	0.247	0.199	0.005	-0.061	-0.042	-0.068		
COEFF OF VAR LOGS	0.035	0.034	0.031	0.029	0.029	0.030	0.030	0.030	0.030		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1930-1979)

0.99	8782.7	7231.9	5706.7	4800.5	3294.9	2670.7	2347.2	2173.5	1800.7	10269.0	9779.6
0.95	10750.4	8541.6	6582.6	4939.4	3938.6	3155.1	2844.7	2614.3	2189.1	12997.3	12759.3
0.90	12025.8	9403.6	7149.3	5459.4	4328.7	3452.6	3142.5	2877.2	2418.2	14742.7	14644.8
0.80	13831.2	10640.3	7950.6	6152.9	4850.1	3855.0	3535.6	3223.4	2716.6	17179.4	17241.7
0.50	18306.6	13783.6	9935.4	7696.8	6017.2	4777.2	4394.4	3977.2	3351.5	23046.3	23303.6
0.20	24466.0	18410.8	12752.5	9567.1	7446.4	5948.0	5405.1	4861.6	4068.9	30963.7	31052.6
0.10	28990.5	21690.0	14690.9	10692.2	8315.5	6682.8	5998.2	5379.9	4475.1	36154.1	35878.9
0.04	34653.9	26086.7	17230.5	12015.5	9347.3	7577.6	6682.1	5977.1	4930.2	42670.7	41680.8
0.02	39002.6	29550.9	19191.3	12942.8	10076.9	8224.9	7153.1	6388.2	5235.6	47504.3	45814.8
0.01	43464.6	33180.8	21213.5	13628.5	10778.7	8859.0	7596.6	6775.3	5517.4	52327.1	49807.3

STATION 12035400 WYNOOCHEE RIVER NEAR GRISDALE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1966	418	820	889	983	497	681	529	434	299	181	91.8	80.5	493
1967	382	756	1963	1157	676	722	321	399	415	164	70.7	81.6	594
1968	1098	610	1089	1526	1322	848	338	364	362	158	182	309	683
1969	580	724	981	504	356	565	794	731	467	154	99.5	515	540
1970	383	440	796	871	580	483	622	280	156	85.8	69.6	169	411
1971	392	782	833	952	803	730	546	784	570	456	177	253	606
1972	119	1058	611	892	1111	1574	650	497	310	169	234	118	610
1973	132	256	1355	881	486	357	205	207	209	213	220	316	404
1974	545	899	1398	1398	737	700	550	532	694	560	291	279	716
1975	217	783	1079	665	526	489	215	213	441	223	242	433	460
1976	1284	1339	1488	951	591	280	216	391	470	329	218	307	656
1977	331	312	449	435	226	469	327	358	325	215	213	387	342
1978	485	1386	1257	755	617	319	215	322	299	215	213	692	563
1979	386	350	365	212	938	753	196	212	208	206	202	271	356

STATION 12035400 WYNOOCHEE RIVER NEAR GRISDALE, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1967	64.0	65.0	67.0	69.0	76.0	82.0	91.0	127.0	214.0
1968	48.0	49.0	52.0	57.0	67.0	72.0	102.0	177.0	245.0
1969	88.0	90.0	91.0	95.0	108.0	152.0	185.0	230.0	277.0
1970	72.0	72.0	74.0	77.0	92.0	99.0	136.0	280.0	314.0
1971	60.0	60.0	61.0	62.0	68.0	75.0	85.0	106.0	160.0
1972	42.0	45.0	52.0	63.0	102.0	160.0	176.0	241.0	383.0
1973	18.0	21.0	61.0	104.0	116.0	122.0	140.0	159.0	193.0
1974	150.0	166.0	194.0	205.0	205.0	206.0	207.0	208.0	228.0
1975	175.0	190.0	193.0	198.0	201.0	241.0	233.0	281.0	418.0
1976	178.0	198.0	201.0	204.0	209.0	213.0	248.0	273.0	293.0
1977	186.0	189.0	192.0	196.0	215.0	226.0	257.0	278.0	303.0
1978	200.0	201.0	206.0	195.0	215.0	216.0	218.0	241.0	305.0
1979	156.0	160.0	180.0	199.0	205.0	214.0	237.0	263.0	325.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1967-1979)

P95	P90	P75	P70	P50	P25	P10
93.0	150.0	210.0	220.0	330.0	610.0	1100.0

STATION 12035400 WYNDOCHEE RIVER NEAR GRISDALE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL FLOW (CFS)	ANNUAL PEAK-FLOW DATA DATE REG. (R)
1966	4260.	3140.	2080.	1550.	1050.	1000.	907.	805.	735.	5700.	10/06/65
1967	7200.	5200.	4000.	2780.	2190.	1570.	1400.	1190.	970.	11800.	12/12/66
1968	7000.	5600.	3730.	2660.	1840.	1500.	1330.	1200.	1080.	8640.	01/19/68
1969	3800.	2230.	1470.	1160.	1030.	933.	845.	710.	663.	6800.	12/03/68
1970	3220.	1870.	1610.	1350.	979.	903.	777.	745.	634.	5470.	04/09/70
1971	3380.	2530.	1760.	1490.	1140.	926.	890.	857.	795.	5170.	12/07/70
1972	5290.	4110.	2530.	2480.	1930.	1510.	1270.	1080.	983.	6070.	11/04/71
1973	4560.	3600.	3260.	2540.	1790.	1140.	959.	802.	596.	5010.	12/19/71
1974	6590.	6050.	4030.	2400.	1690.	1480.	1330.	1140.	989.	4200.	01/17/72
1975	4810.	2830.	2180.	1430.	1260.	1050.	911.	834.	625.	6110.	11/21/74
1976	6000.	5200.	3280.	2080.	1770.	1640.	1410.	1290.	991.	9340.	12/04/75
1977	2130.	1620.	999.	694.	601.	480.	454.	419.	404.	2540.	01/18/77
1978	5730.	3960.	2720.	2040.	1560.	1410.	1180.	1050.	800.	6070.	11/02/77
1979	2900.	2760.	1910.	1530.	1280.	832.	640.	571.	496.	2960.	03/05/79

STATION 12035450 BIG CREEK NEAR GRISDALE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1972													
1973	22.6	198	328	195	97.9	143	50.2	71.4	64.4	26.6	17.9	54.7	104
1974	95.9	259	435	342	243	313	148	99.2	54.2	62.7	15.0	35.4	174
1975	12.8	164	228	204	156	152	186.9	81.2	21.0	13.8	42.3	29.1	99.3
1976	240	283	317	216	183	156	116	50.8	40.4	33.5	23.1	20.4	140
1977	29.9	62.6	99.3	106	141	180	61.5	67.9	54.4	17.1	22.2	55.8	74.4
1978	82.4	245	281	173	137	99.8	85.5	84.6	42.3	17.4	28.7	104	115
1979	34.5	78.4	117	65.7	266	166	73.4	63.0	18.3	27.9	12.4	53.5	80.1

STATION 12035450 BIG CREEK NEAR GRISDALE, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW (CFS)	DATE
1973	2680.0	12-25-1972
1974	2300.0	12-15-1973
1975	1820.0	12-20-1974
1976	2760.0	12-26-1975
1977	1250.0	3-7-1977
1978	1730.0	11-1-1977
1979	1990.0	3-4-1979

STATION 12035500 WYNOOCHEE RIVER AT OXBOW, NR ABERDEEN, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1925													
1926	103	747	2044	1139	1390	560	384	551	425	191	119	105	628
1927	1157	1259	1271	1534	1333	822	572	894	254	136	130	145	130
1928	791	1620	771	1915	688	1266	954	710	334	258	150	394	846
1929	747	955	880	514	247	708	796	590	334	187	132	151	794
1930	187	137	1011	469	1722	667	969	408	271	228	133	96.7	542
1931	392	590	608	2082	983	1316	1209	386	550	153	97.1	155	512
1932	719	1319	1666	1263	1546	1519	1239	612	475	372	235	299	732
1933	343	1684	1321	1465	722	1274	837	979	764	485	212	551	923
1934	946	960	3472	2529	878	1132	537	529	183	263	188	146	987
1935	910	2049	1388	3473	1303	1214	614	511	404	226	150	369	1051
1936	308	475	1102	1769	740	938	522	772	758	411	171	176	680
1937	140	112	1395	339	644	1140	1494	1055	919	303	174	141	655
1938	809	2219	1841	1082	763	1021	972	427	292	149	102	145	822
1939	549	923	1259	1890	926	682	548	494	327	229	131	96.0	675
1940	356	999	2552	1265	1663	1225	580	623	187	127	115	122	809
1941	1185	859	1390	1274	960	714	466	681	279	161	146	533	721
1942	812	1091	1837	654	869	519	486	444	588	375	176	120	664
1943	209	1364	1632	832	1730	1032	1348	447	342	198	138	119	775
1944	412	428	1016	1333	732	615	621	419	257	134	104	197	523
1945	309	1374	811	1477	1867	1306	600	1019	345	188	104	210	794
1946	409	1423	1612	1394	1187	1220	1130	636	506	406	166	161	852
1947	280	894	1468	1271	1885	565	661	404	329	345	165	201	698
1948	1548	883	1583	1152	965	712	896	1272	587	249	186	574	885
1949	594	1320	1058	246	1250	844	848	484	420	266	191	232	703
1950	473	1943	2071	1230	1736	1692	1055	680	662	344	281	153	1021
1951	1129	1456	2143	1501	1966	632	705	540	236	144	107	236	894
1952	1212	1095	969	866	1378	629	832	794	505	270	246	173	747

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1925-1952)

MEAN	630.7	1117.7	1484.1	1332.5	1186.6	976.7	810.0	660.2	440.2	251.9	156.3	219.3	771.1
MAXIMUM	1548.0	2219.0	3472.0	3473.0	1966.0	1692.0	1494.0	1272.0	919.0	485.0	281.0	574.0	1051.0
MINIMUM	103.0	112.0	608.0	246.0	247.0	519.0	384.0	386.0	183.0	127.0	97.1	95.0	512.0
STD DEVIATION	385.84	530.75	607.41	684.45	461.81	331.18	293.33	228.66	188.07	96.86	46.49	138.39	142.50
SKWENESS	0.620	0.089	1.383	1.088	0.085	0.274	0.674	1.005	0.760	0.680	0.973	1.649	0.060
STD ERR SKEW	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.441	0.441	0.441	0.441	0.448
SER CORR COEFF	-0.035	-0.100	0.005	0.291	-0.045	0.083	0.072	-0.003	-0.091	0.180	0.160	-0.202	0.213
COEFF OF VAR	0.612	0.475	0.409	0.362	0.336	0.339	0.362	0.346	0.427	0.384	0.297	0.631	0.185
MEAN LOGS	2.708	2.974	3.140	3.062	3.036	2.965	2.882	2.797	2.606	2.371	2.177	2.278	2.080
STD DEV LOGS	0.307	0.309	0.169	0.257	0.201	0.152	0.155	0.142	0.186	0.166	0.123	0.224	0.083
SKWENESS LOGS	-0.488	-1.796	0.098	-0.922	-1.155	-0.102	0.098	0.414	-0.020	0.074	0.382	0.932	-0.375
STD ERR SKEW LOGS	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.441	0.441	0.441	0.441	0.448
SER CORR LOGS	-0.076	0.024	0.102	0.126	0.008	0.071	0.149	0.043	-0.142	0.158	0.181	-0.146	0.207
COEFF OF VAR LOGS	0.113	0.104	0.054	0.084	0.066	0.051	0.054	0.051	0.071	0.070	0.056	0.098	0.029
% OF AVE FLOW	6.8	12.1	16.0	14.4	12.8	10.5	8.7	7.1	4.8	2.7	1.7	2.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1925-1952)

0.99	77.0	78.4	574.7	199.2	256.9	397.5	340.0	324.3	147.9	98.7	84.4	81.5	462.4
0.95	146.0	230.3	736.2	383.7	451.0	513.0	427.1	381.7	198.9	126.4	97.6	94.9	544.0
0.90	200.5	368.9	842.0	522.8	584.7	583.0	483.4	419.5	232.7	144.5	106.1	105.2	590.3
0.80	288.2	595.4	993.0	733.4	772.2	687.4	562.7	473.9	281.4	170.1	118.0	122.0	648.8
0.50	540.5	1148.8	1370.4	1261.8	1184.6	927.4	757.1	612.3	404.0	233.8	147.6	175.2	767.1
0.20	934.8	1659.9	1908.3	1910.8	1605.0	1240.0	1027.3	816.7	578.8	323.4	189.2	281.4	891.9
0.10	1207.0	1842.5	2277.0	2266.9	1801.4	1438.6	1208.9	962.0	697.9	384.2	217.7	378.4	958.8
0.04	1550.0	1965.6	2756.6	2546.1	1980.8	1681.2	1441.8	1157.1	851.6	462.7	255.0	539.4	1030.8
0.02	1800.3	2013.0	3123.6	2860.6	2077.6	1856.8	1617.8	1311.2	968.1	522.3	283.6	693.2	1077.4
0.01	2044.0	2039.9	3498.8	3049.1	2151.7	2028.4	1796.1	1472.9	1086.2	582.8	313.1	881.7	1119.3

STATION 12035500 WYNOOCHEE RIVER AT OXBOW, NR ABERDEEN, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1927	113.0	113.0	113.0	115.0	121.0	125.0	131.0	162.0	267.0
1928	132.0	132.0	133.0	135.0	143.0	199.0	263.0	308.0	457.0
1929	114.0	115.0	116.0	118.0	123.0	110.0	155.0	192.0	356.0
1930	87.0	87.0	88.0	91.0	95.0	94.0	132.0	137.0	214.0
1931	78.0	78.0	81.0	85.0	86.0	121.0	121.0	148.0	239.0
1932	104.0	105.0	106.0	111.0	121.0	160.0	207.0	293.0	349.0
1933	113.0	114.0	115.0	118.0	130.0	153.0	207.0	262.0	358.0
1934	139.0	141.0	146.0	155.0	164.0	225.0	343.0	425.0	584.0
1935	100.0	101.0	105.0	112.0	136.0	147.0	185.0	188.0	268.0
1936	97.0	99.0	108.0	122.0	134.0	156.0	205.0	251.0	305.0
1937	96.0	98.0	99.0	103.0	111.0	121.0	131.0	145.0	283.0
1938	103.0	104.0	105.0	109.0	128.0	150.0	198.0	277.0	520.0
1939	88.0	88.0	89.0	91.0	93.0	96.0	106.0	133.0	254.0
1940	105.0	105.0	106.0	113.0	118.0	136.0	161.0	184.0	277.0
1941	94.0	95.0	97.0	101.0	104.0	114.0	119.0	128.0	259.0
1942	104.0	104.0	106.0	109.0	118.0	139.0	184.0	275.0	358.0
1943	105.0	105.0	106.0	109.0	117.0	127.0	144.0	202.0	307.0
1944	104.0	104.0	109.0	110.0	116.0	125.0	137.0	168.0	268.0
1945	87.0	87.0	88.0	90.0	95.0	106.0	129.0	165.0	230.0
1946	90.0	91.0	92.0	97.0	103.0	139.0	144.0	162.0	334.0
1947	112.0	112.0	114.0	120.0	130.0	144.0	166.0	223.0	313.0
1948	115.0	118.0	123.0	134.0	152.0	182.0	237.0	260.0	347.0
1949	107.0	108.0	110.0	115.0	166.0	212.0	261.0	379.0	522.0
1950	112.0	112.0	116.0	124.0	152.0	199.0	284.0	355.0	568.0
1951	97.0	98.0	102.0	112.0	148.0	217.0	339.0	507.0	597.0
1952	92.0	92.0	93.0	94.0	100.0	105.0	119.0	149.0	327.0

LOWEST MEAN FLOW STATISTICS (YEARS 1927-1952)

MEAN	103.4	104.1	106.4	111.3	123.2	146.8	178.8	223.2	341.2
MAXIMUM	139.0	141.0	146.0	155.0	166.0	225.0	343.0	425.0	584.0
MINIMUM	78.0	78.0	81.0	85.0	86.0	94.0	106.0	128.0	214.0
STANDARD DEVIATION	13.64	13.87	14.30	15.65	21.97	37.87	57.56	79.84	99.34
SKEWNESS	0.684	0.668	0.713	0.670	0.269	0.698	1.031	0.868	1.087
STD ERROR OF SKEWNESS	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456
SERIAL CORR. COEFF	0.299	0.300	0.279	0.247	0.471	0.269	0.170	0.015	-0.012
COEFF OF VARIATION	0.132	0.133	0.134	0.141	0.178	0.258	0.322	0.358	0.291
MEAN LOGS	2.011	2.014	2.023	2.042	2.084	2.154	2.232	2.324	2.517
STD DEVIATION LOGS	0.056	0.057	0.057	0.060	0.078	0.109	0.132	0.149	0.117
SKEWNESS LOGS	0.250	0.211	0.245	0.201	-0.067	0.277	0.422	0.323	0.618
STD ERR SKEWNESS LOGS	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456	0.456
SER CORR COEFF LOGS	0.308	0.309	0.299	0.271	0.440	0.246	0.159	0.017	0.044
COEFF OF VAR LOGS	0.028	0.028	0.028	0.029	0.037	0.050	0.059	0.064	0.047

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1927-1952)

0.99	141.9	142.8	146.7	155.1	182.5	267.9	379.3	506.1	693.8
0.98	136.0	137.1	140.6	148.6	174.2	246.8	340.2	450.8	622.9
0.96	130.0	131.0	134.3	141.7	165.4	225.7	302.7	397.8	555.6
0.90	121.4	122.4	125.3	132.0	152.5	197.5	254.7	330.0	470.8
0.80	114.1	115.1	117.6	123.6	141.2	175.1	218.7	279.2	407.9
0.50	102.0	102.8	104.9	109.7	121.6	140.6	167.2	206.9	320.0
0.20	91.9	92.4	94.3	98.0	104.4	115.1	131.7	157.4	261.0
0.10	87.2	87.6	89.4	92.6	96.3	104.2	117.7	137.8	238.1
0.05	83.7	83.9	85.8	88.5	90.1	96.4	107.8	124.1	225.3
0.02	80.0	80.1	81.9	84.3	85.5	88.5	98.3	110.9	207.4
0.01	77.7	77.7	79.5	81.6	79.3	83.8	92.7	103.2	198.8

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1927-1952)

P95	P90	P75	P70	P50	P25	P10
110.0	130.0	230.0	290.0	510.0	920.0	1700.0

STATION 12035500 WYNOOCHEE RIVER AT OXBOW, NR ABERDEEN, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

ANNUAL PEAK-FLOW DATA
FLOW(CFS) DATE REG.(R)

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	
1926	5680.	4450.	3100.	2730.	2090.	1610.	1530.	1370.	1060.	8350.
1927	4990.	3650.	3060.	2510.	1760.	1680.	1490.	1400.	1230.	7790.
1928	6940.	4650.	3380.	3030.	1960.	1680.	1500.	1350.	1230.	9910.
1929	3470.	2620.	2250.	1460.	1030.	990.	898.	785.	700.	5560.
1930	4720.	3400.	2450.	1750.	1650.	1160.	1100.	1090.	869.	7870.
1931	7060.	5460.	4930.	3050.	2160.	1640.	1580.	1410.	1140.	11000.
1932	10600.	7930.	4810.	3120.	2220.	1850.	1620.	1600.	1450.	12900.
1933	5350.	4740.	3600.	2350.	1950.	1700.	1520.	1310.	1230.	9230.
1934	10200.	8160.	5650.	4710.	3800.	3110.	2440.	2120.	1690.	14000.
1935	16000.	13700.	9570.	5520.	3530.	2550.	2310.	2120.	1750.	18000.
1936	5160.	3960.	3540.	2730.	2200.	1480.	1300.	1160.	993.	6830.
1937	5980.	4040.	3060.	2270.	1560.	1380.	1300.	1170.	1030.	8830.
1938	11000.	7580.	4340.	2900.	2240.	2090.	1820.	1560.	1360.	11100.
1939	9960.	6760.	4410.	2770.	2060.	1590.	1400.	1310.	1070.	13300.
1940	7120.	5620.	3910.	3310.	2650.	2000.	1830.	1700.	1400.	11400.
1941	5780.	4670.	3150.	2080.	1580.	1400.	1240.	1290.	1090.	10600.
1942	6820.	4100.	2910.	2010.	1490.	1490.	1290.	1180.	988.	9270.
1943	5000.	4500.	3830.	2870.	1900.	1540.	1510.	1400.	1320.	5000.
1944	5820.	4480.	3190.	2050.	1530.	1200.	1040.	937.	807.	9510.
1945	9000.	6000.	4100.	2860.	1950.	1640.	1550.	1390.	1230.	12800.
1946	5680.	3880.	2890.	2310.	1990.	1770.	1520.	1500.	1340.	6820.
1947	7590.	7010.	4370.	2730.	2520.	1600.	1680.	1420.	1130.	9750.
1948	5880.	3710.	2930.	2480.	2200.	1410.	1470.	1320.	1150.	10700.
1949	8100.	5060.	3110.	2240.	1750.	1350.	1250.	1080.	1010.	8630.
1950	11200.	7900.	5660.	3630.	2560.	2120.	1820.	1920.	1620.	16400.
1951	10500.	8150.	4960.	2980.	2340.	2140.	2070.	1820.	1470.	14200.
1952	5820.	4560.	3670.	2580.	1740.	1260.	1180.	1170.	1020.	7660.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1926-1952)

W R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	7460.0	5583.3	3956.7	2779.3	2105.6	1682.6	1528.1	1403.0	1198.0	
MAXIMUM	16000.0	13700.0	9570.0	5520.0	3800.0	3110.0	2440.0	2120.0	1750.0	
MINIMUM	3470.0	2620.0	2250.0	1460.0	1030.0	990.0	898.0	785.0	700.0	
STANDARD DEVIATION	2777.73	2286.10	1441.22	835.47	571.90	444.48	357.13	321.69	257.55	
SKENNESS	1.261	1.853	2.409	1.677	1.352	1.445	0.826	0.661	0.370	
STD ERROR OF SKENNESS	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	
SERIAL CORR COEFF	0.128	0.145	0.214	0.261	0.315	0.275	0.180	0.163	0.120	
COEFF OF VARIATION	0.372	0.409	0.364	0.301	0.272	0.264	0.234	0.229	0.215	
MEAN LOGS	3.847	3.718	3.576	3.428	3.309	3.213	3.173	3.136	3.069	
STD DEVIATION LOGS	0.150	0.155	0.131	0.119	0.112	0.106	0.099	0.099	0.095	
SKENNESS LOGS	0.404	0.656	1.047	0.476	0.125	0.535	0.106	-0.072	-0.215	
STD ERR SKENNESS LOGS	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	0.448	
SER CORR COEFF LOGS	0.145	0.180	0.251	0.205	0.253	0.253	0.152	0.136	0.108	
COEFF OF VAR LOGS	0.039	0.042	0.037	0.035	0.034	0.033	0.031	0.032	0.031	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1926-1952)

0.99	3495.4	2711.5	2355.7	1561.4	1146.5	1020.7	892.2	796.4	682.1	4944.0
0.95	4158.7	3128.1	2544.8	1777.2	1346.9	1138.8	1031.0	936.9	808.3	5990.2
0.90	4598.7	3417.2	2688.3	1918.0	1470.5	1215.9	1115.3	1020.6	882.1	6651.8
0.80	5234.1	3849.7	2915.0	2118.3	1638.7	1358.4	1228.4	1130.9	977.8	7568.9
0.50	6868.0	5028.6	3578.2	2619.4	2027.3	1598.1	1484.0	1372.3	1180.5	9759.2
0.20	9313.1	6940.2	4729.2	3339.9	2527.2	1803.0	1658.8	1409.7	12701.6	12755.0
0.10	11069.0	8405.5	5649.9	3840.9	2844.6	2000.8	1828.8	1540.0	14632.6	14493.2
0.04	13448.3	10499.8	7007.7	4502.0	3234.6	2027.0	1686.8	17065.6	16552.7	16552.7
0.02	15340.5	12247.1	8171.7	5016.4	2411.2	2165.0	1785.9	18878.3	18003.2	18003.2
0.01	17337.8	14164.3	9477.1	5549.9	3799.6	3161.4	2578.4	2296.2	20694.9	19392.6

STATION 12036000 WYNDOCHEE RIVER ABV SAVE CR NR ABERDEEN, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1952	1228.00	1150.00	1060.00	941.00	1394.00	646.00	841.00	803.00	521.00	274.00	254.00	180.00	772.00
1953	138.00	407.00	1358.00	3953.00	1536.00	665.00	625.00	794.00	456.00	304.00	181.00	270.00	890.00
1954	672.00	1523.00	1970.00	1800.00	2393.00	939.00	883.00	607.00	453.00	433.00	194.00	247.00	963.00
1955	700.00	2542.00	1274.00	882.00	1083.00	613.00	1061.00	677.00	575.00	456.00	311.00	219.00	856.00
1956	1098.00	2457.00	1511.00	1410.00	463.00	1290.00	1078.00	836.00	968.00	495.00	208.00	302.00	2010.00
1957	1224.00	883.00	2335.00	895.00	1652.00	1313.00	834.00	485.00	274.00	274.00	269.00	156.00	880.00
1958	464.00	684.00	1503.00	1966.00	1894.00	698.00	887.00	433.00	248.00	143.00	112.00	161.00	753.00
1959	559.00	1598.00	1739.00	1970.00	869.00	941.00	1353.00	836.00	513.00	243.00	134.00	713.00	956.00
1960	750.00	1723.00	1600.00	1188.00	1577.00	884.00	1190.00	884.00	466.00	222.00	171.00	173.00	893.00
1961	728.00	1359.00	1242.00	2603.00	2574.00	1674.00	737.00	825.00	401.00	189.00	136.00	182.00	1046.00
1962	555.00	983.00	1540.00	1064.00	763.00	625.00	803.00	706.00	386.00	206.00	286.00	293.00	688.00
1963	840.00	1827.00	1682.00	915.00	1355.00	685.00	885.00	572.00	232.00	290.00	164.00	151.00	796.00
1964	972.00	1847.00	1439.00	1761.00	941.00	979.00	691.00	555.00	629.00	456.00	362.00	250.00	907.00
1965	505.00	1116.00	1143.00	1150.00	1731.00	677.00	836.00	657.00	319.00	166.00	136.00	107.00	705.00
1966	598.00	1113.00	1249.00	1664.00	1001.00	1247.00	739.00	563.00	396.00	263.00	151.00	129.00	759.00
1967	516.00	994.00	3059.00	2127.00	1264.00	1235.00	574.00	557.00	480.00	205.00	122.00	130.00	940.00
1968	1680.00	976.00	1737.00	2540.00	2266.00	1531.00	630.00	507.00	501.00	230.00	285.00	507.00	1115.00
1969	982.00	1112.00	1802.00	1026.00	807.00	1158.00	1489.00	954.00	596.00	244.00	168.00	834.00	924.00
1970	695.00	1795.00	1326.00	1544.00	1123.00	885.00	1114.00	438.00	250.00	163.00	122.00	272.00	725.00
1971	573.00	1208.00	1641.00	1850.00	1796.00	1445.00	926.00	889.00	663.00	540.00	244.00	373.00	1008.00
1972	315.00	1737.00	1209.00	1719.00	1860.00	2350.00	1067.00	650.00	391.00	315.00	282.00	244.00	1009.00

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1952-1972)

MEAN	745.3	1334.0	1593.3	1650.9	1444.9	1069.5	916.3	663.8	464.2	291.0	204.4	280.6	885.5
MAXIMUM	1680.0	2542.0	3059.0	3953.0	2574.0	2350.0	1489.0	954.0	968.0	540.0	362.0	834.0	1115.0
MINIMUM	138.0	407.0	1060.0	882.0	463.0	613.0	574.0	433.0	232.0	143.0	112.0	107.0	688.0
STD DEVIATION	350.60	548.22	451.69	741.00	565.35	436.21	236.28	161.79	170.66	116.68	73.35	189.06	121.01
SKEWNESS	0.907	0.694	1.903	1.976	0.327	1.309	0.800	0.165	1.117	0.883	0.547	1.972	-0.042
STD ERR SKEW	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR COEFF	-0.069	0.294	-0.090	-0.239	-0.236	0.204	0.243	0.218	-0.210	0.211	-0.205	0.091	-0.022
COEFF OF VAR	0.470	0.411	0.283	0.449	0.391	0.410	0.260	0.244	0.368	0.401	0.359	0.674	0.137
MEAN LOGS	2.821	3.089	3.189	3.182	3.125	2.998	2.949	2.809	2.640	2.433	2.284	2.379	2.943
STD DEV LOGS	0.232	0.189	0.108	0.176	0.186	0.164	0.109	0.108	0.157	0.166	0.155	0.235	0.060
SKEWNESS LOGS	-1.072	-0.511	1.036	0.458	-0.599	0.453	0.239	-0.101	-0.057	0.320	0.141	0.857	-0.251
STD ERR SKEW LOGS	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501
SER CORR LOGS	-0.135	0.160	-0.064	-0.245	-0.211	0.159	0.277	-0.210	-0.223	0.182	-0.152	0.119	-0.021
COEFF OF VAR LOGS	0.082	0.061	0.034	0.055	0.060	0.055	0.037	0.038	0.059	0.068	0.068	0.099	0.021
% OF AVE FLOW	7.0	12.5	14.9	15.5	13.6	10.0	8.6	6.2	4.4	2.7	1.9	2.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1952-1972)

0.99	128.9	380.7	1047.7	679.7	408.2	469.9	517.0	355.3	185.6	122.0	87.1	95.9	619.2
0.95	241.9	566.9	1117.3	826.2	615.9	564.1	597.6	425.6	239.6	149.9	108.6	114.2	691.6
0.90	324.1	690.1	1169.2	926.3	753.1	627.7	648.0	467.9	274.1	168.5	128.5	128.2	731.9
0.80	444.5	863.6	1250.2	1074.8	945.2	721.2	717.1	523.9	322.4	195.6	142.5	150.8	782.2
0.50	727.7	1272.2	1480.0	1474.4	1390.5	968.4	879.8	647.5	437.9	265.5	190.8	222.0	882.6
0.20	1042.6	1778.7	1860.5	2113.1	1925.3	1354.0	1094.8	795.6	592.0	371.0	258.9	364.2	987.7
0.10	1200.2	2077.7	2152.2	2597.1	2231.0	1640.3	1234.4	884.0	691.8	447.2	305.2	494.4	1044.1
0.04	1351.7	2417.4	2566.7	3281.9	2586.6	2038.9	1499.2	987.4	815.6	550.7	365.1	710.5	1105.3
0.02	1437.4	2645.7	2910.1	3847.7	2789.5	2363.7	1668.5	1059.5	906.4	633.2	410.7	916.9	1145.3
0.01	1505.4	2855.4	3284.6	4463.4	2988.0	2713.0	1668.5	1128.1	996.1	720.3	457.2	1169.9	1181.4

STATION 12036000 WYNDOCHEE RIVER ABV SAVE CR NR ABERDEEN, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1953	106.0	107.0	110.0	111.0	120.0	152.0	186.0	198.0	291.0
1954	133.0	135.0	136.0	139.0	149.0	166.0	215.0	277.0	430.0
1955	172.0	174.0	177.0	180.0	186.0	213.0	277.0	319.0	403.0
1956	168.0	169.0	173.0	179.0	203.0	236.0	317.0	374.0	589.0
1957	141.0	142.0	146.0	153.0	163.0	199.0	290.0	344.0	589.0
1958	130.0	131.0	133.0	140.0	144.0	169.0	205.0	274.0	291.0
1959	107.0	107.0	109.0	109.0	112.0	116.0	135.0	153.0	275.0
1960	112.0	115.0	117.0	121.0	129.0	174.0	265.0	337.0	469.0
1961	125.0	126.0	130.0	136.0	153.0	170.0	400.0	199.0	177.0
1962	106.0	108.0	110.0	114.0	124.0	155.0	159.0	195.0	349.0
1963	148.0	148.0	150.0	158.0	185.0	228.0	236.0	274.0	430.0
1964	115.0	116.0	118.0	124.0	139.0	150.0	193.0	197.0	300.0
1965	170.0	171.0	177.0	183.0	206.0	286.0	343.0	394.0	459.0
1966	91.0	93.0	94.0	96.0	105.0	120.0	131.0	167.0	329.0
1967	107.0	108.0	113.0	119.0	127.0	132.0	146.0	190.0	299.0
1968	100.0	101.0	104.0	108.0	117.0	123.0	149.0	227.0	344.0
1969	144.0	147.0	150.0	157.0	172.0	225.0	275.0	350.0	426.0
1970	115.0	117.0	120.0	128.0	153.0	164.0	215.0	383.0	527.0
1971	100.0	100.0	103.0	106.0	117.0	136.0	152.0	182.0	266.0
1972	122.0	125.0	135.0	150.0	210.0	283.0	293.0	361.0	497.0

LOWEST MEAN FLOW STATISTICS (YEARS 1953-1972)

MEAN	125.6	127.0	130.2	135.6	150.7	179.9	217.9	269.4	392.1
MAXIMUM	172.0	174.0	177.0	183.0	210.0	286.0	343.0	394.0	589.0
MINIMUM	91.0	93.0	94.0	96.0	105.0	116.0	131.0	153.0	266.0
STANDARD DEVIATION	24.56	24.61	25.17	26.43	33.31	50.76	65.40	83.11	92.77
SKEWNESS	0.700	0.682	0.659	0.458	0.496	0.801	0.353	0.198	0.358
STD ERROR OF SKEWNESS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SERIAL CORR COEFF	0.107	0.107	0.059	0.007	-0.100	-0.223	-0.044	-0.120	-0.240
COEFF OF VARIATION	0.196	0.194	0.193	0.195	0.221	0.282	0.300	0.309	0.237
MEAN LOGS	2.091	2.096	2.107	2.124	2.168	2.239	2.320	2.410	2.582
STD DEVIATION LOGS	0.082	0.081	0.081	0.084	0.094	0.118	0.132	0.137	0.103
SKEWNESS LOGS	0.429	0.414	0.373	0.186	0.234	0.356	0.006	-0.033	0.024
STD ERR SKEWNESS LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF LOGS	0.083	0.082	0.029	-0.024	-0.097	-0.181	-0.036	-0.134	-0.251
COEFF OF VAR LOGS	0.039	0.039	0.039	0.039	0.043	0.053	0.057	0.057	0.040

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1953-1972)

	0.99	0.98	0.96	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01
MEAN	203.2	191.1	176.4	159.9	145.5	129.3	116.3	104.5	94.1	84.7	76.5	69.3	63.1	57.9	53.1
STD DEVIATION	20.43	19.11	17.78	16.39	14.93	13.24	11.81	10.51	9.39	8.55	7.82	7.19	6.65	6.23	5.85
SKEWNESS	0.99	0.98	0.96	0.90	0.80	0.70	0.60	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01
STD ERROR SKEWNESS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SERIAL CORR COEFF	0.107	0.107	0.059	0.007	-0.100	-0.223	-0.044	-0.120	-0.240	-0.369	-0.498	-0.627	-0.756	-0.885	-1.014
COEFF OF VARIATION	0.196	0.194	0.193	0.195	0.221	0.282	0.300	0.309	0.237	0.166	0.095	0.024	-0.047	-0.126	-0.205
MEAN LOGS	2.091	2.096	2.107	2.124	2.168	2.239	2.320	2.410	2.582	2.754	2.926	3.098	3.270	3.442	3.614
STD DEVIATION LOGS	0.082	0.081	0.081	0.084	0.094	0.118	0.132	0.137	0.103	0.072	0.041	0.010	-0.021	-0.052	-0.083
SKEWNESS LOGS	0.429	0.414	0.373	0.186	0.234	0.356	0.006	-0.033	0.024	-0.047	-0.118	-0.189	-0.260	-0.331	-0.402
STD ERR SKEWNESS LOGS	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512	0.512
SER CORR COEFF LOGS	0.083	0.082	0.029	-0.024	-0.097	-0.181	-0.036	-0.134	-0.251	-0.369	-0.498	-0.627	-0.756	-0.885	-1.014
COEFF OF VAR LOGS	0.039	0.039	0.039	0.039	0.043	0.053	0.057	0.057	0.040	0.029	0.018	0.007	0.006	0.005	0.004

FLOW DURATION DATA DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1953-1972)

P95	P90	P75	P70	P50	P25	P10
130.0	160.0	310.0	380.0	600.0	1100.0	1900.0

STATION 12036000 WYNOOCHEE RIVER ABV SAVE CR NR ABERDEEN, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW (CFS)	DATE	REG. (R)
1926										8350.	/	/26
1927										7790.	/	/27
1928										9910.	/	/26
1929										5560.	/	/29
1930										7870.	/	/30
1931										11000.	/	/31
1932										12900.	/	/32
1933										9230.	/	/33
1934										14000.	/	/34
1935										18000.	/	/35
1936										6830.	/	/36
1937										8830.	/	/37
1938										11100.	/	/38
1939										13300.	/	/39
1940										11400.	/	/40
1941										10600.	/	/41
1942										9270.	/	/42
1943										5000.	/	/43
1944										9510.	/	/44
1945										12800.	/	/45
1946										6820.	/	/46
1947										9750.	/	/47
1948										10700.	/	/48
1949										8630.	/	/49
1950										16400.	/	/50
1951										14200.	/	/51
1952	5660.	4590.	3680.	2630.	1790.	1310.	1240.	1220.	1070.	7390.	01/30/52	
1953	8780.	6220.	4640.	4380.	4040.	2970.	2310.	1900.	1490.	11900.	01/03/53	
1954	5900.	5420.	4780.	3550.	2470.	2080.	1970.	1870.	1530.	12300.	12/11/53	
1955	13300.	9370.	6250.	4040.	2620.	1980.	1660.	1450.	1240.	20400.	11/18/54	
1956	18600.	10800.	5900.	3990.	2480.	2130.	1930.	1650.	1430.	22400.	11/03/55	
1957	13000.	8110.	5060.	3710.	2510.	1690.	1730.	1580.	1430.	23600.	12/09/56	
1958	4580.	4050.	2930.	2390.	2050.	1960.	1800.	1540.	1270.	8890.	12/25/57	
1959	10200.	6650.	3870.	2280.	2090.	1870.	1800.	1570.	1440.	14800.	04/29/59	
1960	10100.	6930.	4920.	3090.	2610.	1700.	1820.	1560.	1390.	15800.	11/20/59	
1961	16400.	9890.	6110.	4040.	3050.	2670.	2300.	2060.	1730.	20200.	01/15/61	
1962	4670.	3130.	2600.	2300.	1740.	1510.	1260.	1140.	1000.	6280.	01/03/62	
1963	8130.	6040.	4030.	2850.	2380.	1980.	1640.	1420.	1240.	15900.	11/19/62	
1964	5730.	4020.	2900.	2400.	2010.	1730.	1740.	1650.	1370.	7530.	10/21/63	
1965	9000.	6160.	3700.	2570.	1990.	1510.	1440.	1310.	1110.	11800.	11/30/64	
1966	7640.	5580.	3520.	2560.	1750.	1500.	1360.	1310.	1170.	8910.	01/13/66	
1967	10700.	7360.	5780.	4130.	3290.	2600.	2270.	1990.	1580.	16200.	12/12/66	
1968	14000.	9720.	6360.	4410.	3120.	2510.	2250.	2030.	1790.	16600.	01/19/68	
1969	6200.	3710.	2520.	2070.	1860.	1650.	1440.	1230.	1240.	9770.	12/03/68	
1970	6060.	3570.	2770.	2330.	1770.	1580.	1380.	1330.	1130.	9595.	04/09/70	
1971	6830.	4760.	3350.	2860.	2350.	1900.	1770.	1710.	1500.	9330.	12/07/70	
1972	8100.	6900.	4250.	3750.	2970.	2430.	2060.	1830.	1650.	11000.	11/04/71	

STATION 12036000 WYNOOCHEE RIVER ABV SAVE CR NR ABERDEEN, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1926-1972)

	MEAN	9218.1	6284.8	4281.9	3158.6	2425.7	1964.8	1770.0	1590.0	1371.4		W R C ESTIMATE	SYSTEMATIC RECORD
MAXIMUM		18600.0	10800.0	6360.0	4410.0	4040.0	2970.0	2310.0	2060.0	1790.0			
MINIMUM		4580.0	3130.0	2520.0	2070.0	1740.0	1310.0	1240.0	1140.0	1000.0			
STANDARD DEVIATION		3907.37	2173.78	1267.39	799.18	604.56	446.40	340.40	279.46	218.02			
SKEWNESS		0.959	0.467	0.289	0.259	1.003	0.734	0.131	0.166	0.171			
STD ERROR OF SKEWNESS		0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501			
SERIAL CORR COEFF		0.119	0.156	0.224	0.195	-0.096	-0.205	-0.112	-0.128	-0.055			
COEFF OF VARIATION		0.424	0.346	0.296	0.253	0.249	0.227	0.192	0.176	0.159			
MEAN LOGS		3.930	3.773	3.613	3.486	3.373	3.283	3.240	3.195	3.132		4.0406	4.0406
STD DEVIATION LOGS		0.176	0.153	0.131	0.110	0.102	0.095	0.085	0.077	0.070		0.1566	0.1566
SKEWNESS LOGS		0.296	-0.112	-0.071	0.084	0.497	0.351	-0.173	-0.093	-0.118		0.1390	0.1410
STD ERR SKEWNESS LOGS		0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501	0.501			
SER CORR COEFF LOGS		0.003	0.086	0.190	0.201	-0.086	-0.212	-0.114	-0.133	-0.056			
COEFF OF VAR LOGS		0.045	0.041	0.036	0.032	0.030	0.029	0.026	0.024	0.022			

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1926-1972)

	0.99	3631.9	2533.6	2002.8	1724.6	1487.4	1219.5	1076.0	1024.4	920.2	4924.6	4928.1
0.95		4537.1	3281.0	2483.7	2030.6	1659.9	1365.0	1248.5	1164.7	1035.3	6156.9	6158.7
0.90		5144.7	3756.3	2781.8	2218.2	1771.3	1462.5	1348.5	1245.9	1101.1	6956.6	6957.4
0.80		6030.5	4414.3	3187.0	2471.9	1928.4	1591.1	1477.4	1350.4	1185.0	8088.6	8088.3
0.50		8344.8	5968.6	4117.7	3052.4	2314.7	1894.8	1748.3	1570.8	1359.1	10889.0	10887.3
0.20		11877.5	7995.7	5293.5	3788.3	2856.2	2297.8	2052.4	1820.1	1551.9	14832.6	14831.7
0.10		14449.8	9281.9	6024.1	4249.7	3224.6	2560.6	2224.9	1962.7	1660.3	17516.6	17518.2
0.04		17968.3	10852.6	6904.4	4811.1	3703.0	2890.6	2419.1	2124.7	1782.0	20992.0	20998.6
0.02		20787.1	11987.8	7534.1	5217.1	4069.4	3136.2	2550.3	2235.0	1864.0	23643.1	23654.8
0.01		23777.8	13097.0	8145.1	5614.8	4444.9	3382.2	2672.1	2338.1	1940.1	26348.1	26366.4

STATION 12036000 WYNOOCHEE RIVER ABV SAVE CR NR ABERDEEN, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1973	198	634	2164	1398	751	689	363	382	389	304	277	393	663
1974	705	1389	2163	2310	1512	1536	1012	809	828	692	359	343	1138
1975	273	1161	1676	1242	968	906	467	429	511	288	351	512	731
1976	1962	2159	2577	1742	1122	729	524	541	586	423	292	369	1087
1977	404	481	791	763	607	1020	522	551	504	295	300	530	564
1978	676	2131	2083	1212	1012	595	491	575	449	307	322	955	899
1979	492	582	709	400	1669	1153	383	373	284	283	256	370	573

STATION 12036000 WYNOOCHEE RIVER ABV SAVE CR NR ABERDEEN, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1973	57.0	59.0	103.0	146.0	174.0	216.0	242.0	259.0	341.0
1974	265.0	265.0	266.0	270.0	274.0	279.0	297.0	321.0	351.0
1975	245.0	250.0	252.0	254.0	260.0	307.0	303.0	367.0	536.0
1976	270.0	270.0	271.0	275.0	277.0	295.0	363.0	381.0	422.0
1977	251.0	259.0	274.0	277.0	285.0	297.0	324.0	354.0	402.0
1978	270.0	270.0	270.0	273.0	278.0	291.0	309.0	371.0	439.0
1979	285.0	285.0	266.0	290.0	297.0	307.0	353.0	413.0	514.0

STATION 12036000 WYNOOCHEE RIVER ABV SAVE CR NR ABERDEEN, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	
										FLOW (CFS)	DATE
1973	7400.	5750.	5200.	3930.	2760.	1840.	1530.	1280.	1000.	9850.	12/26/72
1974	9430.	8430.	6040.	3820.	2900.	2350.	2140.	1950.	1680.	10400.	01/17/74
1975	5990.	4190.	3100.	2180.	1860.	1690.	1490.	1370.	1080.	7450.	12/20/74
1976	8610.	7970.	5450.	3490.	2760.	2640.	2370.	2160.	1720.	10000.	12/04/75
1977	3580.	2890.	2070.	1440.	1070.	922.	882.	813.	736.	3970.	03/07/77
1978	6770.	5190.	4130.	3280.	2540.	2230.	1880.	1680.	1290.	8470.	11/01/77
1979	4350.	3840.	2810.	2450.	2120.	1400.	1100.	980.	819.	5070.	03/05/79

STATION 12036500 WYNOOCHEE RIVER NEAR MONTESANO, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1923													
1924	427	777	3196	2725	417	1000	1060	806	549	330	208	177	
1925	2349	2390	1786	2678	4101	730	540	337	201	159	150	639	1156
1926	135	1022	2930	1517	2973	872	656	617	517	244	155	139	1271
1927	1416	1663	1801	2274	1932	1166	464	729	333	187	171	177	855
1928	1075	2285	1191	2661	980	1812	717	1222	624	303	186	525	1149
1929	907	1285	1306	800	384	1025	1405	914	388	221	143	171	1105
1930	208	164	1309	702	2504	974	1323	545	356	277	160	110	740
										210	135	206	707

STATION 12036500 WYNOOCHEE RIVER NEAR MONTESANO, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1924	25600.0	2-11-1924
1925	11700.0	2- 2-1925
1926	10000.0	12-11-1925
1927	8770.0	12-30-1926
1928	13000.0	1-12-1928
1929	6400.0	3-28-1929
1930	7040.0	4- 5-1930

STATION 12036650 ANDERSON CREEK NEAR MONTESANO, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1972													
1973	1.67	16.1	41.6	22.4	9.94	15.9	7.30	5.91	6.43	1.97	0.17	2.46	
1974	5.78	36.0	48.5	41.9	33.6	36.2	20.8	10.1	7.25	5.13	0.83	0.95	10.9
1975	0.42	15.0	41.9	50.0	27.9	18.5	6.16	7.38	1.27	0.50	1.60	0.45	20.5
1976	28.4	29.5	42.2	35.7	25.8	24.3	7.82	2.89	2.53	0.99	0.88	1.65	14.3
1977	1.54	6.59	12.8	14.8	14.8	26.8	6.00	5.67	5.21	0.67	1.78	0.95	16.9
1978	6.86	38.9	44.3	22.9	17.4	12.5	10.6	10.4	3.61	0.99	0.68	6.87	8.60
1979	3.75	14.5	17.9	9.93	39.0	20.9	6.38	3.29	1.10	1.12	0.25	2.17	15.1
													9.83

STATION 12036650 ANDERSON CREEK NEAR MONTESANO, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1973	198.0	12-26-1972
1974	185.0	12-15-1973
1975	138.0	12-21-1974
1976	299.0	12-26-1975
1977	146.0	3- 7-1977
1978	289.0	12- 2-1977
1979	169.0	2- 6-1979

STATION 12037400 WYNOOCHEE RIV ABV BLACK CR NR MONTESAND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1957	1914.00	1437.00	3301.00	1083.00	2396.00	2272.00	1277.00	570.00	262.00	239.00	229.00	99.3	1253.00
1958	428.00	1030.00	2630.00	3129.00	2996.00	1084.00	1459.00	535.00	252.00	97.4	41.5	112.00	1139.00
1959	688.00	2605.00	2623.00	3136.00	1276.00	1486.00	2011.00	1179.00	605.00	225.00	71.7	770.00	1369.00
1960	1029.00	2682.00	2372.00	1908.00	2674.00	1321.00	1721.00	1137.00	599.00	178.00	98.3	95.6	1311.00
1961	877.00	2378.00	1941.00	3699.00	4633.00	2753.00	961.00	1058.00	363.00	126.00	29.0	109.00	1559.00
1962	629.00	1419.00	2813.00	1823.00	1119.00	1099.00	1137.00	977.00	393.00	169.00	233.00	225.00	1005.00
1963	1231.00	3034.00	2637.00	1526.00	2060.00	1077.00	1443.00	789.00	193.00	227.00	92.5	84.8	1192.00
1964	1287.00	3188.00	2254.00	3341.00	1409.00	1775.00	909.00	623.00	675.00	430.00	346.00	200.00	1371.00
1965	656.00	1689.00	2298.00	2386.00	3232.00	936.00	1162.00	935.00	300.00	91.3	55.2	25.5	1134.00
1966	585.00	1632.00	1987.00	3200.00	1634.00	2195.00	880.00	554.00	347.00	205.00	51.9	47.1	1110.00
1967	710.00	1515.00	4984.00	3864.00	4024.00	2029.00	876.00	595.00	434.00	139.00	17.0	30.6	1453.00
1968	2259.00	1514.00	2823.00	4024.00	3536.00	2413.00	941.00	575.00	626.00	193.00	286.00	730.00	1658.00
1969	1260.00	1867.00	2928.00	1866.00	1465.00	1724.00	1945.00	982.00	611.00	177.00	75.8	867.00	1312.00
1970	803.00	1002.00	2126.00	2551.00	1784.00	1254.00	1696.00	553.00	217.00	78.9	24.1	272.00	1026.00
1971	719.00	1885.00	3052.00	3389.00	2232.00	2681.00	1511.00	1110.00	749.00	550.00	186.00	345.00	1535.00
1972	432.00	2663.00	2497.00	2994.00	3156.00	3925.00	1827.00	713.00	354.00	351.00	215.00	271.00	1612.00

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1957-1972)

MEAN	969.2	1971.3	2704.1	2744.9	2363.7	1876.5	1359.7	805.3	436.5	217.3	128.2	269.0	1316.2
MAXIMUM	2259.0	3188.0	4984.0	4024.0	4633.0	3925.0	2011.0	1179.0	749.0	550.0	346.0	867.0	1658.0
MINIMUM	428.0	1002.0	1941.0	1083.0	1119.0	936.0	876.0	535.0	193.0	78.9	17.0	25.5	1005.0
STD DEVIATION	516.51	693.14	717.37	889.77	961.03	809.20	397.11	241.99	180.38	127.68	104.62	276.34	207.49
SKEWNESS	1.417	0.387	2.251	-0.372	0.798	1.043	0.240	0.284	0.317	1.500	0.792	1.353	0.142
STD ERR SKEW	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SEK CORR COEFF	-0.010	0.212	-0.143	-0.139	-0.336	0.108	0.390	0.080	-0.321	-0.050	-0.290	0.185	0.002
COEFF OF VAR	0.533	0.352	0.265	0.324	0.407	0.431	0.292	0.300	0.413	0.588	0.816	1.027	0.198
MEAN LOGS	2.937	3.269	3.420	3.413	3.341	3.238	3.116	2.887	2.603	2.276	1.948	2.208	3.114
STD DEV LOGS	0.208	0.157	0.099	0.164	0.176	0.180	0.129	0.131	0.188	0.234	0.408	0.473	0.069
SKEWNESS LOGS	0.505	-0.114	1.351	-0.929	0.036	0.237	-0.038	0.123	-0.138	0.296	-0.171	-0.031	-0.072
STD ERR SKEW LOGS	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
SEK CORR LOGS	-0.004	0.143	-0.154	-0.143	-0.389	-0.007	0.404	0.057	-0.318	-0.243	-0.280	0.240	-0.020
COEFF OF VAR LOGS	0.071	0.048	0.029	0.048	0.053	0.056	0.041	0.045	0.072	0.103	0.209	0.214	0.022
% OF AVE FLOW	6.1	12.4	17.1	17.3	14.9	11.8	8.6	5.1	2.8	1.4	0.8	1.7	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1957-1972)

0.99	339.5	779.1	1937.6	843.0	864.2	709.3	648.0	393.1	140.2	60.8	8.9	12.5	891.6
0.95	423.6	1014.9	2010.7	1281.6	1131.1	900.6	797.7	474.9	193.5	81.8	18.1	26.6	998.7
0.90	483.0	1165.3	2072.9	1561.5	1306.7	1028.8	890.5	525.4	228.8	96.7	26.2	39.8	1060.1
0.80	573.7	1374.3	2177.8	1938.0	1557.6	1215.5	1016.7	597.7	279.4	119.4	40.6	64.6	1138.8
0.50	830.8	1870.0	2505.8	2738.9	2185.2	1701.3	1307.6	767.0	405.0	183.9	91.1	162.4	1303.3
0.20	1273.8	2520.1	3095.7	3566.2	3076.3	1677.3	1307.6	992.8	578.8	294.2	196.9	404.5	1487.5
0.10	1630.8	2934.2	3568.9	3974.7	3683.5	2968.1	1908.5	1140.3	693.7	381.8	290.3	649.9	1592.3
0.04	2162.0	3441.1	4261.6	4374.3	4468.3	3689.4	2188.5	1325.2	838.0	510.3	434.2	1074.8	1710.8
0.02	2620.8	3808.2	4849.3	4605.2	5065.0	4263.1	2389.8	1462.6	944.7	619.4	559.8	1485.8	1791.2
0.01	3138.1	4167.5	5501.9	4794.4	5671.8	4868.3	2585.9	1599.8	1050.7	740.8	700.8	1866.4	1866.2

STATION 12037400 WYNOOCHEE RIV ABV BLACK CR NR MONTESANO, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1958	59.0	61.0	67.0	75.0	76.0	113.0	155.0	178.0	283.0
1959	24.0	25.0	26.0	29.0	39.0	48.0	76.0	103.0	285.0
1960	44.0	50.0	56.0	59.0	67.0	124.0	226.0	338.0	549.0
1961	46.0	48.0	51.0	65.0	76.0	95.0	105.0	162.0	454.0
1962	5.7	5.7	7.4	13.0	25.0	68.0	72.0	116.0	338.0
1963	75.0	76.0	83.0	96.0	137.0	171.0	186.0	240.0	497.0
1964	36.0	41.0	44.0	50.0	68.0	82.0	126.0	131.0	305.0
1965	101.0	106.0	117.0	137.0	163.0	260.0	317.0	403.0	488.0
1966	5.5	5.5	5.5	7.1	23.0	38.0	49.0	96.0	327.0
1967	14.0	15.0	18.0	28.0	38.0	45.0	60.0	113.0	244.0
1968	3.0	3.0	3.2	4.0	14.0	23.0	59.0	146.0	345.0
1969	62.0	64.0	68.0	78.0	98.0	183.0	278.0	388.0	525.0
1970	24.0	25.0	27.0	34.0	63.0	72.0	138.0	333.0	563.0
1971	6.8	7.1	8.5	10.0	19.0	42.0	72.0	121.0	260.0
1972	63.0	71.0	86.0	106.0	167.0	253.0	266.0	359.0	561.0

LOWEST MEAN FLOW STATISTICS (YEARS 1958-1972)

MEAN	37.9	40.4	44.5	52.7	71.5	107.8	145.7	215.3	401.6
MAXIMUM	101.0	106.0	117.0	137.0	167.0	260.0	317.0	403.0	563.0
MINIMUM	3.0	3.0	3.2	4.0	14.0	23.0	49.0	96.0	244.0
STANDARD DEVIATION	29.70	31.43	34.79	40.12	50.27	76.44	89.25	115.62	120.24
SKEWNESS	0.573	0.510	0.544	0.603	0.850	1.005	0.728	0.594	0.153
STD ERROR OF SKEWNESS	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580
SERIAL CORR COEFF	-0.337	-0.317	-0.336	-0.383	-0.367	-0.378	-0.342	-0.286	-0.218
COEFF OF VARIATION	0.783	0.779	0.782	0.761	0.703	0.709	0.613	0.537	0.299
MEAN LOGS	1.388	1.410	1.455	1.547	1.743	1.929	2.085	2.275	2.585
STD DEVIATION LOGS	0.484	0.494	0.490	0.464	0.339	0.316	0.272	0.231	0.133
SKEWNESS LOGS	-0.639	-0.671	-0.689	-0.756	-0.650	0.001	0.122	0.307	-0.032
SER CORR SKEWNESS LOGS	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580
SER CORR COEFF LOGS	-0.276	-0.267	-0.283	-0.345	-0.364	-0.290	-0.252	-0.310	-0.205
COEFF OF VAR LOGS	0.349	0.350	0.337	0.300	0.195	0.164	0.130	0.102	0.051

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1958-1972)

0.99	192.4	205.5	220.9	232.3	294.1	462.2	552.9	731.6	778.8
0.98	162.1	173.7	187.6	201.4	246.9	379.0	459.0	612.2	717.8
0.96	131.9	141.6	153.7	168.8	202.2	304.0	374.0	504.7	655.4
0.90	92.4	99.3	108.6	123.5	146.8	216.0	273.8	378.2	568.9
0.80	63.5	68.1	75.0	88.0	107.4	156.8	205.4	291.9	498.0
0.50	27.5	29.2	32.4	40.3	57.1	85.0	120.2	183.3	385.3
0.20	10.1	10.4	11.7	15.2	29.0	46.1	71.6	119.6	297.4
0.10	5.5	5.7	6.3	8.5	20.0	33.4	55.0	97.1	259.5
0.05	3.3	3.3	3.7	5.0	14.5	25.7	44.4	82.4	231.7
0.02	1.7	1.7	1.9	2.6	10.0	19.1	35.0	69.0	203.9
0.01	1.1	1.1	1.2	1.7	7.8	15.6	30.0	61.6	187.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED upm PERCENT OF THE TIME (YEARS 1958-1972)

	P95	P90	P75	P70	P50	P25	P10
48.0	81.0	270.0	380.0	810.0	1700.0	3200.0	

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	DCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1973	164	1025	3624	2717	1117	1276	497	487	499	293	196	331	1023
1974	2911	2729	4166	3712	2860	1791	577	1104	1030	766	309	258	1871
1975	191	1532	2882	2624	1749	1486	577	562	486	226	280	458	1086
1976	2967	3595	4472	3292	2076	1570	649	577	612	398	229	286	1741
1977	315	576	1042	1162	1016	1650	624	674	624	243	250	597	749
1978	784	3556	3857	1777	1487	888	753	787	514	247	258	1287	1347
1979	573	924	1190	628	3043	1972	596	455	245	235	172	320	848

STATION 12037400 WYNOUCHEE RIV ABV BLACK CR NR MONTESANO, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1973	4.1	5.3	24.0	65.0	109.0	175.0	217.0	251.0	336.0
1974	164.0		172.0	166.0	179.0	200.0	217.0	316.0	377.0
1975	156.0	156.0	159.0	161.0	183.0	221.0	227.0	314.0	375.0
1976	151.0	152.0	165.0	165.0	173.0	218.0	249.0	357.0	421.0
1977	148.0	157.0	184.0	190.0	213.0	233.0	269.0	391.0	375.0
1978	157.0	158.0	159.0	163.0	178.0	202.0	282.0	370.0	477.0
1979	185.0	188.0	191.0	193.0	215.0	243.0	326.0	450.0	606.0

STATION 12037400 WYNOOCHEE RIV ABV BLACK CR NR MONTESANO, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW(CFS)	DATE	REG. (R)
1973	14900.	10300.	8980.	6750.	4900.	3310.	2700.	2240.	1720.	18100.	12/26/72	R
1974	12400.	11300.	8530.	6000.	4830.	4150.	3900.	3560.	3050.	12800.	01/16/74	R
1975	9710.	7020.	4900.	3820.	3230.	3020.	2670.	2410.	1840.	11500.	12/21/74	R
1976	14800.	13700.	9380.	6070.	4740.	4380.	4110.	3680.	3020.	16400.	12/03/75	R
1977	6300.	5700.	4000.	2700.	1930.	1600.	1430.	1300.	1110.	7400.	03/09/77	R
1978	11800.	8530.	7350.	6250.	4680.	3880.	3170.	2760.	2100.	14700.	12/02/77	R
1979	8070.	7070.	5180.	4520.	3870.	2500.	1940.	1730.	1360.	10300.	03/05/79	R

STATION 12037500 WYNOOCHEE RIV BLW BLACK CR NR MONTESAND, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

[illegible]

STATION 12037500 WYNOOCHEE RIV BLW BLACK CR NR MONTESANO, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1943	1000.0	4- 2-1943
1944	15100.0	12- 3-1943
1945	16600.0	2- 8-1945
1946	11000.0	4-11-1946
1947	15800.0	2-14-1947
1948	13400.0	10-19-1947
1949	16200.0	2-22-1949

STATION 12038750 GIBSON CREEK NEAR QUINAULT, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1965	297.0	11-30-1964
1966	196.0	10- 5-1965
1967	228.4	12-12-1966
1968	375.0	1-19-1968
1969	226.0	12- 3-1968
1970	495.0	1-14-1970
1971	202.0	1-25-1971
1972	324.0	3- 5-1972
1973	342.0	12-26-1972
1974	256.0	11-28-1973
1975	237.0	12-20-1974

ANNUAL PEAK FLOW STATISTICS (YEARS 1965-1975)		W R C	SYSTEMATIC
		ESTIMATE	RECORD
MEAN LOGS		2.4421	2.4421
STANDARD DEVIATION LOGS		0.1284	0.1284
SKEWNESS LOGS		0.144	0.701

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
.06-PEARSON III ANALYSIS (YEARS 1965-1975)

0.99	145.1	163.7
0.95	173.6	182.9
0.90	191.5	196.1
0.80	216.2	215.7
0.50	274.8	267.6
0.20	352.8	348.3
0.10	403.6	407.9
0.04	467.2	490.6
0.02	514.5	557.7
0.01	561.6	629.6

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1933	1290	1573	5646	3903	1436	1904	779	1340	769	367	204	766	1550
1934	1514	3082	2172	3968				745	232	405	301	264	
1942										518	216	145	
1943	395	2148	2239	1090	1983	1245	1901	605	414	249	187	154	1042
1944	586	697	2074	2189	1179	1128	1049	577	320	154	109	342	868
1945	416	2028	1230	2857	2671	2412	1113	1361	347	187	124	302	1246
1946	831	2562	2751	2446	2333	2341	1964	686	552	512	211	218	1445
1947	605	1655	2887	2631	3001	830	1073	532	414	420	204	282	1200
1948	2344	1485	2588	2004	1875	1267	1270	1731	469	232	251	758	1357
1949	999	2707	2620	614	2724	2065	1074	1038	317	295	227	356	1242
1950	909	3098	3835	2324	3576	3124	1921	937	552	290	404	284	1760
1951	1700	2189	3386	2771	3623	1253	906	546	272	151	108	318	1423
1952	1837	1767	1837	1701	2230	1133	1188	869	586	265	277	211	1155
1953	171	599	2056	5750	2584	1258	975	1035	484	259	185	346	1304
1954	938	2275	3413	2557	3901	1292	1359	419	468	511	248	391	1465
1955	920	3462	1865	1542	1847	1236	1937	716	524	524	473	246	1267
1956	1754	3335	2545	2542	950	2815	1427	739	895	390	226	428	1507
1957	1933	1362	3468	843	2125	2263	1175	502	335	339	341	200	1238
1958	527	1084	2656	3105	2943	1025	1512	434	255	151	110	218	1158
1959	906	2691	2419	1364	1763	1763	2257	1078	576	263	157	1134	1483
1960	1270	2775	2334	1944	2739	1337	1759	1186	603	223	210	231	1377
1961	1164	2515	1917	3804	4799	2695	981	927	350	187	133	204	1621
1962	903	1520	3056	1782	1171	1161	1262	1002	467	233	216	389	1116
1963	1289	3013	2457	1493	1979	1097	1417	754	252	361	230	222	1206
1964	1448	3048	2268	3252	1382	1981	1080	700	639	526	552	417	1443
1965	810	1727	2237	2454	3191	866	1033	828	312	162	166	134	1147
1966	809	1675	1958	3097	1685	2199	873	512	341	255	166	164	1144
1967	873	1679	5027	3977	2386	2128	838	597	313	172	114	144	1522
1968	2393	1522	3130	3836	3200	2236	1042	596	579	285	424	1013	1687
1969	1415	1821	2961	1882	1530	1817	2010	853	495	248	184	1132	1361
1970	872	1135	2099	2405	1591	1205	1821	557	279	187	142	510	1064
1971	940	1916	2936	3637	2215	2769	1375	696	695	479	238	510	1556
1972	892	2789	2473	3107	3268	3814	1885	696	321	712	222	580	1725
1973	269	1613	3806	2503	1111	1440	617	779	769	320	177	331	1148
1974	935	2468	3673	3742	3021	3369	1956	1342	840	751	262	219	1878
1975	155	1771	2906	2575	1785	1690	757	950	440	234	483	372	1174
1976	3017	3387	4197	2665	1996	1753	1146	748	584	469	302	238	1711
1977	323	773	1239	1344	1573	1989	843	876	719	229	282	635	898
1978	819	3362	3530	1636	1497	1085	1038	972	537	238	415	1250	1362
1979	461	988	1374	703	3150	1961	872	705	270	344	170	540	947

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1933-1979)

MEAN	1067.5	2084.5	2750.4	2560.8	2305.1	1814.4	1302.2	831.7	476.1	327.4	246.1	414.9	1336.8
MAXIMUM	3017.0	3462.0	5646.0	5750.0	4799.0	3814.0	2257.0	1731.0	895.0	751.0	552.0	1250.0	1878.0
MINIMUM	155.0	599.0	1230.0	614.0	950.0	830.0	617.0	419.0	232.0	151.0	108.0	134.0	868.0
STD DEVIATION	635.30	808.57	939.69	1066.31	890.85	730.54	436.58	286.26	176.26	149.12	113.55	289.81	245.93
SKENNESS	1.086	0.056	1.005	0.450	0.655	0.863	0.588	1.052	0.593	1.100	1.058	1.616	0.198
STD ERR SKEW	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.374	0.374	0.374	0.383
SER CORR COEFF	-0.154	-0.128	-0.141	0.024	-0.116	-0.035	-0.076	0.009	-0.144	0.134	-0.123	0.220	-0.206
COEFF OF VAR	0.595	0.388	0.342	0.316	0.386	0.403	0.335	0.344	0.370	0.455	0.461	0.698	0.184
MEAN LOGS	2.946	3.281	3.416	3.365	3.331	3.226	3.092	2.897	2.649	2.475	2.350	2.536	3.119
STD DEV LOGS	0.292	0.195	0.146	0.212	0.170	0.144	0.124	0.194	0.161	0.187	0.190	0.260	0.081
SKENNESS LOGS	-0.732	-0.799	-0.116	-0.972	-0.105	0.172	0.024	0.194	0.024	0.285	0.233	0.560	-0.219
STD ERR SKEW LOGS	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.374	0.374	0.374	0.383
SER CORR LOGS	-0.184	-0.160	-0.160	0.041	-0.148	-0.065	-0.109	0.025	-0.202	0.159	-0.070	0.235	-0.184
COEFF OF VAR LOGS	0.059	0.043	0.063	0.063	0.051	0.048	0.049	0.049	0.075	0.075	0.081	0.103	0.026
% OF AVE FLOW	6.6	12.9	17.0	15.8	14.2	11.2	8.0	5.1	2.9	2.0	1.5	2.6	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1933-1979)

0.99	130.3	522.3	1155.7	534.2	834.2	711.9	589.9	384.1	189.1	120.3	87.2	109.2	826.0
0.95	258.7	837.1	1480.0	928.5	1110.5	902.0	725.5	467.3	242.5	152.8	112.3	142.1	955.9
0.90	359.9	1048.8	1684.3	1203.7	1290.0	1027.0	812.1	520.7	277.1	174.7	129.3	166.5	1030.4
0.80	519.9	1346.2	1965.2	1597.1	1542.9	1207.4	933.2	595.8	325.8	207.0	154.2	205.4	1125.8
0.50	957.1	2026.5	2620.9	2502.9	2158.8	1664.2	1226.2	779.9	444.8	292.5	220.0	324.7	1323.5
0.20	1569.6	2804.6	3463.4	3510.5	2980.9	2330.3	1620.8	1036.2	601.5	425.5	321.5	555.4	1941.0
0.10	1947.8	3222.9	3992.0	4026.3	3529.3	2790.5	1890.2	1209.5	711.5	523.6	395.8	760.0	1682.3
0.04	2379.5	3658.7	4632.3	4536.6	4197.5	3413.6	2232.1	1209.5	855.7	659.3	497.8	1089.5	1797.1
0.02	2666.5	3927.6	5091.9	4835.0	4690.7	3893.5	2486.8	1603.2	959.2	769.0	579.7	1394.9	1887.2
0.01	2925.3	4157.6	5538.7	5078.6	5178.1	4390.5	2743.6	1776.6	1063.2	886.2	666.7	1759.5	1970.0

STATION 12039000 HUMTULIPS RIVER NEAR HUMTULIPS, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1944	126.0	128.0	133.0	138.0	151.0	167.0	179.0	217.0	357.0
1945	82.0	83.0	86.0	90.0	97.0	113.0	142.0	218.0	315.0
1946	101.0	104.0	109.0	114.0	120.0	149.0	197.0	198.0	450.0
1947	145.0	145.0	146.0	154.0	169.0	192.0	211.0	322.0	436.0
1948	168.0	169.0	173.0	176.0	191.0	241.0	301.0	329.0	481.0
1949	165.0	168.0	173.0	179.0	193.0	230.0	280.0	395.0	667.0
1950	162.0	166.0	170.0	174.0	196.0	234.0	248.0	292.0	460.0
1951	174.0	178.0	188.0	197.0	224.0	316.0	318.0	362.0	546.0
1952	94.0	96.0	99.0	101.0	105.0	110.0	127.0	165.0	382.0
1953	125.0	125.0	129.0	134.0	143.0	182.0	214.0	226.0	349.0
1954	124.0	125.0	127.0	133.0	153.0	168.0	201.0	269.0	506.0
1955	199.0	203.0	210.0	216.0	245.0	278.0	376.0	388.0	481.0
1956	195.0	199.0	205.0	213.0	245.0	287.0	400.0	424.0	565.0
1957	171.0	172.0	174.0	183.0	199.0	228.0	293.0	397.0	593.0
1958	151.0	155.0	160.0	175.0	177.0	212.0	259.0	280.0	345.0
1959	94.0	94.0	96.0	100.0	109.0	118.0	142.0	172.0	345.0
1960	138.0	141.0	144.0	148.0	156.0	199.0	308.0	405.0	674.0
1961	138.0	146.0	147.0	150.0	162.0	213.0	212.0	266.0	541.0
1962	97.0	98.0	100.0	104.0	116.0	151.0	168.0	197.0	417.0
1963	160.0	161.0	165.0	176.0	214.0	300.0	323.0	361.0	596.0
1964	164.0	165.0	168.0	175.0	196.0	214.0	258.0	254.0	389.0
1965	236.0	238.0	253.0	275.0	316.0	459.0	482.0	519.0	607.0
1966	99.0	102.0	106.0	113.0	131.0	146.0	147.0	178.0	398.0
1967	130.0	132.0	135.0	140.0	156.0	163.0	176.0	209.0	300.0
1968	99.0	99.0	100.0	103.0	112.0	127.0	142.0	181.0	362.0
1969	181.0	184.0	188.0	195.0	218.0	287.0	368.0	439.0	632.0
1970	135.0	137.0	140.0	147.0	170.0	178.0	223.0	354.0	622.0
1971	121.0	122.0	123.0	125.0	138.0	160.0	191.0	233.0	372.0
1972	190.0	192.0	208.0	219.0	236.0	350.0	371.0	443.0	580.0
1973	163.0	164.0	167.0	176.0	182.0	230.0	356.0	387.0	461.0
1974	135.0	136.0	138.0	144.0	151.0	178.0	250.0	359.0	474.0
1975	117.0	118.0	124.0	126.0	136.0	180.0	199.0	322.0	570.0
1976	141.0	144.0	153.0	162.0	174.0	236.0	313.0	369.0	529.0
1977	158.0	160.0	165.0	186.0	190.0	227.0	249.0	309.0	416.0
1978	138.0	138.0	138.0	142.0	155.0	208.0	308.0	368.0	529.0
1979	157.0	160.0	164.0	172.0	195.0	253.0	388.0	530.0	640.0

LOWEST MEAN FLOW STATISTICS (YEARS 1944-1979)

MEAN	143.7	145.7	150.1	157.1	172.8	214.0	258.9	314.9	485.7
MAXIMUM	236.0	238.0	253.0	275.0	316.0	459.0	482.0	530.0	674.0
MINIMUM	82.0	83.0	86.0	90.0	97.0	110.0	127.0	165.0	300.0
STANDARD DEVIATION	34.54	35.05	37.21	40.16	46.71	72.16	87.60	98.45	111.48
SKWENESS	0.332	0.313	0.472	0.570	0.746	1.201	0.480	0.244	0.090
STD ERROR OF SKWENESS	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393
SERIAL CORR COEFF	0.122	0.112	0.082	0.063	0.099	-0.058	0.031	0.039	-0.038
COEFF OF VARIATION	0.240	0.240	0.240	0.240	0.270	0.337	0.338	0.313	0.230
MEAN LOGS	2.145	2.151	2.163	2.182	2.222	2.308	2.388	2.476	2.675
STD DEVIATION LOGS	0.107	0.107	0.109	0.112	0.116	0.116	0.150	0.142	0.102
SKWENESS LOGS	-0.284	-0.273	-0.167	-0.167	-0.032	0.139	-0.123	-0.257	-0.190
STD ERR SKWENESS LOGS	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393	0.393
SER CORR COEFF LOGS	0.121	0.083	0.083	0.069	0.108	-0.010	0.048	0.075	0.024
COEFF OF VAR LOGS	0.050	0.050	0.050	0.051	0.052	0.061	0.063	0.057	0.038

STATION 12039000 HUMPTULIPS RIVER NEAR HUMPTULIPS, WASH.

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1944-1979)

0.99	235.9	239.1	253.1	270.5	309.3	444.5	529.5	601.8	701.7
0.98	223.4	226.5	238.3	253.7	288.0	403.5	485.9	559.6	749.0
0.96	209.9	212.9	222.6	236.1	266.0	362.8	441.2	515.0	703.4
0.90	189.9	192.7	199.9	210.8	235.1	308.6	379.0	450.7	636.5
0.80	172.2	174.7	180.2	189.2	209.2	266.0	327.7	395.6	577.9
0.50	141.1	143.2	146.7	153.0	167.1	201.8	246.3	303.7	476.6
0.20	113.9	115.5	118.2	122.8	133.3	154.7	183.3	228.6	388.9
0.10	101.2	102.6	105.2	109.1	118.3	135.2	156.4	195.5	348.2
0.05	91.5	92.7	95.3	98.9	107.2	121.3	137.0	171.1	317.1
0.02	81.4	82.4	85.1	88.3	95.8	107.5	117.6	146.5	284.7
0.01	75.1	76.0	78.8	81.8	88.9	99.3	106.2	131.8	264.6

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1944-1979)

P95	P90	P75	P70	P50	P25	P10
150.0	190.0	340.0	410.0	800.0	1600.0	3100.0

STATION 12039000 HUMTULIPS RIVER NEAR HUMTULIPS, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1934	13200.	10800.	8590.	7610.	6090.	4950.	3910.	3370.	2700.	18800. 12/09/33
1935	9200.	6930.	5250.	3770.	2490.	2220.	2000.	1910.	1780.	33000. 01/22/35
1943	12900.	9260.	5080.	3280.	2430.	2170.	1850.	1670.	1400.	11800. 04/01/43
1944	14100.	10500.	6350.	4740.	3360.	2740.	2350.	2040.	1800.	18400. 12/03/43
1945	10800.	7020.	5190.	4100.	3470.	3060.	2670.	2320.	2040.	24500. 02/07/45
1946	12600.	10400.	7660.	5140.	4540.	3830.	3140.	2600.	2020.	13200. 04/11/46
1947	8140.	6890.	4770.	4310.	3760.	3210.	2400.	2150.	1930.	17200. 01/25/47
1948	13600.	9740.	6420.	4790.	3800.	2700.	2140.	1980.	19200.	12/23/47
1949	20400.	14600.	8850.	5520.	4410.	3670.	3530.	3290.	2200.	02/22/49
1950	20200.	14900.	9350.	5580.	4410.	3670.	3530.	3290.	2200.	11/26/49
1951	20200.	14900.	9350.	5580.	4410.	3670.	3530.	3290.	2200.	02/09/51
1952	8300.	7330.	6150.	4560.	3070.	2100.	2090.	2010.	1750.	01/30/52
1953	16600.	11400.	7820.	7140.	6080.	4400.	3500.	2950.	2270.	20400. 01/23/53
1954	9240.	8770.	7820.	5780.	3930.	3450.	3310.	3060.	2470.	14600. 12/11/53
1955	16300.	11700.	7980.	5700.	3570.	2820.	2500.	2190.	1970.	23600. 11/18/54
1956	19100.	12400.	7250.	5520.	3490.	3210.	3070.	2610.	2410.	25000. 11/03/55
1957	19100.	13000.	8070.	5900.	3610.	2600.	2370.	2230.	2070.	32900. 12/09/56
1958	9790.	6990.	5160.	3950.	3410.	3150.	2910.	2510.	2060.	11000. 01/16/58
1959	16000.	10700.	6150.	3890.	3420.	2840.	2820.	2480.	2320.	21000. 04/29/59
1960	17000.	11700.	8280.	4960.	4100.	2670.	2920.	2520.	2170.	26200. 11/20/59
1961	19400.	12100.	9160.	6230.	4820.	4430.	3760.	3440.	2830.	02/21/61
1962	8300.	6820.	5210.	4430.	3320.	2700.	2200.	1970.	1710.	10300. 12/22/61
1963	15200.	10900.	6590.	4710.	3650.	3160.	2540.	2260.	1940.	29300. 11/19/62
1964	9660.	6710.	4970.	4040.	3520.	2930.	2900.	2720.	2320.	12200. 11/26/63
1965	14100.	10900.	6450.	5170.	3980.	2800.	2800.	2420.	1910.	16200. 11/30/64
1966	14900.	11000.	7140.	5000.	3480.	2810.	2360.	2260.	1930.	18900. 01/13/66
1967	15000.	10500.	8580.	6520.	5500.	4520.	4300.	3520.	2740.	21100. 12/12/66
1968	23200.	15800.	9800.	6720.	4660.	3640.	3410.	3120.	2720.	27700. 01/19/68
1969	9330.	6980.	4870.	3960.	3160.	2850.	2440.	2110.	2020.	16000. 01/04/69
1970	10200.	6200.	4500.	3740.	2770.	2480.	2090.	2010.	1710.	15700. 04/09/70
1971	14700.	10300.	7100.	5750.	3390.	3390.	2970.	2950.	2540.	17700. 01/26/71
1972	16800.	11400.	7310.	6360.	5110.	4160.	3540.	3280.	2890.	23400. 03/05/72
1973	18300.	12100.	9450.	7010.	4790.	3290.	2690.	2320.	1850.	27100. 12/26/72
1974	11500.	10400.	7670.	5820.	4920.	3990.	3690.	3510.	3050.	16700. 12/16/73
1975	10700.	6800.	4900.	3930.	3150.	3020.	2570.	2440.	1970.	16400. 12/21/74
1976	18500.	16000.	9390.	6080.	4550.	4280.	3780.	3400.	2860.	23500. 12/02/75
1977	7230.	5680.	3790.	2750.	2330.	1910.	1690.	1570.	1340.	9560. 03/07/77
1978	15200.	9480.	6630.	5640.	4310.	3650.	2620.	2080.	21500.	12/02/77
1979	10300.	8060.	5210.	4550.	3970.	2540.	2030.	1800.	1490.	17600. 03/04/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1934-1979)

	MEAN	MINIMUM	STANDARD DEVIATION	SKWENESS	STD ERROR OF SKWENESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKWENESS LOGS	STD ERR SKWENESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECDRD
0.99	13859.7	10083.2	6868.7	5116.3	3926.6	3162.4	2838.9	2572.6	2188.4	4.2730	0.2730	0.0970	0.0970	4.2730	4.2730
0.95	23200.0	16000.0	9800.0	7610.0	6090.0	4950.0	4030.0	3520.0	3050.0	0.1424	0.1424	0.0970	0.0970	0.1424	0.1424
0.90	7230.0	5680.0	3790.0	2750.0	2330.0	1910.0	1690.0	1570.0	1340.0	0.3050	0.3050	0.0970	0.0970	0.3050	0.3050
0.80	4204.89	2732.26	1652.96	1135.82	906.62	744.95	624.91	551.86	444.74	0.213	0.213	0.0970	0.0970	0.213	0.213
0.50	0.193	0.322	0.055	0.169	0.549	0.613	0.150	0.263	0.213	0.383	0.383	0.0970	0.0970	0.383	0.383
0.20	-0.160	-0.203	-0.023	0.027	-0.095	-0.237	-0.210	-0.150	-0.173	0.383	0.383	0.0970	0.0970	0.383	0.383
0.10	-0.271	-0.271	-0.241	0.222	0.231	0.236	0.220	0.215	0.203	0.383	0.383	0.0970	0.0970	0.383	0.383
0.05	4.121	3.988	3.824	3.698	3.583	3.489	3.443	3.401	3.331	0.090	0.090	0.0970	0.0970	0.090	0.090
0.02	-0.138	-0.120	-0.108	-0.100	-0.071	-0.154	-0.226	-0.115	-0.224	0.383	0.383	0.0970	0.0970	0.383	0.383
0.01	-0.247	-0.174	-0.289	-0.356	-0.071	-0.238	-0.201	-0.144	-0.158	0.027	0.027	0.0970	0.0970	0.027	0.027

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1934-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
MEAN	5975.7	4923.0	3538.7	2759.6	2208.9	1847.7	1579.9	1490.8	1280.7	8133.4
MINIMUM	7685.6	6078.9	4336.2	3349.3	2604.8	2128.6	1895.7	1748.1	1506.2	10644.6
STANDARD DEVIATION	8743.3	6780.8	4809.2	3692.9	2841.1	2300.5	2098.5	1937.2	1637.2	12204.4
SKWENESS	10171.8	7717.4	5427.2	4135.6	3153.0	2532.3	2298.5	2098.1	1806.0	14208.4
STD ERROR OF SKWENESS	13393.1	9798.2	6749.2	5058.7	3836.8	3062.3	2794.4	2525.4	2160.5	18651.0
SERIAL CORR COEFF	17311.8	12299.6	8251.4	6069.7	4651.1	3734.4	3356.7	3022.0	2556.6	24666.7
COEFF OF VARIATION	19655.4	13790.1	9104.9	6626.9	5135.5	4156.6	3677.0	3311.5	2779.8	28196.9
MEAN LOGS	22385.7	15527.5	10063.5	7238.0	5701.2	4671.7	4038.3	3644.5	3029.8	32116.9
STD DEVIATION LOGS	24278.0	16734.3	10707.6	7640.2	6095.6	5045.1	4282.2	3873.6	3197.6	37392.4
SKWENESS LOGS	26060.7	17878.3	11302.4	8005.6	6470.9	5411.7	4506.6	4089.3	3352.6	41149.8

STATION 12039050 BIG CREEK NEAR HOQUIAM, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1970)			W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKENNESS LOGS	ESTIMATE		
1949	72.0	2-22-1949				1.7805	1.7805	1.7805
1950	95.0	12-28-1949				0.1982	0.1982	0.1982
1951	82.0	2- 9-1951				0.180	0.180	-0.136
1952	25.0	1-30-1952						
1953	123.0	1-22-1953						
1954	83.0	12-11-1953						
1955	67.0	11-18-1954						
1956	110.0	11- 3-1955						
1957	120.0	12- 9-1956						
1958	52.0	1-16-1958	0.99			22.2	19.9	
1959	34.0	1-23-1959	0.95			29.2	28.0	
1960	93.0	11-22-1959	0.90			33.9	33.4	
1961	77.0	2-21-1961	0.80			40.9	41.2	
1962	34.0	12-23-1961	0.50			59.5	61.0	
1963	63.0	11-19-1962	0.20			88.2	88.8	
1964	36.0	11-26-1963	0.10			109.2	107.5	
1965	41.0	11-30-1964	0.04			137.9	131.3	
1966	75.0	1-12-1966	0.02			160.9	149.0	
1967	52.0	12-12-1966	0.01			185.3	166.7	
1968	47.0	1-19-1968						
1969	40.0	1- 4-1969						
1970	40.0	1-14-1970						

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1949-1970)

STATION 12039100 BIG CREEK TRIBUTARY NEAR HOQUIAM, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1949-1968)			W R C		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKENNESS LOGS	ESTIMATE		
1949	20.0	2-22-1949				1.2005	1.2005	1.2005
1950	14.0	12-28-1949				0.1493	0.1493	0.1493
1951	21.0	2- 9-1951				0.180	0.180	-0.863
1952	7.0	1-30-1952						
1953	21.0	1-22-1953						
1954	20.0	12-11-1953						
1955	16.0	11-18-1954						
1956	23.0	11- 3-1955						
1957	23.0	12- 9-1956						
1958	14.0	1-16-1958	0.99			7.5	5.8	
1959	12.0	1-23-1959	0.95			9.2	8.4	
1960	24.0	11-22-1959	0.90			10.3	10.0	
1961	21.0	2-21-1961	0.80			11.8	12.2	
1962	9.0	12-23-1961	0.50			15.7	16.7	
1963	17.0	11-19-1962	0.20			21.1	21.3	
1964	10.0	11-26-1963	0.10			24.8	23.6	
1965	12.0	11-30-1964	0.04			29.6	25.9	
1966	20.0	1-12-1966	0.02			33.2	27.2	
1967	15.0	12-12-1966	0.01			36.9	28.3	
1968	15.0	1-19-1968						

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1949-1968)

STATION 12039220 MOCLIPS RIVER AT MOCLIPS, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1975			460	509	340	286	98.1	126	30.7	13.0	65.9	25.6	
1976	569	604	689	446	360	341	147	64.6	64.5	60.6	36.6	26.7	285
1977	46.8	123	187	276	284	319	84.7	118	83.2	15.4	52.1	116	141
1978	159	612	522	224	198	184	126	108	46.8	15.4	46.4	200	203
1979	64.2	213	236	121	553	213	147	89.5	20.9	34.6	7.57	59.5	144

STATION 12039220 MOCLIPS RIVER AT MOCLIPS, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1975	2700.0	2-12-1975
1976	4280.0	12-26-1975
1977	2590.0	1-18-1977
1978	3530.0	12- 2-1977
1979	2300.0	2- 6-1979

STATION 12039300 NORTH FORK QUINLAULT R NEAR AMANDA PARK, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1965		996	819	814	1004	500	839	927	933	499	252	140	
1966	657	1137	1070	961	493	625	819	1095	1141	885	429	232	797
1967	630	1077	2475	1347	802	704	342	959	1501	891	360	231	954
1968	2025	1010	1256	1779	1761	1019	478	900	1124	721	391	551	1084
1969	882	1117	1263	663	441	629	822	614	1787	670	308	799	907
1970	582	742	829	1035	783	611	801	673	900	425	188	349	658
1971	441	1040	857	944	1008	690	565	1378	1356	1594	867	459	934
1972	515	1212	647	728	1164	1774	912	1250	1345	1335	505	501	990
1973	221	1809	1579	1075	539	480	418	992	1010	551	247	245	682
1974	631	1084	1590	2182	650	1184	755	1071	1933	1555	778	331	1151
1975	151	1034	1322	802	577	619	301	942	1331	1001	623	283	750
1976	1620	2152	2371	1177	574	385	484	1196	1135	1205	633	312	1108
1977	287	395	756	598	747	486	715	848	983	341	292	436	572
1978	643	1633	2146	917	762	735	555	757	917	472	378	847	897
1979	273	598	437	270	728	915	509	991	780	591	181	514	564

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1965-1979)

MEAN	682.7	1069.1	1285.8	1019.5	802.2	757.1	621.0	1039.5	1218.4	849.1	428.8	415.3	860.6
MAXIMUM	2025.0	2152.0	2475.0	2182.0	1761.0	1774.0	912.0	1614.0	1933.0	1594.0	867.0	847.0	1151.0
MINIMUM	151.0	395.0	437.0	270.0	441.0	385.0	301.0	673.0	780.0	341.0	181.0	140.0	584.0
STD DEVIATION	529.49	412.32	632.57	472.40	334.35	353.23	198.51	242.17	339.59	409.60	211.28	204.15	194.20
SKWENESS	1.723	1.162	0.762	1.143	1.815	1.928	-0.108	0.912	0.883	0.687	0.582	0.955	-0.140
STD ERR SKEW	0.597	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.597
SER CORR COEFF	-0.131	-0.654	-0.291	-0.075	-0.183	-0.205	-0.166	-0.413	-0.133	0.016	-0.030	0.303	-0.497
COEFF OF VAR	0.776	0.386	0.492	0.463	0.417	0.467	0.320	0.233	0.279	0.482	0.493	0.492	0.226
MEAN LOGS	2.730	2.999	3.060	2.964	2.876	2.845	2.770	3.006	3.071	2.882	2.584	2.570	2.924
STD DEV LOGS	0.311	0.171	0.217	0.211	0.157	0.171	0.151	0.098	0.115	0.210	0.211	0.213	0.103
SKWENESS LOGS	0.124	-0.513	-0.072	-0.699	0.787	0.908	-0.523	0.284	0.451	0.080	0.121	-0.074	-0.441
STD ERR SKEW LOGS	0.597	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.580	0.597
SER CORR LOGS	-0.285	-0.727	-0.281	-0.067	-0.232	-0.153	-0.156	-0.431	-0.066	0.018	-0.086	0.431	-0.476
COEFF OF VAR LOGS	0.114	0.057	0.071	0.071	0.055	0.060	0.055	0.032	0.038	0.073	0.082	0.083	0.035
% OF AVE FLOW	6.7	10.5	12.6	10.0	7.9	7.4	6.1	10.2	12.0	8.3	4.2	4.1	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1965-1979)

0.99	108.8	345.4	349.9	233.3	400.0	365.1	229.5	630.8	694.4	254.0	129.4	115.4	448.4
0.95	170.1	495.7	499.8	380.2	453.8	411.4	316.5	714.7	789.6	347.3	175.6	164.0	552.9
0.90	217.2	592.6	603.1	481.5	492.3	445.8	371.0	766.8	851.3	411.3	207.4	197.4	613.8
0.80	293.3	726.2	755.5	627.0	551.0	499.9	444.4	837.9	938.5	505.9	254.5	246.4	692.0
0.50	529.6	1031.9	1154.8	974.0	716.5	659.4	606.8	1004.1	1154.6	757.0	380.4	374.2	853.8
0.20	976.4	1998.0	1750.2	1396.9	996.0	945.5	793.7	1221.6	1461.2	1142.9	563.3	563.3	1027.8
0.10	1355.9	1509.3	2167.8	1637.4	1217.2	1183.2	898.6	1361.7	1671.9	1422.8	720.4	695.3	1121.9
0.04	1936.7	1845.7	2716.6	1899.4	1541.7	1546.3	1013.8	1536.2	1947.9	1802.2	917.7	868.1	1223.3
0.02	2447.0	2002.7	3138.6	2068.1	1818.8	1868.0	1089.2	1665.0	2160.9	2102.8	1075.4	1000.5	1289.0
0.01	3027.2	2145.7	3570.6	2217.1	2128.8	2238.8	1157.1	1793.3	2380.5	2418.2	1242.4	1135.7	1347.8

STATION 12039300 NORTH FORK QUINLAULT R NEAR AMANDA PARK, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1966	106.0	107.0	110.0	117.0	135.0	187.0	262.0	378.0	567.0
1967	138.0	145.0	150.0	182.0	193.0	233.0	355.0	478.0	674.0
1968	133.0	135.0	142.0	157.0	208.0	286.0	477.0	754.0	731.0
1969	200.0	203.0	216.0	232.0	311.0	352.0	489.0	602.0	689.0
1970	154.0	172.0	181.0	184.0	240.0	319.0	522.0	565.0	621.0
1971	131.0	134.0	140.0	152.0	177.0	222.0	255.0	337.0	469.0
1972	201.0	207.0	248.0	267.0	308.0	439.0	589.0	681.0	691.0
1973	167.0	170.0	183.0	184.0	215.0	360.0	400.0	471.0	686.0
1974	143.0	144.0	155.0	166.0	177.0	220.0	283.0	397.0	567.0
1975	120.0	121.0	126.0	129.0	140.0	200.0	315.0	514.0	698.0
1976	165.0	166.0	173.0	186.0	256.0	448.0	545.0	718.0	748.0
1977	130.0	131.0	137.0	171.0	194.0	275.0	316.0	369.0	476.0
1978	172.0	174.0	178.0	189.0	222.0	287.0	321.0	343.0	558.0
1979	170.0	172.0	181.0	220.0	262.0	331.0	365.0	388.0	464.0

LOWEST MEAN FLOW STATISTICS (YEARS 1966-1979)

MEAN	152.1	155.8	165.7	181.1	217.0	297.1	392.4	499.0	617.1
MAXIMUM	201.0	207.0	248.0	267.0	311.0	448.0	589.0	754.0	748.0
MINIMUM	106.0	107.0	110.0	117.0	135.0	187.0	255.0	337.0	464.0
STANDARD DEVIATION	28.46	29.59	36.54	39.39	54.25	82.96	111.70	143.41	99.65
SKEWNESS	0.322	0.216	0.743	0.550	0.328	0.528	0.474	0.593	-0.413
STD ERROR OF SKEWNESS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SERIAL CORR COEFF	-0.089	-0.067	-0.040	-0.154	-0.047	-0.124	-0.194	-0.010	0.062
COEFF OF VARIATION	0.187	0.190	0.221	0.217	0.250	0.279	0.285	0.287	0.161
MEAN LOGS	2.175	2.185	2.210	2.249	2.324	2.457	2.578	2.683	2.785
STD DEVIATION LOGS	0.081	0.083	0.094	0.094	0.111	0.120	0.122	0.121	0.073
SKEWNESS LOGS	-0.033	-0.143	0.184	-0.092	-0.186	0.095	0.191	0.313	-0.571
STD ERR SKEWNESS LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597
SER CORR COEFF LOGS	-0.072	-0.064	-0.030	-0.142	-0.011	-0.076	-0.195	0.019	0.053
COEFF OF VAR LOGS	0.037	0.038	0.042	0.042	0.048	0.049	0.047	0.045	0.026

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1966-1979)

0.99	230.5	234.7	275.6	289.6	367.7	556.9	756.7	983.5	840.0
0.98	219.3	223.9	257.8	274.0	346.3	513.7	693.3	895.2	916.9
0.96	207.4	212.3	239.7	257.5	323.5	469.9	630.0	808.6	790.1
0.90	190.2	195.3	214.6	233.7	290.3	410.0	545.2	694.7	746.7
0.80	175.3	180.3	194.0	213.0	261.5	361.5	477.8	606.1	704.1
0.50	149.8	153.9	161.1	177.8	212.3	285.4	374.8	474.6	619.0
0.20	127.9	130.5	135.0	147.8	170.5	226.7	297.8	379.3	532.0
0.10	117.6	119.4	123.6	133.9	151.3	201.5	265.4	340.1	486.8
0.05	109.8	110.8	115.1	123.3	136.8	183.1	241.9	312.0	450.2
0.02	101.5	101.7	106.4	112.2	121.8	164.5	218.5	284.4	409.9
0.01	96.3	96.0	101.1	105.3	112.6	153.3	204.5	268.1	383.8

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1966-1979)

P95	P90	P75	P70	P50	P25	P10
190.0	240.0	380.0	420.0	630.0	1100.0	1600.0

STATION 12039300 NORTH FORK QUINULT R NEAR AMANDA PARK, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW (CFS) DATE REG. (R)
1965										13400. 11/29/64
1966	4130.	2650.	2380.	1590.	1320.	1130.	1060.	1000.	877.	13600. 10/06/65
1967	9940.	6730.	5170.	3590.	2770.	1980.	1750.	1520.	1190.	16800. 12/13/66
1968	7290.	5130.	4040.	3010.	2180.	1910.	1690.	1540.	1470.	14500. 10/27/67
1969	5410.	2770.	2400.	2300.	2130.	1750.	1430.	1290.	1010.	11800. 12/03/68
1970	4520.	2670.	2230.	1620.	1220.	1000.	931.	829.	829.	7940. 04/09/70
1971	3690.	2770.	2020.	1900.	1630.	1490.	1450.	1320.	1120.	6960. 11/23/70
1972	5510.	4400.	2820.	2070.	2190.	1670.	1390.	1410.	1320.	10800. 11/03/71
1973	5310.	4050.	3440.	2880.	2040.	1370.	1170.	1020.	909.	12100. 12/18/72
1974	14300.	11600.	6830.	3880.	2410.	2000.	1700.	1460.	1380.	17800. 01/15/74
1975	6540.	4110.	2760.	1810.	1550.	1280.	1100.	1010.	832.	21100. 12/20/74
1976	12000.	9940.	5410.	3260.	2740.	2450.	2090.	1860.	1390.	22200. 12/03/75
1977	6120.	2950.	1650.	1240.	1050.	980.	858.	773.	767.	9080. 12/26/76
1978	9950.	4980.	4070.	3590.	2590.	2070.	1690.	1460.	1180.	26800. 11/01/77
1979	3490.	3290.	2140.	1430.	1110.	899.	828.	831.	750.	19700. 11/03/78

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1965-1979)

W R C
ESTIMATESYSTEMATIC
RECORD

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MEAN	7014.3	4860.7	3382.9	2483.6	1923.6	1569.9	1366.9	1242.1	1073.1	
MAXIMUM	14300.0	11600.0	6830.0	3880.0	2770.0	2450.0	2090.0	1860.0	1470.0	
MINIMUM	3490.0	2650.0	1650.0	1240.0	1050.0	899.0	828.0	773.0	750.0	
STANDARD DEVIATION	3304.67	2784.30	1531.81	898.67	605.53	479.00	386.74	322.24	252.00	
SKEWNESS	1.064	1.631	1.050	0.143	-0.098	0.156	0.175	0.159	0.213	
STD ERROR OF SKEWNESS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	
SERIAL CORR. COEFF	-0.189	-0.191	-0.230	-0.461	-0.601	-0.647	-0.638	-0.628	-0.530	
COEFF OF VARIATION	0.471	0.573	0.453	0.362	0.315	0.305	0.283	0.259	0.235	
MEAN LOGS	3.805	3.635	3.482	3.361	3.282	3.176	3.119	3.080	3.019	4.1453
STD DEVIATION LOGS	0.191	0.209	0.184	0.166	0.148	0.136	0.127	0.116	0.103	0.1694
SKEWNESS LOGS	0.447	0.948	0.449	-0.204	-0.421	-0.248	-0.221	-0.222	0.011	0.1290
STD ERR SKEWNESS LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	
SER CORR COEFF LOGS	-0.112	-0.131	-0.231	-0.467	-0.561	-0.631	-0.636	-0.624	-0.537	
COEFF OF VAR LOGS	0.050	0.057	0.053	0.049	0.045	0.044	0.041	0.038	0.034	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1965-1979)

0.99	2655.6	1972.1	1333.0	904.1	748.2	674.9	634.5	618.0	604.0	5853.7
0.95	3288.9	2267.4	1637.3	1215.3	1007.1	869.3	797.9	761.9	708.9	7228.5
0.90	3727.0	2493.9	1846.6	1415.6	1168.4	989.7	897.7	848.6	772.2	8423.4
0.80	4383.0	2860.1	2158.3	1694.6	1386.3	1152.4	1031.4	963.3	856.7	10098.8
0.50	6182.4	4000.2	3005.5	2357.1	1872.2	1519.7	1329.1	1214.4	1045.3	14122.7
0.20	9134.7	6224.9	4377.2	3218.9	2444.5	1967.1	1686.9	1509.7	1276.1	19455.1
0.10	11419.4	8212.9	5427.5	3761.0	2774.3	2234.9	1899.3	1682.4	1416.8	22865.4
0.04	14706.6	11448.8	6925.9	4416.5	3145.3	2547.1	245.9	1880.8	1584.1	28151.2
0.02	17462.6	14485.9	8172.9	4885.2	3394.0	2763.5	2316.3	2016.7	1702.8	31972.2
0.01	20496.1	18156.1	9537.4	5338.9	3622.5	2968.2	2477.3	2144.3	1817.3	35920.0

STATION 12039400 HIGLEY CREEK NEAR AMANDA PARK, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1955-1974)			W R C ESTIMATE		SYSTEMATIC RECORD
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKEWNESS LOGS			
1955	276.0	11-18-1954				2.2402		2.2307
1956	237.0	11- 3-1955				0.1844		0.1790
1957	409.0	12- 9-1956				0.132		-0.171
1958	87.0	12-25-1957						
1959	240.0	4-29-1959						
1960	164.0	12-14-1959						
1961	332.0	2-21-1961						
1962	93.0	12-23-1961						
1963	273.0	11-19-1962						
1964	164.0	12-23-1963						
1965	192.0	11-30-1964						
1966	168.0	1-12-1966						
1967	156.0	12-12-1966						
1968	270.0	1-19-1968						
1969	98.0	12- 3-1968						
1970	111.0	4- 9-1970						
1971	105.0	1-25-1971						
1972	181.0	11- 3-1971						
1973	219.0	12-26-1972						
1974	127.0	1-16-1974						
ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES LOG-PEARSON III ANALYSIS (YEARS 1955-1974)			0.99			67.5		61.9
			0.95			87.9		84.7
			0.90			101.6		99.6
			0.80			121.3		120.7
			0.50			172.3		172.1
			0.20			247.8		241.4
			0.10			301.3		286.2
			0.04			372.6		341.5
			0.02			428.4		381.7
			0.01			486.4		421.3

STATION 12039500 QUINAUT RIVER AT QUINAUT LAKE, WASH.
MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1912	900	4640	2768	4710	4437	1162	1162	1936	2012	1229	1025	1220	2257
1913	1873	5658	3604	2989	2584	1807	2051	3038	3782	3206	1827	2048	2837
1914	2679	5832	2950	7150	2487	3486	3473	2721	3782	1900	856	2048	3134
1915	3962	5175	1848	2184	2284	2899	4135	2631	1765	1023	610	490	2450
1916	2547	3273	5944	2618	4800	2759	2664	2993	3673	1728	3316	835	3229
1917	624	2776	2220	2126	2294	1569	2819	2937	3769	3069	1444	993	2217
1918	975	2039	9716	6156	4214	1659	2582	1869	1864	888	789	502	2941
1919	2480	3619	6279	5266	3614	2773	3683	3365	2998	2618	648	3211	3211
1920	506	4095	4641	4577	2311	2205	1495	1635	2886	1196	600	3573	2472
1921	5640	3469	4341	4963	4408	2640	1948	2877	4422	2763	1530	2407	3447
1922	6703	5530	6707	1346	1605	1255	1681	3245	3608	1607	804	1096	2843
1926	316	2123	6457	3104	4128	1904	1681	2211	1252	1585	502	467	2057
1927	3974	3670	4148	4652	3615	2314	1738	3444	3500	2002	860	1661	2965
1928	3148	5411	2759	5803	2121	3655	2796	3244	2011	1049	475	465	2751
1929	2415	3094	2430	1598	673	1980	2300	2835	3284	1565	723	417	1950
1930	656	484	2958	1527	5419	2144	3410	1761	1573	855	428	519	1785
1931	1736	2244	2187	5891	3093	3862	3692	2441	2905	1374	539	841	2564
1932	1932	3564	4005	3642	4253	4351	3717	2612	3016	2251	1183	657	2929
1934	3205	4056	10260	7246	3072	3670	2432	2419	1116	1561	876	689	3400
1935	2963	6269	4315	9285	4189	3111	1706	2310	2611	1754	742	1452	3390
1936	1257	1516	3205	4866	1844	2912	2119	3880	3434	1824	691	700	2403
1937	523	410	4345	1177	1889	2844	3780	3841	4642	2088	923	645	2262
1938	2557	6868	5832	3466	1938	2840	3002	2651	2325	1251	568	411	2811
1939	1596	3365	4370	6157	2581	1942	2096	2608	2166	1637	752	504	2497
1940	1307	3545	8173	4457	4847	3998	2287	3053	1261	649	500	580	2880
1941	3906	2828	4318	3681	3209	2418	1818	2896	1538	778	448	1728	2472
1942	3056	3477	6219	1901	2485	1532	1818	2045	2814	1679	687	403	2344
1943	593	3771	3632	2178	2823	2250	4484	2156	2187	1566	709	470	2225
1944	1456	1676	3364	4013	4807	1874	1779	1861	1591	1738	422	780	1818
1945	1298	4653	2968	4804	4807	2871	1776	3945	2155	1361	591	847	2659
1946	1710	4655	4745	4225	2941	3377	3294	3615	3557	2801	1193	746	3073
1947	1228	2765	2718	3622	6141	1994	2433	2245	1954	1382	1008	681	2548
1948	4569	3050	4754	3360	2840	2016	2507	4575	3949	1806	1255	2006	3049
1949	2362	3984	3568	1392	3437	3615	2823	4428	2760	1927	1255	1256	2730
1950	1841	6678	6199	3495	4491	4417	3221	2794	4115	1771	1771	870	3571
1951	3743	4899	7752	4825	7181	1892	2394	3399	2244	1232	571	556	3309
1952	3735	3349	3241	2114	3905	1655	2550	3681	3007	2140	1142	686	2596
1953	414	1154	3356	11390	5216	2054	2059	3399	2534	2452	1224	854	3006
1954	2754	5858	6743	4500	6694	2773	2717	2458	2723	2999	1518	1247	3561
1955	3244	8465	4116	2568	3072	1438	3144	2234	3735	2893	1691	845	3111
1956	3735	7592	4389	3809	1695	2983	3034	3888	5116	3396	1370	1242	3523
1957	4347	2966	6229	1687	3829	3729	2822	2879	1980	1374	1041	644	2793
1958	1189	2327	4682	5985	5962	2344	2771	2612	2071	900	453	547	2634
1959	2216	5261	5449	5882	2186	2673	4044	3786	2830	1672	706	2291	3255
1960	2616	5068	4431	3311	4942	2303	3605	3140	2979	1577	850	803	2956
1961	2443	4438	3958	7866	8244	4717	2370	3371	3052	1474	676	794	3589
1962	1901	3115	4799	3706	2576	1613	2701	2552	2400	1537	1216	953	2423
1963	3299	5633	5208	3189	5126	2254	2657	2439	1539	1372	1769	614	2825
1964	3055	5724	4372	5121	2514	2549	2207	2164	3974	2968	1764	1008	3120
1965	2006	2797	4181	3437	4695	1961	2535	2689	2104	1143	710	454	2378
1966	1991	3929	4245	4653	2499	3176	2798	2829	2622	2022	1098	682	2716
1967	2058	3640	10330	6163	3830	3493	1612	2448	3521	2007	908	619	3393
1968	6199	3698	5271	7421	6682	4246	2031	2508	2830	1768	1050	1905	3798
1969	2978	4014	5157	3152	2541	3825	4217	4217	4205	1686	833	2465	3104
1970	2239	2669	3725	4506	3636	2333	3344	2089	2178	1075	570	1052	3047
1971	1835	4086	4320	5051	4308	3581	2657	3948	3584	3600	1475	1454	3363
1972	1845	4804	3456	4330	5069	7752	3603	3240	3085	3149	1160	1421	3576
1973	696	3152	6597	4584	1990	2476	1409	2701	2679	1419	1859	688	2430
1974	2017	4375	6859	7520	3997	5105	3289	3492	4588	3658	1829	953	3981
1975	463	3454	5451	3717	2581	2851	1306	2759	3142	2132	1517	1243	3581
1976	5779	7689	8155	4937	3169	2270	2017	3228	3142	1502	2781	917	3774
1977	731	1591	2535	2301	2767	2815	2245	2555	2332	911	711	1328	1895
1978	1843	6664	7114	3299	3006	2547	2119	2365	2227	1173	1154	2971	3035
1979	1006	1900	2147	1208	4113	3704	1729	2667	1678	1538	568	1646	1978

STATION 12039500 QUINUAULT RIVER AT QUINUAULT LAKE, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1912-1979)

MEAN	2358.7	3978.0	4847.9	4248.1	3621.5	2838.1	2597.3	2877.5	2805.6	1851.3	964.5	1064.2	2834.2
MAXIMUM	6703.0	8465.0	10330.0	11390.0	8244.0	7752.0	4484.0	4575.0	5116.0	3658.0	1975.0	3573.0	3981.0
MINIMUM	376.0	410.0	1848.0	1177.0	673.0	1162.0	1182.0	1635.0	1116.0	585.0	422.0	403.0	1785.0
STD DEVIATION	1448.86	1709.69	1915.85	2011.53	1499.54	1102.83	771.75	669.08	918.47	806.01	407.99	656.01	523.03
SKEWNESS	0.968	0.354	0.968	0.932	0.803	1.623	0.356	0.507	0.336	0.620	0.718	1.709	0.010
STD ERR SKEW	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
SER CORR COEFF	-0.027	0.015	-0.041	0.024	-0.094	0.035	0.119	-0.009	-0.054	0.028	0.148	0.237	0.010
COEFF OF VAR	0.614	0.430	0.395	0.474	0.414	0.389	0.297	0.233	0.327	0.435	0.423	0.616	0.185
MEAN LOGS	3.281	3.548	3.654	3.577	3.521	3.425	3.395	3.448	3.424	3.226	2.947	2.962	3.445
STD DEV LOGS	0.305	0.243	0.169	0.220	0.189	0.157	0.133	0.101	0.150	0.195	0.181	0.231	0.083
SKEWNESS LOGS	-0.573	-1.678	-0.036	-0.481	-0.581	0.181	-0.235	-0.026	-0.399	-0.188	0.104	0.552	-0.387
STD ERR SKEW LOGS	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299
SER CORR LOGS	-0.153	0.026	0.013	0.048	-0.091	0.064	0.131	-0.042	-0.052	0.012	0.162	0.223	0.033
COEFF OF VAR LOGS	0.093	0.068	0.046	0.062	0.054	0.046	0.039	0.029	0.044	0.060	0.062	0.078	0.024
% OF AVE FLOW	6.9	11.7	14.2	12.5	10.6	8.3	7.6	8.5	8.2	5.4	2.8	3.1	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1912-1979)

0.99	279.9	519.0	1804.4	974.4	1006.9	1205.4	1156.3	1627.4	1076.6	558.8	345.8	331.1	1694.4
0.95	543.5	1174.2	2366.7	1540.2	1521.9	1497.1	1476.0	1911.0	1448.7	785.6	450.8	418.8	1996.0
0.90	752.6	1683.6	2732.4	1933.0	1863.3	1687.0	1666.2	2081.1	1682.9	938.7	520.7	482.3	2167.2
0.80	1088.0	2436.6	3249.0	2506.3	2342.7	1956.8	1927.4	2306.7	2000.5	1158.5	621.5	581.2	2383.2
0.50	2042.1	4091.5	4513.5	3936.0	3461.7	2629.3	2513.3	2805.4	2714.2	1706.2	878.7	878.6	2819.6
0.20	3486.7	5548.1	6249.1	5836.2	4819.6	3587.7	3222.1	3407.3	3564.8	2463.5	1255.2	1404.0	3278.2
0.10	4450.4	6083.0	7399.1	7015.7	5602.9	4247.0	3644.7	3769.5	4059.8	2961.7	1514.7	1852.8	3523.3
0.04	5627.9	6464.5	8849.9	8403.4	6474.5	5108.4	4136.3	4196.5	4621.4	3583.8	1866.8	2547.2	3786.3
0.02	6462.1	6622.1	9929.8	9363.7	7048.8	5770.9	4476.7	4496.7	5000.5	4040.8	2136.7	3168.4	3956.1
0.01	7254.6	6717.6	11009.4	10264.8	7567.6	6451.5	4798.3	4784.4	5350.9	4492.0	2415.6	3889.0	4108.4

STATION 12039500 QUINUAULT RIVER AT QUINUAULT LAKE, WASH.

YEAR	LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31													
	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS					
1913	668.0	672.0	711.0	808.0	933.0	1110.0	1110.0	1210.0	1420.0					
1914	814.0	851.0	872.0	968.0	1170.0	1570.0	1570.0	2190.0	2540.0					
1915	538.0	556.0	569.0	571.0	638.0	886.0	1300.0	1630.0	2060.0					
1916	400.0	403.0	412.0	428.0	485.0	541.0	658.0	798.0	1300.0					
1917	446.0	450.0	457.0	469.0	509.0	685.0	1030.0	1470.0	1700.0					
1918	558.0	573.0	615.0	625.0	851.0	976.0	1040.0	1350.0	1960.0					
1919	425.0	428.0	430.0	442.0	479.0	633.0	769.0	866.0	1240.0					
1920	432.0	437.0	443.0	448.0	501.0	572.0	740.0	866.0	1240.0					
1921	499.0	506.0	509.0	530.0	587.0	708.0	740.0	1040.0	1800.0					
1922	779.0	784.0	833.0	987.0	1170.0	1350.0	1240.0	1500.0	1890.0					
1927	369.0	377.0	382.0	392.0	442.0	470.0	1400.0	2480.0	2850.0					
1928	601.0	621.0	637.0	671.0	845.0	1250.0	1430.0	1750.0	2200.0					
1929	318.0	322.0	332.0	348.0	381.0	462.0	617.0	893.0	1520.0					
1930	301.0	305.0	317.0	347.0	389.0	499.0	514.0	529.0	973.0					
1931	301.0	303.0	305.0	314.0	328.0	394.0	570.0	714.0	1110.0					
1932	440.0	443.0	457.0	477.0	533.0	683.0	929.0	1120.0	1610.0					
1935	456.0	463.0	477.0	513.0	659.0	802.0	902.0	986.0	1320.0					
1936	490.0	497.0	524.0	567.0	618.0	930.0	1120.0	1160.0	1500.0					
1937	370.0	370.0	374.0	389.0	409.0	453.0	494.0	556.0	1190.0					
1938	480.0	482.0	494.0	529.0	645.0	781.0	984.0	1350.0	2310.0					
1939	328.0	334.0	343.0	367.0	391.0	432.0	588.0	827.0	1400.0					
1940	434.0	441.0	471.0	523.0	569.0	648.0	803.0	1030.0	1500.0					
1941	374.0	379.0	388.0	413.0	419.0	469.0	518.0	635.0	1260.0					
1942	374.0	379.0	388.0	401.0	435.0	596.0	892.0	1070.0	1490.0					
1943	328.0	328.0	336.0	354.0	398.0	453.0	529.0	602.0	1360.0					
1944	394.0	403.0	412.0	418.0	451.0	526.0	685.0	949.0	1340.0					
1945	285.0	290.0	298.0	312.0	347.0	441.0	624.0	775.0	1100.0					
1946	431.0	441.0	454.0	469.0	551.0	681.0	889.0	1100.0	1610.0					
1947	386.0	395.0	410.0	437.0	525.0	680.0	974.0	1150.0	1900.0					
1948	468.0	478.0	489.0	527.0	602.0	671.0	896.0	1150.0	1550.0					
1949	716.0	724.0	732.0	759.0	904.0	1200.0	1360.0	1600.0	2370.0					
1950	679.0	712.0	767.0	830.0	955.0	1200.0	1370.0	1600.0	2370.0					
1951	630.0	635.0	663.0	708.0	822.0	1250.0	1660.0	2260.0	2600.0					
1952	345.0	347.0	358.0	385.0	416.0	504.0	747.0	1110.0	1610.0					
1953	360.0	360.0	364.0	373.0	390.0	489.0	677.0	835.0	1350.0					
1954	491.0	499.0	518.0	541.0	671.0	972.0	1480.0	2090.0	2500.0					
1955	716.0	740.0	807.0	972.0	1140.0	1260.0	1730.0	2030.0	2180.0					
1956	578.0	580.0	609.0	674.0	812.0	1020.0	1610.0	1940.0	2230.0					
1957	669.0	683.0	718.0	804.0	859.0	1210.0	1640.0	2200.0	2940.0					
1958	484.0	491.0	513.0	552.0	566.0	638.0	798.0	959.0	1400.0					
1959	360.0	370.0	379.0	394.0	402.0	490.0	572.0	833.0	1400.0					
1960	536.0	540.0	556.0	573.0	657.0	1060.0	1400.0	1690.0	2020.0					
1961	548.0	572.0	599.0	661.0	710.0	796.0	949.0	1180.0	1840.0					
1962	475.0	478.0	495.0	524.0	583.0	707.0	857.0	1140.0	1760.0					
1963	638.0	646.0	666.0	706.0	808.0	1030.0	1200.0	1500.0	1880.0					
1964	460.0	464.0	479.0	513.0	594.0	617.0	828.0	937.0	1330.0					
1965	759.0	764.0	797.0	862.0	963.0	1370.0	1540.0	1660.0	2290.0					
1966	345.0	350.0	363.0	389.0	432.0	557.0	694.0	993.0	1500.0					
1967	535.0	540.0	570.0	600.0	649.0	690.0	930.0	1270.0	1740.0					
1968	437.0	446.0	467.0	516.0	560.0	690.0	930.0	1270.0	1740.0					
1969	766.0	772.0	792.0	839.0	958.0	1080.0	1480.0	1720.0	1850.0					
1970	496.0	502.0	513.0	553.0	680.0	858.0	1300.0	1760.0	2100.0					
1971	400.0	408.0	420.0	442.0	519.0	660.0	791.0	936.0	1350.0					
1972	844.0	878.0	911.0	1000.0	1050.0	1340.0	1720.0	2200.0	2670.0					
1973	489.0	501.0	507.0	519.0	652.0	1060.0	1060.0	1560.0	1930.0					
1974	375.0	378.0	394.0	409.0	448.0	632.0	767.0	1110.0	1550.0					
1975	356.0	362.0	381.0	395.0	438.0	608.0	838.0	1300.0	2340.0					
1976	568.0	580.0	607.0	666.0	964.0	1360.0	1510.0	1850.0	2000.0					
1977	443.0	456.0	478.0	545.0	604.0	808.0	991.0	1140.0	1530.0					
1978	443.0	450.0	465.0	492.0	569.0	779.0	919.0	970.0	1520.0					
1979	625.0	639.0	659.0	700.0	757.0	1040.0	1480.0	1550.0	1890.0					

STATION 12039500 QUINVAULT RIVER AT QUINVAULT LAKE, WASH.

LOWEST MEAN FLOW STATISTICS (YEARS 1913-1979)

MEAN	492.7	501.2	519.4	556.4	636.9	808.0	1023.1	1293.2	1755.0
MAXIMUM	844.0	878.0	911.0	1000.0	1170.0	1570.0	1850.0	2440.0	2940.0
MINIMUM	285.0	290.0	298.0	312.0	328.0	394.0	494.0	529.0	973.0
STANDARD DEVIATION	140.68	145.43	154.48	179.54	219.71	301.70	380.22	471.97	447.43
SKEWNESS	0.772	0.800	0.791	0.943	0.797	0.649	0.492	0.587	0.561
STD ERROR OF SKEWNESS	0.306	0.306	0.306	0.306	0.306	0.306	0.306	0.306	0.306
SERIAL CORR COEFF	0.148	0.153	0.150	0.151	0.155	0.106	0.189	0.134	0.031
COEFF OF VARIATION	0.286	0.290	0.297	0.323	0.345	0.373	0.372	0.365	0.255
MEAN LOGS	2.676	2.683	2.698	2.725	2.780	2.879	2.980	3.083	3.231
STD DEVIATION LOGS	0.119	0.121	0.124	0.132	0.144	0.159	0.163	0.160	0.110
SKEWNESS LOGS	0.286	0.298	0.299	0.401	0.253	0.167	0.011	-0.088	0.059
STD ERR SKEWNESS LOGS	0.306	0.306	0.306	0.306	0.306	0.306	0.306	0.306	0.306
SER CORR COEFF LOGS	0.189	0.194	0.189	0.197	0.196	0.131	0.172	0.138	0.053
COEFF OF VAR LOGS	0.045	0.045	0.046	0.048	0.052	0.055	0.055	0.052	0.034

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1913-1979)

0.99	951.9	978.9	1030.7	1176.6	1387.6	1854.5	2292.7	2789.6	3092.9
0.98	869.3	892.2	937.2	1056.3	1246.1	1657.7	2068.2	2538.8	2878.7
0.96	787.7	806.9	845.4	940.7	1108.6	1465.9	1844.6	2284.4	2659.1
0.90	679.6	694.2	724.6	792.4	929.9	1216.6	1545.6	1936.1	2353.8
0.80	595.0	606.4	630.8	680.4	793.2	1025.7	1309.7	1654.3	2101.6
0.50	458.2	475.4	491.5	520.1	594.3	748.4	954.8	1217.4	1696.5
0.20	375.3	380.1	390.8	409.2	454.1	553.4	696.7	889.1	1374.3
0.10	336.7	340.7	349.4	365.0	357.6	476.0	591.1	752.0	1232.8
0.05	309.0	312.4	319.7	334.0	357.7	421.2	516.2	653.9	1127.7
0.02	281.6	284.6	290.5	303.9	318.8	368.1	443.3	557.7	1020.9
0.01	265.3	268.1	273.3	286.4	296.0	337.2	400.5	501.0	955.8

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1913-1979)					
P95	P90	P75	P70	P50	P10
530.0	700.0	1300.0	1500.0	2200.0	5400.0

STATION 12039500 QUINUAULT RIVER AT QUINUAULT LAKE, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	DATE	MEG.(R)
1910										52600.	11/ /09	
1912	18200.	16200.	11300.	7600.	6200.	4630.	4540.	4190.	3160.	20300.	11/18/11	
1913	12000.	11300.	10200.	8160.	6000.	4900.	4150.	3620.	3170.	18200.	11/19/12	
1914	30700.	25600.	17900.	11100.	7360.	6420.	5470.	4850.	4210.	32500.	01/06/14	
1915	15500.	13500.	9840.	6460.	6240.	4880.	3920.	3510.	3470.	16200.	10/19/14	
1916	17700.	12500.	9270.	6940.	6200.	5120.	4350.	4110.	4110.	20800.	12/08/15	
1917	6550.	5780.	4770.	3960.	3580.	3580.	3340.	3180.	2750.	6670.	11/04/16	
1918	27800.	22800.	18700.	14500.	12700.	8760.	6790.	6030.	4770.	32300.	12/18/17	
1919	21400.	16300.	10500.	9830.	6450.	5880.	5190.	4960.	4340.	23800.	12/14/18	
1920	19600.	16400.	11700.	8360.	5710.	5230.	4980.	3960.	3240.	21300.	11/15/19	
1921	17000.	14200.	10200.	7820.	5970.	5230.	4980.	4660.	4230.	20100.	02/11/21	
1922	32300.	25400.	16200.	11100.	9130.	8230.	6430.	5160.	3880.	37000.	12/12/21	
1926	14000.	12200.	8980.	8350.	6590.	4850.	4580.	4080.	3300.	14800.	12/23/25	
1927	13400.	11900.	10100.	7940.	5330.	5240.	4560.	4360.	3730.	14800.	10/16/26	
1928	15100.	13300.	10700.	9460.	6030.	5590.	4970.	4460.	3880.	17100.	01/12/28	
1929	9400.	8700.	7080.	4710.	3320.	3070.	2960.	2720.	2150.	10300.	11/13/28	
1930	11100.	9480.	7420.	5390.	5200.	3680.	3590.	3420.	2920.	11800.	02/05/30	
1931	19700.	14700.	13800.	9050.	6660.	4800.	4660.	4210.	3660.	21000.	01/23/31	
1932	27200.	22100.	14000.	9010.	6360.	5280.	4410.	4300.	3950.	28100.	02/27/32	
1933										16300.	11/13/32	
1934	28000.	17300.	14700.	13600.	11400.	9100.	7400.	6660.	5410.	35000.	12/21/33	
1935	32900.	31600.	25100.	15400.	9480.	7260.	6620.	6300.	5080.	36100.	01/24/35	
1936	10500.	9680.	8870.	7150.	5830.	4130.	3580.	3320.	3400.	11200.	01/04/36	
1937	13500.	11900.	9750.	7050.	4690.	4330.	4160.	3790.	3180.	15200.	12/22/36	
1938	22800.	19400.	13000.	8690.	6980.	6620.	5730.	4850.	4130.	21500.	12/29/37	
1939	24500.	21700.	14800.	9180.	6630.	5320.	4750.	4280.	3490.	25400.	01/01/39	
1940	17700.	16400.	12300.	11100.	8800.	6840.	5890.	5600.	4700.	21500.	12/15/39	
1941	14600.	13300.	10200.	6940.	5190.	4210.	3920.	4130.	3490.	16000.	10/19/40	
1942	14000.	12300.	10500.	7400.	6470.	4950.	4360.	3860.	3130.	15500.	12/ /41	
1943	11900.	9930.	8280.	6420.	5170.	3710.	3250.	3110.	3180.	13100.	04/02/43	
1944	17700.	12600.	9260.	6190.	4610.	3750.	3260.	2990.	2560.	19600.	12/03/43	
1945	25400.	18300.	11800.	7680.	5930.	4750.	4470.	4310.	3630.	27500.	02/08/45	
1946	12900.	10500.	8650.	6990.	6210.	5430.	4720.	4340.	3970.	14100.	11/15/45	
1947	26100.	21600.	14600.	9980.	7650.	4930.	5520.	4690.	3870.	27100.	02/14/47	
1948	15700.	11800.	8540.	7410.	6010.	4470.	4490.	4010.	3610.	17100.	10/19/47	
1949	13900.	11600.	7980.	6270.	5080.	4010.	4050.	3880.	3370.	15200.	02/23/49	
1950	36900.	25400.	18400.	12500.	8790.	6750.	5550.	5650.	4750.	42300.	11/27/49	
1951	35100.	28700.	18200.	10900.	8330.	7360.	6240.	6310.	5040.	36700.	02/10/51	
1952	10900.	10200.	8990.	6580.	4340.	3960.	3480.	3440.	2990.	11500.	01/31/52	
1953	19100.	17300.	15100.	13200.	12000.	8700.	6720.	5570.	4600.	20700.	01/12/53	
1954	15600.	13100.	11900.	9490.	7530.	6990.	6020.	5960.	4880.	17000.	12/12/53	
1955	28700.	25000.	18300.	13000.	8820.	6530.	5500.	4740.	3920.	30500.	11/18/54	
1956	41200.	32800.	18600.	13400.	8310.	6550.	5800.	4990.	4150.	50200.	11/04/55	
1957	28500.	20300.	13300.	10000.	6450.	4980.	4650.	3960.	3900.	32400.	12/10/56	
1958	13600.	12100.	9130.	7510.	6240.	5960.	5630.	4850.	4050.	15300.	01/17/58	
1959	26200.	19400.	12000.	7600.	6920.	5770.	5640.	4880.	4430.	29700.	04/30/59	
1960	22500.	17200.	14200.	8830.	7240.	4890.	5240.	4560.	4070.	25800.	11/23/59	
1961	31600.	26500.	18500.	12700.	9530.	8270.	6970.	6310.	5360.	43300.	01/15/61	
1962	12500.	9500.	7790.	7430.	5720.	4710.	3990.	3660.	3160.	14000.	01/03/62	
1963	24900.	16100.	11400.	8470.	7340.	6220.	5390.	4830.	4130.	28900.	11/20/62	
1964	14800.	13200.	9220.	7850.	6330.	5390.	5390.	4930.	4050.	17300.	12/23/63	
1965	19800.	17900.	11300.	7630.	5520.	4220.	4310.	3840.	3360.	21700.	11/30/64	
1966	15200.	13200.	9370.	7140.	4870.	4780.	4330.	3870.	3550.	16700.	01/14/66	
1967	26800.	20900.	18500.	13500.	11100.	8230.	7310.	6240.	5040.	29300.	12/13/66	
1968	25900.	23600.	17300.	12600.	8890.	7420.	6650.	5950.	5590.	27700.	01/19/68	
1969	12400.	9660.	7190.	6000.	5330.	5060.	4590.	3890.	3550.	13900.	12/03/68	
1970	12200.	9960.	8400.	6770.	5190.	4490.	4020.	3850.	3380.	14000.	04/09/70	
1971	14700.	11300.	8490.	7770.	6120.	4890.	4730.	4480.	4090.	16000.	12/07/70	
1972	20500.	16300.	11500.	8490.	6120.	4890.	4730.	4480.	4090.	16000.	03/06/72	
1973	24100.	18000.	15500.	12100.	8520.	5790.	4890.	4240.	3410.	26000.	12/26/72	
1974	33600.	28400.	20000.	12700.	9140.	7480.	6760.	5930.	5250.	34500.	01/16/74	
1975	17500.	12600.	9200.	7050.	6030.	5230.	4540.	4150.	3390.	19400.	12/21/74	
1976	31900.	27000.	17800.	11400.	9430.	8700.	7520.	6810.	5370.	36400.	12/04/75	
1977	9970.	7810.	5300.	3860.	3760.	3070.	2910.	2740.	2650.	11100.	12/27/76	
1978	19800.	15000.	12900.	11100.	8440.	7340.	5980.	5260.	4240.	23200.	11/02/77	
1979	12600.	11900.	8310.	6620.	5600.	3880.	3300.	3090.	2590.	13100.	03/06/79	

STATION 12039500 QUINAUT RIVER AT QUINAUT LAKE, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1910-1979)

	MEAN	20156.6	16445.3	12143.4	8959.2	6913.4	5623.0	5017.5	4542.8	3889.4		
MAXIMUM	41200.0	32800.0	25100.0	15400.0	12700.0	9100.0	7520.0	6810.0	5590.0			
MINIMUM	6550.0	5780.0	4770.0	3860.0	3320.0	3070.0	2910.0	2720.0	2150.0			
STANDARD DEVIATION	7923.38	6277.65	4139.32	2678.47	1977.60	1511.91	1181.38	997.72	784.35			
SKENNESS	0.609	0.775	0.759	0.489	0.870	0.599	0.349	0.412	0.270			
STD ERROR OF SKENNESS	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299			
SERIAL CORR COEFF	0.033	-0.041	-0.029	0.068	-0.061	-0.074	-0.073	-0.061	-0.036			
COEFF OF VARIATION	0.393	0.382	0.341	0.299	0.286	0.269	0.235	0.220	0.202			
MEAN LOGS	4.271	4.186	4.060	3.933	3.823	3.735	3.689	3.647	3.581			
STD DEVIATION LOGS	0.173	0.163	0.146	0.132	0.121	0.115	0.103	0.096	0.089			
SKENNESS LOGS	-0.077	0.049	-0.021	-0.213	0.109	0.084	-0.123	-0.069	-0.236			
STD ERR SKENNESS LOGS	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299	0.299			
SER CORR COEFF LOGS	-0.011	-0.052	-0.054	0.026	-0.063	-0.061	-0.063	-0.066	-0.037			
COEFF OF VAR LOGS	0.040	0.039	0.036	0.034	0.032	0.031	0.028	0.026	0.025			

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HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1910-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.04	0.02	0.01		
MEAN	7239.7	6496.1	5215.6	4039.9	3566.4	2980.2	2745.9	2628.6	2283.4	2283.4	8122.3	7943.3
MAXIMUM	9626.3	8320.6	6583.8	5105.9	4251.4	3534.6	3272.9	3075.3	2684.5	2684.5	10644.1	10531.5
MINIMUM	11183.1	9505.0	7431.0	5767.7	4877.5	3876.5	3587.2	3340.3	2916.9	2916.9	12288.5	12246.9
STANDARD DEVIATION	13384.5	11179.2	8651.7	6658.8	5250.2	4340.8	4001.3	3688.7	3215.9	3215.9	14690.0	14709.7
SKENNESS	18769.9	15297.5	11499.5	8661.8	6620.4	5410.9	4905.0	4447.5	3841.8	3841.8	20813.4	20918.2
STD ERROR OF SKENNESS	26132.6	21023.6	15259.2	11096.9	8391.6	6780.5	5971.4	5343.2	4537.3	4537.3	29760.3	29807.7
SERIAL CORR COEFF	30978.5	24868.3	17679.2	12556.2	9526.0	7645.5	6600.1	5872.8	4927.7	4927.7	36009.3	35898.9
COEFF OF VARIATION	37060.5	29785.5	20673.8	14261.1	10928.9	8703.9	7328.6	6488.7	5363.3	5363.3	44249.2	43799.0
MEAN LOGS	41561.6	33491.9	22866.8	15446.5	11957.6	9472.7	7832.7	6916.5	5654.9	5654.9	50627.5	49821.1
STD DEVIATION LOGS	46039.4	37236.7	25032.8	16570.4	12975.9	10228.3	8309.6	7322.5	5923.7	5923.7	57206.2	55955.0

STATION 12039520 RAFT RIVER HLM RAINY CR NEAR QUEETS, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1974													
1975	83.4	868	1242	1163	861	736	737	735	436	360	63.4	92.8	517
1976	1640	1756	2027	1514	1341	887	266	368	103	62.1	336	91.3	861
1977	210	341	529	654	790	802	328	184	211	205.1	134	99.4	392
1978	411	1497	1214	592	565	508	246	387	232	67.1	149	318	542
1979	172	473	640	329	1644	626	356	372	148	63.1	219	578	401
							368	235	75.7	130	62.1	166	

STATION 12039520 RAFT RIVER HLM RAINY CR NEAR QUEETS, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1975	11200.0	2-12-1975
1976	17200.0	12-26-1975
1977	4760.0	1-18-1977
1978	11600.0	12-2-1977
1979	9060.0	2-24-1979

STATION 12040000 CLEARWATER RIVER NR CLEARWATER, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1932	1201	2218	2306	2064	2889	2244	1696	357	227	500	300	228	1347
1937										129	186	184	
1938	1671	3285	2575	1589	1258	1695	1288	453	162	101	81.4	121	1189
1939	983	1736	2854	3319	1995	1142	528	587	474	426	148	302	1206
1940	1014	2229	3583	1804	2256	1969	790	1045	180	161	183	169	1281
1941	1715	1289	2305	1824	1741	1042	599	1025	296	151	164	848	1081
1942	1921	1599	2776	822	1254	1106	864	553	990	465	164	107	1054
1943	562	1977	2146	1077	2003	1267	1811	585	334	202	154	157	1012
1944	764	729	2035	2729	1123	1184	1042	555	206	105	83.1	403	905
1945	659	2397	1420	2988	2230	2363	1096	1110	207	165	90.2	307	1247
1946	982	2748	2297	2316	2172	2287	1775	515	491	422	160	201	1358
1947	553	1626	2329	1817	2771	677	980	595	496	547	201	240	1075
1948	2296	1350	2324	1933	2190	1333	1440	1758	307	157	264	838	1349
1949	1024	2777	2506	663	2946	1635	928	836	216	204	246	290	1176
1950	1036												

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1932-1950)

MEAN	1170.1	1996.9	2435.1	1918.8	2063.7	1534.2	1141.3	758.8	352.8	266.8	173.2	313.9	1175.5
MAXIMUM	2296.0	3285.0	3583.0	3319.0	2946.0	2363.0	1811.0	1758.0	990.0	547.0	300.0	848.0	1358.0
MINIMUM	553.0	729.0	1420.0	663.0	1123.0	677.0	528.0	357.0	162.0	101.0	81.4	107.0	906.0
STD DEVIATION	532.85	706.30	498.49	794.21	602.38	542.47	430.35	389.67	225.39	163.95	65.30	238.06	182.40
SKEWNESS	0.863	0.091	0.387	0.124	-0.136	0.298	0.353	1.534	2.089	0.676	0.353	1.792	-0.329
STD ERR SKEW	0.597	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.597	0.597	0.597	0.616
SEN CORR COEFF	-0.096	-0.129	0.290	0.140	-0.067	-0.025	0.033	0.009	-0.061	-0.139	0.483	-0.235	0.130
COEFF OF VAR	0.455	0.354	0.205	0.414	0.292	0.354	0.377	0.514	0.236	0.264	0.377	0.258	0.121
MEAN LOGS	3.028	3.271	3.378	3.242	3.296	3.159	3.027	2.836	2.487	2.351	2.207	2.409	3.067
STD DEV LOGS	0.193	0.174	0.092	0.209	0.138	0.161	0.171	0.197	0.226	0.264	0.176	0.270	0.054
SKEWNESS LOGS	0.160	-0.914	-0.701	-0.806	-0.621	-0.329	-0.251	0.658	0.916	0.337	-0.474	0.793	-0.542
STD ERR SKEW LOGS	0.597	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.597	0.597	0.597	0.616
SEN CORR LOGS	-0.064	-0.108	0.304	0.176	-0.102	-0.107	0.141	0.117	-0.027	-0.125	0.411	-0.222	0.166
COEFF OF VAR LOGS	0.064	0.053	0.027	0.064	0.042	0.051	0.057	0.070	0.087	0.112	0.080	0.112	0.018
% OF AVE FLOW	8.3	14.1	17.2	13.6	14.6	10.9	8.1	5.4	2.5	1.9	1.2	2.2	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1932-1950)

0.99	398.9	568.6	1309.3	434.2	817.8	556.8	395.5	297.2	130.1	63.4	54.5	86.9	832.1
0.95	523.4	885.7	1621.3	720.8	1113.0	758.3	541.6	356.4	152.2	87.7	78.6	107.9	934.5
0.90	607.7	1091.8	1797.7	918.2	1293.5	886.8	636.1	398.8	169.2	105.5	94.2	124.0	989.4
0.80	731.0	1373.0	2017.7	1200.2	1532.1	1063.7	768.3	464.0	196.7	133.4	115.9	150.5	1055.8
0.50	1054.1	1983.6	2446.1	1860.5	2040.7	1472.9	1082.7	652.0	283.5	216.7	166.4	236.5	1804.4
0.20	1545.6	2629.9	2863.5	2633.3	2594.5	1981.5	1490.4	982.8	456.8	369.4	228.2	317.2	1298.8
0.10	1900.8	2954.6	3069.2	3054.3	2890.8	2288.3	1743.5	1254.5	614.9	497.9	264.6	589.6	1357.2
0.04	2382.3	3275.2	3274.7	3496.0	3204.0	2646.2	2051.9	1665.7	877.1	695.1	305.9	886.6	1416.2
0.02	2764.3	3463.4	3398.5	3769.8	3402.0	2893.9	2269.6	1127.2	869.7	669.7	333.8	1179.5	1452.4
0.01	3166.1	3618.2	3503.3	4004.6	3575.7	3127.4	2479.1	2439.8	1433.6	1070.1	359.5	1548.0	1483.5

STATION 12040000 CLEARWATER RIVER NR CLEARWATER, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1939	62.0	62.0	64.0	72.0	78.0	81.0	92.0	110.0	253.0
1940	102.0	103.0	108.0	124.0	133.0	200.0	273.0	313.0	397.0
1941	99.0	100.0	100.0	105.0	114.0	153.0	160.0	167.0	386.0
1942	97.0	97.0	97.0	100.0	112.0	135.0	187.0	358.0	494.0
1943	84.0	84.0	85.0	90.0	103.0	134.0	184.0	258.0	436.0
1944	98.0	99.0	102.0	115.0	126.0	144.0	186.0	186.0	343.0
1945	62.0	62.0	64.0	74.0	83.0	83.0	102.0	163.0	302.0
1946	77.0	80.0	82.0	83.0	88.0	126.0	145.0	178.0	375.0
1947	102.0	104.0	108.0	113.0	124.0	167.0	180.0	267.0	379.0
1948	135.0	139.0	144.0	154.0	181.0	217.0	328.0	370.0	506.0
1949	103.0	103.0	107.0	114.0	132.0	156.0	234.0	342.0	637.0

LOWEST MEAN FLOW STATISTICS (YEARS 1939-1949)

MEAN	92.8	93.9	96.5	103.4	115.0	145.3	186.2	246.5	410.0
MAXIMUM	135.0	139.0	144.0	154.0	181.0	217.0	328.0	370.0	637.0
MINIMUM	62.0	62.0	64.0	67.0	74.0	81.0	92.0	110.0	253.0
STANDARD DEVIATION	20.88	21.68	22.65	24.99	30.17	41.77	69.90	90.59	105.89
SKWENESS	0.200	0.311	0.411	0.411	0.709	0.661	0.746	0.661	0.661
STD ERROR OF SKWENESS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SERIAL CORR COEFF	0.199	0.182	0.181	0.080	0.173	0.025	0.038	0.035	0.516
COEFF OF VARIATION	0.225	0.231	0.235	0.242	0.262	0.288	0.375	0.367	0.258
MEAN LOGS	1.957	1.962	1.973	2.003	2.047	2.144	2.242	2.362	2.600
STD DEVIATION LOGS	0.101	0.103	0.104	0.106	0.113	0.135	0.165	0.173	0.110
SKWENESS LOGS	-0.425	-0.388	-0.282	-0.175	-0.010	-0.050	-0.136	-0.421	0.078
STD ERR SKWENESS LOGS	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
SER CORR COEFF LOGS	0.171	0.150	0.142	0.063	0.157	-0.007	0.020	-0.024	0.452
COEFF OF VAR LOGS	0.052	0.053	0.053	0.053	0.055	0.063	0.073	0.073	0.042

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1939-1949)

0.99	144.7	148.7	156.1	172.4	204.1	246.8	406.1	513.5	729.0
0.98	138.4	141.8	148.2	162.6	190.2	235.5	369.9	475.7	677.6
0.96	131.4	134.3	139.6	152.2	175.8	222.5	333.1	435.1	625.0
0.90	120.6	122.8	126.7	137.1	155.7	201.7	282.2	375.6	552.3
0.80	110.6	112.2	115.3	123.9	138.9	181.8	240.8	323.8	492.4
0.50	92.1	93.0	95.1	101.3	111.6	144.1	176.1	236.8	396.8
0.20	75.0	75.4	77.2	82.1	89.6	109.0	127.3	166.5	321.3
0.10	66.7	67.0	68.7	73.2	79.8	92.3	106.9	136.3	288.2
0.05	60.2	60.5	62.3	66.5	72.6	79.6	92.3	114.5	263.8
0.02	53.4	53.6	55.5	59.5	65.2	66.6	78.0	93.2	239.0
0.01	49.1	49.3	51.3	55.1	60.7	58.7	69.6	80.8	223.9

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "PM" PERCENT OF THE TIME (YEARS 1939-1949)

P95	P90	P75	P70	P50	P25	P10
110.0	130.0	260.0	320.0	630.0	1500.0	2800.0

STATION 12040000 CLEARWATER RIVER NR CLEARWATER, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA FLOW(CFS) DATE REG.(R)
1932	20400.	13400.	8030.	5190.	3480.	2870.	2580.	2520.	2290.	21000. 02/26/32
1935	11500.	8600.	5620.	3970.	3300.	3000.	2750.	2410.	2110.	30400. 01/ /35
1938	13000.	11000.	8330.	5510.	4070.	3250.	2780.	2580.	2020.	17500. 10/28/37
1939	9100.	7890.	5540.	4880.	3720.	3250.	2680.	2620.	2180.	16300. 01/01/39
1940	11400.	7310.	4520.	2860.	2560.	2240.	1890.	2010.	1690.	15100. 12/14/39
1941	9950.	6560.	4930.	3390.	2970.	2300.	2140.	1890.	1580.	16500. 01/17/41
1942	14100.	9570.	6600.	4190.	2530.	2120.	1950.	1860.	1740.	13000. 10/09/41
1943	13500.	8430.	6670.	5070.	3160.	2620.	2000.	1800.	1510.	11200. 10/31/42
1944	10800.	7550.	5250.	3890.	3530.	2870.	2550.	2340.	2080.	17500. 12/02/43
1945	11000.	10200.	6930.	4420.	3770.	2320.	2690.	2220.	2330.	22200. 02/07/45
1946	10000.	7290.	4940.	4140.	3690.	2230.	2270.	2020.	1730.	13700. 11/14/45
1947	14200.	10300.	7470.	5130.	3760.	2690.	2190.	2220.	1910.	16300. 01/01/48
1948										23700. 02/16/49
1949										28200. 11/26/49
1950										26500. 02/10/51
1951										14600. 01/30/52
1952										21500. 01/31/53
1953										20800. 12/12/53
1954										32600. 11/18/54
1955										37400. 11/03/55
1956										36500. 12/09/56
1957										13400. 12/25/57
1958										24300. 04/29/59
1959										20300. 01/26/60
1960										31100. 01/15/61
1961										11500. 12/23/61
1962										27200. 11/19/62
1963										16600. 12/23/63
1964										20300. 11/30/64
1965										19800. 01/13/66
1966										15600. 12/13/66

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1932-1967)

M R C
ESTIMATE
SYSTEMATIC
RECORD

MEAN	12165.4	8840.0	6165.4	4349.2	3342.3	2630.0	2390.8	2230.8	1930.8
MAXIMUM	20400.0	13400.0	8330.0	5510.0	4070.0	3250.0	2780.0	2620.0	2330.0
MINIMUM	9100.0	6560.0	4520.0	2860.0	2530.0	2120.0	1950.0	1800.0	1510.0
STANDARD DEVIATION	3030.50	1974.58	1253.95	776.41	486.23	391.77	310.84	290.36	265.85
SKEWNESS	1.756	1.029	0.477	-0.270	-0.438	0.369	-0.244	-0.145	-0.060
STD ERROR OF SKEWNESS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SERIAL CORR COEFF	-0.075	-0.062	-0.218	0.044	0.477	0.489	0.529	0.529	0.529
COEFF OF VARIATION	0.249	0.223	0.203	0.179	0.145	0.130	0.130	0.130	0.138
MEAN LOGS	4.074	3.937	3.782	3.632	3.520	3.416	3.375	3.345	3.282
STD DEVIATION LOGS	0.097	0.092	0.087	0.081	0.066	0.064	0.058	0.058	0.061
SKEWNESS LOGS	1.121	0.630	0.256	-0.662	-0.846	0.215	-0.333	-0.264	-0.245
STD ERR SKEWNESS LOGS	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616	0.616
SER CORR COEFF LOGS	-0.078	-0.012	-0.167	0.088	0.469	0.479	0.523	0.539	0.562
COEFF OF VAR LOGS	0.024	0.023	0.023	0.022	0.019	0.019	0.017	0.017	0.019

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1932-1967)

0.99	8497.8	5844.0	3946.4	2532.9	2166.5	1891.5	1685.9	1585.4	1347.9	9499.0
0.95	8946.1	6373.8	4421.2	3048.3	2514.1	2062.1	1883.5	1763.0	1506.1	11693.4
0.90	9289.8	6722.5	4711.6	3335.1	2702.7	2163.4	1992.1	1861.3	1594.2	13096.4
0.80	9833.0	7220.3	5103.5	3689.1	2931.7	2296.8	2126.3	1983.6	1704.4	15058.1
0.50	11397.9	8464.8	6000.0	4370.5	3362.1	2589.8	2389.1	2225.8	1924.5	19810.5
0.20	14002.5	10239.4	7139.6	5028.6	3767.7	2942.2	2656.2	2477.2	2155.6	26314.9
0.10	15994.3	11459.9	7857.6	5352.7	3964.6	3156.6	2796.8	2611.4	2280.1	30644.1
0.04	18811.1	13056.1	8736.0	6477.4	4160.4	3406.0	2945.7	2755.9	2453.1	38155.2
0.02	21132.0	14286.1	9374.7	5873.9	4276.3	3583.5	3043.3	2849.9	2503.4	40297.4
0.01	23650.1	15552.5	10003.2	6040.9	4378.2	3754.4	3126.6	2934.7	2583.5	44476.4

4.2998
0.1441
0.20009679.9
11782.9
13137.2
15044.0
19726.9
26274.6
30715.5
36456.0
40836.5
45304.6

STATION 120+0500 QUEETS RIVER NEAR CLEARWATER, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1931	3457	3717	3804	9799	4934	6565	6343	1765	3024	1281	571	1501	3891
1932	3712	7471	7610	6726	9524	8349	6215	2114	2125	2446	1294	834	4851
1933	2310	9404	8274	8406	4945	6707	2963	3660	2125	2091	1227	3574	4798
1934	3874	5229	15750	11920	4411	5772	2833	2921	1042	1612	1230	849	4796
1935	4255	10460	7726	23500	8700	5300	2600	3200	4509	2100	816	2344	6196
1936	1967	2731	5705	9488	3889	5851	2470	3701	4509	2331	849	1105	3727
1937	940	754	7881	1787	6004	4638	7093	4833	4078	1419	939	740	3407
1938	4903	10180	8447	5052	3753	5045	4339	2284	1516	883	669	535	3950
1939	3095	5569	8122	10270	5669	3535	2248	2543	2134	1895	798	988	3905
1940	2793	6132	11620	6157	7959	6178	2719	3567	1050	768	708	679	4190
1941	5833	4292	7002	5744	5210	3395	2343	3765	1604	874	676	2811	3625
1942	5565	5322	8971	2949	3964	3106	2443	2264	3550	1909	757	497	3475
1943	1616	6027	6464	3452	5898	3949	6104	2285	1763	1277	790	666	3334
1944	2471	2278	6027	7569	3484	3416	3253	1950	1304	1716	473	1458	2872
1945	2090	7319	4460	8736	7238	6887	3255	4472	1486	1147	605	1198	4057
1946	3337	8636	7658	7119	6196	6556	5504	2781	3195	2219	1054	902	4564
1947	1896	5080	9170	7404	8948	2313	3563	2373	2563	2085	842	1032	3908
1948	8221	4985	8524	5440	5309	3888	4539	6263	2632	1434	1390	2970	4639
1949	3211	8689	7379	1861	8674	5636	3740	4093	1973	1499	1251	1351	4077
1950	3462	11760											
1974		577	6313	8875	7334	5240	5458	4938	3653	3163	1286	941	3834
1975		10050	12700	14060	9850	7019	5858	3522	2054	1360	2294	1365	3834
1976		1422	2725	4640	4025	5639	2973	3122	2657	2385	1556	1156	6173
1977		3391	11630	11410	4759	4446	3839	2962	2069	973	1122	2166	3099
1978		1544	3277	4478	2119	10100	2909	3082	1395	1064	1689	4330	4548
1979										1807	689	1944	3181

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1931-1979)

MEAN	3439.7	6507.2	8085.8	7144.4	6132.6	5141.5	3797.6	3254.1	2408.4	1629.5	1015.4	1516.7	4126.1
MAXIMUM	10050.0	12700.0	15750.0	23500.0	10100.0	8349.0	7093.0	6263.0	4509.0	3163.0	2294.0	4330.0	6196.0
MINIMUM	577.0	754.0	3804.0	1787.0	3484.0	2313.0	2082.0	1765.0	1042.0	716.0	469.0	497.0	2872.0
STD DEVIATION	2184.18	3239.92	2889.77	4488.00	1949.60	1463.04	1474.44	1069.46	950.70	624.40	427.51	996.23	839.70
SKWENESS	1.535	0.296	0.992	2.077	0.616	-0.013	0.950	1.019	0.488	0.470	1.191	1.464	1.068
STD ERR SKEW	0.464	0.464	0.472	0.472	0.472	0.472	0.464	0.464	0.464	0.464	0.464	0.464	0.472
SER CORR COEFF	-0.351	-0.315	-0.186	0.339	-0.386	0.244	0.069	0.102	0.103	-0.003	0.428	-0.023	-0.017
COEFF OF VAR	0.635	0.498	0.357	0.628	0.318	0.285	0.388	0.329	0.395	0.383	0.421	0.457	0.204
MEAN LOGS	3.457	3.746	3.882	3.779	3.767	3.692	3.551	3.491	3.348	3.180	2.973	3.105	3.608
STD DEV LOGS	0.278	0.277	0.152	0.268	0.135	0.134	0.156	0.136	0.178	0.174	0.174	0.254	0.084
SKWENESS LOGS	-0.397	-1.302	-0.041	-0.346	0.177	-0.650	0.552	0.255	-0.207	-0.240	0.188	0.467	0.521
STD ERR SKEW LOGS	0.464	0.464	0.472	0.472	0.472	0.472	0.464	0.464	0.464	0.464	0.464	0.464	0.472
SER CORR LOGS	-0.399	-0.162	-0.184	0.256	-0.370	0.188	0.086	0.158	0.043	0.077	0.433	-0.004	0.009
COEFF OF VAR LOGS	0.074	0.039	0.039	0.071	0.036	0.036	0.044	0.039	0.053	0.055	0.059	0.082	0.023
% OF AVE FLOW	6.9	13.0	16.1	14.3	12.2	-10.3	7.6	6.5	4.8	3.3	2.0	3.0	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1931-1979)

0.99	535.6	718.3	333.6	1228.9	2949.9	2077.5	1784.4	1584.8	805.6	555.6	390.9	399.9	2786.2
0.95	931.7	1631.7	4262.5	2062.4	3559.8	2814.7	2092.4	1894.4	1107.7	762.8	496.6	528.8	3041.9
0.90	1230.0	2370.7	4854.7	2678.9	3948.1	3262.5	2302.6	2093.4	1305.4	897.4	566.8	623.3	3205.3
0.80	1694.7	3520.1	5678.2	3628.9	4489.6	3851.0	2612.8	2373.3	1584.3	1086.2	668.1	771.8	3433.4
0.50	2984.6	6365.9	7642.8	6234.8	7584.0	5091.7	3442.0	3059.7	2259.3	1527.2	1217.4	1309.8	3983.7
0.20	4950.2	9499.4	10252.3	10186.7	7584.0	4621.0	4751.8	4019.7	3156.3	2128.1	1309.8	2048.2	4733.1
0.10	6302.4	10967.6	11937.7	12914.7	8773.5	7122.1	7716.9	6671.7	3733.3	2499.8	1580.5	2761.0	5230.7
0.04	8017.8	12268.5	14027.2	16398.3	10289.7	7855.3	7716.9	5516.5	4436.3	2948.6	1941.7	3876.2	5864.0
0.02	9283.1	12940.3	15559.2	18989.3	11431.3	8314.1	8252.2	6142.1	4943.8	3269.0	2224.7	4882.3	6340.7
0.01	10528.7	13430.9	17073.2	21557.4	12584.8	8713.3	9482.5	6822.1	5438.3	3578.3	2519.5	6056.3	6822.5

STATION 12040500 QUEETS RIVER NEAR CLEARWATER, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1932	455.0	455.0	470.0	475.0	537.0	789.0	1040.0	1540.0	1760.0
1933	548.0	558.0	593.0	627.0	747.0	867.0	1210.0	1530.0	1790.0
1934	674.0	710.0	827.0	905.0	1010.0	1300.0	1560.0	2090.0	2600.0
1935	466.0	474.0	500.0	534.0	745.0	828.0	1140.0	1070.0	1510.0
1936	480.0	494.0	539.0	603.0	663.0	1120.0	1570.0	1720.0	2160.0
1937	520.0	525.0	554.0	614.0	727.0	809.0	818.0	896.0	1700.0
1938	478.0	486.0	490.0	527.0	667.0	791.0	986.0	1500.0	2550.0
1939	401.0	401.0	405.0	415.0	428.0	494.0	564.0	745.0	1290.0
1940	514.0	523.0	545.0	631.0	659.0	863.0	1060.0	1290.0	1680.0
1941	470.0	470.0	483.0	519.0	538.0	619.0	707.0	746.0	1460.0
1942	485.0	487.0	489.0	505.0	546.0	706.0	996.0	1470.0	1950.0
1943	410.0	418.0	422.0	431.0	493.0	602.0	726.0	1010.0	1650.0
1944	445.0	457.0	484.0	534.0	635.0	714.0	805.0	991.0	1490.0
1945	384.0	388.0	395.0	405.0	425.0	503.0	653.0	907.0	1280.0
1946	477.0	510.0	516.0	521.0	581.0	839.0	841.0	937.0	1710.0
1947	462.0	470.0	492.0	552.0	625.0	795.0	969.0	1390.0	1860.0
1948	542.0	547.0	557.0	597.0	736.0	920.0	969.0	1620.0	2060.0
1949	713.0	748.0	771.0	818.0	1140.0	1380.0	1600.0	2050.0	2710.0
1975	428.0	433.0	471.0	476.0	534.0	698.0	839.0	1320.0	2320.0
1976	681.0	686.0	706.0	760.0	885.0	1210.0	1540.0	1710.0	2100.0
1977	583.0	594.0	631.0	777.0	829.0	1080.0	1220.0	1460.0	1900.0
1978	594.0	596.0	618.0	646.0	720.0	900.0	1170.0	1350.0	1920.0
1979	674.0	674.0	691.0	729.0	866.0	1080.0	1540.0	1880.0	2280.0

LOWEST MEAN FLOW STATISTICS (YEARS 1932-1979)

MEAN	516.7	526.3	550.0	591.3	684.2	865.5	1081.9	1360.5	1901.3
MAXIMUM	713.0	748.0	827.0	905.0	1140.0	1380.0	1660.0	2090.0	2710.0
MINIMUM	384.0	388.0	395.0	405.0	425.0	494.0	564.0	745.0	1280.0
STANDARD DEVIATION	95.20	99.96	112.87	132.53	177.57	236.54	327.93	391.46	399.78
SKWENESS	0.784	0.850	0.981	0.756	0.820	0.563	0.381	0.115	0.444
STD ERROR OF SKWENESS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SERIAL CORR COEFF	0.170	0.108	0.158	0.135	0.163	0.126	0.178	0.069	0.065
COEFF OF VARIATION	0.184	0.190	0.205	0.224	0.273	0.273	0.303	0.288	0.210
MEAN LOGS	2.707	2.714	2.732	2.762	2.822	2.922	3.015	3.115	3.270
STD DEVIATION LOGS	0.077	0.079	0.085	0.094	0.110	0.119	0.134	0.132	0.091
SKWENESS LOGS	0.510	0.534	0.570	0.522	0.170	-0.068	-0.100	-0.380	0.029
STD ERR SKWENESS LOGS	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481
SER CORR COEFF LOGS	0.191	0.129	0.194	0.154	0.189	0.162	0.205	0.061	0.085
COEFF OF VAR LOGS	0.028	0.029	0.031	0.034	0.039	0.041	0.044	0.042	0.028

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1932-1979)

	0.99	0.98	0.96	0.90	0.75	0.50	0.25	0.10	0.05	0.02	0.01
0.99	819.5	847.2	891.2	1006.6	1231.6	1556.7	2070.9	2426.4	3043.4		
0.98	766.6	790.4	852.0	935.5	1139.8	1450.2	1915.7	2283.8	2871.1		
0.96	713.9	734.0	786.0	864.2	1047.1	1339.6	1755.3	2128.7	2691.5		
0.90	643.2	658.7	698.8	767.9	920.7	1183.5	1530.2	1897.1	2436.3		
0.80	587.0	599.4	631.0	690.7	818.5	1052.4	1342.7	1690.6	2219.9		
0.50	501.2	509.5	529.9	571.3	658.7	837.9	1046.0	1325.4	1860.0		
0.20	437.2	443.1	456.8	480.4	535.4	684.2	799.6	1017.3	1560.7		
0.10	410.4	415.5	426.9	441.5	482.4	587.2	694.9	874.6	1428.7		
0.05	391.0	395.7	405.6	413.2	443.5	529.9	618.0	767.5	1321.8		
0.02	371.8	376.2	384.9	384.8	404.3	471.6	540.6	658.2	1215.2		
0.01	360.4	364.6	372.7	367.6	380.6	436.1	494.0	591.8	1149.1		

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1932-1979)

P95	P90	P75	P70	P50	P25	P10
600.0	750.0	1400.0	1600.0	2500.0	4800.0	9000.0

STATION 12040500 QUEETS RIVER NEAR CLEARWATER, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG.(R)
1931	34000.	24000.	22100.	13800.	10200.	7810.	7760.	7010.	6080.	47000. 01/23/31
1932	59200.	44900.	27700.	18400.	12400.	10300.	8760.	8670.	7770.	80700. 02/26/32
1933	35000.	28300.	20800.	14300.	11500.	10400.	8920.	7880.	6880.	48400. 11/12/32
1934	35300.	27900.	22700.	20500.	17000.	14300.	11400.	9890.	7990.	54800. 12/21/33
1935	69000.	69000.	59300.	39300.	24000.	17000.	14000.	12800.	10100.	130400. 01/22/35
1936	26700.	20100.	18000.	14200.	11600.	7820.	7170.	6360.	5350.	38500. 01/04/36
1937	27500.	19100.	16300.	12300.	8380.	6820.	6500.	5660.	5390.	44900. 12/22/36
1938	41500.	30500.	18000.	12500.	10200.	9450.	8590.	7490.	6540.	65200. 12/23/37
1939	46400.	35600.	25600.	16200.	12000.	9410.	8330.	7730.	6140.	63600. 01/01/39
1940	32400.	26000.	18300.	15900.	12300.	9990.	8750.	8430.	6990.	58000. 12/15/39
1941	34600.	24100.	16500.	13900.	10600.	7660.	6850.	6360.	5380.	58000. 01/17/41
1942	36200.	22300.	15900.	10700.	9620.	7280.	6750.	6030.	4990.	51200. 12/02/41
1943	26500.	19600.	15200.	11400.	9770.	6400.	5800.	5610.	5370.	38500. 04/02/43
1944	36800.	28400.	18800.	14800.	11900.	7980.	7300.	7080.	6310.	58000. 12/03/43
1945	43300.	29400.	18500.	14400.	9770.	7980.	7630.	7080.	6310.	78900. 02/07/45
1946	33200.	23200.	15900.	12300.	11100.	9210.	8250.	7840.	7180.	43500. 11/14/45
1947	38500.	33200.	20800.	15500.	13200.	8520.	9470.	7760.	6110.	61200. 01/25/47
1948	32000.	25700.	17900.	14100.	11700.	7310.	7850.	6940.	6090.	64400. 10/18/47
1949	48800.	33300.	21600.	15300.	11600.	8130.	6600.	6660.	6060.	62800. 02/17/49
1950										93000. 11/26/49
1951										86100. 02/10/51
1952										45700. 01/30/52
1953										64400. 01/31/53
1954										63400. 01/05/54
1955										93000. 11/18/54
1956										118400. 11/03/55
1957										108400. 12/09/56
1958										49400. 12/25/57
1959										74900. 04/24/59
1960										60500. 01/29/60
1961										90800. 01/15/61
1962										32900. 01/03/62
1963										85600. 11/19/62
1964										47400. 10/21/63
1965										55600. 11/30/64
1966										59600. 01/13/66
1967										52800. 12/13/66
1975	31900.	19400.	16200.	11600.	9640.	9430.	8190.	7450.	6040.	52800. 12/21/74
1976	60500.	53700.	31100.	20700.	16400.	14800.	13100.	11900.	9990.	77600. 12/04/75
1977	28100.	18900.	12300.	8640.	7980.	6250.	5840.	5160.	4510.	38000. 01/18/77
1978	50300.	33000.	22500.	18900.	14200.	12600.	9900.	8620.	71200.	12/02/77
1979	37500.	24200.	15400.	14200.	12400.	7910.	6390.	5630.	4720.	55000. 03/04/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1931-1979)

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1931-1979)											
	39383.3	29775.0	21095.8	15287.5	11712.1	9279.2	8234.2	7507.1	6384.2	W R C	SYSTEMATIC RECORD
MEAN	69000.0	69000.0	59300.0	39300.0	24000.0	17000.0	14000.0	12800.0	10100.0	ESTIMATE	
MAXIMUM	26500.0	18900.0	12300.0	8640.0	7660.0	6250.0	5640.0	5160.0	4440.0		
MINIMUM	11218.06	11742.72	9217.06	5988.37	3584.21	2823.57	2175.07	1915.64	1465.47		
STANDARD DEVIATION	1.228	2.078	3.347	2.970	1.900	1.403	1.238	1.339	1.211		
SKENNESS	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472		
STD ERROR OF SKEWNESS	-0.403	-0.307	-0.051	0.084	0.223	0.155	0.082	0.042	-0.027		
SERIAL CORR COEFF	0.285	0.394	0.437	0.392	0.306	0.304	0.264	0.255	0.230		
COEFF OF VARIATION	4.580	4.449	4.299	4.162	4.053	3.951	3.903	3.863	3.795		
MEAN LOGS	0.113	0.142	0.137	0.132	0.116	0.118	0.106	0.102	0.093	4.7911	4.7911
STD DEVIATION LOGS	0.721	1.145	1.887	1.410	0.880	0.879	0.644	0.694	0.614	0.1360	0.1360
SKENNESS LOGS	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.472	0.1630	0.1630
STD ERR SKEWNESS LOGS	-0.409	-0.352	-0.079	0.046	0.210	0.136	0.080	0.047	-0.023		
SER CORR COEFF LOGS	0.025	0.032	0.032	0.032	0.029	0.030	0.027	0.026	0.025		
COEFF OF VAR LOGS											

STATION 12040500 QUEETS RIVER NEAR CLEARWATER, WASH.

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1931-1979)												
0.99	23848.2	17316.7	14343.3	9746.8	7201.7	5661.3	5088.5	4773.6	4178.9	30986.2	32375.2	
0.95	26296.9	18627.1	14593.3	10193.6	7835.5	6167.7	5617.9	5225.3	4569.7	37490.5	38178.2	
0.90	27969.6	19661.8	14896.1	10589.8	8287.8	6529.5	5971.3	5529.5	4826.3	41628.4	41951.9	
0.80	30428.1	21343.0	15535.2	11279.8	8973.2	7078.1	6481.8	5971.2	5192.1	47393.9	47312.1	
0.50	36885.3	26462.9	18161.9	13556.9	10854.9	6587.3	7785.9	7107.7	6104.8	61296.6	60698.4	
0.20	46733.8	35792.3	24268.0	17990.6	13878.2	11019.6	9704.8	8790.6	7403.9	80237.6	79920.4	
0.10	53885.5	43541.1	30080.5	21807.3	16158.6	12859.4	11059.8	9983.3	8296.5	92816.7	93268.3	
0.04	63653.1	55327.7	39841.9	27756.3	19365.7	15453.2	12870.0	11580.3	9463.3	108816.7	110877.0	
0.02	71475.5	65718.4	49215.5	33108.8	22001.0	17589.2	14291.8	12836.8	10361.9	120839.7	124552.9	
0.01	79780.6	77641.1	60748.0	39350.5	24856.7	19908.0	15778.0	14152.1	11286.8	132969.9	138720.0	

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1926	2672	2493	3179	2873	2460	1794	1258	2316	2401	1737	1108	713	2187
1927	2957	3804	2182	4080	1273	2562	1882	2167	1536	1405	1340	1718	2137
1928	1901	2049	1593	1056	612	1443	1056	1951	2359	1578	930	791	1514
1929	910	503	1761	1108	4054	1763	1626	1951	1536	1578	1161	772	1514
1930	1538	1493	1452	3601	1929	2364	2328	1250	2440	1182	999	1031	1869
1931	1365	2992	2473	2234	2962	2883	2369	1609	2148	1841	926	1081	2077
1932	1246	4174	3288	2842	1305	2102	1480	1786	2388	2318	1603	2042	2219
1933	2687	2318	6543	4805	1970	1206	1730	1801	1218	1394	1205	867	2442
1934	2120	4802	2920	6443	2938	1959	1537	1358	1769	1550	997	1395	2455
1935	1074	1000	1954	3220	1244	2184	1616	2608	3069	1999	1182	982	1850
1936	740	466	3040	779	1407	1711	2251	2210	2460	1733	1088	845	1595
1937	1799	3937	3618	2199	1213	1715	1746	1611	1698	1357	1088	865	1889
1938	1582	2146	3178	3761	1767	1977	1438	1834	1734	1821	1109	839	1888
1939	1125	2604	5381	2416	2861	2545	1361	2157	1208	1067	947	849	2081
1940	1256	1527	3007	2416	2303	1324	1064	1985	1386	1268	943	1386	1772
1941	2561	2582	3939	1267	1387	1031	1181	1372	2103	1799	1096	699	1756
1942	966	2576	2622	1535	1387	1415	2709	1572	1621	1546	957	815	1702
1943	1317	1141	2283	1782	1313	1171	1171	1250	1311	1332	790	1161	1396
1944	1393	3042	1934	3257	2846	2173	1412	1585	1585	1459	966	1010	1956
1945	1482	3222	3144	2725	2024	2306	2086	2298	2356	2070	822	823	2152
1946	1891	1747	3575	2270	3764	1152	1497	1638	1764	1571	934	823	1790
1947	2984	2149	3319	2391	2222	1419	1532	2854	2664	1609	1357	1649	2181
1948	1682	3895	2492	889	2427	2155	1832	2776	1928	1611	1363	1233	2018
1949	1590	3863	4112	2430	3148	2651	2086	1656	2597	2091	1488	792	2378
1950	2362	2836	4348	3200	4625	1504	1571	1522	1590	1291	823	934	2203
1951	2646	2498	2081	1537	2420	1011	1557	2016	1897	1776	1283	802	1791
1952	577	857	2492	7092	3234	1529	1368	2074	1675	1893	1479	1157	2102
1953	2257	3736	4702	3159	4771	1819	1824	1849	1943	2274	1275	1250	2576
1954	2339	5912	2859	1638	1895	1094	2051	1498	2563	2193	1410	930	2194
1955	2369	4665	2955	2736	1441	2232	2113	2354	3201	2423	1348	1359	2434
1956	3076	2078	3892	1260	2479	2431	1714	1973	1656	1509	1176	1026	2023
1957	1270	1546	3077	3726	3524	1460	1647	1744	1767	1293	944	1004	1908
1958	2112	3615	3693	3569	1409	1999	2041	2367	2041	1599	944	2030	2327
1959	2050	2899	2826	2100	2886	1850	2223	2195	2105	1531	1056	821	2024
1960	1997	2880	2582	4441	4920	2775	1560	1939	2082	1478	1105	801	2407
1961	1588	2097	3040	2577	3528	1060	1856	1565	1789	1359	1198	953	1704
1962	1955	4040	3917	2802	3958	1528	1545	1653	1322	1460	1032	953	2100
1963	2689	4135	2965	3785	1925	1989	1666	1674	2982	2580	1585	1285	2440

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1926-1964)

MEAN	1861.2	2747.9	3122.9	2819.1	2432.9	1831.7	1754.1	1911.9	2006.6	1663.1	1140.1	1059.4	2029.2
MAXIMUM	3076.0	5912.0	6543.0	7092.0	4920.0	2883.0	2709.0	2854.0	3201.0	2580.0	1603.0	2042.0	2576.0
MINIMUM	577.0	466.0	1452.0	779.0	612.0	1011.0	1064.0	1250.0	1208.0	1032.0	790.0	699.0	1396.0
STD DEVIATION	695.01	1256.82	1018.31	1395.31	1088.66	568.10	412.83	405.66	568.45	371.15	213.56	335.80	294.31
SKWENESS	0.052	0.224	1.178	1.125	0.688	0.209	0.539	0.471	0.557	0.675	0.419	1.595	-0.155
STD ERR SKEW	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.378	0.378	0.383
SER CORR COEFF	0.038	0.131	0.133	0.047	-0.085	0.041	0.093	0.128	0.002	0.159	0.199	-0.242	0.317
COEFF OF VAR	0.373	0.457	0.326	0.495	0.447	0.288	0.235	0.212	0.263	0.223	0.187	0.317	0.145
MEAN LOGS	3.236	3.381	3.474	3.398	3.342	3.245	3.233	3.272	3.288	3.211	3.050	3.007	3.302
STD DEV LOGS	0.183	0.253	0.137	0.223	0.203	0.130	0.101	0.092	0.113	0.095	0.081	0.120	0.065
SKWENESS LOGS	-0.659	-1.191	0.025	-0.371	-0.318	-0.229	0.040	0.036	0.086	0.164	0.091	1.041	-0.462
STD ERR SKEW LOGS	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.378	0.378	0.383
SER CORR LOGS	-0.011	0.117	0.258	0.024	-0.050	0.058	0.120	0.097	0.001	0.147	0.177	-0.243	0.328
COEFF OF VAR LOGS	0.057	0.075	0.039	0.066	0.061	0.040	0.031	0.028	0.034	0.030	0.026	0.040	0.020
% OF AVE FLOW	7.6	11.3	12.8	11.6	10.0	7.5	7.2	7.9	8.2	6.8	4.7	4.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1926-1964)

0.99	529.9	385.1	1439.4	659.9	667.1	833.4	1007.8	1151.8	1077.0	1004.1	736.7	661.9	1347.7
0.95	802.7	790.6	1777.3	1021.6	981.1	1189.4	1171.2	1325.4	1273.2	1146.6	829.8	710.5	1540.7
0.90	982.0	1100.6	1989.7	1273.0	1193.2	1429.5	1270.4	1429.0	1393.9	1233.3	885.1	747.2	1646.7
0.80	1231.3	1567.0	2282.2	1642.0	1498.5	1776.0	1403.2	1566.1	1557.6	1350.0	958.0	804.7	1777.2
0.50	1801.3	2689.2	2971.3	2579.5	2254.5	1776.0	1703.0	1868.6	1934.0	1614.9	1117.9	970.7	2029.8
0.20	2468.4	3927.2	3875.7	3874.2	3275.4	2264.3	2075.9	2233.4	2414.0	1948.3	1309.6	1252.0	2281.0
0.10	2840.5	4526.5	4710.1	3928.3	3554.6	2305.4	2305.4	2453.4	2716.4	2156.4	1429.6	1472.5	2409.3
0.04	3242.9	5079.8	5175.1	5728.3	4721.3	2891.7	2583.9	2713.4	3085.8	2409.2	1560.9	1791.9	2542.7
0.02	3501.0	5379.1	5701.6	6456.3	5268.7	3125.0	2762.8	2896.7	3533.8	2571.6	1658.8	2661.1	2666.5
0.01	3729.3	5607.0	6222.1	7158.1	5835.8	3345.1	2976.1	3072.7	3616.7	2770.6	1748.8	2358.9	2700.0

STATION 12041000 HDH RIVER NEAR FORKS, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1928	626.0	641.0	667.0	746.0	1020.0	1440.0	1580.0	1690.0	1790.0
1929	476.0	480.0	487.0	502.0	568.0	713.0	960.0	1070.0	1340.0
1930	250.0	257.0	319.0	389.0	488.0	603.0	669.0	749.0	1060.0
1931	492.0	523.0	623.0	784.0	830.0	931.0	997.0	1070.0	1200.0
1932	592.0	632.0	650.0	708.0	896.0	986.0	1020.0	1140.0	1470.0
1933	560.0	570.0	656.0	725.0	914.0	1100.0	1100.0	1280.0	1490.0
1934	846.0	908.0	981.0	1040.0	1220.0	1560.0	1780.0	1940.0	1930.0
1935	516.0	521.0	556.0	575.0	763.0	907.0	1020.0	1110.0	1280.0
1936	463.0	474.0	490.0	593.0	871.0	991.0	1100.0	1110.0	1260.0
1937	333.0	344.0	359.0	370.0	451.0	567.0	636.0	794.0	1160.0
1938	585.0	590.0	625.0	713.0	831.0	915.0	1010.0	1240.0	1660.0
1939	519.0	540.0	639.0	706.0	779.0	814.0	918.0	1050.0	1250.0
1940	525.0	500.0	607.0	718.0	765.0	843.0	998.0	1170.0	1400.0
1941	498.0	509.0	531.0	653.0	786.0	828.0	909.0	962.0	1230.0
1942	619.0	638.0	678.0	799.0	887.0	1080.0	1180.0	1230.0	1330.0
1943	480.0	490.0	565.0	594.0	678.0	732.0	852.0	1070.0	1310.0
1944	601.0	624.0	661.0	711.0	801.0	854.0	944.0	1050.0	1230.0
1945	632.0	655.0	683.0	737.0	860.0	860.0	948.0	1030.0	1120.0
1946	495.0	574.0	596.0	623.0	690.0	857.0	912.0	1060.0	1390.0
1947	400.0	410.0	429.0	448.0	521.0	765.0	846.0	993.0	1430.0
1948	572.0	594.0	652.0	697.0	821.0	866.0	1100.0	1270.0	1370.0
1949	572.0	572.0	579.0	592.0	666.0	1040.0	1520.0	1560.0	1920.0
1950	712.0	771.0	862.0	970.0	1110.0	1240.0	1340.0	1400.0	1640.0
1951	463.0	473.0	579.0	695.0	731.0	1090.0	1340.0	1610.0	1750.0
1952	539.0	550.0	602.0	648.0	686.0	772.0	957.0	1110.0	1290.0
1953	421.0	421.0	448.0	482.0	548.0	633.0	737.0	861.0	1180.0
1954	620.0	651.0	691.0	731.0	839.0	1070.0	1360.0	1440.0	1580.0
1955	644.0	664.0	717.0	819.0	875.0	1250.0	1530.0	1680.0	1720.0
1956	544.0	571.0	593.0	612.0	844.0	1010.0	1280.0	1520.0	1640.0
1957	674.0	689.0	723.0	739.0	846.0	1200.0	1480.0	1770.0	2090.0
1958	496.0	540.0	543.0	656.0	752.0	871.0	1019.0	1159.0	1350.0
1959	596.0	647.0	690.0	765.0	910.0	946.0	1030.0	1180.0	1390.0
1960	650.0	659.0	700.0	764.0	875.0	1180.0	1360.0	1540.0	1680.0
1961	440.0	449.0	516.0	636.0	728.0	887.0	1010.0	1180.0	1510.0
1962	408.0	432.0	459.0	497.0	588.0	882.0	1060.0	1180.0	1400.0
1963	585.0	638.0	694.0	741.0	818.0	1030.0	1140.0	1290.0	1440.0
1964	572.0	589.0	619.0	703.0	837.0	899.0	1080.0	1120.0	1250.0

LOWEST MEAN FLOW STATISTICS (YEARS 1928-1964)

MEAN	541.2	563.2	607.3	672.7	779.7	946.6	1100.4	1235.6	1447.8
MAXIMUM	846.0	908.0	981.0	1040.0	1220.0	1560.0	1780.0	1940.0	2090.0
MINIMUM	250.0	257.0	319.0	370.0	451.0	567.0	636.0	749.0	1060.0
STANDARD DEVIATION	108.88	117.92	124.92	137.46	157.77	211.51	258.50	273.53	244.47
SKENNESS	-0.057	0.100	0.277	0.042	0.248	0.847	0.684	0.712	0.800
STD ERROR OF SKENNESS	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388
SERIAL CORR. COEFF	0.037	0.009	0.016	-0.034	-0.100	0.039	0.202	0.238	0.209
COEFF OF VARIATION	0.201	0.209	0.206	0.204	0.202	0.223	0.235	0.221	0.169
MEAN LOGS	2.724	2.741	2.774	2.818	2.883	2.966	3.030	3.282	3.155
STD DEVIATION LOGS	0.095	0.098	0.094	0.094	0.091	0.095	0.100	0.094	0.071
SKENNESS LOGS	-1.128	-1.032	-0.717	-0.094	0.091	0.047	0.047	0.047	0.465
STD ERR SKENNESS LOGS	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388
SER CORR COEFF LOGS	0.065	0.047	0.049	-0.010	-0.075	0.061	0.202	0.247	0.236
COEFF OF VAR LOGS	0.035	0.036	0.034	0.034	0.032	0.032	0.033	0.030	0.022

STATION 12041000 HOH RIVER NEAR FORKS, WASH.

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1928-1964)

	0.99	735.5	783.9	875.3	961.3	1143.2	1557.7	1450.5	2046.0	2203.1
0.98	722.8	767.8	849.2	934.8	1103.3	1462.2	1733.6	1916.1	2075.2	
0.96	706.0	747.0	818.3	902.8	1057.6	1363.7	1612.9	1783.0	1946.4	
0.90	674.1	709.0	766.8	848.5	984.6	1225.5	1443.4	1598.4	1771.4	
0.80	637.6	666.9	715.0	792.9	914.4	1110.1	1301.6	1446.0	1630.4	
0.50	551.4	571.7	609.6	677.1	778.4	921.9	1070.1	1200.9	1411.0	
0.20	450.1	464.1	501.2	555.3	644.9	769.0	882.0	1005.2	1243.1	
0.10	394.8	406.4	445.5	492.2	577.9	700.7	798.0	918.8	1171.4	
0.05	349.4	359.6	400.9	441.4	524.7	649.5	735.2	854.4	1119.0	
0.02	299.8	308.8	352.8	386.4	467.5	596.9	670.7	788.6	1066.7	
0.01	268.3	276.6	322.1	351.5	431.1	564.6	631.0	748.3	1035.3	

FLDW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1928-1964)

P95	P90	P75	P70	P50	P25	P10
690.0	820.0	1100.0	1200.0	1600.0	2300.0	3600.0

STATION 120+1000 HOH RIVER NEAR FORKS, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

ANNUAL PEAK-FLOW DATA

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	FLOW(CFS)	DATE	REG. (R)
1927	11000.	8500.	7140.	4810.	3550.	3510.	3130.	2960.	2580.	15600.	10/16/26	
1928	12800.	9310.	7460.	6660.	4270.	4050.	3750.	3310.	2840.	16800.	01/12/28	
1929	7310.	5450.	4410.	2970.	2400.	2170.	2080.	1980.	1690.	11900.	10/08/28	
1930	8960.	7480.	5540.	4280.	3900.	2830.	2660.	2470.	2130.	11900.	02/18/30	
1931	13000.	9650.	8700.	5610.	3790.	3020.	2880.	2620.	2420.	19400.	01/22/31	
1932	19900.	15200.	9450.	6190.	4320.	3510.	2910.	2840.	2670.	22800.	02/26/32	
1933	12000.	8570.	7440.	5190.	4720.	4060.	3510.	2940.	2560.	17600.	11/12/32	
1934	13000.	11000.	9430.	8430.	7120.	5870.	4730.	4350.	3550.	28600.	12/21/33	
1935	25000.	20300.	16900.	11000.	6650.	5030.	4710.	4420.	3540.	36100.	11/05/34	
1936	8340.	6220.	5150.	4430.	3690.	2850.	2660.	2420.	2380.	9840.	01/04/36	
1937	11200.	8110.	6420.	4650.	3240.	2590.	2510.	2280.	2060.	15000.	12/22/36	
1938	15500.	12100.	7450.	4860.	3990.	3900.	3480.	2960.	2510.	21500.	10/28/37	
1939	16200.	12000.	8770.	5590.	4210.	3520.	3140.	2870.	2350.	20200.	01/01/39	
1940	13000.	10100.	7870.	7060.	5600.	4490.	3810.	3620.	3030.	20700.	12/15/39	
1941	12900.	10100.	6770.	4290.	3250.	2880.	2600.	2660.	2240.	16000.	01/17/41	
1942	15600.	9620.	7320.	5090.	4350.	3320.	3070.	2660.	2130.	21800.	12/02/41	
1943	8090.	6100.	4690.	3700.	3070.	2640.	2330.	2280.	2190.	11000.	10/31/42	
1944	11800.	8750.	6240.	4220.	3000.	2570.	2170.	2000.	1640.	17400.	12/03/43	
1945	15000.	10800.	6500.	4990.	3490.	3050.	2920.	2830.	2460.	31200.	02/07/45	
1946	8010.	6640.	5210.	4650.	4150.	3540.	3180.	2890.	2660.	9580.	11/15/45	
1947	13000.	12400.	8190.	5660.	4670.	3020.	3430.	2910.	2420.	15700.	02/13/47	
1948	9930.	7260.	5660.	4980.	4470.	2980.	3110.	2760.	2430.	19400.	10/18/47	
1949	11400.	7990.	6930.	5800.	4610.	3220.	2710.	2490.	2380.	12200.	02/22/49	
1950	18000.	14400.	10800.	7520.	5230.	4220.	3580.	3650.	3080.	38700.	11/26/49	
1951	19600.	16600.	10900.	6830.	5230.	4560.	4380.	3840.	3140.	22400.	02/10/51	
1952	9130.	7380.	5910.	4210.	3040.	2720.	2440.	2340.	2030.	11400.	01/30/52	
1953	13900.	10900.	9640.	7930.	7330.	5410.	4320.	3630.	2970.	16900.	01/31/53	
1954	11500.	9670.	8430.	6610.	5220.	4750.	4240.	4150.	3390.	17600.	01/05/54	
1955	18000.	16300.	12100.	8960.	6040.	4510.	3840.	3250.	2680.	25800.	11/18/54	
1956	29100.	17900.	10500.	7790.	5130.	4150.	3770.	3250.	2840.	33600.	11/03/55	
1957	16800.	11900.	7820.	5970.	4070.	3290.	3110.	2630.	2580.	26400.	12/09/56	
1958	9000.	7370.	5460.	4560.	3930.	3620.	3480.	3020.	2540.	13800.	12/25/57	
1959	14400.	10500.	6670.	5160.	4560.	3780.	3660.	3330.	2860.	19000.	04/29/59	
1960	15000.	10200.	7530.	4890.	4200.	3040.	3110.	2790.	2520.	23200.	11/22/59	
1961	24800.	15400.	11600.	7790.	5790.	5030.	4250.	3930.	3370.	28800.	01/15/61	
1962	11600.	7250.	5460.	4750.	3840.	3080.	2680.	2410.	2030.	13600.	01/03/62	
1963	17000.	13400.	9560.	6070.	5380.	4400.	3910.	3490.	2890.	38700.	11/19/62	
1964	12100.	9250.	6990.	5310.	4490.	3780.	3880.	3610.	2990.	21200.	10/21/63	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1927-1964)

MEAN	14022.9	10580.8	7868.7	5775.3	4474.5	3656.8	3318.9	3022.1	2600.5	W R C	SYSTEMATIC
MAXIMUM	29100.0	20300.0	16900.0	11000.0	7330.0	5870.0	4730.0	4420.0	3550.0	ESTIMATE	RECORD
MINIMUM	7310.0	5450.0	4410.0	2970.0	2440.0	2170.0	2060.0	1980.0	1690.0		
STANDARD DEVIATION	4891.94	3518.93	2469.37	1631.40	1120.31	869.00	695.65	621.91	462.40		
SKEWNESS	1.239	0.928	1.456	1.133	0.760	0.636	0.534	0.434	0.213		
STD ERROR OF SKEWNESS	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383		
SERIAL CORR COEFF	0.027	-0.011	0.063	0.199	0.196	0.209	0.168	0.177	0.150		
COEFF OF VARIATION	0.349	0.333	0.314	0.282	0.250	0.238	0.210	0.206	0.178		
MEAN LOGS	4.124	4.003	3.878	3.746	3.638	3.552	3.512	3.472	3.408		
STD DEVIATION LOGS	0.141	0.138	0.125	0.116	0.107	0.101	0.092	0.088	0.079		
SKEWNESS LOGS	0.339	0.256	0.450	0.340	0.078	0.168	-0.169	0.110	-0.265		
STD ERR SKEWNESS LOGS	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	0.383	4.2702	4.2702
SER CORR COEFF LOGS	0.015	-0.027	0.078	0.180	0.187	0.198	0.158	0.165	0.141	0.1557	0.1557
COEFF OF VAR LOGS	0.034	0.035	0.032	0.031	0.029	0.028	0.026	0.025	0.023	0.1030	0.0850

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1927-1964)

0.99	6768.2	5098.3	4243.0	3207.3	2490.6	2132.9	1927.8	1877.2	1623.4	8312.5	8226.1
0.95	8047.2	6107.9	4880.5	3695.1	2918.5	2456.2	2265.6	2134.4	1876.9	10439.8	10378.0
0.90	8881.7	6758.1	5297.1	4005.8	3179.5	2658.4	2463.4	2288.7	2021.4	11815.1	11768.9
0.80	10070.3	7673.8	5890.8	4439.4	3531.3	2922.5	2720.3	2493.9	2204.8	13754.5	13729.4
0.50	13053.5	9926.2	7381.4	5490.0	4330.8	3537.6	3267.0	2950.7	2580.6	18517.3	18536.7
0.20	17366.7	14088.7	9536.9	6935.8	5335.3	4321.8	3890.5	3509.6	2986.3	25146.3	25207.7
0.10	20378.1	15243.3	11042.7	7906.4	5960.7	4816.6	4248.2	3850.8	3209.1	29611.6	29687.6
0.04	24367.1	18041.4	13039.2	9153.2	6718.0	5425.3	4654.4	4258.3	3453.8	35344.2	35423.2
0.02	27476.2	20183.9	14597.2	10099.5	7263.1	5862.8	4930.5	4548.2	3615.3	39683.0	39752.9
0.01	30705.7	22378.1	16217.7	11062.2	7795.1	6296.2	5188.3	4828.6	3762.7	44082.5	44133.9

STATION 12041200 HOH RIVER AT U.S. HIGHWAY 101 NEAR FORKS, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1961	2466	3602	3197	6398	6197	3442	1846	2145	2175	1555	1145	889	2903
1962	1888	2491	3807	3049	1596	1441	2217	1828	1949	1460	1328	1065	2014
1963	2352	5138	4493	2342	4391	1832	1892	1904	1426	1595	1121	1053	2447
1964	3230	4875	3571	4729	2377	2591	1962	1795	3117	2713	1808	1478	2857
1965	1991	2809	3079	3561	4252	1564	1814	2024	1712	1415	1201	636	2159
1966	1952	3519	3719	4309	4236	2630	1921	1792	1972	1724	1227	970	2319
1967	1920	3011	1780	5257	3036	2956	1789	1706	2399	1606	1163	1007	2768
1968	5602	3019	4840	6458	4370	3270	1765	1869	2166	1834	1269	2182	3269
1969	2960	3521	4722	3011	1862	2371	2820	2704	2930	1504	1078	2266	2641
1970	1605	2045	2438	2912	2320	1662	2847	1577	1755	1342	979	1411	1937
1971	1802	3213	4042	4998	3527	2432	2077	2514	2432	2490	1868	1373	2845
1972	1687	4229	3178	3932	4544	5697	2977	2311	2132	2732	1435	1421	3018
1973	678	2259	5765	4436	1796	1962	1129	2174	2267	1519	997	941	2174
1974	1906	4097	5968	6780	3718	4680	2682	2635	3109	2674	1672	1166	3429
1975	567	3038	4024	3320	2251	2063	925	1800	1850	1710	1648	1009	2019
1976	4895	5991	6582	4065	2872	3140	1694	2158	1971	2050	1490	1126	3176
1977	951	1322	1944	1799	2257	2366	1724	1737	1870	1149	1382	1286	1645
1978	1640	5247	5324	2270	1819	1644	1371	1562	1676	1317	1390	2240	2292
1979	1023	1611	1766	992	3559	2721	1508	1745	1354	1640	934	1579	1689

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1961-1979)

MEAN	2163.9	3425.1	4245.2	3927.3	3138.6	2713.6	1918.9	1998.9	2113.8	1791.0	1322.9	1320.9	2505.3
MAXIMUM	5602.0	5991.0	7780.0	6780.0	6197.0	5697.0	2977.0	2704.0	3117.0	2732.0	1868.0	2266.0	3429.0
MINIMUM	567.0	1322.0	1766.0	992.0	1596.0	1441.0	925.0	1562.0	1354.0	1149.0	934.0	636.0	1645.0
STD DEVIATION	1289.47	1263.96	1548.01	1601.59	1290.75	1098.64	582.04	342.31	497.30	498.93	275.80	466.13	535.12
SKWENESS	1.494	0.346	0.545	0.190	0.776	1.307	0.380	0.830	0.717	1.019	0.562	1.026	0.058
STD ERR SKEW	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SER CORR COEFF	-0.107	-0.578	-0.220	0.184	-0.124	-0.124	-0.088	-0.074	-0.213	-0.213	-0.119	0.362	-0.326
COEFF OF VAR	0.596	0.369	0.365	0.408	0.411	0.405	0.303	0.171	0.235	0.279	0.208	0.353	0.214
MEAN LOGS	3.268	3.504	3.599	3.553	3.463	3.404	3.263	3.295	3.314	3.239	3.113	3.097	3.389
STD DEV LOGS	0.253	0.173	0.166	0.208	0.174	0.162	0.137	0.071	0.100	0.112	0.089	0.145	0.095
SKWENESS LOGS	-0.189	-0.538	-0.424	-1.012	0.218	0.419	-0.338	0.587	0.181	0.688	0.226	0.301	-0.257
STD ERR SKEW LOGS	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524
SER CORR LOGS	-0.156	-0.619	-0.285	0.332	-0.560	-0.158	-0.141	-0.060	-0.164	-0.052	-0.123	0.338	-0.310
COEFF OF VAR LOGS	0.077	0.049	0.046	0.059	0.050	0.048	0.042	0.022	0.030	0.035	0.029	0.047	0.028
% OF AVE FLOW	7.2	11.4	14.1	13.1	10.4	9.0	6.4	6.6	7.0	6.0	4.4	4.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1961-1979)

0.99	441.2	1082.5	1448.8	833.9	1218.1	1192.4	817.1	1446.3	1245.4	1083.4	833.8	619.6	1410.7
0.95	689.8	1568.0	2026.9	1449.3	1540.3	1436.3	1062.8	1551.7	1429.7	1197.6	939.0	744.2	1681.2
0.90	869.0	1882.0	2397.4	1876.7	1754.8	1619.3	1214.0	1819.3	1542.8	1375.0	1003.2	825.4	1939.1
0.80	1141.8	2315.8	2908.0	2484.4	2665.0	1939.7	1416.8	1713.8	1695.7	1389.0	1089.6	941.0	2043.1
0.50	1886.6	3308.0	4082.2	3867.2	2863.5	2467.8	1866.7	1941.6	2046.8	1682.2	1286.7	1230.4	2472.9
0.20	3037.4	4492.3	5515.2	5373.4	4503.3	3435.0	2298.7	1941.6	2477.9	2125.8	1536.1	1647.5	2953.6
0.10	3856.6	5172.1	6300.7	6128.5	4901.6	4145.9	2708.4	2453.7	2777.9	2445.3	1692.6	1937.7	3244.3
0.04	4937.3	5928.7	7327.2	6862.3	6041.5	5127.1	3061.0	2711.2	3124.7	2878.8	1883.5	2321.1	3526.8
0.02	5767.9	6428.6	7982.7	7283.9	6939.8	5920.2	3300.2	2903.8	3377.0	3223.9	2021.9	2619.0	3729.4
0.01	6615.7	6881.8	8590.4	7623.1	7880.5	6768.2	3522.4	3097.4	3625.5	3588.7	2157.8	2927.7	3916.2

STATION 12041200 HOH RIVER AT U.S. HIGHWAY 101 NEAR FORKS, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1962	458.0	466.0	500.0	573.0	674.0	958.0	1130.0	1290.0	1560.0
1963	668.0	724.0	774.0	774.0	905.0	1140.0	1250.0	1410.0	1620.0
1964	676.0	700.0	739.0	799.0	939.0	998.0	1180.0	1230.0	1400.0
1965	832.0	837.0	877.0	994.0	1300.0	1560.0	1720.0	1770.0	2150.0
1966	430.0	437.0	474.0	565.0	618.0	874.0	1030.0	1190.0	1460.0
1967	451.0	462.0	510.0	701.0	871.0	924.0	1080.0	1260.0	1440.0
1968	636.0	658.0	700.0	777.0	980.0	1070.0	1250.0	1530.0	1820.0
1969	856.0	898.0	986.0	1050.0	1210.0	1290.0	1560.0	1720.0	1860.0
1970	649.0	679.0	749.0	802.0	967.0	1060.0	1310.0	1590.0	1760.0
1971	620.0	636.0	737.0	864.0	955.0	1050.0	1140.0	1230.0	1390.0
1972	817.0	866.0	926.0	958.0	1040.0	1340.0	1620.0	1830.0	2000.0
1973	490.0	524.0	541.0	556.0	654.0	1150.0	1380.0	1670.0	1880.0
1974	450.0	462.0	480.0	586.0	726.0	820.0	1010.0	1240.0	1480.0
1975	400.0	417.0	451.0	467.0	498.0	709.0	968.0	1300.0	1890.0
1976	666.0	674.0	680.0	713.0	919.0	1320.0	1430.0	1510.0	1490.0
1977	455.0	470.0	510.0	647.0	786.0	994.0	1090.0	1180.0	1390.0
1978	585.0	604.0	653.0	680.0	878.0	1130.0	1170.0	1180.0	1410.0
1979	686.0	700.0	753.0	856.0	965.0	1250.0	1380.0	1490.0	1490.0

LOWEST MEAN FLOW STATISTICS (YEARS 1962-1979)

MEAN	601.4	623.0	668.9	745.4	882.5	1084.8	1248.2	1400.0	1608.3
MAXIMUM	856.0	938.0	986.0	1050.0	1300.0	1560.0	1720.0	1830.0	2150.0
MINIMUM	400.0	417.0	451.0	467.0	498.0	709.0	968.0	1180.0	1390.0
STANDARD DEVIATION	145.48	152.77	164.84	164.17	201.11	208.40	216.19	210.63	227.42
SKENNESS	0.279	0.284	0.317	0.186	0.109	0.450	0.890	0.882	1.141
STD ERROR OF SKEWNESS	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536
SERIAL CORR COEFF	0.064	0.064	0.177	0.162	0.049	-0.193	-0.192	-0.134	-0.255
COEFF OF VARIATION	0.242	0.245	0.245	0.220	0.228	0.192	0.173	0.150	0.141
MEAN LOGS	2.767	2.782	2.813	2.862	2.934	3.028	3.090	3.142	3.203
STD DEVIATION LOGS	0.106	0.107	0.108	0.098	0.104	0.084	0.072	0.063	0.058
SKEWNESS LOGS	-0.024	-0.028	-0.003	-0.210	-0.553	-0.096	0.624	0.721	0.959
STD ERR SKEWNESS LOGS	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536	0.536
SER CORR COEFF LOGS	0.097	0.113	0.209	0.190	0.059	-0.118	-0.153	-0.122	-0.231
COEFF OF VAR LOGS	0.038	0.039	0.038	0.034	0.035	0.028	0.023	0.020	0.018

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1962-1979)

0.99	1027.3	1071.2	1156.6	1186.4	1359.4	1645.4	1949.0	2085.6	2379.9
0.98	962.3	1002.7	1081.1	1126.2	1305.8	1567.0	1823.8	1962.8	2234.4
0.96	894.7	931.4	1003.0	1061.5	1244.7	1483.5	1699.8	1841.2	2092.3
0.90	799.0	830.7	893.0	966.0	1147.9	1361.4	1535.0	1679.4	1907.1
0.80	718.4	745.8	800.7	881.5	1055.5	1254.5	1405.5	1552.5	1765.4
0.50	585.4	606.1	649.9	733.8	879.0	1069.4	1210.8	1362.3	1561.1
0.20	476.4	491.7	527.4	604.1	709.5	907.6	1068.7	1225.0	1422.5
0.10	427.5	440.5	472.8	543.3	626.2	831.6	1010.4	1169.4	1369.6
0.05	390.8	402.1	432.0	496.5	560.9	772.9	968.9	1130.3	1334.2
0.02	353.2	362.8	390.3	447.4	491.7	711.1	928.5	1092.6	1301.9
0.01	330.0	338.6	364.7	416.8	448.3	672.3	904.8	1070.9	1284.1

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1962-1979)

P95	P90	P75	P70	P50	P25	P10
810.0	960.0	1300.0	1400.0	1800.0	2800.0	4600.0

STATION 120+1200 HOH RIVER AT U.S. HIGHWAY 101 NEAR FDRKS, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT. 30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	DATE	REG. (R)
1961	37100.	20400.	14900.	10000.	7320.	6430.	5410.	4980.	4230.	46000.	01/15/61	
1962	13200.	8280.	6290.	4610.	3760.	3470.	3230.	2910.	2490.	15900.	01/03/62	
1963	21400.	16700.	10800.	7760.	6490.	5310.	4600.	4110.	3420.	45400.	11/20/62	
1964	16700.	11600.	8590.	6350.	5490.	4480.	3690.	3460.	2650.	26500.	10/21/63	
1965	19500.	13600.	8680.	6770.	5210.	3910.	3860.	3420.	2860.	24300.	11/30/64	
1966	18000.	12700.	9300.	6860.	4460.	4280.	3880.	3450.	3070.	19900.	01/13/66	
1967	24700.	16800.	14600.	10400.	8550.	6640.	5800.	4980.	4060.	30100.	12/13/66	
1968	21100.	19700.	15400.	10800.	7620.	6060.	5450.	5060.	4690.	31700.	01/19/68	
1969	14200.	10700.	7280.	6230.	5020.	4720.	4240.	3620.	3190.	22200.	01/04/69	
1970	13200.	8230.	6240.	4380.	3420.	3130.	2730.	2590.	2440.	19800.	04/09/70	
1971	15700.	11900.	8180.	7590.	5990.	4710.	4420.	4150.	3700.	20200.	12/07/70	
1972	20700.	14600.	10000.	9120.	7260.	5810.	5010.	4470.	4110.	32400.	03/05/72	
1973	23800.	17600.	13400.	10600.	7650.	5360.	4280.	3680.	2990.	35400.	12/26/72	
1974	26900.	24300.	16700.	10800.	8180.	6730.	6110.	5380.	4740.	31200.	01/16/74	
1975	16100.	9490.	7520.	5290.	4500.	4230.	3690.	3360.	2680.	27600.	12/21/74	
1976	29800.	27300.	15200.	9960.	7990.	7100.	6040.	5490.	4620.	41200.	12/04/75	
1977	9560.	6340.	4460.	3230.	3060.	2480.	2300.	2150.	2040.	11700.	01/18/77	
1978	20600.	13500.	9170.	8470.	6380.	5660.	4560.	3900.	3070.	44800.	11/01/77	
1979	13300.	8840.	6370.	5620.	4540.	3100.	2640.	2390.	2060.	16500.	03/04/79	

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1961-1979)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	SKWENESS	STD ERROR OF SKWENESS	SERIAL CORR. COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKWENESS LOGS	STD ERR SKWENESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS	W R C ESTIMATE	SYSTEMATIC RECORD
	20082.1	14346.3	10162.1	7683.7	5981.1	4941.1	4365.3	3923.7	3374.7	3374.7	3374.7	3374.7	3374.7	3374.7		
	37100.0	27300.0	16700.0	10800.0	8550.0	7100.0	6110.0	5490.0	4740.0	4740.0	4740.0	4740.0	4740.0	4740.0		
	9560.0	6340.0	4460.0	3230.0	3060.0	2480.0	2300.0	2150.0	2040.0	2040.0	2040.0	2040.0	2040.0	2040.0		
	6890.10	5663.79	3737.95	2338.00	1669.52	1339.35	1129.58	990.72	861.44	861.44	861.44	861.44	861.44	861.44		
	0.785	0.773	0.430	-0.135	-0.081	-0.107	-0.200	-0.098	0.136	0.136	0.136	0.136	0.136	0.136		
	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524		
	-0.332	-0.362	-0.099	-0.115	-0.163	-0.343	-0.338	-0.340	-0.301	-0.301	-0.301	-0.301	-0.301	-0.301		
	0.343	0.395	0.368	0.304	0.279	0.271	0.259	0.252	0.255	0.255	0.255	0.255	0.255	0.255		
	4.279	4.125	3.979	3.864	3.759	3.677	3.625	3.579	3.514	3.514	3.514	3.514	3.514	3.514		
	0.148	0.171	0.163	0.147	0.130	0.127	0.123	0.117	0.115	0.115	0.115	0.115	0.115	0.115		
	-0.001	0.006	-0.096	-0.747	-0.526	-0.616	-0.711	-0.575	-0.258	-0.258	-0.258	-0.258	-0.258	-0.258		
	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524	0.524		
	-0.331	-0.382	-0.142	-0.184	-0.198	-0.345	-0.328	-0.326	-0.288	-0.288	-0.288	-0.288	-0.288	-0.288		
	0.034	0.041	0.041	0.038	0.035	0.035	0.034	0.033	0.033	0.033	0.033	0.033	0.033	0.033		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1961-1979)

	0.99	0.95	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
	8625.7	5359.5	3866.7	2787.4	2554.6	2113.9	1895.7	1812.4	1683.5	1592.9
	10874.6	6997.6	5077.5	3942.7	3369.3	2805.4	2520.8	2340.3	2078.7	19348.9
	12304.0	8067.8	5857.6	4658.0	3862.3	3220.9	2872.5	2652.9	2315.5	16357.3
	14288.3	9266.3	6849.3	5607.2	4511.6	3763.4	3372.7	3057.5	2627.6	19229.5
	19019.0	13338.3	9574.3	7620.5	5896.5	4899.3	4355.5	3895.8	3305.1	26458.6
	25314.3	18568.4	13079.8	9760.7	7425.8	6112.7	5365.8	4785.7	4091.2	36874.1
	29394.4	22078.3	15345.1	10868.8	8260.3	6753.9	5880.4	5256.3	4545.4	44088.3
	34471.8	26559.5	18149.2	12004.5	9160.7	7427.3	6404.5	5752.4	5062.1	53554.0
	38204.7	29829.5	20199.8	12699.8	9741.7	7850.8	6724.7	6055.9	5413.2	60856.4
	41914.6	33326.7	22221.1	13293.3	10260.1	8221.0	6998.0	6341.3	5740.2	68372.1

STATION 12041500 SOLEDDUCK RIVER NEAR FAIRHOLM, WASH.
MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1918	143	252	2780	1430	1095	869	636	457	408	165	125	71.9	703
1919	499	838	1758	1379	890	564	893	751	663	560	244	123	764
1920	89.9	822	929	1002	449	461	312	363	512	217	112	617	490
1921	1133	729	969	1142	1293	655	495	738	892	480	244	528	772
1934	732	702	2495	1747	652	882	520	570	254	171	108	107	750
1935	463	1489	1019	2579	1129	637	414	516	561	348	145	211	791
1936	227	318	567	1070	382	717	570	796	717	343	126	129	498
1937	87.6	82.7	1060	213	347	587	819	826	899	362	151	95.1	461
1938	388	1341	1446	868	372	614	657	826	444	207	197.1	76.3	591
1939	332	665	1114	1329	517	491	552	584	449	317	133	88.3	551
1940	193	723	1981	939	1025	997	439	620	209	107	133	67.2	615
1941	480	470	1134	904	749	406	290	650	295	136	87.4	203	483
1942	629	802	1439	407	439	331	399	387	504	266	111	71.9	483
1943	148	842	893	513	780	523	980	475	459	320	125	85.0	509
1944	263	314	654	1010	412	350	359	354	270	122	72.8	124	359
1945	235	868	560	1116	1041	678	457	917	433	216	98.7	107	558
1946	379	1038	1156	981	703	744	740	869	738	489	215	121	681
1947	191	581	1304	846	1445	430	505	482	422	263	109	89.0	550
1948	797	669	1139	852	766	465	514	987	857	364	210	296	660
1949	441	1051	720	320	746	730	721	1052	644	401	242	234	607
1950	407	1469	1606	712	1109	870	821	756	1166	658	298	145	832
1951	743	1085	1601	1167	1668	456	603	578	460	234	112	116	759
1952	653	808	649	438	819	333	572	712	561	358	168	103	513
1953	82.8	202	768	2582	1016	478	457	686	539	470	219	213	643
1954	578	1177	1575	1057	1726	575	596	662	659	607	334	218	808
1955	524	1758	1021	571	691	305	688	623	979	624	287	135	682
1956	641	1622	957	769	258	565	803	1036	1090	638	224	247	738
1957	976	753	1442	344	946	776	596	599	367	222	150	111	606
1958	232	388	1039	1375	1132	465	579	509	356	148	180.4	122	582
1959	462	1246	1267	1257	469	640	967	773	572	304	123	341	703
1960	569	969	1029	767	997	584	820	803	632	301	163	126	645
1961	451	883	895	1954	1761	924	542	614	500	231	114	116	743
1962	399	704	1127	905	417	292	610	512	481	279	152	131	502
1963	504	1327	1411	706	1282	452	494	512	294	237	132	102	616
1964	761	1405	1075	1265	640	591	569	613	1009	650	328	267	765
1965	375	724	713	875	1193	470	565	594	423	224	129	82.3	526
1966	353	870	1017	1192	502	632	766	694	605	419	194	119	615
1967	413	798	2209	1504	860	736	317	668	762	342	143	111	740
1968	1443	743	1393	1876	1437	792	425	520	511	297	158	338	828
1969	716	924	1227	740	394	668	786	1001	792	278	139	329	668
1970	345	539	851	919	724	513	805	408	403	189	93.7	198	497
1971	269	809	1047	1280	1079	843	589	993	776	673	315	194	738
1972		1969	1879	1221	668	491	535	925	695	549	305	172	
1976	165	271	521	419	589	538	615	528	479	186	129	169	382
1977	347	1528	1570	703	549	481	355	411	374	174	126	366	582
1978	163	416	476	249	976	819	456	555	378	239	104	214	417

STATION 12041500 SOLEDUCK RIVER NEAR FAIRHOLM, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1918-1979)

MEAN	453.8	869.2	1206.1	1032.5	850.7	596.1	591.4	657.5	576.4	334.5	164.2	178.9	620.6
MAXIMUM	1443.0	1969.0	2780.0	2582.0	1761.0	997.0	980.0	1052.0	1166.0	673.0	334.0	617.0	832.0
MINIMUM	82.8	82.7	476.0	213.0	358.0	292.0	290.0	354.0	209.0	107.0	72.8	67.2	359.0
STD DEVIATION	281.58	428.79	499.56	525.51	384.78	175.94	171.84	187.73	227.77	161.06	73.00	116.60	123.99
SKEWNESS	1.316	0.507	1.149	1.066	0.627	0.331	0.395	0.513	0.758	0.776	1.006	1.977	-0.133
STD ERR SKEW	0.354	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.354
SER CORR COEFF	0.087	-0.103	-0.038	0.121	-0.135	-0.057	0.061	-0.016	0.009	0.106	0.227	0.269	0.140
COEFF OF VAR	0.620	0.493	0.414	0.509	0.452	0.295	0.291	0.286	0.395	0.482	0.445	0.652	0.200
MEAN LOGS	2.572	2.873	3.047	2.955	2.884	2.756	2.753	2.801	2.728	2.476	2.177	2.184	2.784
STD DEV LOGS	0.290	0.269	0.174	0.241	0.206	0.133	0.130	0.124	0.173	0.209	0.180	0.234	0.091
SKEWNESS LOGS	-0.475	-1.275	0.003	-0.640	-0.235	-0.282	-0.265	-0.037	-0.118	-0.012	0.405	0.679	-0.515
STD ERR SKEW LOGS	0.354	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.354
SER CORR LOGS	-0.008	-0.100	-0.057	0.107	-0.092	-0.015	0.094	-0.049	0.053	0.099	0.215	0.234	0.133
COEFF OF VAR LOGS	0.113	0.094	0.057	0.081	0.071	0.048	0.047	0.044	0.063	0.085	0.063	0.107	0.033
% OF AVE FLOW	6.0	11.6	16.1	13.7	11.3	7.9	7.9	8.8	7.7	4.5	2.2	2.4	100.0

MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1918-1979)

0.99	63.0	103.0	438.5	193.0	234.5	263.1	266.9	322.4	204.9	97.0	65.0	57.2	345.1
0.95	114.8	227.0	576.3	331.6	340.8	337.1	339.3	393.6	274.4	135.1	80.1	70.7	418.5
0.90	154.7	325.6	666.6	431.5	412.9	382.4	383.5	437.5	319.6	161.1	90.4	80.6	460.3
0.80	217.4	477.3	795.2	580.3	517.9	443.2	442.7	497.0	383.4	199.3	105.6	96.3	513.1
0.50	393.3	849.2	1114.7	956.5	780.4	578.5	574.3	633.0	538.6	299.3	146.3	143.9	618.8
0.20	660.4	1257.5	1562.9	1450.6	1146.8	739.9	731.1	804.2	748.1	448.9	211.0	234.4	727.5
0.10	841.6	1450.1	1865.0	1748.0	1388.0	834.9	823.5	910.5	884.5	554.4	259.6	313.6	784.2
0.04	1067.9	1622.5	2252.0	2086.0	1688.6	944.1	929.9	1038.6	1054.1	694.3	328.0	440.2	843.5
0.02	1231.9	1712.5	2543.8	2311.5	1908.7	1018.9	1002.9	1130.3	1178.4	802.7	384.3	556.8	881.0
0.01	1391.0	1779.0	2838.6	2516.4	2125.4	1089.0	1071.5	1219.4	1301.2	914.4	445.1	695.5	913.9

STATION 12041500 SOLEDDUCK RIVER NEAR FAIRHOLM, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1919	58.0	58.0	62.0	62.0	69.0	84.0	99.0	122.0	235.0
1920	75.0	77.0	79.0	81.0	88.0	105.0	143.0	204.0	378.0
1921	84.0	85.0	86.0	87.0	100.0	126.0	216.0	279.0	354.0
1935	72.0	72.0	77.0	77.0	82.0	94.0	105.0	127.0	239.0
1936	71.0	60.0	77.0	87.0	107.0	164.0	191.0	204.0	287.0
1937	60.0	60.0	66.0	72.0	80.0	84.0	89.0	102.0	232.0
1938	72.0	73.0	76.0	73.0	90.0	121.0	142.0	212.0	428.0
1939	62.0	63.0	67.0	68.0	72.0	80.0	102.0	147.0	272.0
1940	69.0	69.0	70.0	74.0	86.0	97.0	128.0	170.0	269.0
1941	57.0	58.0	59.0	61.0	66.0	68.0	77.0	97.0	221.0
1942	70.0	71.0	72.0	76.0	85.0	109.0	140.0	169.0	271.0
1943	61.0	62.0	63.0	65.0	70.0	80.0	90.0	131.0	238.0
1944	65.0	69.0	74.0	75.0	77.0	91.0	122.0	182.0	259.0
1945	52.0	52.0	53.0	56.0	62.0	77.0	103.0	127.0	191.0
1946	60.0	60.0	62.0	66.0	86.0	91.0	101.0	138.0	303.0
1947	72.0	73.0	75.0	81.0	90.0	117.0	165.0	192.0	355.0
1948	65.0	65.0	67.0	69.0	89.0	117.0	149.0	200.0	305.0
1949	144.0	150.0	168.0	179.0	207.0	235.0	280.0	323.0	504.0
1950	104.0	107.0	115.0	129.0	165.0	229.0	275.0	307.0	432.0
1951	114.0	116.0	122.0	128.0	139.0	205.0	313.0	430.0	595.0
1952	67.0	67.0	69.0	73.0	83.0	99.0	146.0	212.0	328.0
1953	63.0	64.0	64.0	66.0	71.0	88.0	110.0	137.0	238.0
1954	87.0	89.0	91.0	95.0	115.0	173.0	277.0	342.0	431.0
1955	123.0	126.0	133.0	153.0	195.0	247.0	340.0	401.0	490.0
1956	98.0	108.0	104.0	107.0	129.0	179.0	258.0	364.0	494.0
1957	118.0	120.0	127.0	137.0	146.0	202.0	282.0	417.0	626.0
1958	89.0	90.0	93.0	97.0	98.0	108.0	126.0	156.0	243.0
1959	60.0	61.0	64.0	67.0	73.0	87.0	107.0	152.0	279.0
1960	92.0	96.0	99.0	100.0	115.0	173.0	236.0	295.0	393.0
1961	83.0	83.0	87.0	98.0	105.0	138.0	158.0	210.0	388.0
1962	75.0	75.0	76.0	80.0	90.0	111.0	137.0	189.0	314.0
1963	85.0	86.0	89.0	97.0	104.0	132.0	176.0	236.0	327.0
1964	77.0	78.0	79.0	86.0	100.0	106.0	138.0	161.0	250.0
1965	158.0	159.0	165.0	180.0	207.0	269.0	319.0	341.0	476.0
1966	64.0	65.0	68.0	71.0	80.0	102.0	131.0	193.0	308.0
1967	85.0	86.0	90.0	97.0	106.0	121.0	167.0	250.0	368.0
1968	70.0	72.0	75.0	82.0	106.0	126.0	193.0	327.0	391.0
1969	105.0	106.0	111.0	127.0	150.0	171.0	251.0	298.0	366.0
1970	88.0	88.0	91.0	95.0	114.0	141.0	222.0	264.0	359.0
1971	72.0	73.0	76.0	78.0	90.0	110.0	138.0	165.0	250.0
1977	84.0	85.0	87.0	98.0	110.0	153.0	191.0	216.0	300.0
1978	79.0	79.0	82.0	87.0	104.0	132.0	138.0	159.0	294.0
1979	82.0	84.0	87.0	95.0	105.0	146.0	205.0	203.0	265.0

LOWEST MEAN FLOW STATISTICS (YEARS 1919-1979)

MEAN	81.2	82.4	85.8	91.5	104.9	131.8	173.9	222.1	338.6
MAXIMUM	158.0	159.0	168.0	180.0	207.0	269.0	340.0	430.0	626.0
MINIMUM	52.0	52.0	53.0	56.0	62.0	67.0	77.0	88.0	191.0
STANDARD DEVIATION	22.97	23.62	25.81	29.16	35.57	50.12	71.01	88.09	101.11
SKWENESS	1.581	1.569	1.581	1.612	1.682	1.612	1.578	0.779	1.040
STD ERROR OF SKWENESS	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361
SERIAL CORR COEFF	0.179	0.178	0.186	0.190	0.285	0.273	0.313	0.266	0.266
COEFF OF VARIATION	0.283	0.287	0.301	0.319	0.339	0.380	0.408	0.397	0.299
MEAN LOGS	1.895	1.901	1.918	1.944	2.000	2.093	2.207	2.315	2.512
STD DEVIATION LOGS	0.109	0.110	0.114	0.121	0.129	0.152	0.172	0.168	0.122
SKWENESS LOGS	0.912	0.898	0.894	0.941	0.865	0.521	0.223	0.449	0.449
STD ERR SKWENESS LOGS	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361
SER CORR COEFF LOGS	0.243	0.235	0.246	0.251	0.240	0.284	0.281	0.302	0.281
COEFF OF VAR LOGS	0.058	0.058	0.059	0.062	0.064	0.072	0.078	0.073	0.048

STATION 12041500 SULEBUCK RIVER NEAR FAIRHURM, WASH.

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1919-1979)

0.99	165.4	169.1	182.9	201.7	239.3	318.0	430.6	528.6	683.7
0.98	147.3	150.4	161.2	177.1	209.2	278.5	379.7	470.4	617.4
0.96	130.5	133.2	141.5	154.6	181.8	241.8	331.1	413.8	553.4
0.90	110.0	112.0	117.7	127.6	148.9	196.6	269.4	340.6	471.0
0.80	95.3	96.9	101.0	108.7	125.9	164.1	223.3	284.8	408.6
0.50	75.7	76.7	79.3	84.1	96.0	120.1	158.5	204.4	318.7
0.20	63.4	64.1	66.2	69.2	77.7	91.8	114.9	148.7	256.0
0.10	58.9	59.5	61.5	63.9	71.1	81.1	97.9	126.6	231.0
0.05	56.0	56.5	58.5	60.5	66.7	73.7	86.2	111.1	213.3
0.02	53.3	53.7	55.9	57.4	62.8	66.8	74.9	96.2	196.2
0.01	51.9	52.2	54.5	55.8	60.7	62.9	68.4	87.5	186.2

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1919-1979)

P95	P90	P75	P70	P50	P25	P10
89.0	110.0	240.0	280.0	440.0	730.0	1200.0

STATION 12041500 SOLEDUCK RIVER NEAR FAIRHOLM, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA
										FLOW(CFS) DATE REG. (R)
1918	11500.	7890.	5610.	4240.	3470.	2410.	1800.	1590.	1220.	15800. 12/18/17
1919	8910.	5690.	3310.	2890.	1800.	1600.	1380.	1310.	1100.	13200. 12/04/18
1920	6960.	3920.	2380.	1700.	1210.	1090.	984.	818.	669.	10000. 11/15/19
1921	7840.	5170.	2880.	1750.	1440.	1300.	1170.	1080.	980.	11400. 02/11/21
1934	10700.	7370.	4420.	3480.	2690.	2200.	1730.	1510.	1240.	19800. 12/21/33
1935	11900.	10000.	7470.	4590.	2720.	1970.	1720.	1570.	1240.	18800. 11/05/34
1936	3160.	2110.	1730.	1500.	1150.	844.	771.	724.	724.	3960. 01/04/36
1937	4890.	3180.	2400.	1700.	1130.	899.	857.	785.	672.	8670. 12/22/36
1938	8230.	5780.	3300.	1920.	1540.	1460.	1280.	1050.	907.	12200. 12/28/37
1939	7380.	5160.	3570.	2170.	1540.	1240.	1060.	949.	796.	9430. 01/01/39
1940	6700.	4230.	3130.	2740.	2030.	1540.	1340.	1270.	1060.	9430. 12/15/39
1941	4480.	3180.	1840.	1340.	1170.	1070.	945.	862.	704.	8100. 01/17/41
1942	5920.	3370.	2470.	1690.	1540.	1140.	984.	852.	684.	9050. 12/02/41
1943	3640.	2500.	1920.	1420.	1150.	885.	806.	769.	758.	4710. 11/23/42
1944	4430.	3950.	2590.	1650.	1120.	848.	704.	631.	528.	6670. 12/03/43
1945	7420.	4950.	2720.	1820.	1320.	1070.	983.	902.	815.	14600. 02/07/45
1946	5050.	3220.	2220.	1740.	1450.	1280.	1090.	1030.	932.	6330. 11/14/45
1947	5940.	3540.	2420.	2120.	1790.	1560.	1280.	1080.	876.	7380. 02/13/47
1948	4110.	2810.	2070.	1770.	1560.	1020.	881.	7920.	839.	7920. 10/18/47
1949	4310.	2770.	1990.	1620.	1260.	957.	914.	886.	768.	4810. 12/01/48
1950	10500.	7120.	5100.	3230.	2070.	1610.	1310.	1320.	1110.	23500. 11/26/49
1951	8300.	6860.	4330.	2590.	2010.	1710.	1640.	1430.	1120.	10800. 02/09/51
1952	3510.	2660.	2030.	1430.	983.	846.	720.	728.	621.	4740. 01/30/52
1953	6380.	4360.	3970.	3090.	2650.	1910.	1470.	1230.	1000.	8640. 01/09/53
1954	4770.	3570.	3110.	2450.	1850.	1600.	1470.	1400.	1120.	8080. 01/05/54
1955	6280.	4910.	3530.	2840.	1900.	1440.	1180.	1040.	850.	10800. 11/18/54
1956	13400.	7390.	4020.	2720.	1690.	1390.	1220.	1020.	864.	18000. 11/03/55
1957	8930.	5190.	3250.	2270.	1490.	1200.	1110.	899.	897.	16300. 12/09/56
1958	3400.	2850.	1970.	1720.	1430.	1280.	1200.	1010.	846.	7090. 12/25/57
1959	6150.	4210.	2550.	1880.	1630.	1320.	1280.	1100.	996.	9260. 04/29/59
1960	6570.	3820.	2550.	1790.	1510.	1040.	1110.	970.	905.	9010. 01/29/60
1961	11400.	6320.	4570.	3130.	2210.	1900.	1570.	1420.	1180.	15300. 01/15/61
1962	4490.	2840.	2190.	1910.	1440.	1120.	940.	826.	693.	5770. 01/03/62
1963	7550.	4500.	3050.	2010.	1860.	1560.	1350.	1190.	951.	13900. 11/19/62
1964	5080.	3460.	2360.	1880.	1530.	1310.	1240.	1010.	8350.	10/21/63
1965	6090.	3980.	2470.	1890.	1420.	1090.	995.	900.	776.	8030. 11/30/64
1966	5500.	3670.	2530.	1910.	1250.	1170.	1030.	905.	831.	5980. 01/13/66
1967	7780.	5710.	4650.	3260.	2440.	1890.	1650.	1400.	1110.	10400. 12/13/66
1968	7770.	5860.	4500.	3230.	2270.	1820.	1600.	1430.	1280.	9680. 01/14/68
1969	4480.	2970.	1870.	1620.	1310.	1240.	1090.	819.	7650.	12/03/68
1970	4730.	2660.	1890.	1380.	1070.	968.	852.	833.	728.	7410. 04/09/70
1971	4840.	3570.	2480.	1970.	1610.	1240.	1180.	1080.	987.	6800. 01/19/71
1972										9760. 03/05/72
1973										11900. 12/25/72
1974										12400. 01/16/74
1975										10600. 12/21/74
1976										15000. 12/03/75
1977	3380.	1960.	1150.	787.	777.	623.	625.	598.	557.	4150. 12/26/76
1978	5750.	3900.	3140.	2510.	1920.	1630.	1330.	1140.	892.	14400. 11/01/77
1979	3860.	2720.	1890.	1590.	1290.	892.	773.	711.	587.	4780. 03/04/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1918-1979)

	MEAN	MAXIMUM	MINIMUM	STANDARD DEVIATION	COEFF OF VARIATION	SKEDNESS	SERIAL CORR COEFF	COEFF OF VARIATION	MEAN LOGS	STD DEVIATION LOGS	SKEDNESS LOGS	SER CORR COEFF LOGS	COEFF OF VAR LOGS
	6541.3	13400.0	3160.0	2545.30	0.907	0.354	0.170	0.349	3.785	0.162	0.214	0.354	0.116
	4441.1	10000.0	1960.0	1749.56	1.035	0.354	0.146	0.394	3.617	0.163	0.215	0.354	0.087
	3035.3	7470.0	1150.0	1213.05	1.428	0.354	0.080	0.349	3.452	0.160	0.215	0.354	0.045
	2198.6	4590.0	787.0	777.0	1.332	0.354	0.048	0.349	3.200	0.131	0.127	0.349	0.041
	1659.8	3470.0	577.0	577.0	1.235	0.354	0.048	0.349	3.056	0.114	0.108	0.349	0.037
	1328.3	2410.0	623.0	623.0	1.235	0.354	0.048	0.349	2.941	0.107	0.100	0.349	0.036
	1174.5	1800.0	825.0	825.0	1.235	0.354	0.048	0.349	2.828	0.097	0.097	0.349	0.035
	1050.9	1590.0	598.0	598.0	1.235	0.354	0.048	0.349	2.715	0.086	0.086	0.349	0.034
	894.3	1280.0	528.0	528.0	1.235	0.354	0.048	0.349	2.602	0.074	0.074	0.349	0.033
	773.0	1100.0	478.0	478.0	1.235	0.354	0.048	0.349	2.489	0.062	0.062	0.349	0.032
	657.0	980.0	415.0	415.0	1.235	0.354	0.048	0.349	2.376	0.050	0.050	0.349	0.031
	541.0	830.0	354.0	354.0	1.235	0.354	0.048	0.349	2.263	0.038	0.038	0.349	0.030
	425.0	680.0	291.0	291.0	1.235	0.354	0.048	0.349	2.150	0.026	0.026	0.349	0.029
	309.0	520.0	228.0	228.0	1.235	0.354	0.048	0.349	2.037	0.014	0.014	0.349	0.028
	193.0	360.0	165.0	165.0	1.235	0.354	0.048	0.349	1.924	0.002	0.002	0.349	0.027
	77.0	200.0	77.0	77.0	1.235	0.354	0.048	0.349	1.811	0.000	0.000	0.349	0.026
	62.0	150.0	62.0	62.0	1.235	0.354	0.048	0.349	1.698	0.000	0.000	0.349	0.025
	47.0	110.0	47.0	47.0	1.235	0.354	0.048	0.349	1.585	0.000	0.000	0.349	0.024
	32.0	80.0	32.0	32.0	1.235	0.354	0.048	0.349	1.472	0.000	0.000	0.349	0.023
	17.0	50.0	17.0	17.0	1.235	0.354	0.048	0.349	1.359	0.000	0.000	0.349	0.022
	2.0	20.0	2.0	2.0	1.235	0.354	0.048	0.349	1.246	0.000	0.000	0.349	0.021

M R C
ESTIMATE
SYSTEMATIC
RECORD3.9718
0.1833
-0.0420

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1918-1979)

0.99	2711.2	1832.0	1305.5	971.9	652.7	591.7	569.8	498.6	363.1	3463.9
0.99	3376.3	2283.5	1598.0	1202.1	994.7	777.0	776.5	595.6	465.9	3465.9
0.90	3813.4	2580.6	1791.4	1349.8	1090.6	878.4	747.1	652.3	544.9	3464.9
0.80	4439.2	3066.3	2069.9	1557.0	1225.9	996.6	827.4	725.8	657.3	3467.3
0.50	6011.3	4083.9	2782.3	2061.5	1559.7	1148.3	959.1	833.6	9398.6	3467.6
0.20	8322.3	5654.3	3838.6	2757.0	2031.0	1637.2	1257.4	1056.0	1379.7	3467.7
0.10	9932.1	6754.7	4590.5	3223.9	2353.9	1853.1	1401.6	1154.8	16065.4	3468.4
0.04	12063.8	8213.7	5601.0	3817.2	2735.3	2130.4	1578.5	12573.2	19031.6	3468.4
0.02	13723.1	9350.5	6398.4	4265.9	3059.4	2332.3	1891.7	1393.9	22855.0	3468.3
0.01	15443.6	10530.2	7234.5	4719.8	3432.8	2531.0	1917.8	1408.6	25681.0	3469.3

STATION 12041600 SOLDUCK RIVER TRIBUTARY NEAR FAIRHOLM, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1956-1975)			SYSTEMATIC RECORD	
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	W R C ESTIMATE		
1956	48.0	11- 3-1955			1.4133	1.4133	
1957	52.0	12- 9-1956			0.2040	0.2040	
1958	17.0	12-25-1957			0.185	0.012	
1959	20.0	4-29-1959					
1960	17.0	12-14-1959					
1961	50.0	1-15-1961					
1962	12.0	1- 3-1962					
1963	28.0	11-19-1962					
1964	13.0	10-21-1963					
1965	16.0	11-30-1964					
1966	28.0	1-12-1966	0.99	0.95	9.3	8.7	
1967	28.0	12-13-1966	0.90	0.90	12.3	12.0	
1968	38.0	1-19-1968	0.40	0.40	14.3	14.2	
1969	18.0	1- 4-1969	0.50	0.50	17.4	17.4	
1970	16.0	4- 9-1970	0.20	0.20	25.5	25.9	
1971	24.0	12- 6-1970	0.10	0.10	38.3	38.4	
1972	37.0	3- 5-1972	0.04	0.04	47.3	47.3	
1973	48.0	12-26-1972	0.02	0.02	60.4	59.0	
1974	37.0	12-15-1973	0.01	0.01	71.2	68.2	
1975	27.0	12-21-1974			82.3	77.6	

-STATION 12042000 SOLEDUCK R NEAR BEAVER, WASH.

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1922	1340	1381	2135	330	362	210	376	1082	876	292	120	138	723
1923			1554	2139	547	444	554	602	523	319	114	85.0	
1924	196	513	1313	340	319	420	319	411	107	107	60.1	300	641
1925	1083	1374	1387	1281	2146	580	544	669	496	266	108	55.9	824
1926	44.6							418	204	83.4	50.8	64.4	
1927			1927				524	850	745	355	136	313	
1928	735	1376	698	1695	454	979	756	743	411	188	79.5	60.5	683

STATION 12042700 MAY CREEK NEAR FORKS, WASH.

ANNUAL PEAK FLOW DATA		ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1968)			W R C SYSTEMATIC	
WATER YEAR	FLOW(CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	ESTIMATE	RECORD
1950	475.0	12-28-1949			2.6795	2.6795
1951	439.0	2-10-1951			0.1363	0.1363
1952	278.0	1-30-1952			0.122	-0.689
1953	427.0	1- 2-1953				
1954	428.0	2-17-1954				
1955	624.0	11-18-1954				
1956	554.0	11- 3-1955				
1957	617.0	12- 9-1956				
1958	303.0	12-25-1957				
1959	522.0	4-29-1959				
1960	582.0	12-14-1959				
1961	694.0	2-21-1961				
1962	238.0	1- 3-1962				
1963	759.0	11-19-1962				
1964	499.0	12-23-1963				
1965	478.0	1- 4-1965				
1966	465.0	1-12-1966				
1967	395.0	1-19-1967				
1968	711.0	1-19-1968				

STATION 12042900 GRADER CREEK NEAR FORKS, WASH.

ANNUAL PEAK FLOW DATA			ANNUAL PEAK FLOW STATISTICS (YEARS 1950-1979)			W R C SYSTEMATIC RECORD	
WATER YEAR	FLOW (CFS)	DATE	MEAN LOGS	STANDARD DEVIATION LOGS	SKENNESS LOGS	ESTIMATE	
1950	235.0	11-26-1949				2.4996	2.4996
1951	265.0	2-10-1951				0.1533	0.1533
1952	210.0	11-30-1951				0.098	-0.102
1953	335.0	1-31-1953					
1954	288.0	2-19-1954					
1955	407.0	11-18-1954					
1956	503.0	11- 3-1955					
1957	520.0	12- 9-1956					
1958	199.0	12-25-1957	0.99			142.6	135.4
1959	334.0	4-29-1959	0.95			178.6	175.0
1960	415.0	12-14-1959	0.90			201.8	200.2
1961	455.0	2-21-1961	0.80			234.4	235.2
1962	163.0	1- 3-1962	0.50			314.1	317.8
1963	485.0	11-19-1962	0.20			424.4	425.8
1964	312.0	11-26-1963	0.10			498.3	494.6
1965	328.0	1- 4-1965	0.04			592.9	578.7
1966	264.0	1-12-1966	0.02			664.3	639.6
1967	250.0	1-19-1967	0.01			736.5	699.2
1968	521.0	1-19-1968					
1969	244.0	1- 4-1969					
1970	274.0	4- 9-1970					
1971	246.0	1-26-1971					
1972	303.0	1-20-1972					
1973	597.0	12-26-1972					
1974	283.0	12-15-1973					
1975	336.0	12-21-1974					
1976	502.0	12-26-1975					
1977	147.0	3- 7-1977					
1978	355.0	11- 1-1977					
1979	279.0	2-24-1979					

ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES
LOG-PEARSON III ANALYSIS (YEARS 1950-1979)

STATION 12042920 SITCUM RIVER TRIBUTARY NEAR FORKS, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW (CFS)	DATE
1971	52.0	12- 6-1970
1972	69.0	3- 5-1972
1973	97.0	12-26-1972
1974	57.0	12-15-1973
1975	53.0	12-21-1974

STATION 12043000 CALAWAH R NR FORKS, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1898													
1899													
1900	807	1464	2181	1227	2726	764	824	449	524	323	201	329	1124
1901	576	3376	2724	2943	1739	2400	1421	721	1128	460	116	65.3	1424
1902	1814	2307	3111	1576	1151	1372	1043	966	478	180	86.5	82.8	1183
1903	229	2449	2086										
1976				2248	1822	1620	909	623	409	244	172	168	
1977	266	576	1082	791	1354	1614	780	567	378	160	138	321	665
1978	693	2696	2613	1192	1049	767	630	629	291	124	179	812	971
1979	305	672	1165	476	2813	1372	848	444	165	224	98.4	452	738

STATION 12043000 CALAWAH R NR FORKS, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1898	15000.0	11-18-1897
1899	8600.0	1-20-1899
1900	13900.0	3- 9-1900
1901	12600.0	1-12-1901
1976	22600.0	12- 2-1975
1977	8940.0	1- 7-1977
1978	22400.0	11- 1-1977
1979	13600.0	3- 4-1979

STATION 12043080 EAST FORK DICKEY RIVER NEAR LA PUSH, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CUBIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1962													
1963													
1964	351	708	501	655	294	419	244	125	23.9	63.6	34.9	38.8	
1965	199	378	344	672	672	118	185	82.2	71.8	92.8	18.5	16.0	294
1966	201	416	520	638	266	405	131	158	27.3	16.1	21.5	19.4	227
1967	285	448	911	819	604	412	103	58.6	40.5	33.6	18.0	33.2	228
1968	611	310	691	859	541	407	157	71.1	25.0	9.33	6.15	26.9	314
							241	93.0	72.9	32.0	36.1	190	341

STATION 12043080 EAST FORK DICKEY RIVER NEAR LA PUSH, WASH.

ANNUAL PEAK FLOW DATA

WATER YEAR	FLOW(CFS)	DATE
1964	5400.0	12-23-1963
1965	4530.0	2- 4-1965
1966	5430.0	1-13-1966
1967	3340.0	2- 4-1967
1968	8880.0	1-19-1968

STATION 12043100 DICKEY R NR LA PUSH, WASH.

MONTHLY AND ANNUAL MEAN DISCHARGES, IN CURIC FEET PER SECOND (CFS)

YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
1962	471	1201	1100	626	755	443	494	256	44.5	129	42.9	80.3	464
1963	757	1428	1050	1400	621	911	385	164	158	218	109	27.4	621
1964	413	735	739	1353	1475	262	290	343	40.8	21.7	40.0	34.6	474
1965	444	923	1175	1427	1596	904	217	126	89.1	71.7	36.1	75.5	508
1966	617	984	2041	1804	1336	936	365	155	52.5	19.6	11.9	51.2	696
1967	1380	1709	1494	1823	1147	895	521	210	164	80.3	86.9	444	747
1968	978	929	1354	935	902	595	688	199	106	49.6	32.2	384	594
1969	417	518	823	891	599	435	894	174	42.5	27.7	18.4	202	419
1970	458	702	1233	1672	989	1092	431	172	144	76.3	33.5	139	595
1971	628	1078	1076	1136	1226	1188	734	118	32.2	334	28.6	136	641
1972	54.0	548	1804	1220	405	561	181	281	251	59.8	22.8	38.5	455
1973													
1974													
1977	156	335	626	507	741	802	243	268	156	53.6	41.9	172	340
1978	381	1403	1201	569	477	381	348	230	133	35.5	138	579	488
1979	174	378	649	258	1373	609	331	165	45.4	63.5	16.0	275	354

MONTHLY AND ANNUAL MEAN DISCHARGE STATISTICS (YEARS 1962-1979)

MEAN	523.4	847.9	1168.9	1115.8	903.0	715.3	437.3	204.4	104.9	88.6	47.0	191.9	528.3
MAXIMUM	1380.0	1428.0	2041.0	1823.0	1475.0	1188.0	894.0	343.0	251.0	334.0	138.0	579.0	747.0
MINIMUM	54.0	335.0	626.0	258.0	405.0	262.0	181.0	118.0	32.2	19.6	11.9	27.4	340.0
STD DEVIATION	345.21	349.61	411.94	500.52	356.33	283.83	209.51	64.28	65.04	87.30	37.48	166.28	123.50
SKEWNESS	1.167	0.246	0.688	-0.169	0.264	0.044	0.951	0.708	0.758	2.139	1.585	1.143	0.182
STD ERR SKEW	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.580	0.597
SER CORR COEFF	0.411	-0.249	-0.062	0.445	-0.347	-0.144	0.318	-0.233	-0.322	-0.030	-0.219	0.243	0.280
COEFF OF VAR	0.660	0.412	0.352	0.449	0.395	0.397	0.479	0.315	0.620	0.985	0.797	0.866	0.234
MEAN LOGS	2.612	2.890	3.043	2.933	2.922	2.818	2.596	2.291	1.937	1.803	1.566	2.112	2.712
STD DEV LOGS	0.357	0.197	0.154	0.247	0.181	0.194	0.203	0.134	0.286	0.352	0.307	0.421	0.104
SKEWNESS LOGS	-1.127	-0.481	-0.066	-1.074	-0.200	-0.597	0.128	0.128	-0.024	0.534	0.446	-0.146	-0.220
STD ERR SKEW LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.580	0.597
SER CORR LOGS	0.356	-0.244	-0.133	0.533	-0.346	-0.237	0.331	-0.227	-0.473	-0.083	-0.244	0.163	0.250
COEFF OF VAR LOGS	0.137	0.068	0.051	0.083	0.062	0.069	0.078	0.059	0.148	0.195	0.196	0.200	0.038
% OF AVE FLOW	8.2	13.4	18.4	17.6	14.2	11.3	6.9	3.2	1.7	1.4	0.7	3.0	100.0

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MONTHLY AND ANNUAL MEAN DISCHARGE EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1962-1979)

0.99	31.9	231.3	476.1	171.6	299.0	192.5	139.0	98.0	18.5	13.3	9.0	12.2	283.8
0.95	85.0	348.1	612.5	335.9	412.3	295.0	186.1	118.9	29.2	19.2	12.7	25.2	342.2
0.90	135.9	426.4	699.4	458.9	486.6	363.4	218.3	132.1	37.2	23.8	15.5	36.8	376.8
0.80	222.2	537.7	820.3	642.8	591.8	460.0	265.7	150.4	49.8	31.7	20.1	57.7	422.0
0.50	475.5	804.7	1107.9	1087.5	847.5	686.9	391.0	194.2	86.8	59.1	34.9	132.6	519.2
0.20	819.9	1146.0	1488.4	1595.3	1190.2	963.3	583.6	253.0	150.8	122.0	65.3	294.9	630.9
0.10	1010.7	1348.4	1732.9	1853.4	1410.5	1122.9	723.7	291.6	200.9	145.9	93.4	442.0	695.1
0.04	1202.3	1584.2	2034.9	2103.5	1680.9	1300.2	914.7	340.4	276.7	301.1	140.2	675.8	768.1
0.02	1315.2	1744.9	2255.3	2245.8	1876.8	1416.8	1065.9	376.7	331.8	418.9	184.6	860.0	817.6
0.01	1401.7	1894.1	2472.5	2358.9	2068.1	1522.0	1255.6	413.1	395.8	570.9	238.7	1115.0	863.8

STATION 12043100 DICKLEY R NR LA PUSH, WASH.

LOWEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING MARCH 31

YEAR	1 DAY	3 DAYS	7 DAYS	14 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS
1964	20.0	21.0	22.0	23.0	27.0	30.0	65.0	59.0	116.0
1965	39.0	39.0	46.0	59.0	70.0	123.0	141.0	148.0	211.0
1966	14.0	15.0	15.0	15.0	18.0	25.0	31.0	34.0	125.0
1967	15.0	15.0	20.0	26.0	28.0	37.0	56.0	30.0	91.0
1968	9.6	9.6	9.9	11.0	12.0	15.0	22.0	30.0	108.0
1969	20.0	21.0	23.0	27.0	46.0	80.0	91.0	112.0	245.0
1970	17.0	18.0	19.0	20.0	23.0	30.0	44.0	82.0	189.0
1971	12.0	12.0	12.0	12.0	16.0	23.0	27.0	45.0	118.0
1972	17.0	18.0	20.0	22.0	28.0	52.0	78.0	94.0	136.0
1973	15.0	15.0	15.0	17.0	19.0	34.0	71.0	109.0	116.0
1978	17.0	18.0	18.0	20.0	26.0	42.0	60.0	88.0	135.0
1979	18.0	18.0	19.0	21.0	26.0	56.0	95.0	128.0	213.0

LOWEST MEAN FLOW STATISTICS (YEARS 1964-1979)

MEAN	18.1	18.6	19.9	22.8	28.3	45.6	65.1	83.0	150.2
MAXIMUM	39.0	39.0	46.0	59.0	70.0	123.0	141.0	148.0	245.0
MINIMUM	9.6	9.6	9.9	11.0	12.0	15.0	22.0	30.0	91.0
STANDARD DEVIATION	7.29	7.26	9.10	12.46	15.67	30.00	33.78	37.42	50.33
SKEWNESS	2.294	2.095	2.325	2.490	1.989	1.807	0.846	0.145	0.822
STD ERROR OF SKEWNESS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SERIAL CORR COEFF	-0.095	-0.069	-0.101	-0.196	-0.282	-0.391	-0.278	-0.309	-0.020
COEFF OF VARIATION	0.402	0.390	0.457	0.548	0.555	0.658	0.519	0.451	0.335
MEAN LOGS	1.234	1.246	1.267	1.314	1.404	1.589	1.756	1.871	2.156
STD DEVIATION LOGS	0.147	0.147	0.165	0.189	0.203	0.249	0.240	0.224	0.138
SKEWNESS LOGS	0.896	0.630	0.847	0.995	0.740	0.500	-0.331	-0.584	0.518
STD ERR SKEWNESS LOGS	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637	0.637
SER CORR COEFF LOGS	-0.164	-0.138	-0.182	-0.311	-0.390	-0.470	-0.283	-0.279	0.017
COEFF OF VAR LOGS	0.119	0.118	0.130	0.144	0.144	0.156	0.137	0.120	0.064

LOWEST MEAN FLOW NON-EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1964-1979)

	0.99	0.98	0.96	0.90	0.80	0.50	0.20	0.10	0.05	0.02	0.01
46.5	45.2	39.4	34.1	27.7	23.1	17.0	13.2	11.7	10.8	10.1	9.8
56.2	47.4	39.6	30.8	24.8	19.2	14.6	13.4	11.9	11.0	10.2	9.7
76.6	62.2	50.1	36.9	28.7	19.2	14.2	13.4	11.6	11.6	10.8	10.3
95.7	78.5	63.7	47.2	36.5	23.9	17.0	14.6	13.1	11.8	11.1	10.7
180.6	145.7	115.9	82.8	61.7	37.0	23.8	19.4	16.5	14.0	12.7	12.7
197.4	160.9	140.8	113.4	91.5	58.8	36.2	27.6	21.9	16.6	13.8	13.8
337.4	299.2	263.1	218.1	185.0	139.4	97.4	69.4	49.2	29.5	18.0	18.0

FLOW DURATION DATA

DAILY MEAN DISCHARGE IN CFS EXCEEDED "P" PERCENT OF THE TIME (YEARS 1964-1979)

P95	P90	P75	P50	P25	P10
21.0	29.0	81.0	110.0	660.0	1400.0

STATION 12043100 DICKEY R NR LA PUSH, WASH.

HIGHEST MEAN FLOW IN CFS FOR THE FOLLOWING NUMBER OF CONSECUTIVE DAYS IN YEAR ENDING SEPT.30

YEAR	1 DAY	3 DAYS	7 DAYS	15 DAYS	30 DAYS	60 DAYS	90 DAYS	120 DAYS	183 DAYS	ANNUAL PEAK-FLOW DATA	REG. (R)
1963	6160.	4320.	3310.	1820.	1390.	1360.	1080.	933.	785.	10300.	11/19/62
1964	6390.	4060.	2500.	2000.	1690.	1340.	1370.	1260.	1060.	9570.	12/23/63
1965	5020.	3540.	2610.	2300.	1830.	1490.	1250.	1070.	817.	7580.	02/04/65
1966	6210.	4450.	3380.	2400.	1730.	1390.	1210.	1060.	918.	8630.	01/13/66
1967	4760.	3810.	3260.	2600.	2460.	2040.	1860.	1630.	1300.	6420.	02/04/67
1968	13500.	8420.	5150.	3310.	2310.	1720.	1520.	1380.	1250.	17300.	01/19/68
1969	5000.	3500.	2540.	1820.	1490.	1420.	1280.	1130.	980.	6480.	01/04/69
1970	4510.	2630.	2370.	1460.	1060.	940.	813.	697.	597.	7250.	04/09/70
1971	8130.	4900.	3310.	2540.	1840.	1470.	1310.	1260.	1070.	10800.	01/26/71
1972	5210.	3440.	2190.	2100.	1720.	1360.	1200.	1120.	1120.	7450.	01/20/72
1973	10000.	6830.	4570.	3390.	2280.	1590.	1220.	1020.	790.	15200.	12/25/72
1974										7810.	02/03/74
1975										5170.	12/21/74
1976										8490.	12/02/75
1977	3480.	2550.	1710.	1190.	1060.	824.	736.	677.	549.	4780.	01/18/77
1978	4970.	3630.	2550.	1980.	1650.	1420.	1130.	981.	766.	7210.	11/14/77
1979	4230.	2780.	1790.	1650.	1620.	1000.	834.	723.	588.	5980.	03/04/79

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW STATISTICS (YEARS 1963-1979)

W R C
ESTIMATE

SYSTEMATIC
RECORD

MEAN	6255.0	4232.9	2945.7	2182.9	1723.6	1376.7	1203.8	1080.6	906.4		
MAXIMUM	13500.0	8820.0	5150.0	3390.0	2400.0	2040.0	1860.0	1630.0	1300.0		
MINIMUM	3480.0	2550.0	1710.0	1190.0	1060.0	824.0	736.0	677.0	549.0		
STANDARD DEVIATION	2674.45	1710.07	978.53	634.10	419.20	310.89	291.96	259.55	232.62		
SKWENESS	1.848	1.810	1.044	0.599	0.171	0.111	0.381	0.354	0.183		
STD. ERROR OF SKWENESS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597		
SERIAL CORR. COEFF.	-0.344	-0.282	-0.235	-0.161	0.031	0.024	0.202	0.236	0.353		
COEFF OF VARIATION	0.428	0.404	0.332	0.290	0.243	0.226	0.243	0.240	0.257		
MEAN LOGS	3.767	3.600	3.449	3.322	3.224	3.128	3.068	3.022	2.944		
STD DEVIATION LOGS	0.156	0.150	0.137	0.127	0.110	0.103	0.108	0.106	0.115		
SKWENESS LOGS	1.081	0.994	0.338	-0.097	-0.433	-0.618	-0.368	-0.245	-0.250		
STD ERR SKWENESS LOGS	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597	0.597		
SER CORR COEFF LOGS	-0.379	-0.312	-0.243	-0.157	-0.013	-0.058	0.140	0.207	0.339		
COEFF OF VAR LOGS	0.041	0.042	0.040	0.038	0.034	0.033	0.035	0.035	0.039		

HIGHEST MEAN FLOW AND ANNUAL PEAK FLOW EXCEEDENCE PROBABILITIES BASED ON LOG-PEARSON III ANALYSIS (YEARS 1963-1979)

0.99	3372.9	2299.1	1459.6	1044.0	858.7	695.2	612.9	569.1	452.5	3754.5	4445.6
0.95	3682.6	2526.8	1726.6	1289.7	1073.0	871.9	757.7	691.2	558.4	4674.3	5029.7
0.90	3923.2	2698.2	1900.0	1440.9	1199.3	977.7	843.1	763.7	621.9	5263.1	5441.6
0.80	4311.4	2968.8	2146.2	1645.2	1362.9	1110.5	958.1	862.4	705.6	6086.7	6063.8
0.50	5490.4	3765.4	2760.0	2109.2	1705.4	1375.6	1188.4	1062.0	887.8	4081.2	7783.6
0.20	7656.3	5174.6	3639.7	2686.2	2175.4	1784.6	1448.5	1295.3	1099.8	10804.2	10612.7
0.10	9477.5	6325.8	4249.5	3040.2	2284.2	1784.6	1593.0	1422.6	1261.0	12610.6	12803.1
0.04	12282.2	8056.9	5052.9	3462.4	2506.5	1927.5	1752.4	1580.5	1362.6	14902.6	15958.3
0.02	14784.1	9568.3	5675.9	3761.8	2651.3	2016.0	1857.6	1683.0	1457.9	16619.7	18609.2
0.01	17683.6	11289.1	6320.8	4050.2	2781.8	2092.6	1953.4	1778.3	1546.9	18347.1	21534.7

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12039100	BIG CREEK TRIBUTARY NEAR HOQUIAM, WASH.	381
12029000	BLACK RIVER AT LITTLE ROCK, WASH.	338
14211900	BURNTBIDGE CREEK AT VANCOUVER, WASH.	72
12043000	CALAWAH R NR FORKS, WASH.	415
14219000	CANYON CREEK NEAR AMBOY, WASH.	110
14143200	CANYON CREEK NEAR WASHOUGAL, WASH.	67
14221500	CEDAR CREEK NEAR ARIEL, WASH.	124
14231700	CHAMBERS CR NR PACKWOOD, WASH.	164
12031000	CHEHALIS RIVER AT PORTER, WASH.	343
12033000	CHEHALIS RIVER AT SOUTH ELMA, WASH.	350
12020000	CHEHALIS RIVER NEAR DOTY, WASH.	296
12027500	CHEHALIS RIVER NEAR GRAND MOUND, WASH.	332
14236400	CINNABAR CREEK NEAR CINEBAR, WASH.	187
14232500	CISPUS RIVER NEAR RANDLE, WASH.	165
14224500	CLEAR FK COWLITZ RIVER NR PACKWOOD, WASH.	141
12015100	CLEARWATER CREEK NEAR RAYMOND, WASH.	283
12040000	CLEARWATER RIVER NR CLEARWATER, WASH.	394
12032500	CLOQUALLUM RIVER AT ELMA, WASH.	347
14241200	COLDSPRING CREEK NEAR COUGAR, WASH.	207
14126300	COLUMBIA RIVER TRIBUTARY AT HOME VALLEY, WASH.	57
14223800	COLUMBIA RIVER TRIBUTARY AT CARROLLS, WASH.	140
14245000	COWEMAN RIVER NEAR KELSO, WASH.	228
14243000	COWLITZ R AT CASTLE ROCK, WASH.	216
14235000	COWLITZ RIVER AT MOSSYROCK, WASH.	177
14226500	COWLITZ RIVER AT PACKWOOD, WASH.	154
14238000	COWLITZ RIVER BELOW MAYFIELD DAM, WASH.	197
14233500	COWLITZ RIVER NEAR KOSMOS, WASH.	174
14233400	COWLITZ RIVER NR RANDLE, WASH.	171
14215500	CURLY CREEK NEAR COUGAR, WASH.	91
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12043100	DICKEY R NR LA PUSH, WASH.	417
14218300	DOG CREEK AT COUGAR, WASH.	109
14222700	EAST FK LEWIS R TRIB NR WOODLAND, WASH.	133
12043080	EAST FORK DICKEY RIVER NEAR LA PUSH, WASH.	416
14222500	EAST FORK LEWIS RIVER NEAR HEISSON, WASH.	127
12034200	EAST FORK SATSOP RIVER NEAR ELMA, WASH.	351
12031890	EAST FORK WILDCAT CREEK AT MCCLEARY, WASH.	346
14240450	ELK CR NR SPIRIT LAKE, WASH.	206
12020500	ELK CREEK NEAR DOTY, WASH.	300
14247500	ELOCHOMAN RIVER NEAR CATHLAMET, WASH.	232
12012000	FORK CREEK NEAR LEBAM, WASH.	273
14222930	FOSSIL CREEK NR COUGAR, WASH.	133
12038750	GIBSON CREEK NEAR QUINULT, WASH.	376
12042900	GRADER CREEK NEAR FORKS, WASH.	415
14249500	GRAYS R BLW SOUTH FK NR GRAYS RIVER, WASH.	242
14249000	GRAYS RIVER ABV SOUTH FK NR GRAYS RIVER, WASH.	239
12012200	GREEN CREEK NEAR LEBAM, WASH.	276
14144600	GROENEVELD CREEK NEAR CAMAS, WASH.	72
12039400	HIGLEY CREEK NEAR AMANDA PARK, WASH.	386
12041200	HUH RIVER AT U.S. HIGHWAY 101 NEAR FORKS, WASH.	405
12041000	HUH RIVER NEAR FORKS, WASH.	401
12039000	HUMPTULIPS RIVER NEAR HUMPTULIPS, WASH.	377
14248200	JIM CHOW CREEK NEAR GRAYS RIVER, WASH.	236
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14237000	KLICKITAT CREEK AT MOSSYROCK, WASH.	191
14226000	LAKE CREEK AT MOUTH, NEAR PACKWOOD, WASH.	150
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14144000	LITTLE WASHOUGAL RIVER NEAR WASHOUGAL, WASH.	71
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14125500	LITTLE WHITE SALMON RIVER NEAR COOK, WASH.	54
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14246500	MILL CR NR CATHLAMET, WASH.	231
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12024500	NORTH FORK NEWAUKUM RIVER NEAR FOREST, WASH.	311
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