

## 13. Appendix A. Flood Frequency Report

# RECLAMATION

*Managing Water in the West*

## Hydrology Studies for the Secretary's Determination on Klamath River Dam Removal and Basin Restoration



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U.S. Department of the Interior  
Bureau of Reclamation  
Technical Service Center  
Denver, Colorado

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# **Mission Statements**

The U.S. Department of the Interior protects America's natural resources and heritage, honors our cultures and tribal communities, and supplies the energy to power our future.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Note: The previous version of this document was completed in October 2010. Additional frequency analyses and hydrographs were requested in January and February 2011 to support design and construction efforts. This March 2011 version of the document incorporates the additional information.

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# 1 Introduction

This report summarizes the flood frequency estimates for the Klamath River between Keno, OR and Klamath, CA (Figure 1) for the Secretary's Determination on Klamath River Dam Removal and Basin Restoration. This flood hydrology study is intended to provide hydrologic information to support hydraulic and sediment transport modeling efforts on the Klamath River and to determine the hydrologic conditions which would be expected during two construction seasons (July 1 to November 30 and June 1 to October 31) for the removal of Boyle, Copco 1, Copco 2 and Iron Gate dams. The Klamath River is regulated by numerous reservoirs upstream of the Keno gaging station. Annual flood frequency estimates were developed based on seven gaging stations on the Klamath River with long-term records. Annual, seasonal, and monthly flow duration values and seasonal flood frequency estimates were developed at the Keno, Boyle, Copco and Iron Gate gages. Using the calculated flood frequency values, frequency hydrographs were developed at the Keno, Boyle, Copco and Iron Gate gages. The Boyle, Copco, and Iron Gate gages are considered reasonable estimates of flood frequency values at Boyle, Copco 1 and 2, and Iron Gate dams, respectively.

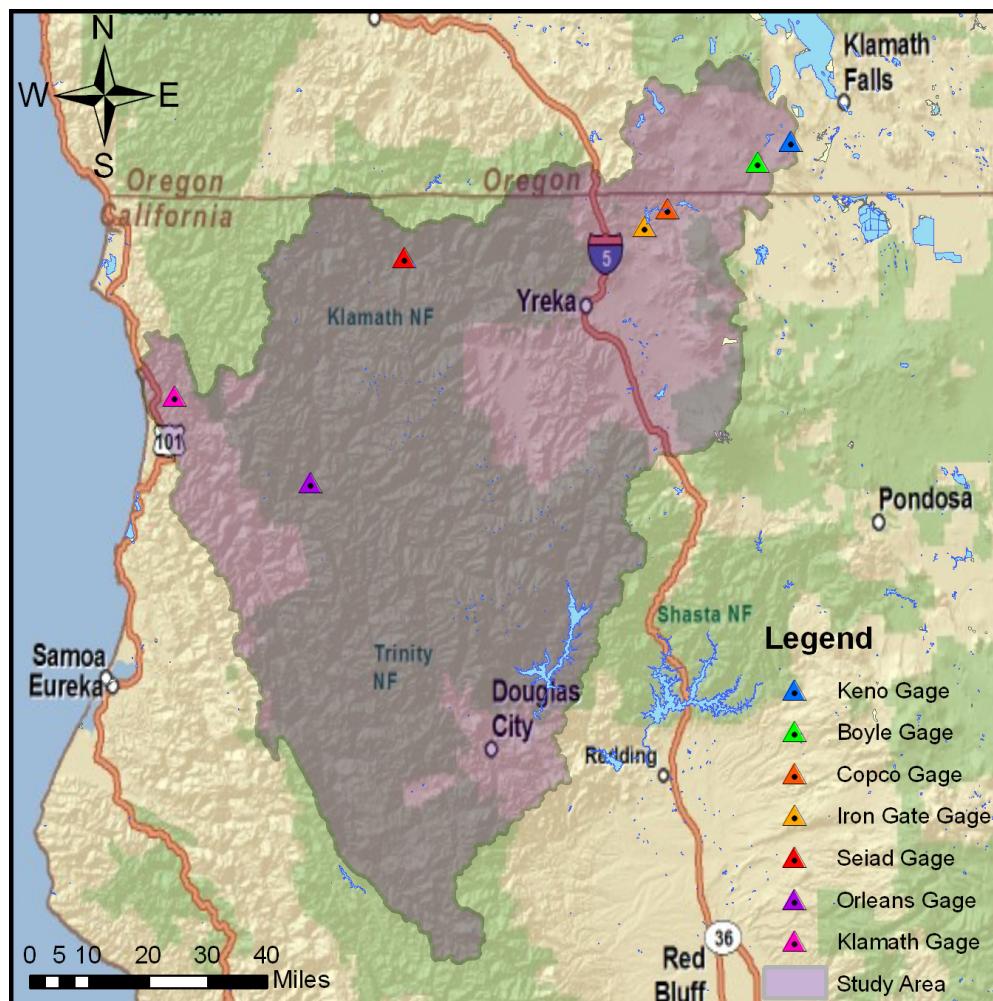


Figure 1 – Map of Klamath River Basin, OR & CA

## 2 Peak Discharge Frequency Analysis

U.S. Geological Survey (USGS) peak discharge estimates and mean daily flow records were available at seven locations and utilized to develop the flood frequency estimates for the Klamath River between Keno, OR and Klamath, CA [1]. The USGS streamflow gaging stations are listed in Table 1, and locations are shown in Figure 1.

**Table 1 – U.S. Geological Survey Streamflow Gaging Stations Analyzed**

USGS Gaging Station No.	Station Name	Drainage Area (mi <sup>2</sup> )	Latitude	Longitude	Gage Elevation (feet, NGVD)	Period of Record (Water Years)
11509500	Klamath River at Keno, OR	3,920	42°08'00"	121°57'40"	3,961	1905-1913 1930-2009
11510700	Klamath River below John C. Boyle Power Plant near Keno, OR	4,080	42°05'05"	122°04'20"	3,275	1959-2009
11512500	Klamath River below Fall Creek near Copco, CA	4,370	41°58'20"	122°22'05"	2,310	1924-1961
11516530	Klamath River below Iron Gate Dam, CA	4,630	41°55'41"	122°26'35"	2,162	1961-2009
11520500	Klamath River near Seiad Valley, CA	6,940	41°51'14"	123°13'52"	1,320	1913-1925 1952-2009
11523000	Klamath River at Orleans, CA	8,475	41°18'13"	123°32'00"	356	1927-2009
11530500	Klamath River near Klamath, CA	12,100	41°30'40"	123°58'42"	5.6	1911-1927 1932-1994, 1996, 1998-2009

A Log-Pearson III distribution was fit to the annual peak flows using the method of moments. The USGS program PeakFQ [2] was used to analyze the station data. This process is consistent with the procedure described in the Guidelines for Determining Flood Flow Frequency, *Bulletin 17B* [3]. A regional skew value was not included in the calculations. Calculations based on the station skew are assumed sufficient due to the length of the gage records.

The Keno, Boyle and Copco gages are highly regulated by impoundments upstream of the Keno gage. To better model those effects and improve the fit of the frequency curve to the gage, the data was censored by applying a gage base discharge. This was done based on the assumption that the peak discharges above the gage base discharge represents what would be expected during unregulated conditions. The model does not

include peaks below the gage base discharge to estimate the frequency curve statistics because they are regulated and cannot be modeled using the same distribution. Using the maximum censoring level allowed by PeakFQ (50 percent), the gage base discharges were set for Keno, Boyle, and Copco at 4,000 ft<sup>3</sup>/s, 4,000 ft<sup>3</sup>/s, and 5,400 ft<sup>3</sup>/s respectively.

The station record at the Copco gage represents a lower flow period in the basin and is not indicative of the peak discharges that have been experienced in the basin. The record ends in 1961 before the basin flood of record which occurred in December 1964. Other large floods occurred in 1972, 1974, 1982, 1986, 1996, 1997, and 2006. The station record at the Boyle gage represents a higher to moderate flow period in the basin, but has a much shorter record than the record at the Keno gage. This can be shown by comparing the average peak discharge at Keno for the 89 years of record to the average peak discharge at Keno for the period of record that the Boyle and Copco gages were in operation. The Keno gage average peak discharge for the historic record is 4,860 ft<sup>3</sup>/s. From 1930-1961 when the Copco gage was in operation, the average peak discharge at Keno is 3,960 ft<sup>3</sup>/s. The average peak discharge at Keno for the period of 1961-2009 when the Boyle gage was in operation is 5,590 ft<sup>3</sup>/s. Figure 2 displays the Keno historic record and the average discharge at Keno for the time periods when the Copco and Boyle gages were in operation.

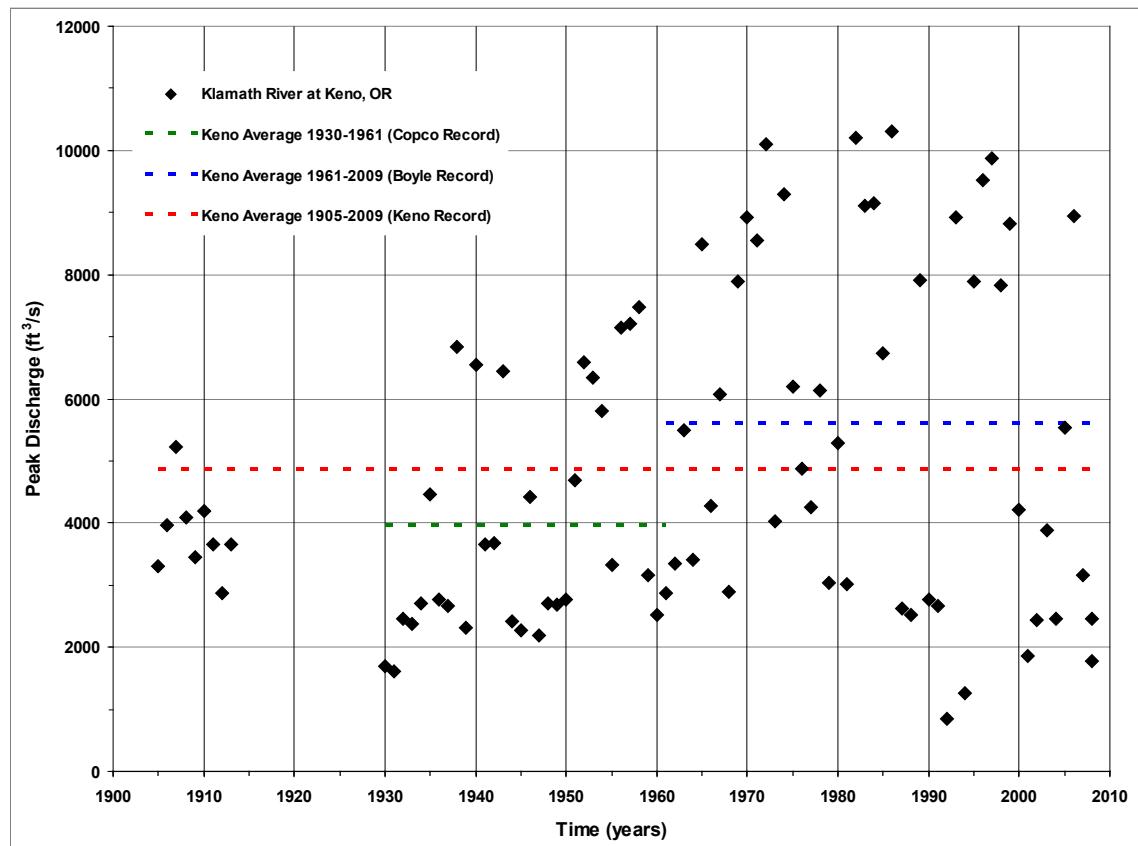


Figure 2 – Keno Annual Peak and Average Peak Discharge

In order to create a common time period for the peak discharge frequency analysis, the records at Boyle and Copco were extended based on a correlation to Keno. The station data at Keno was correlated to the Boyle and Copco data for the overlapping years of the record when the peak discharge at both stations were from the same flood event. Figure 3 shows the result of the gage correlation at both gages.

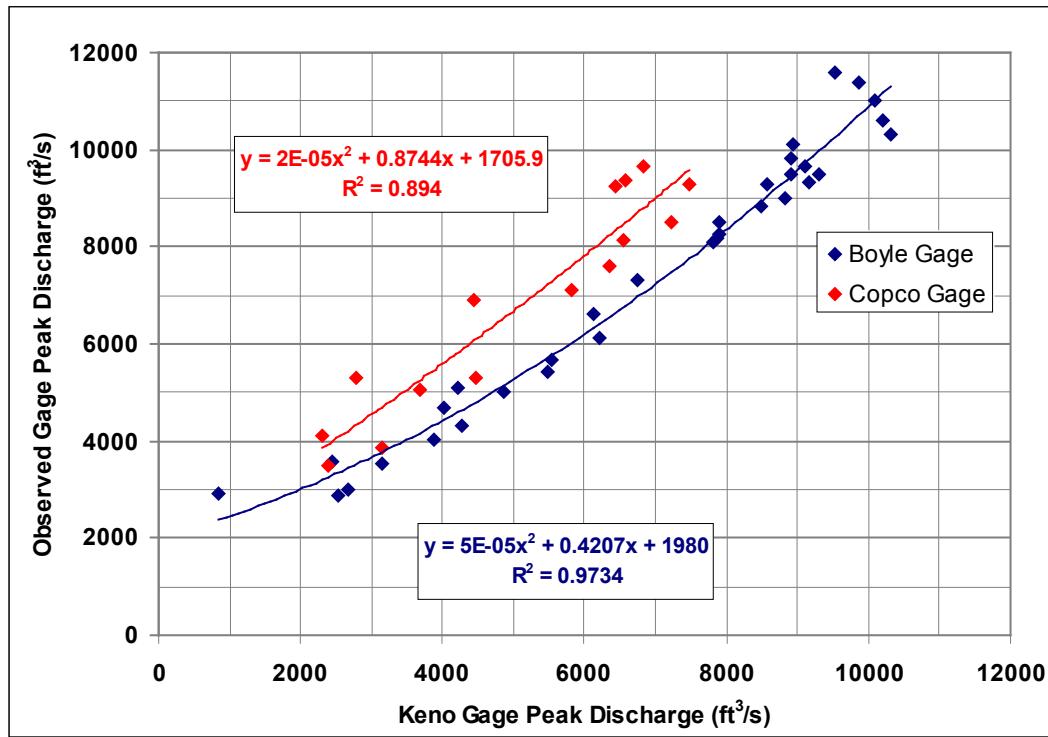


Figure 3 – Correlation of Keno to Boyle and Copco Observed Peak Discharges

Boyle and Copco peak discharge data was estimated by applying the following correlation equations:

$$\text{Equation 1 : } Q_{Boyle} = (5 * 10^{-5} * (Q_{Keno})^2) + (0.4207 * Q_{Keno}) + 1980.0$$

$$\text{Equation 2 : } Q_{Copco} = (2 * 10^{-5} * (Q_{Keno})^2) + (0.8744 * Q_{Keno}) + 1705.9$$

Where:  $Q_{Boyle}$  = Boyle Computed Peak Discharge ( $\text{ft}^3/\text{s}$ )

$Q_{Keno}$  = Keno Gaged Peak Discharge ( $\text{ft}^3/\text{s}$ )

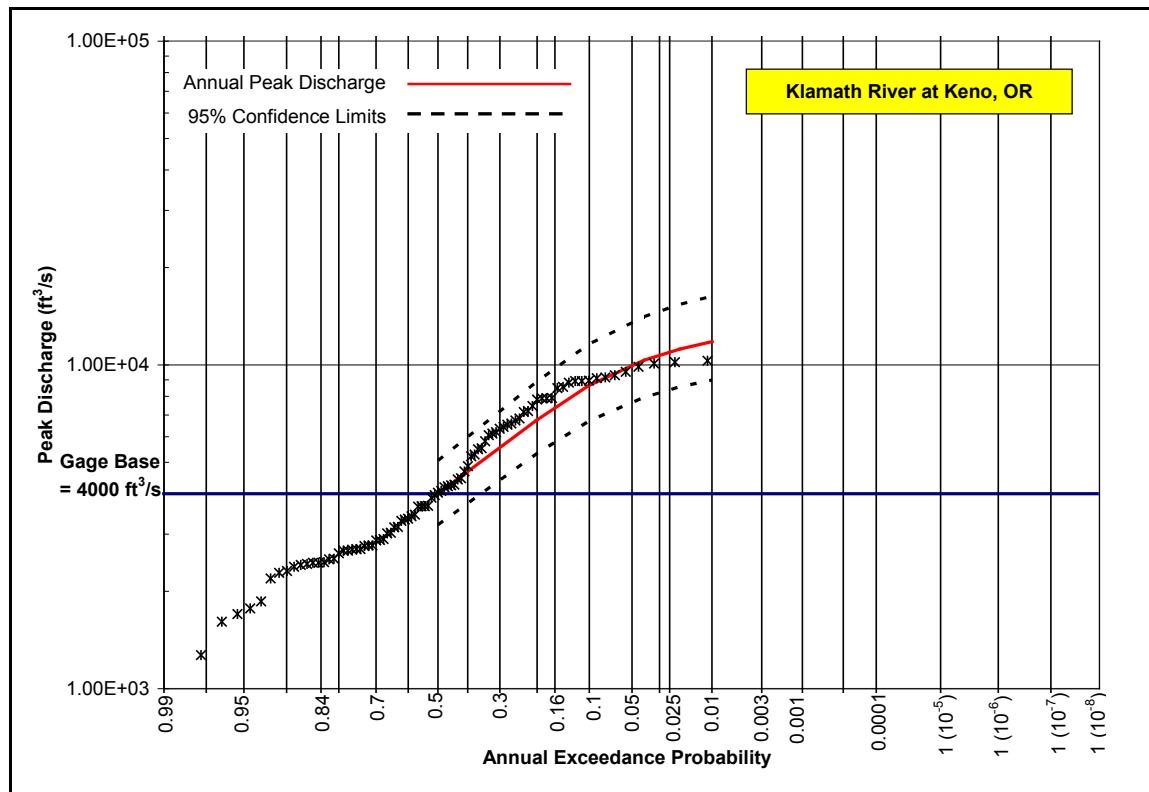
$Q_{Copco}$  = Copco Computed Peak Discharge ( $\text{ft}^3/\text{s}$ )

The Boyle gaged record was extended using Equation 1 for the periods 1905-1913 and 1930-1960. The Copco gaged record was extended using Equation 2 for the periods 1905-1913 and 1962-2009. The extended records were combined with the gaged data at each gage and the peak discharges at each location were analyzed using PeakFQ and censored as described above. The list of annual peak discharges estimated at Boyle and Copco can be seen in Appendix A.

The gages at Iron Gate, Seiad, Orleans, and Klamath were not greatly influenced by the regulation above Keno and the data was not censored. Table 2 contains the results of the statistical analyses at each gage. Figures 4 through 10 present plots of the frequency data and the estimated frequency curve fit to the data. The data and statistical parameters of the LPIII distribution are shown in Appendix A.

**Table 2 – Klamath River Annual Peak Discharge Frequency**

Gaging Station	Drainage Area	Discharge (ft <sup>3</sup> /s)				
		Gage Base	10-yr	25-yr	50-yr	100-yr
Keno	3,920	4,000	8,642	10,350	11,200	11,800
Boyle	4,080	4,000	9,058	11,050	12,220	13,150
Copco	5,370	5,400	10,750	12,720	13,730	14,470
Iron Gate	4,630	N/A	15,610	21,460	26,280	31,460
Seiad	6,940	N/A	56,540	93,400	131,000	179,300
Orleans	8,470	N/A	163,100	230,300	287,000	348,900
Klamath	12,100	N/A	298,300	392,900	466,900	543,300



**Figure 4 –Peak Discharge Frequency – Klamath River at Keno, OR**

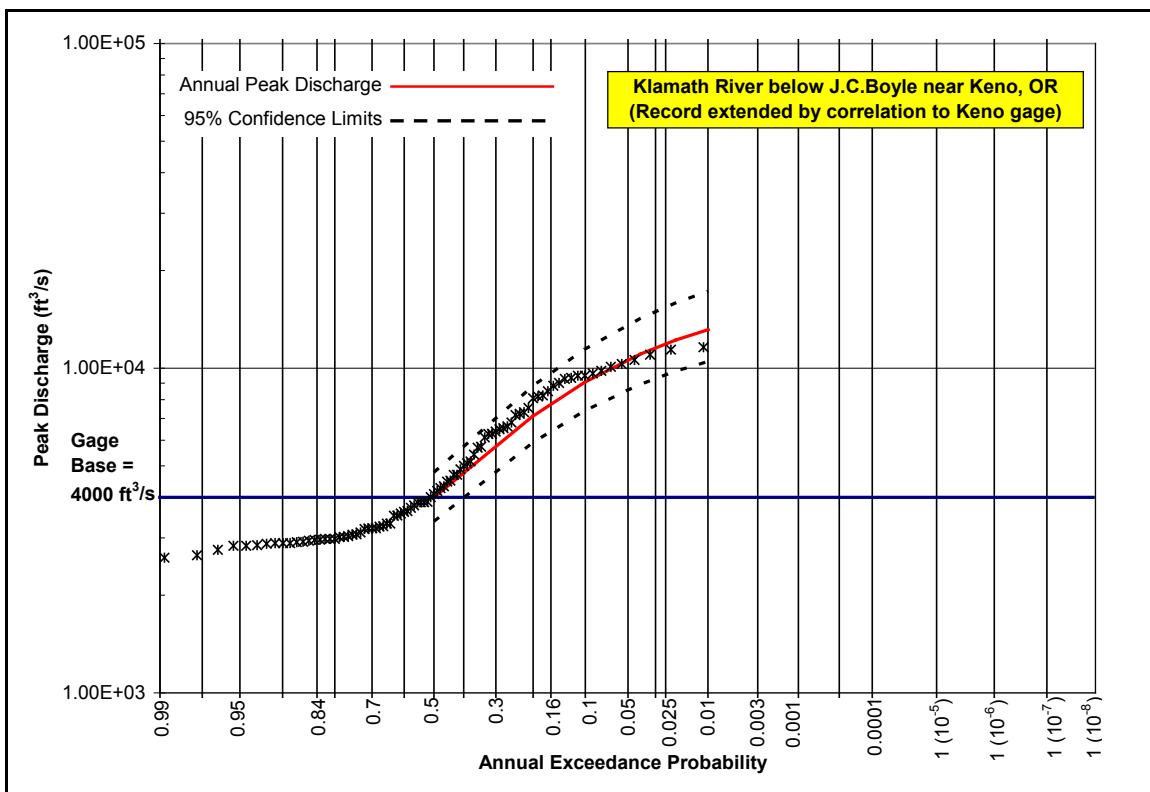


Figure 5 –Peak Discharge Frequency – Klamath River below J.C. Boyle Powerplant near Keno, OR

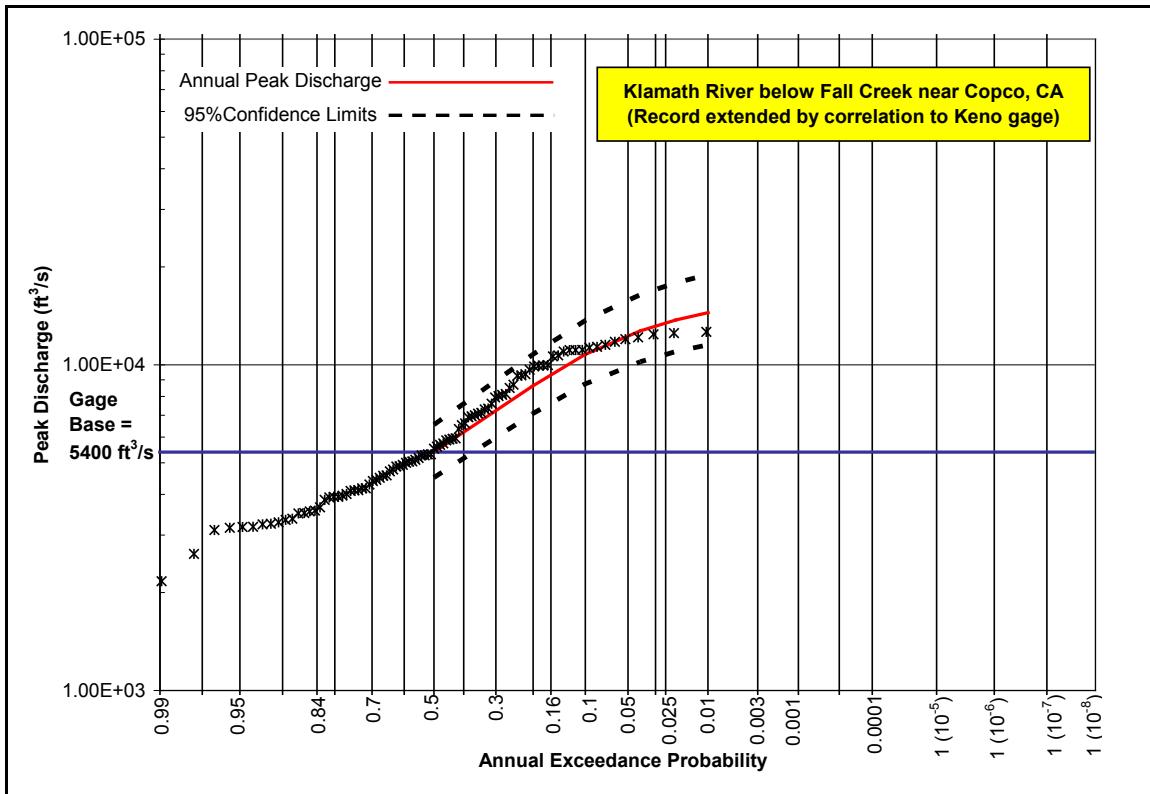
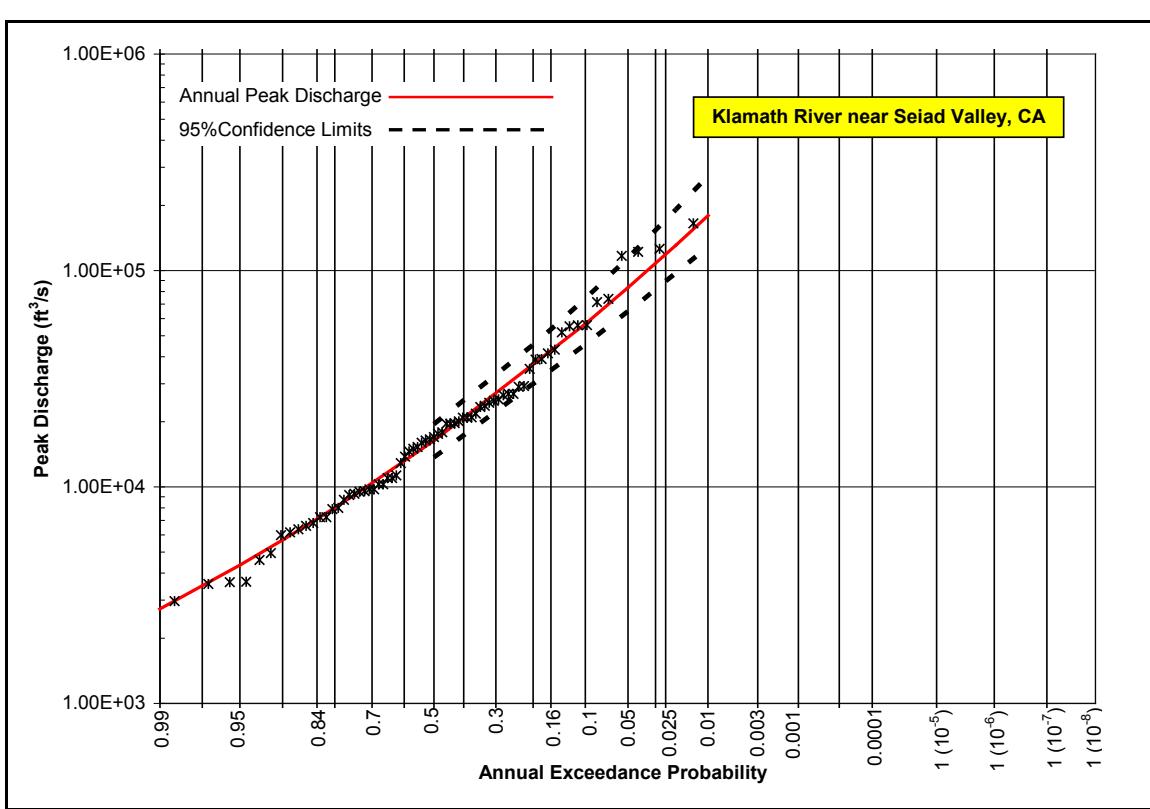
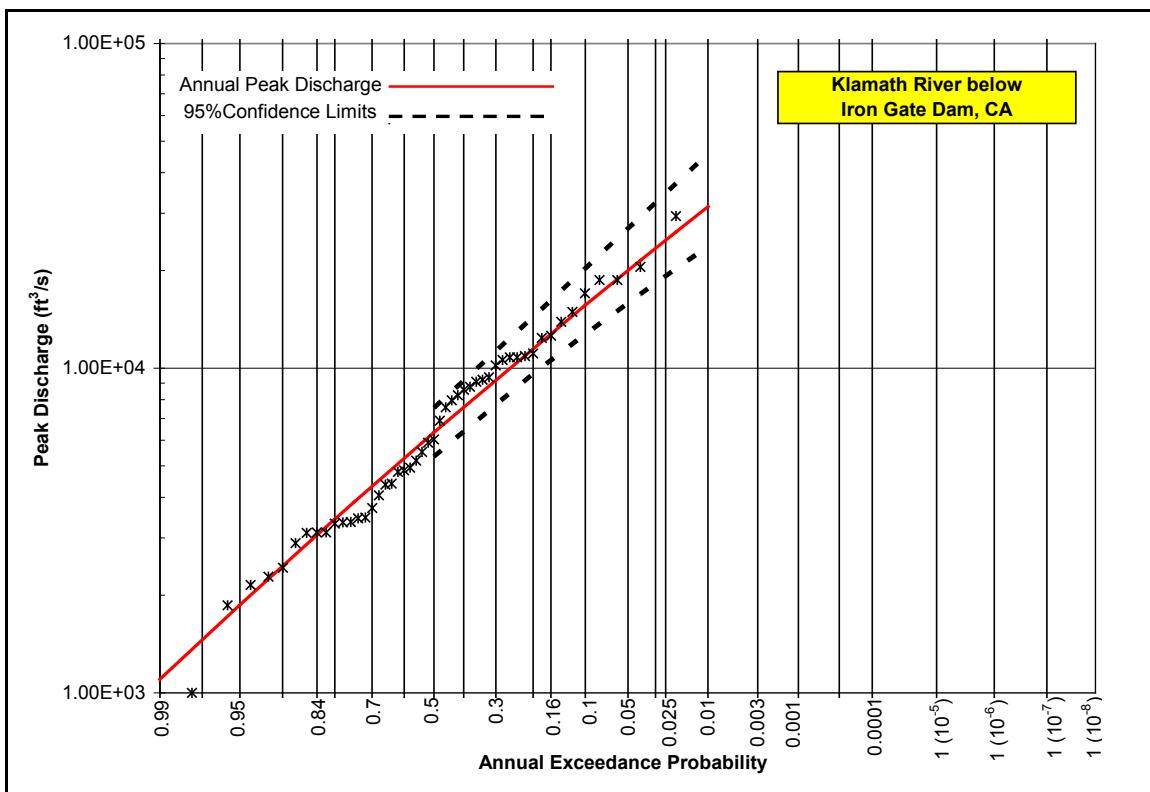
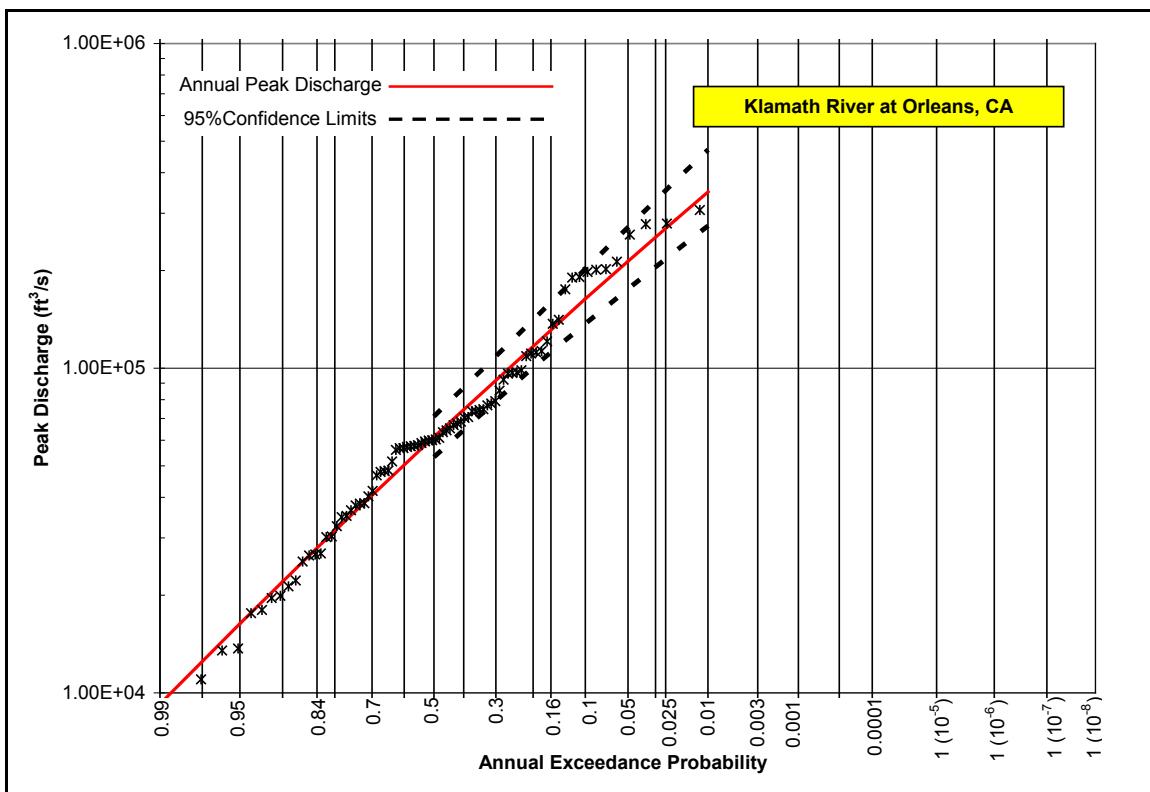
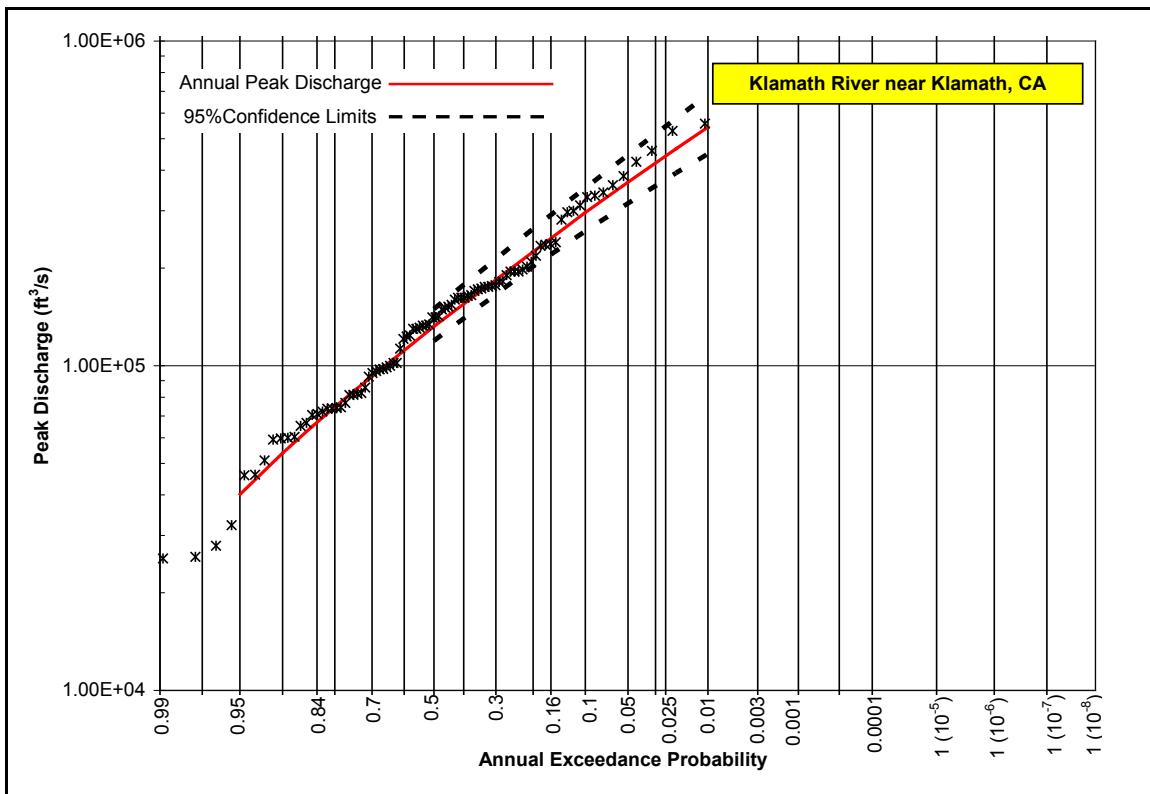


Figure 6 –Peak Discharge Frequency – Klamath River below Fall Creek near Copco, CA





**Figure 9 –Peak Discharge Frequency – Klamath River at Orleans, CA**



**Figure 10 –Peak Discharge Frequency – Klamath River near Klamath, CA**

### 3 Streamflow Duration Analysis

A streamflow duration analysis was performed for the Keno, Boyle, Copco, and Iron Gate daily gage data. This analysis presents the percentage of time that flows exceed various levels in the historic record. The data was also analyzed for the July 1 to November 30 and June 1 to October 31 seasons and for each month of the year.

In order to create a common time period for the streamflow duration analysis, the daily discharge records at Boyle and Copco were extended based on a correlation to Keno. The station data at Keno was correlated to the Boyle and Copco data using a linear relationship for the overlapping years of daily record. Figures 11 and 12 present the results of the gage correlation.

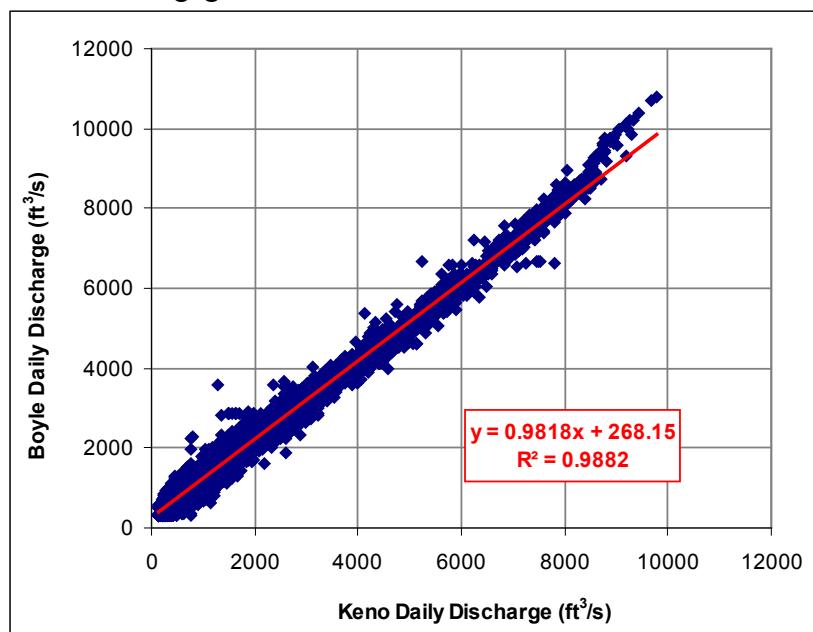
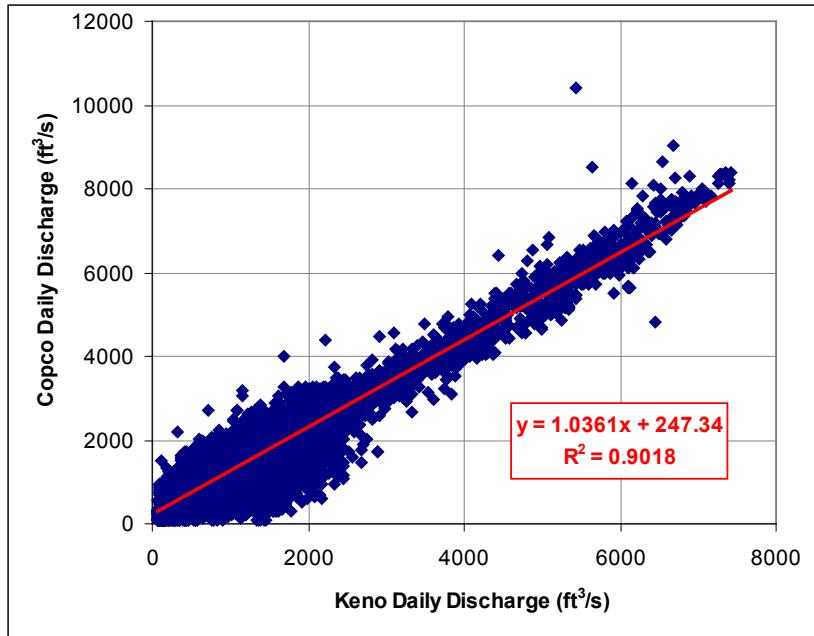


Figure 11 – Daily Discharge Correlation between Boyle and Keno gages



**Figure 12 – Daily Discharge Correlation between Copco and Keno gages**

Boyle and Copco peak discharge data was estimated by applying the following correlation equations:

$$\text{Equation 3: } Q_{Boyle} = (0.9818 * Q_{Keno}) + 268.15$$

$$\text{Equation 4: } Q_{Copco} = (1.0361 * Q_{Keno}) + 247.34$$

Where:  $Q_{Boyle}$  = Boyle Computed Daily Discharge (ft<sup>3</sup>/s)

$Q_{Keno}$  = Keno Gaged Daily Discharge (ft<sup>3</sup>/s)

$Q_{Copco}$  = Copco Computed DailyDischarge (ft<sup>3</sup>/s)

The Boyle gaged daily discharge record was extended using Equation 3 for the periods 1905-1913 and 1930-1960. The Copco gaged record was extended using Equation 4 for the periods 1905-1913 and 1962-2009. The extended records were combined with the gaged data at each gage location. Annual and seasonal (July 1 to November 30 and June 1 to October 31) flow duration analyses were performed on the daily gage records at Keno and Iron Gate. The flow duration analyses were performed on the extended daily gage records at Boyle and Copco.

Tables 3 and 4 provide the tabular results of the flow duration analysis at each gage. Figures 13 to 16 present the annual and seasonal flow duration relationship at each gage location. The daily flow duration plots for each month and the tabular results can be found in Appendix B. Average daily discharges for each day of the year at each location were computed based on the fifty year period from 1961-2010. This data is presented in Appendix C.

**Table 3 – Daily Flow Duration – Annual**

% of time equaled or exceeded	Discharge (ft <sup>3</sup> /s)			
	Annual			
	Keno	Boyle	Copco	Iron Gate
99	152	359	290	528
95	297	546	517	716
90	431	673	639	741
80	645	892	889	955
70	821	1080	1100	1040
60	990	1240	1290	1320
50	1180	1440	1500	1360
40	1440	1680	1760	1700
30	1800	2050	2130	1980
20	2390	2640	2690	2980
10	3120	3350	3400	3870
5	4320	4460	4600	5500
1	6880	6970	7480	9170

**Table 4 – Daily Flow Duration –Seasonal**

% of time equaled or exceeded	Discharge (ft <sup>3</sup> /s)							
	July 1 – November 30				June 1 – October 31			
	Keno	Boyle	Copco	Iron Gate	Keno	Boyle	Copco	Iron Gate
99	147	352	294	441	145	338	285	435
95	292	526	509	701	270	482	496	675
90	417	656	597	725	336	600	555	717
80	621	854	827	846	500	748	717	739
70	737	1000	987	1000	663	913	907	852
60	901	1160	1170	1030	776	1040	1040	1000
50	1020	1270	1300	1130	938	1200	1219	1030
40	1180	1440	1480	1320	1070	1340	1367	1130
30	1390	1610	1700	1350	1270	1510	1584	1320
20	1580	1820	1930	1510	1500	1740	1843	1370
10	1960	2200	2310	1840	1850	2090	2247	1760
5	2450	2640	2820	2920	2340	2570	2710	1990
1	3300	3510	3620	4350	3730	3930	4010	3240

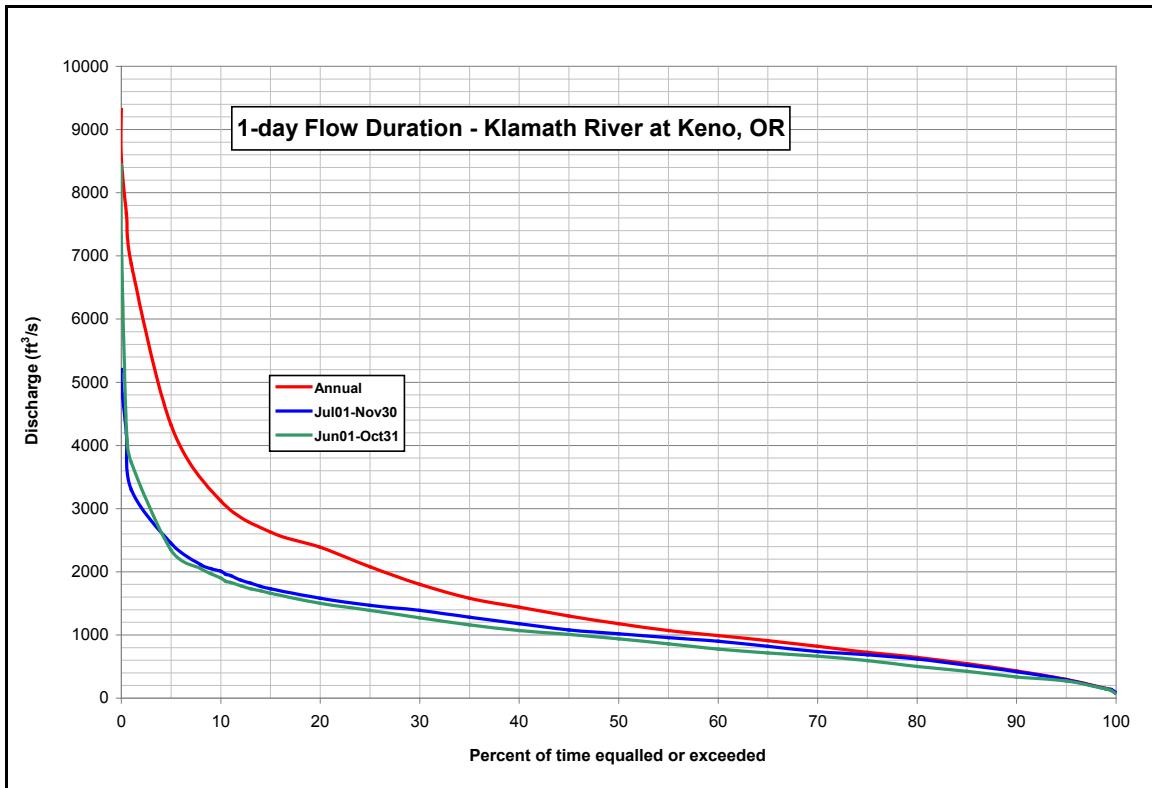


Figure 13 – Daily Flow Duration - Klamath River at Keno, OR

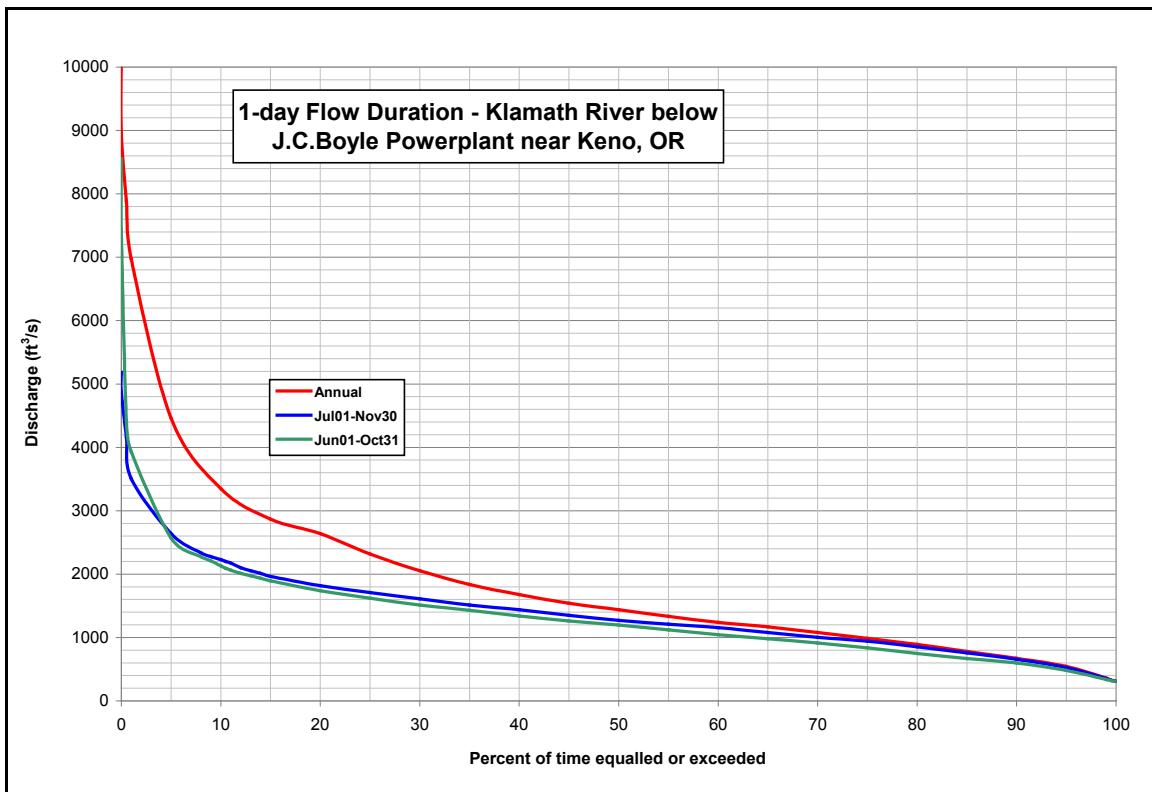


Figure 14 – Daily Flow Duration - Klamath River below J.C. Boyle Powerplant near Keno, OR

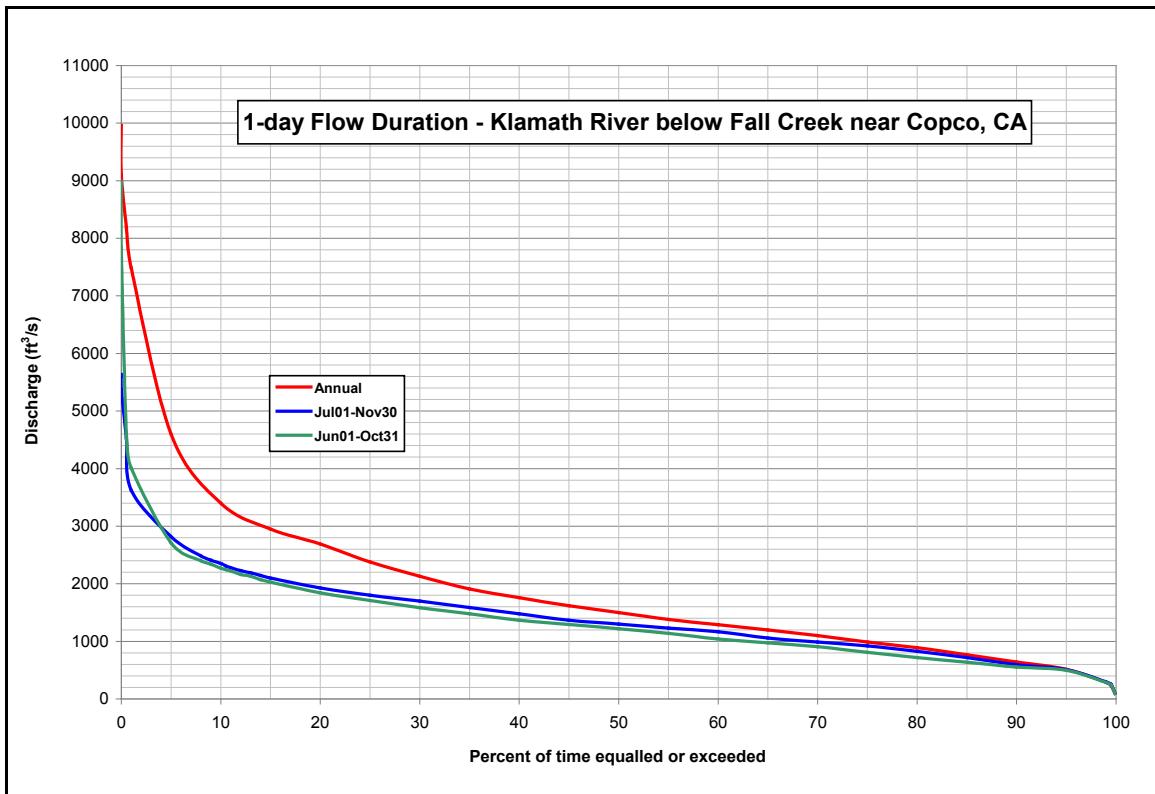


Figure 15 – Daily Flow Duration - Klamath River below Fall Creek near Copco, CA

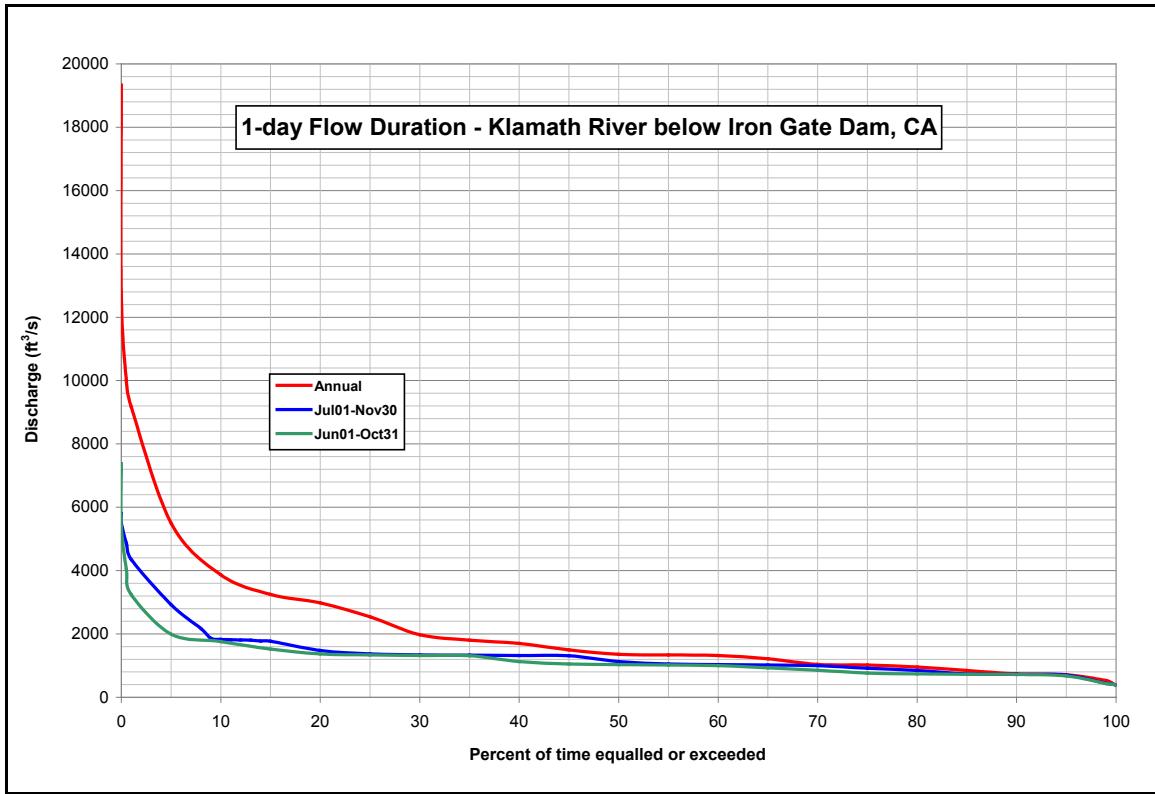


Figure 16 – Daily Flow Duration - Klamath River below Iron Gate Dam, CA

## 4 Volume Frequency Estimates

Volume frequency estimates were calculated for the 1-, 3-, 5-, 7-, and 15-day volumes at Keno, Boyle, Copco and Iron Gate gage locations. Boyle and Copco daily flow records were extended using Equations 3 and 4 respectively. A Log-Pearson III distribution was fit to the peak annual, seasonal (July 1 through November 30 and June 1 through October 31) and monthly (August and September) average discharges using the method of moments. The USGS program PeakFQ was used to analyze the station data. This process is consistent with the procedure described in the Guidelines for Determining Flood Flow Frequency, *Bulletin 17B*. A regional skew value was not included in the calculations. Calculations based on the station skew are assumed sufficient due to the length of the gage records. Tables 5 through 14 provide the results of the statistical analyses. The data and statistical parameters of the LPIII distribution are shown in Appendix A.

**Table 5 – Annual Discharge Frequency**

Gage Location	Duration (days)	Average Discharge (ft <sup>3</sup> /s)				
		Gage Base	10-yr	25-yr	50-yr	100-yr
Keno	1	3700	8140	9660	10400	10900
	3	3550	7910	9340	10100	10700
	5	3500	7720	9120	9870	10400
	7	3300	7580	8970	9710	10300
	15	3250	7040	8400	9200	9800
Boyle	1	3900	8510	10300	11200	11800
	3	3750	8200	9830	10800	11500
	5	3600	7960	9530	10400	11100
	7	3500	7790	9310	10200	10900
	15	3500	7210	8660	9580	10400
Copco	1	4100	8750	10600	11500	12100
	3	3900	8440	10100	11000	11600
	5	3600	8190	9800	10700	11400
	7	3500	8080	9720	10500	11100
	15	3500	7550	9160	10000	10600
Iron Gate	1	N/A	14000	19000	22900	27100
	3	N/A	12800	17000	20400	23800
	5	N/A	11900	15600	18500	21400
	7	N/A	11300	14700	17300	19900
	15	N/A	9910	12700	14800	16900

**Table 6 – Annual Volume Frequency**

Gage Location	Duration (days)	Volume (acre-ft)			
		10-yr	25-yr	50-yr	100-yr
Keno	1	16200	19200	20600	28200
	3	47000	55500	10100	82500
	5	69800	83300	60000	135000
	7	105000	124000	135000	177000
	15	210000	250000	274000	358000
Boyle	1	16900	20300	22200	23500
	3	48800	58500	64000	68300
	5	71500	85900	95000	103000
	7	108000	129000	142000	152000
	15	214000	258000	285000	309000
Copco	1	17400	20900	22700	24000
	3	50200	60300	65300	68700
	5	74900	90800	99300	106000
	7	112000	135000	146000	154000
	15	225000	272000	298000	317000
Iron Gate	1	27800	37600	45500	53800
	3	76300	101000	121000	142000
	5	98300	126000	147000	168000
	7	157000	204000	240000	276000
	15	295000	378000	440000	503000

**Table 7 – Seasonal Discharge Frequency (7/1-11/30)**

Gage Location	Duration (days)	Average Discharge (ft <sup>3</sup> /s)			
		Gage Base	10-yr	25-yr	50-yr
Keno	1	1950	3290	4000	4570
	3	1800	3230	3950	4510
	5	1700	3180	3920	4490
	7	1650	3150	3890	4450
	15	1550	3010	3740	4300
Boyle	1	2250	3440	4090	4580
	3	2150	3390	4040	4530
	5	2000	3350	4010	4500
	7	1900	3320	3980	4470
	15	1750	3180	3840	4320
Copco	1	2400	3650	4350	4910
	3	2250	3550	4260	4820
	5	2200	3480	4230	4810
	7	1950	3420	4200	4800
	15	1850	3280	4050	4640
Iron Gate	1	N/A	4060	5280	6290
	3	N/A	3890	5060	6040
	5	N/A	3800	4960	5940
	7	N/A	3720	4860	5830
	15	N/A	3470	4540	5460

**Table 8 – Seasonal Volume Frequency (7/1-11/30)**

Gage Location	Duration (days)	Volume (acre-ft)			
		10-yr	25-yr	50-yr	100-yr
Keno	1	6520	7940	9060	10200
	3	19200	23500	26900	30300
	5	31500	38800	44500	50300
	7	43700	54000	61800	69700
	15	89400	111000	128000	144000
Boyle	1	6830	8110	9090	10100
	3	20100	24000	26900	29800
	5	33200	39800	44600	49400
	7	46000	55300	62000	68600
	15	94600	114000	129000	143000
Copco	1	7240	8620	9740	10900
	3	21100	25300	28700	32300
	5	34500	41900	47700	53700
	7	47500	58400	66600	74900
	15	97500	120600	138000	155000
Iron Gate	1	8050	10500	12500	14700
	3	23100	30100	35900	42300
	5	37700	49200	58900	69500
	7	51600	67500	81000	96000
	15	103000	135000	162400	193000

**Table 9 – Seasonal Discharge Frequency (6/1-10/31)**

Gage Location	Duration (days)	Average Discharge (ft <sup>3</sup> /s)				
		Gage Base	10-yr	25-yr	50-yr	100-yr
Keno	1	1800	3750	5030	6090	7240
	3	1700	3690	4950	6010	7170
	5	1630	3590	4830	5850	6940
	7	1600	3480	4660	5610	6610
	15	1530	3100	4105	4950	5880
Boyle	1	2180	3950	5160	6190	7330
	3	1980	3870	5110	6130	7240
	5	1900	3790	4990	5970	7030
	7	1900	3690	4830	5750	6740
	15	1800	3310	4300	5130	6040
Copco	1	2280	4140	5370	6410	7560
	3	2170	4010	5260	6330	7520
	5	2060	3900	5130	6170	7330
	7	1910	3800	5000	5990	7040
	15	1820	3400	4440	5320	6280
Iron Gate	1	N/A	3940	5460	6860	8540
	3	N/A	3770	5200	6520	8090
	5	N/A	3660	5010	6260	7730
	7	N/A	3530	4790	5950	7300
	15	N/A	3000	3830	4530	5310

Table 10 – Seasonal Volume Frequency (6/1-10/31)

Gage Location	Duration (days)	Volume (acre-ft)			
		10-yr	25-yr	50-yr	100-yr
Keno	1	7438	9973	12079	14368
	3	21933	29478	35774	42659
	5	35643	47940	57997	68777
	7	48359	64631	77821	91831
	15	92083	122132	147273	174823
Boyle	1	7830	10200	12300	14500
	3	23100	30400	36500	43100
	5	37600	49400	59200	69700
	7	51200	67000	79800	93600
	15	98500	128000	153000	180000
Copco	1	8210	10600	12700	15000
	3	23900	31300	37700	44800
	5	38700	50900	61200	72700
	7	52700	69500	83100	97700
	15	101000	132000	158000	187000
Iron Gate	1	7820	10800	13600	16900
	3	22500	30900	38800	48100
	5	36200	49700	62100	76700
	7	49000	66600	82500	101000
	15	89300	114000	135000	158000

Table 11 – August Discharge Frequency

Gage Location	Duration (days)	Average Discharge (ft <sup>3</sup> /s)				
		Gage Base	10-yr	25-yr	50-yr	100-yr
Boyle	1	1300	2070	2430	2680	2910
	3	1250	2030	2400	2650	2890
	5	1200	1990	2360	2610	2820
	7	1140	1960	2330	2570	2780
	15	1060	1870	2230	2470	2690
Iron Gate	1	N/A	1390	1530	1640	1740
	3	N/A	1360	1510	1610	1710
	5	N/A	1330	1460	1550	1650
	7	N/A	1310	1440	1530	1620
	15	N/A	1260	1370	1440	1510

**Table 12 – August Volume Frequency**

Gage Location	Duration (days)	Volume (acre-ft)			
		10-yr	25-yr	50-yr	100-yr
Boyle	1	4110	4830	5320	5780
	3	12100	14300	15800	17200
	5	19700	23400	25800	28000
	7	27200	32400	35700	38600
	15	55500	66300	73500	80000
Iron Gate	1	2750	3040	3250	3450
	3	8100	9000	9570	10200
	5	13200	14500	15410	16300
	7	18100	19900	21200	22500
	15	37500	40600	42800	44800

**Table 13 – September Discharge Frequency**

Gage Location	Duration (days)	Average Discharge (ft <sup>3</sup> /s)				
		Gage Base	10-yr	25-yr	50-yr	100-yr
Boyle	1	1620	2310	2560	2690	2800
	3	1510	2210	2460	2610	2740
	5	1460	2140	2410	2570	2710
	7	1430	2110	2370	2540	2680
	15	1340	2020	2270	2440	2590
Iron Gate	1	N/A	1840	2060	2210	2360
	3	N/A	1820	2020	2160	2290
	5	N/A	1800	2000	2140	2270
	7	N/A	1770	1970	2100	2220
	15	N/A	1720	1870	1970	2060

**Table 14 – September Volume Frequency**

	Duration (days)	Volume (acre-ft)			
		10-yr	25-yr	50-yr	100-yr
Boyle	1	4580	5070	5340	5550
	3	13100	14600	15500	16300
	5	21300	23900	25500	26900
	7	29200	32900	35200	37300
	15	60000	67660	72600	77100
Iron Gate	1	3660	4080	4380	4670
	3	10800	12000	12800	13600
	5	17800	19800	21200	22500
	7	24600	27300	29100	30800
	15	51000	55700	58700	61400

## 5 Flood Frequency Hydrographs

Frequency hydrographs for Keno, Boyle, Copco and Iron Gate for the 10- to 100-year recurrence intervals were generated using a balanced hydrograph approach [4]. Under the balanced hydrograph approach, the annual maximum 1-, 3-, 5-, 7-, and 15-day duration average discharges are computed. The calculations for the duration average discharges are based on the gage records at Keno and Iron Gate and the extended records at Boyle and Copco. The 1-, 3-, 5-, 7-, and 15-day duration average discharges are computed by calculating moving averages of the mean daily flow data for specific durations and the annual maximums for each of the specified durations.

The above method was used for the July 1 to November 30 and June 1 to October 31 seasonal and the August and September monthly data for each year. The duration average discharge frequencies for the 10- to 100-year events were computed using a LPIII analysis as described above in section 2.

The July 1 to November 30 and June 1 to October 31 seasonal and August and September monthly peak flood frequency estimates were based on the linear relationship between the historic annual peak discharge and the annual daily discharge for the same day that the peak discharge occurred. This correlation equation was applied to the seasonal daily maximum value for each year to estimate the seasonal peak discharge. Figures 17 to 20 show the results of the gage correlation.

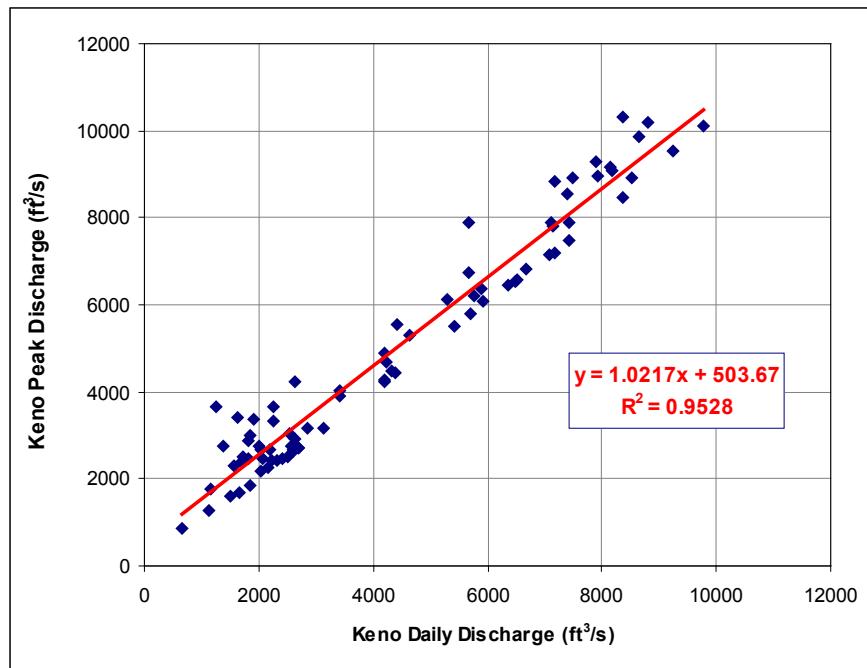


Figure 17 –Klamath River at Keno, OR

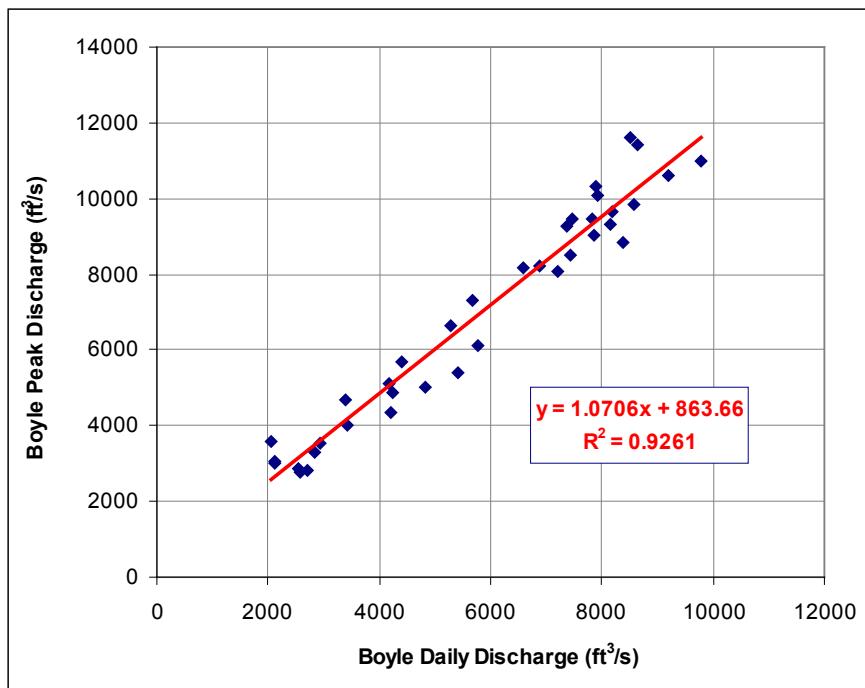


Figure 18 –Klamath River below J.C. Boyle Powerplant near Keno, OR

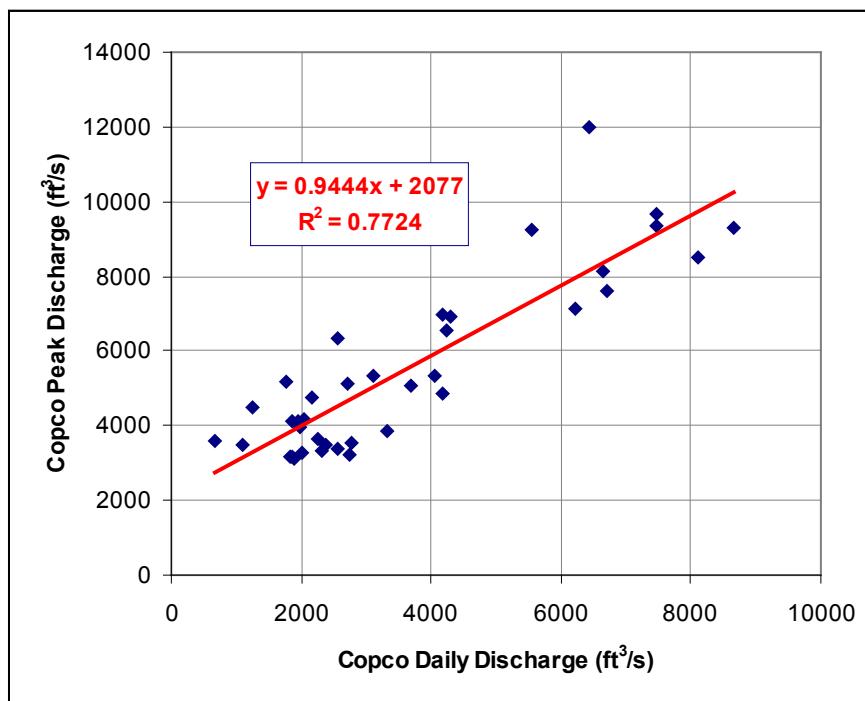
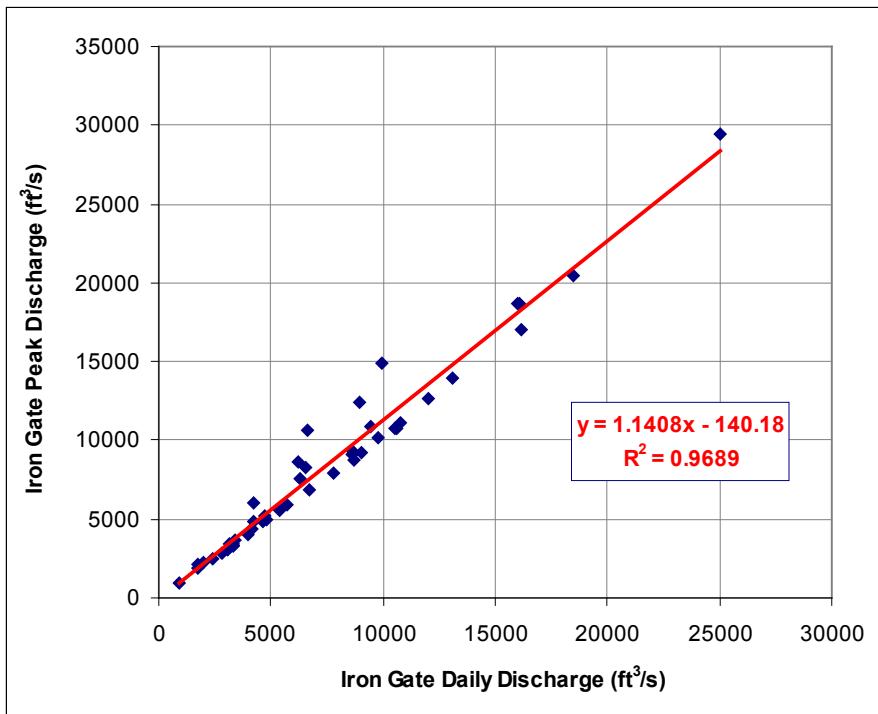


Figure 19 –Klamath River below Fall Creek near Copco, CA



**Figure 20 –Klamath River below Iron Gate Dam, CA**

The following linear equations were derived from the correlation of the peak discharge to the daily discharge at each of the gage locations and applied to estimate the seasonal peak discharge for each year of the record.

$$\text{Equation 5 : } Q_{\text{PeakKeno}} = (1.0217 * Q_{\text{DailyKeno}}) + 503.67$$

$$\text{Equation 6 : } Q_{\text{PeakBoyle}} = (1.0706 * Q_{\text{DailyBoyle}}) + 863.66$$

$$\text{Equation 7 : } Q_{\text{PeakCopco}} = (0.9444 * Q_{\text{DailyCopco}}) + 2077.0$$

$$\text{Equation 8 : } Q_{\text{PeakIronGate}} = (1.1408 * Q_{\text{DailyIronGate}}) + 140.18$$

Where:  $Q_{\text{PeakKeno}}$  = Keno Computed Peak Discharge (ft<sup>3</sup>/s)

$Q_{\text{DailyKeno}}$  = Keno Gaged Daily Discharge (ft<sup>3</sup>/s)

$Q_{\text{PeakBoyle}}$  = Boyle Computed Peak Discharge (ft<sup>3</sup>/s)

$Q_{\text{DailyBoyle}}$  = Boyle Gaged Daily Discharge (ft<sup>3</sup>/s)

$Q_{\text{PeakCopco}}$  = Copco Computed Peak Discharge (ft<sup>3</sup>/s)

$Q_{\text{DailyCopco}}$  = Copco Gaged Daily Discharge (ft<sup>3</sup>/s)

$Q_{\text{PeakIronGate}}$  = Iron Gate Computed Peak Discharge (ft<sup>3</sup>/s)

$Q_{\text{DailyIronGate}}$  = Iron Gate Gaged Daily Discharge (ft<sup>3</sup>/s)

The seasonal peak discharge frequencies for the 10- to 100-year events for each location were computed using a LPIII analysis as described above in section 4. Tables 15 and 16

present the results of the statistical analyses at each gage location for both seasons. Tables 17 and 18 present the results of the statistical analyses for August and September for Boyle and Iron Gate. The data and statistical parameters of the LPIII distribution are shown in Appendix A.

**Table 15 – Klamath River Seasonal Peak Discharge Frequency (7/1-11/30)**

<b>Gaging Station</b>	<b>Discharge (ft<sup>3</sup>/s)</b>				
	<b>Gage Base</b>	<b>10-yr</b>	<b>25-yr</b>	<b>50-yr</b>	<b>100-yr</b>
Keno	2,550	3,870	4,610	5,180	5,760
Boyle	3,300	4,560	5,250	5,770	6,300
Copco	4,350	5,540	6,200	6,720	7,270
Iron Gate	N/A	4,500	5,910	7,100	8,390

**Table 16 – Klamath River Seasonal Peak Discharge Frequency (6/1-10/31)**

<b>Gaging Station</b>	<b>Discharge (ft<sup>3</sup>/s)</b>				
	<b>Gage Base</b>	<b>10-yr</b>	<b>25-yr</b>	<b>50-yr</b>	<b>100-yr</b>
Keno	2,300	4,320	5,620	7,700	7,880
Boyle	3,150	5,070	6,370	7,470	8,680
Copco	4,190	6,070	7,240	8,180	9,190
Iron Gate	N/A	4,360	6,110	7,720	9,650

**Table 17 – Klamath River August Peak Discharge Frequency**

<b>Gaging Station</b>	<b>Discharge (ft<sup>3</sup>/s)</b>				
	<b>Gage Base</b>	<b>10-yr</b>	<b>25-yr</b>	<b>50-yr</b>	<b>100-yr</b>
Boyle	2,250	3,080	3,460	3,720	3,970
Iron Gate	N/A	2,290	2,420	2,500	2,590

**Table 18 – Klamath River September Peak Discharge Frequency**

<b>Gaging Station</b>	<b>Discharge (ft<sup>3</sup>/s)</b>				
	<b>Gage Base</b>	<b>10-yr</b>	<b>25-yr</b>	<b>50-yr</b>	<b>100-yr</b>
Boyle	2,600	3,340	3,590	3,730	3,840
Iron Gate	N/A	2,820	3,050	3,220	3,390

Frequency hydrographs for Keno, Boyle, Copco and Iron Gate for the 10- to 100-year recurrence intervals were generated using a balanced hydrograph approach [4]. Under the balanced hydrograph approach, the annual maximum 1-, 3-, 5-, 7-, and 15-day duration average discharges are computed. The calculations for the duration average discharges are based on the gage records at Keno and Iron Gate and the extended records at Boyle and Copco. The 1-, 3-, 5-, 7-, and 15-day duration average discharges are computed by calculating moving averages of the mean daily flow data for specific durations and the annual maximums for each of the specified durations.

The frequency hydrographs were generated assuming the peak occurs at the midpoint of the 15-day period, which is at hour 180. The annual and seasonal frequency hydrograph data for each gage is listed in Appendix D. The annual and seasonal frequency hydrographs for Keno, Boyle, Copco and Iron Gate are shown in Figures 21 to 32. The

August and September seasonal frequency hydrographs for Boyle and Iron Gate are presented in Figures 33 to 36.

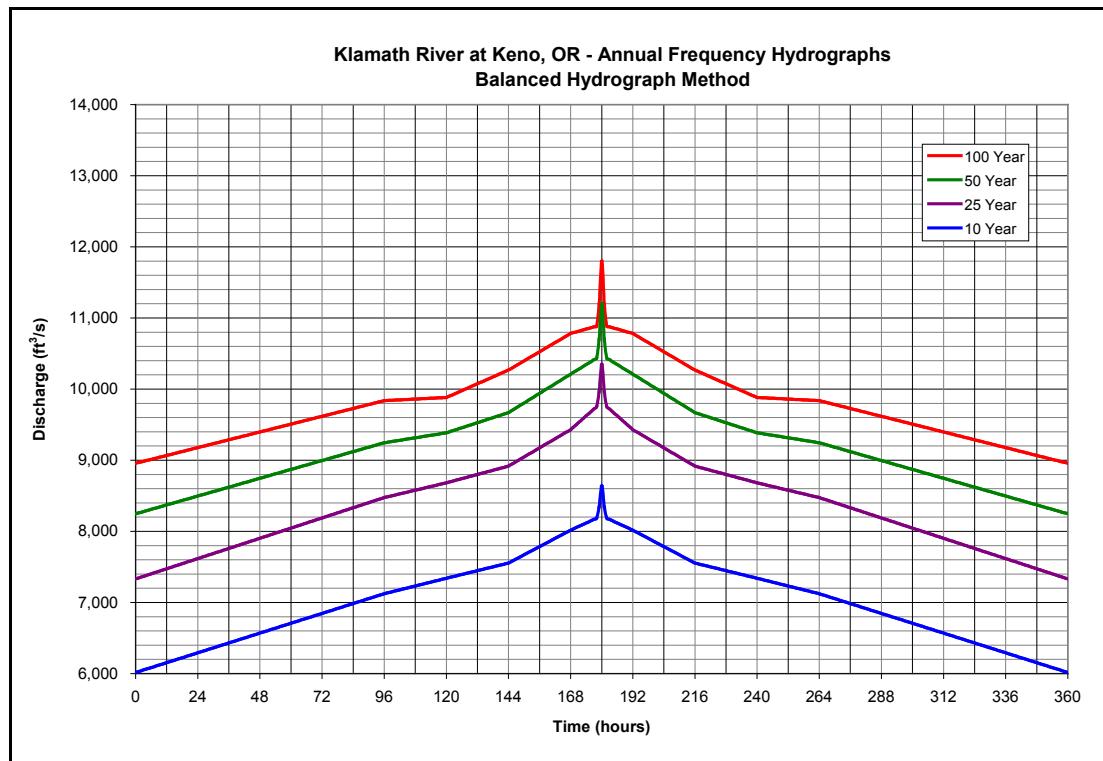


Figure 21 –Klamath River at Keno, OR – Annual Frequency Hydrographs

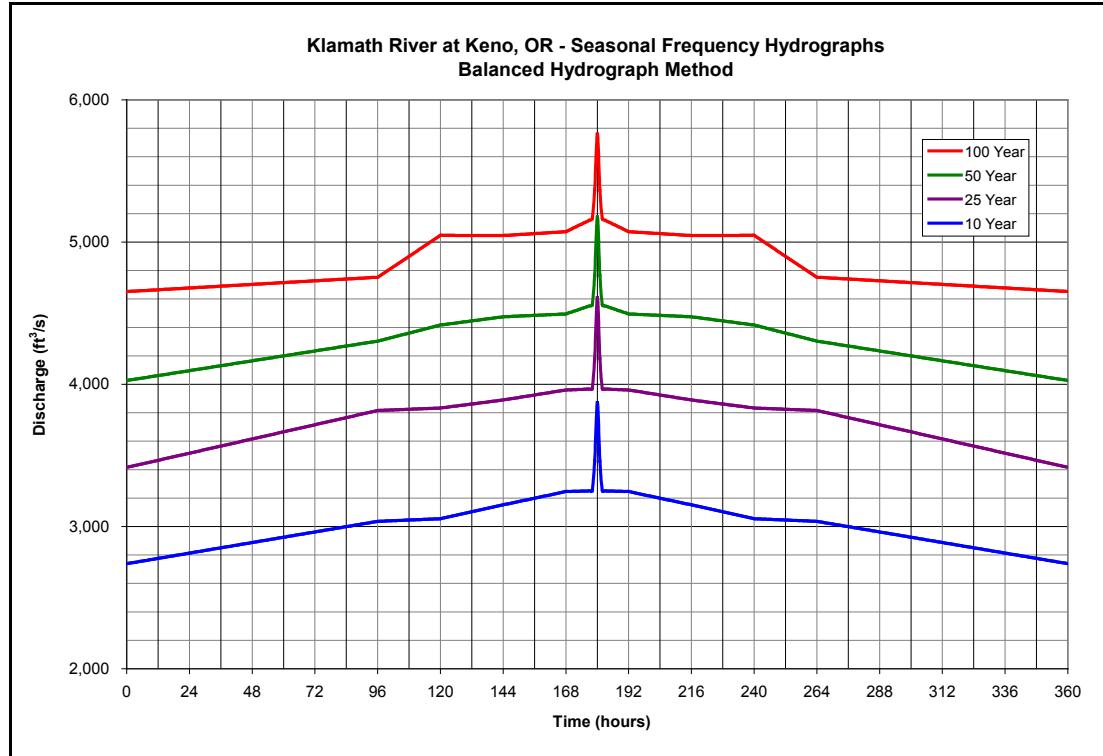
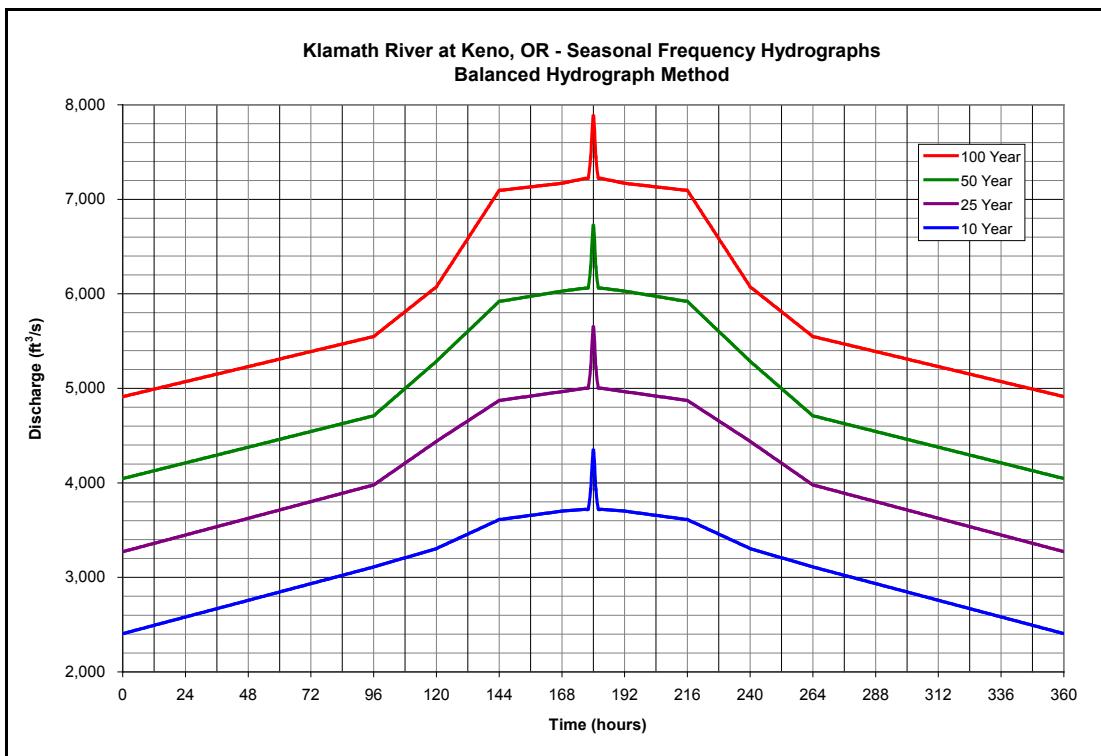
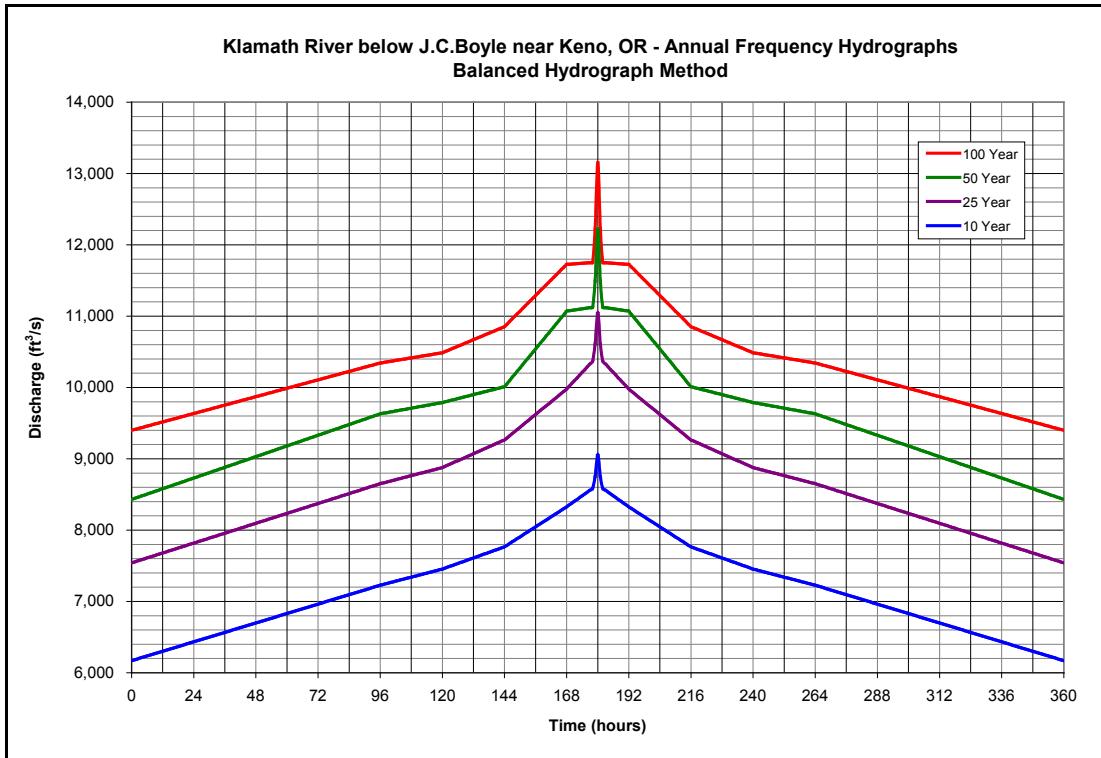


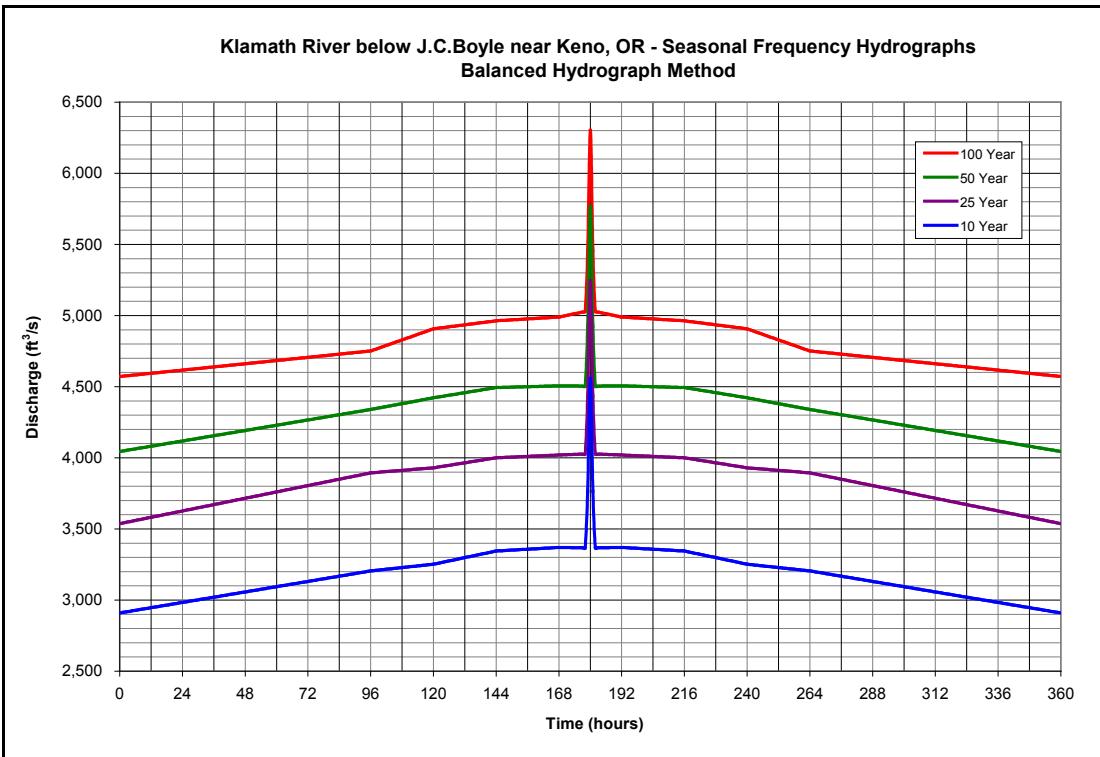
Figure 22 –Klamath River at Keno, OR – Seasonal Frequency Hydrographs



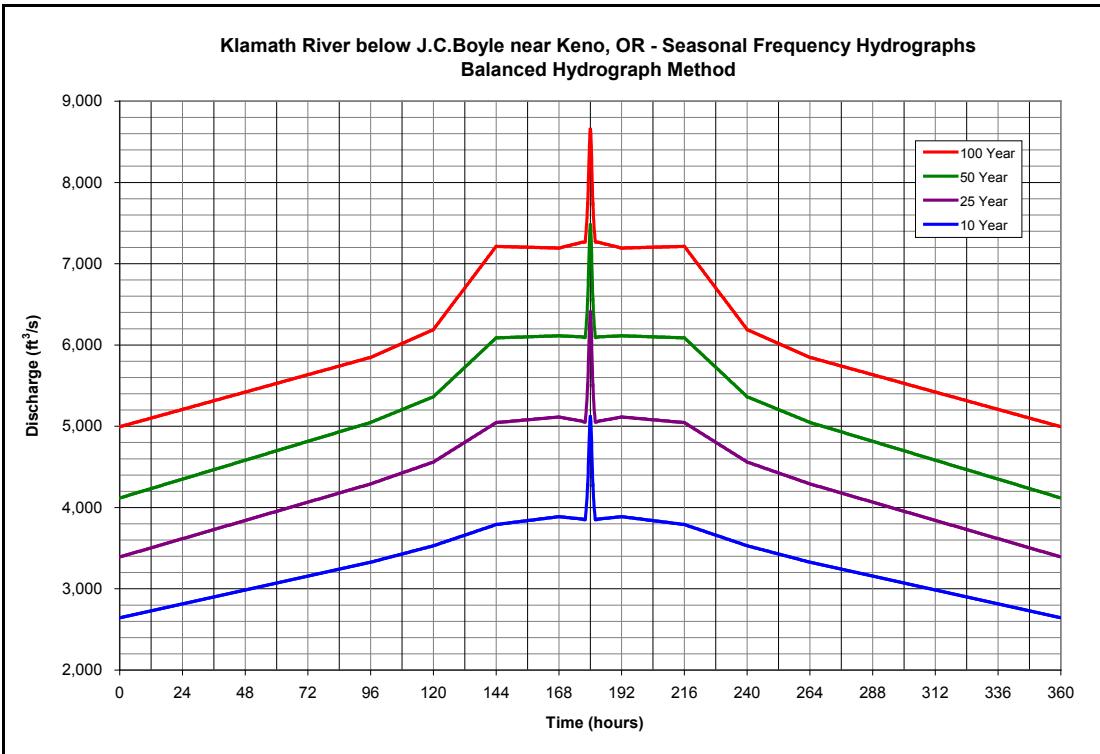
**Figure 23 –Klamath River at Keno, OR – 6/1 to 10/31 Frequency Hydrographs**



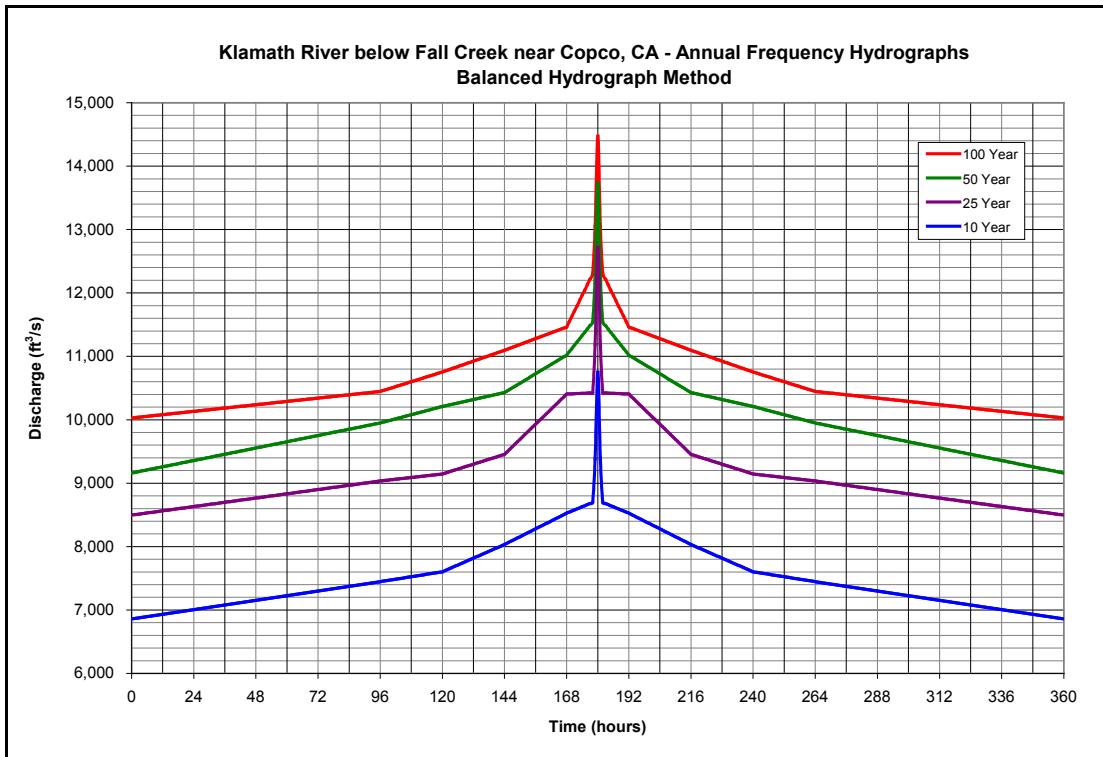
**Figure 24 –Klamath River below J.C.Boyle near Keno, OR – Annual Frequency Hydrographs**



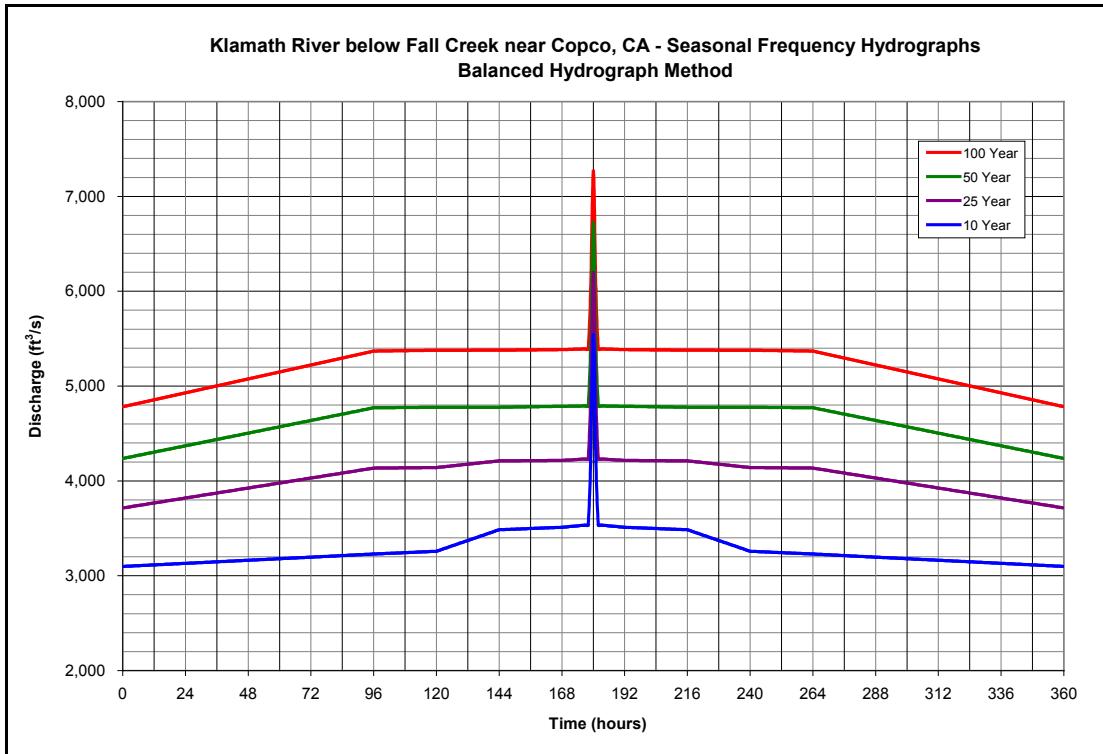
**Figure 25 –Klamath River below J.C.Boyle near Keno, OR – Seasonal Frequency Hydrographs**



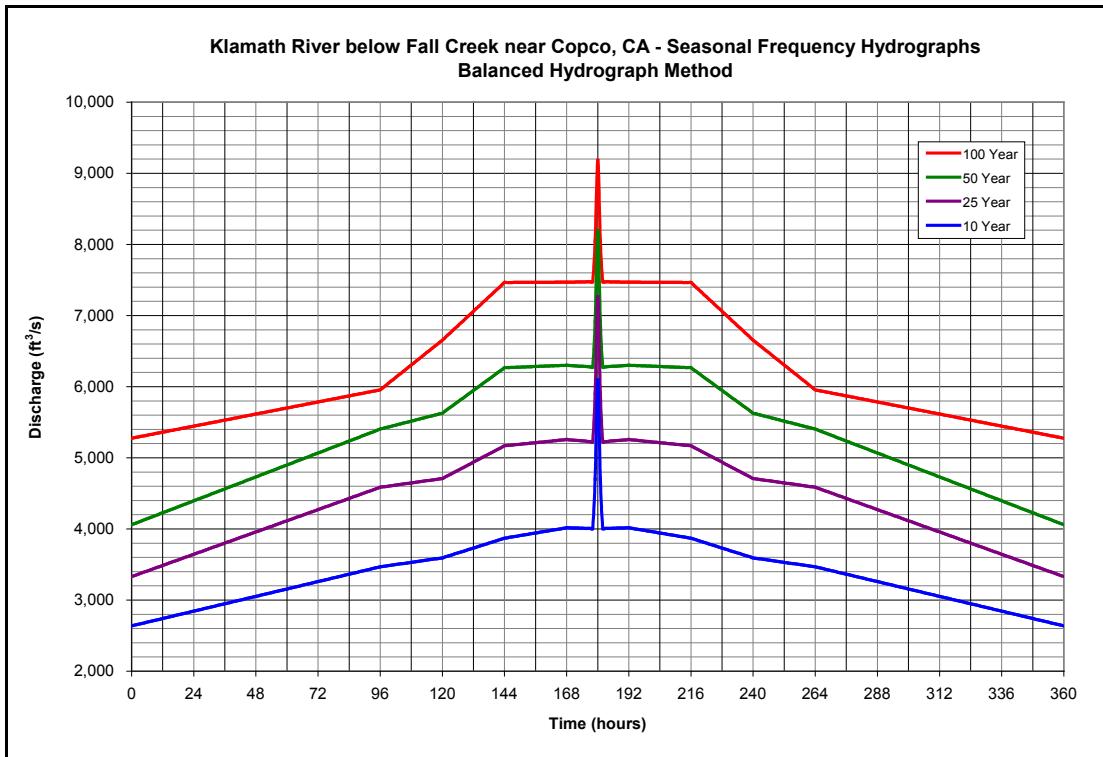
**Figure 26 –Klamath River below J.C.Boyle near Keno, OR – 6/1 to 10/31 Frequency Hydrographs**



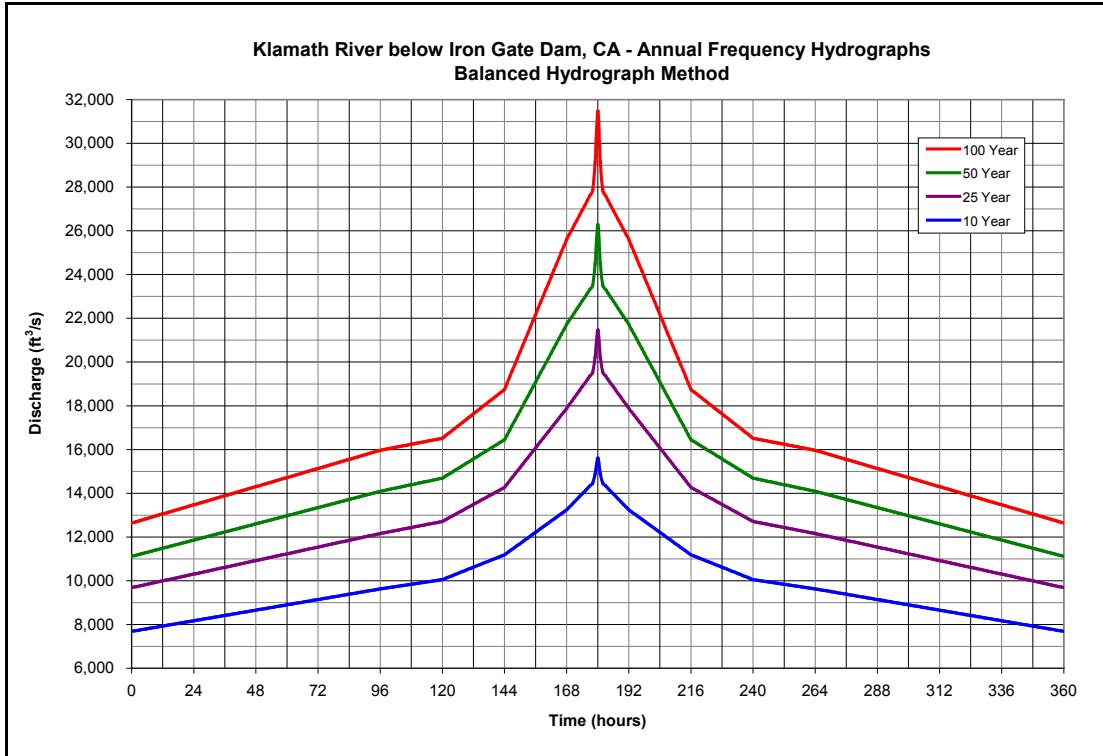
**Figure 27 –Klamath River below Fall Creek near Copco, CA – Annual Frequency Hydrographs**



**Figure 28 –Klamath River below Fall Creek near Copco, CA – Seasonal Frequency Hydrographs**



**Figure 29 –Klamath River below Fall Creek near Copco, CA – 6/1 to 10/31 Frequency Hydrographs**



**Figure 30 –Klamath River below Iron Gate Dam, CA – Annual Frequency Hydrographs**

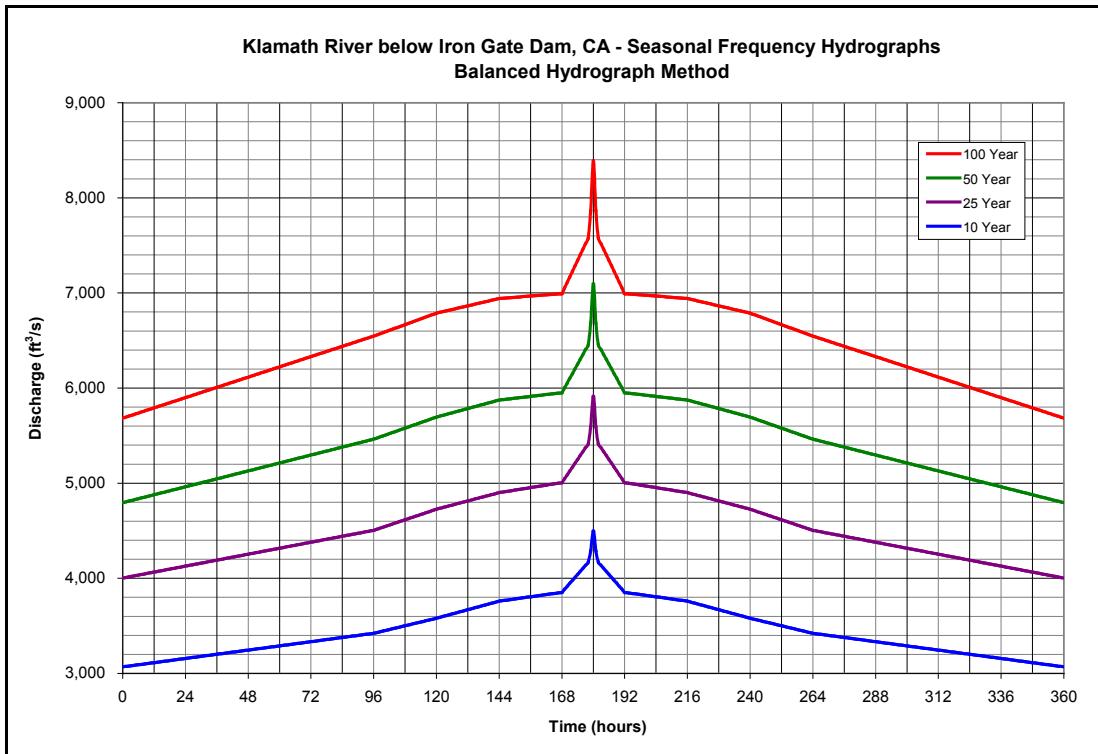


Figure 31 –Klamath River below Iron Gate Dam, CA – Seasonal Frequency Hydrographs

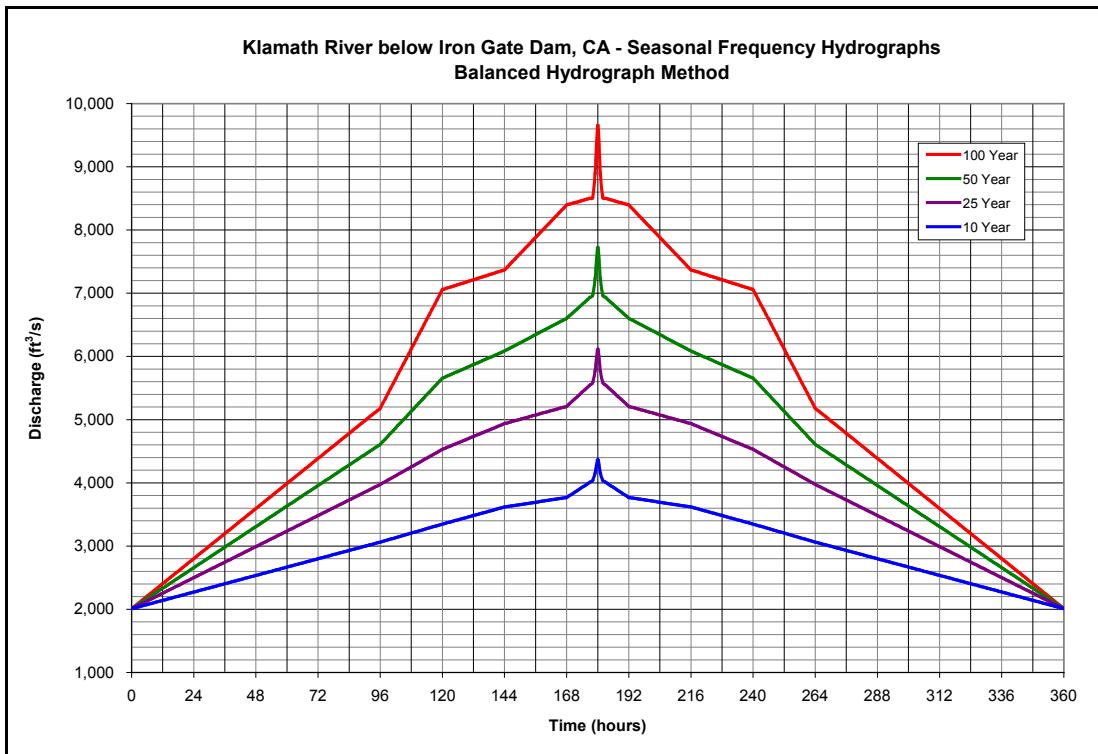
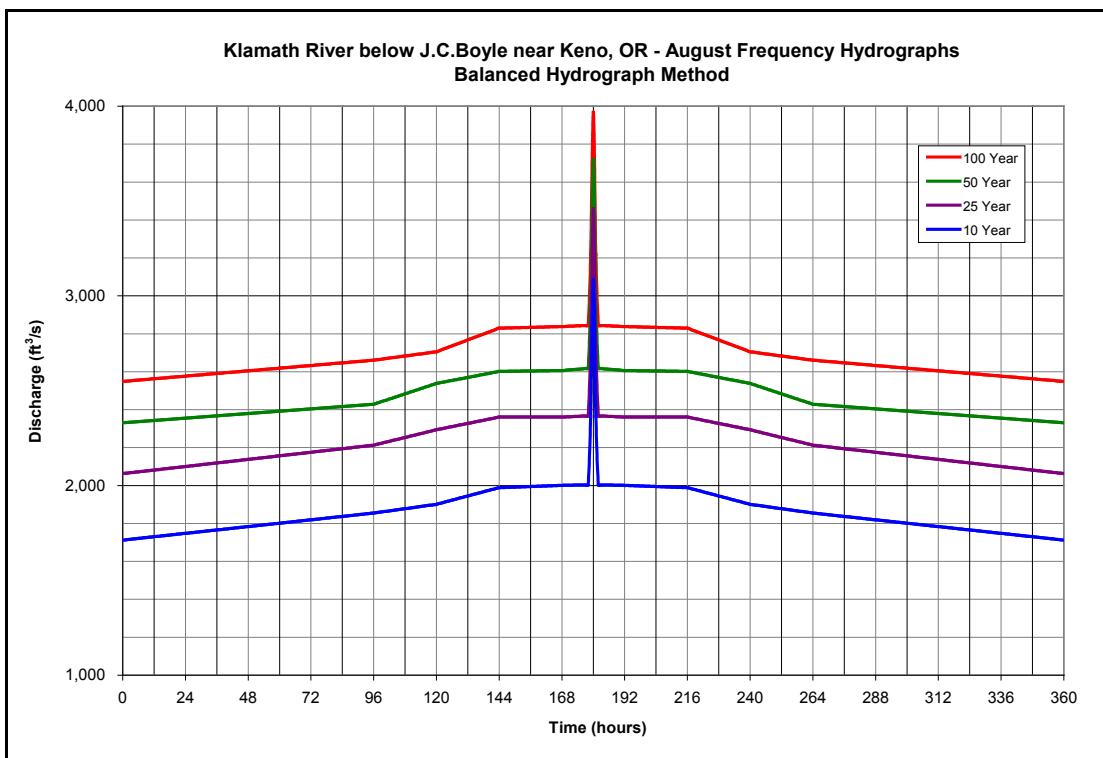
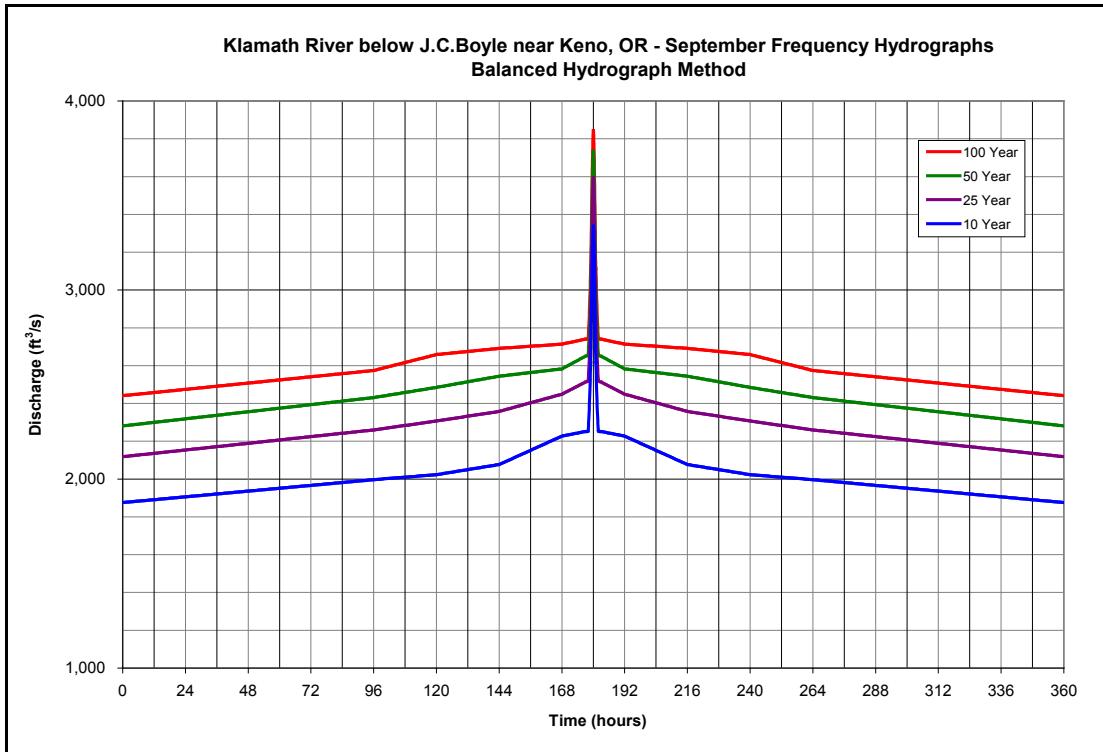


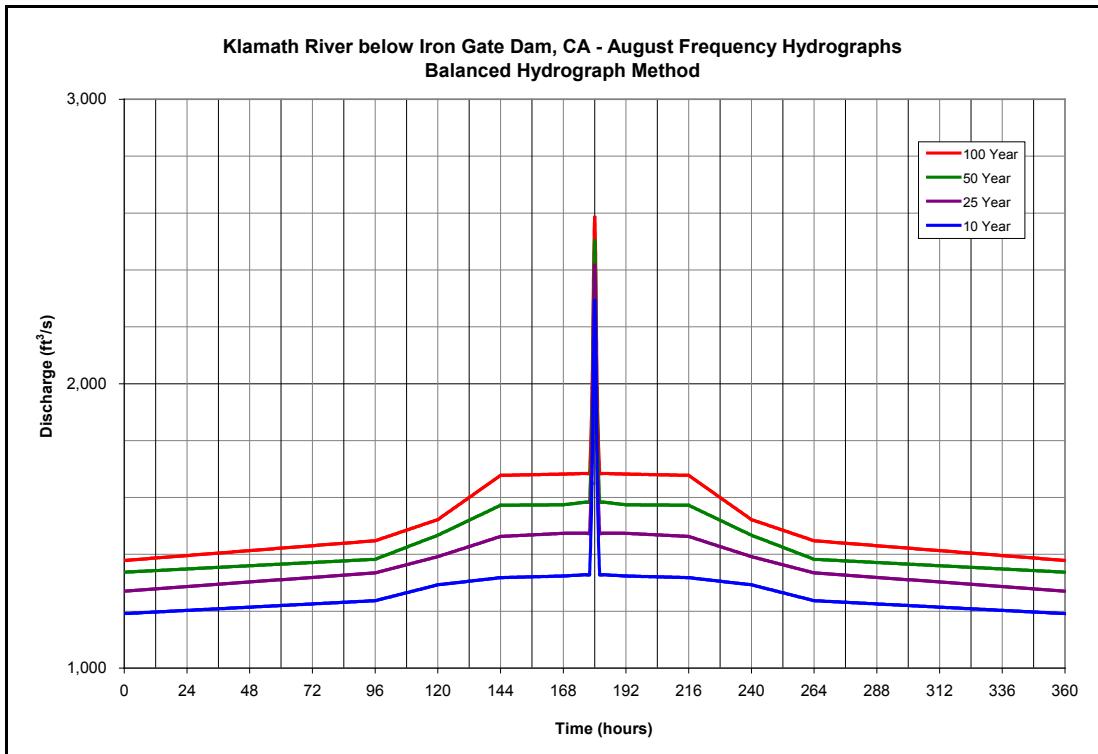
Figure 32 –Klamath River below Iron Gate Dam, CA – 6/1 to 10/31 Frequency Hydrographs



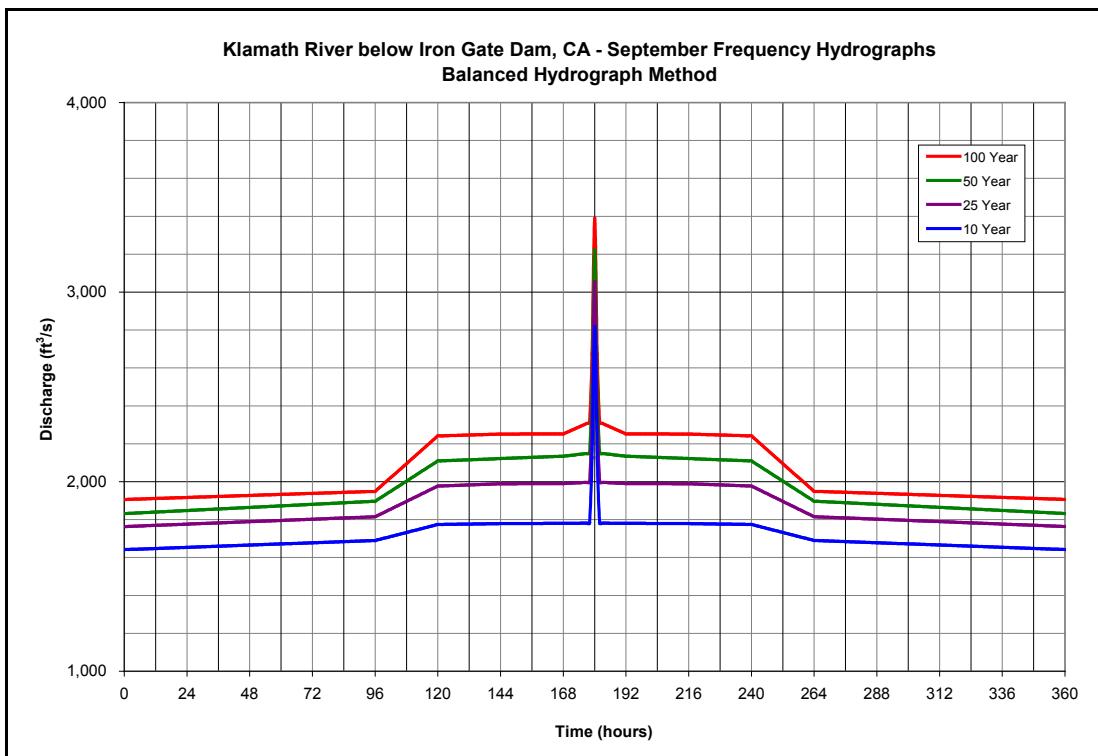
**Figure 33 –Klamath River below J.C.Boyle near Keno, OR – August Frequency Hydrographs**



**Figure 34 –Klamath River below J.C.Boyle near Keno, OR – September Frequency Hydrographs**



**Figure 35 –Klamath River below Iron Gate Dam, CA – August Frequency Hydrographs**



**Figure 36 –Klamath River below Iron Gate Dam, CA – September Frequency Hydrographs**

# 6 Conclusions

Flood frequency estimates for the Klamath River between Keno, OR and Klamath, CA were developed for the Secretary's Determination on Klamath River Dam Removal and Basin Restoration. This flood hydrology has provided hydrologic information to support hydraulic and sediment transport modeling efforts on the Klamath River and to determine the hydrologic conditions which would be expected during the potential construction seasons (July 1 to November 30 and June 1 to October 31) and for the removal of Boyle, Copco 1, Copco 2 and Iron Gate dams. Annual flood frequency estimates were developed based on seven gaging stations on the Klamath River with long-term records. Annual, seasonal, and monthly flow duration values and seasonal flood frequency estimates were developed at the Keno, Boyle, Copco and Iron Gate gages. Monthly flood frequency estimates were developed for August and September at Boyle and Iron Gate.

Using the calculated flood frequency values, annual and seasonal frequency hydrographs were developed at the Keno, Boyle, Copco and Iron Gate gages using a balanced hydrograph approach [4]. Monthly frequency hydrographs were also developed at Boyle and Iron Gate gages for August and September. The Boyle, Copco, and Iron Gate gages are considered reasonable estimates of flood frequency values at Boyle, Copco1 and 2, and Iron Gate dams, respectively. Tables 19 to 23 summarize the annual, seasonal, and monthly peak frequency estimates.

**Table 19 – Klamath River Peak Discharge Frequency**

Gaging Station	Discharge (ft <sup>3</sup> /s)				
	Gage Base	10-yr	25-yr	50-yr	100-yr
Keno	4,000	8,642	10,350	11,200	11,800
Boyle	4,000	9,058	11,050	12,220	13,150
Copco	5,400	10,750	12,720	13,730	14,470
Iron Gate	N/A	15,610	21,460	26,280	31,460
Seiad	N/A	56,540	93,400	131,000	179,300
Orleans	N/A	163,100	230,300	287,000	348,900
Klamath	N/A	298,300	392,900	466,900	543,300

**Table 20 – Klamath River Seasonal Peak Discharge Frequency (7/1 – 11/30)**

Gaging Station	Discharge (ft <sup>3</sup> /s)				
	Gage Base	10-yr	25-yr	50-yr	100-yr
Keno	2,550	3,870	4,610	5,180	5,760
Boyle	3,300	4,560	5,250	5,770	6,300
Copco	4,350	5,540	6,200	6,720	7,270
Iron Gate	N/A	4,500	5,910	7,100	8,390

**Table 21 – Klamath River Seasonal Peak Discharge Frequency (6/1 – 10/31)**

Gaging Station	Discharge (ft <sup>3</sup> /s)				
	Gage Base	10-yr	25-yr	50-yr	100-yr
Keno	2,300	4,320	5,620	7,700	7,880
Boyle	3,150	5,070	6,370	7,470	8,680
Copco	4,190	6,070	7,240	8,180	9,190
Iron Gate	N/A	4,360	6,110	7,720	9,650

**Table 22 – Klamath River August Peak Discharge Frequency**

Gaging Station	Discharge (ft <sup>3</sup> /s)				
	Gage Base	10-yr	25-yr	50-yr	100-yr
Boyle	2,250	3,080	3,460	3,720	3,970
Iron Gate	N/A	2,290	2,420	2,500	2,590

**Table 23 – Klamath River September Peak Discharge Frequency**

Gaging Station	Discharge (ft <sup>3</sup> /s)				
	Gage Base	10-yr	25-yr	50-yr	100-yr
Boyle	2,600	3,340	3,590	3,730	3,840
Iron Gate	N/A	2,820	3,050	3,220	3,390

## 7 References

- [1] USGS Surface-Water Data for the Nation. <http://waterdata.usgs.gov/nwis/sw> . United States Geological Survey. [Accessed 9/7/2010 ]
- [2] Flynn, K.M., Kirby, W.H., and Hummel, P.R., User manual for PeakFQ, annual flood frequency analysis using Bulletin 17B Guidelines: U.S. Geological Survey Techniques and Methods Report Book 4, Chapter B4, 2006.
- [3] Guidelines for Determining Flood Flow Frequency, *Bulletin #17B of the Hydrology Committee*, U.S. Department of the Interior, United States Water Resources Council, 1982.
- [4] Cudworth, A.G., 1989, Flood Hydrology Manual: A Water Resources Technical Publication, U. S. Department of Interior, Bureau of Reclamation, Denver, CO, 1989.

# 8 Appendix A – Frequency Analysis

## KLAMATH RIVER AT KENO, OR

### ANNUAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.3796	3.3594	3.4449	3.4413	3.4369	3.4239
Std Deviation	0.5435	0.5435	0.4294	0.4217	0.4169	0.3911
Skew	-1.471	-1.515	-1.341	-1.324	-1.308	-1.199
Gage Base	4000	3700	3550	3500	3300	3250

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	8642	8144	7905	7722	7582	7061
25-Year	10350	9657	9335	9121	8966	8427
50-Year	11200	10390	10090	9865	9708	9199
100-Year	11800	10900	10650	10420	10260	9800

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1905	3300	3300	3300	3300	3300	3300
1906	3960	3960	3960	3960	3960	3960
1907	5220	5220	5143	5082	5056	5021
1908	4080	4080	3527	3352	3137	2850
1909	3450	3450	3317	3250	3250	3250
1910	4190	4190	4190	4190	4190	4168
1911	3660	3660	3590	3534	3510	3479
1912	2870	2870	2810	2762	2741	2714
1913	3660	3660	3590	3534	3510	3506
1930	1700	1670	1610	1506	1447	1369
1931	1610	1550	1550	1526	1511	1446
1932	2460	1910	1803	1706	1596	1350
1933	2380	2380	2010	1794	1713	1429
1934	2700	2700	2333	2010	1761	1528
1935	4470	4320	4270	4230	4191	3979
1936	2770	2670	2670	2650	2563	2098
1937	2670	2480	2327	2120	1936	1876
1938	6830	6830	6830	6830	6784	6553
1939	2310	2270	2243	2238	2196	1927
1940	6540	6490	6377	6224	6114	5654
1941	3650	2070	2020	1912	1864	1835
1942	3670	3500	3397	3364	3294	2408
1943	6440	6370	6347	6280	6200	5696
1944	2410	2330	2357	2352	2331	2312
1945	2280	2240	2173	2094	2051	1971
1946	4430	4390	4357	4328	4309	4251
1947	2190	2100	2073	2052	2040	1971

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1948	2700	2680	2580	2404	2323	2199
1949	2690	2660	2623	2510	2467	2232
1950	2760	2220	2210	2198	2200	2163
1951	4690	4500	4473	4376	4297	4005
1952	6590	6520	6397	6312	6227	5971
1953	6350	6210	6140	6060	5973	5655
1954	5810	5740	5667	5640	5644	5285
1955	3330	2820	2520	2484	2476	2449
1956	7150	7080	7050	7014	6981	6851
1957	7210	7170	7120	7064	7010	6752
1958	7470	7420	7370	7378	7351	7147
1959	3160	3140	3130	3126	3104	3058
1960	2510	1890	1857	1826	1799	1816
1961	2880	2920	2757	2630	2579	2483
1962	3350	3090	2927	2746	2654	2522
1963	5490	5410	5330	5180	4997	4117
1964	3410	2720	2700	2672	2656	2635
1965	8480	8370	8317	8248	8163	8027
1966	4270	3970	3970	3976	4001	4059
1967	6070	5910	5573	5036	4664	3745
1968	2900	2640	2603	2574	2546	2454
1969	7880	7210	7073	6948	6746	5646
1970	8920	8580	8470	8244	8103	7317
1971	8560	8190	8083	7820	7611	6361
1972	10100	9780	9623	9476	9269	9031
1973	4030	3800	3800	3760	3629	3160
1974	9300	8000	7743	7690	7689	7208
1975	6200	5800	5677	5512	5383	5007
1976	4870	4820	4803	4796	4664	4021
1977	4250	2650	2647	2644	2643	2643
1978	6140	5350	5240	5188	5094	4376
1979	3030	2770	2633	2516	2490	2418
1980	5290	4650	4647	4600	4539	4089
1981	3020	2640	2570	2522	2477	1947
1982	10200	9210	8937	8772	8641	8393
1983	9100	8470	8200	8034	7921	7183
1984	9150	8160	7337	6982	6737	6251
1985	6740	6520	6093	5904	5546	4899
1986	10300	9010	8893	8634	8556	8193
1987	2620	2600	2600	2590	2573	2544
1988	2520	2500	2497	2466	2424	2204
1989	7910	7430	6687	6362	6230	6074
1990	2770	2010	1920	1870	1847	1587
1991	2670	2190	2143	2140	2134	2115
1992	851	670	655	655	654	649
1993	8920	8580	8133	7796	7533	7043
1994	1270	1190	1133	1132	1131	1092
1995	7890	7210	6580	6100	5941	5483

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1996	9520	9250	8967	8688	8447	7741
1997	9870	9310	9050	8836	8729	8401
1998	7820	7210	6857	6766	6713	6473
1999	8820	8200	8080	8000	7854	7143
2000	4220	4200	4200	4198	4187	3807
2001	1860	1840	1837	1814	1796	1766
2002	2430	2390	2390	2386	2364	2130
2003	3890	3410	2913	2752	2623	2316
2004	2450	2240	2090	1878	1767	1498
2005	5530	4590	4227	3862	3686	3493
2006	8940	8380	8213	7968	7797	6849
2007	3150	2930	2893	2836	2810	2629
2008	2450	2410	2400	2378	2366	2246
2009	1770	1510	1363	1302	1274	1151

### JULY-NOVEMBER SEASONAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.4012	3.3104	3.2822	3.2619	3.2339	3.1935
Std Deviation	0.1429	0.1575	0.175	0.1863	0.208	0.226
Skew	0.257	0.316	0.138	0.074	-0.113	-0.199
Gage Base	2550	1950	1800	1700	1650	1550

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	3871	3287	3228	3178	3147	3005
25-Year	4609	4004	3951	3915	3889	3743
50-Year	5176	4570	4513	4486	4450	4298
100-Year	5760	5163	5094	5075	5017	4853

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1904	5919	5300	5107	5040	4951	4673
1905	2373	1830	1743	1726	1684	1565
1906	3875	3300	3300	3220	3186	3064
1907	3630	3060	3007	2960	2903	2742
1908	2169	1630	1610	1574	1554	1469
1909	2598	2050	2027	1992	1941	1755
1910	2169	1630	1630	1618	1604	1450
1911	3078	2520	2413	2392	2337	2204
1912	2751	2200	2150	2110	2093	2001
1913	3078	2520	2467	2456	2429	2339
1930	1965	1430	1430	1430	1430	1426
1931	1893	1360	1323	1294	1243	1101
1932	1975	1440	1420	1346	1290	1163
1933	2098	1560	1517	1494	1490	1452

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1934	1944	1410	1370	1268	1211	1143
1935	2608	2060	2033	1990	1833	1513
1936	2946	2390	2233	2120	1936	1876
1937	2445	1900	1693	1598	1484	1432
1938	2537	1990	1787	1650	1584	1445
1939	2281	1740	1637	1580	1549	1465
1940	2608	2060	2020	1912	1864	1835
1941	2619	2070	1957	1886	1810	1723
1942	2547	2000	1950	1944	1939	1905
1943	2935	2380	2377	2352	2331	2315
1944	2568	2020	2017	2016	2014	1863
1945	2792	2240	2187	2136	2074	1992
1946	2649	2100	2073	2052	2040	1971
1947	2189	1650	1633	1626	1620	1584
1948	2353	1810	1787	1784	1773	1736
1949	2772	2220	2210	2198	2200	2163
1950	2966	2410	2393	2380	2370	2285
1951	2179	1640	1627	1594	1590	1586
1952	3089	2530	2487	2438	2384	2325
1953	3610	3040	3007	2988	2989	2949
1954	3385	2820	2520	2484	2476	2449
1955	2670	2120	2023	1902	1886	1871
1956	4059	3480	3453	3444	3446	3427
1957	3916	3340	3333	3304	3287	3097
1958	3640	3070	3063	3044	3026	2974
1959	2455	1910	1897	1884	1873	1816
1960	2568	2020	1830	1584	1473	1346
1961	3487	2920	2757	2630	2579	2483
1962	3661	3090	2927	2746	2654	2522
1963	3232	2670	2663	2660	2656	2608
1964	2118	1580	1570	1558	1554	1548
1965	4805	4210	4137	4122	4109	4069
1966	2506	1960	1807	1552	1550	1534
1967	3129	2570	2410	1939	1661	1522
1968	2271	1730	1600	1524	1312	1222
1969	3242	2680	2660	2630	2607	2515
1970	3426	2860	2790	2768	2763	2663
1971	3610	3040	2803	2704	2674	2645
1972	3620	3050	3043	3038	2991	2805
1973	3293	2730	2697	2674	2661	2142
1974	3099	2540	2523	2512	2507	2501
1975	3855	3280	3280	3264	3209	2897
1976	3262	2700	2667	2660	2656	2647
1977	1842	1310	1303	1302	1286	1169
1978	2363	1820	1717	1594	1550	1485
1979	1883	1350	1131	1047	1033	1016
1980	1546	1020	1013	1012	1011	1011
1981	2741	2190	1653	1230	1016	816

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1982	3640	3070	3023	3012	3009	2754
1983	5827	5210	5183	5146	5056	4879
1984	5745	5130	5127	5080	5017	4899
1985	3497	2930	2877	2832	2634	2171
1986	2659	2110	2110	1968	1824	1651
1987	1791	1260	1163	1064	1044	1039
1988	1489	964	962	959	946	831
1989	1822	1290	1283	1276	1230	1096
1990	1576	1050	1030	1028	1026	1015
1991	1188	670	641	638	636	632
1992	1173	655	655	655	654	652
1993	1730	1200	1187	1170	1159	1156
1994	1213	694	682	680	681	675
1995	1597	1070	1070	1068	1066	956
1996	1638	1110	1087	1086	1074	1068
1997	1863	1330	1330	1330	1326	1313
1998	3313	2750	2743	2730	2727	2094
1999	2087	1550	1547	1538	1523	1445
2000	1873	1340	1074	1052	1049	1029
2001	2108	1570	1433	1259	1178	1034
2002	1607	1080	981	947	886	757
2003	1965	1430	1273	1196	1170	1115
2004	1485	960	880	761	723	684
2005	1781	1250	1137	1102	1071	1068
2006	3272	2710	2557	2146	1830	1198
2007	1638	1110	1063	1005	941	936
2008	1893	1360	1145	1106	1090	1020
2009	1648	1120	1107	1104	1058	970

### JUNE-OCTOBER SEASONAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.3504	3.2383	3.2316	3.1968	3.1860	3.1832
Std Deviation	0.2209	0.2602	0.2591	0.2810	0.2796	0.2361
Skew	0.200	0.085	0.112	-0.046	-0.077	0.213
Gage Base	2300	1800	1700	1630	1600	1530

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	4344	3750	3686	3594	3483	3095
25-Year	5649	5028	4954	4834	4655	4105
50-Year	6722	6090	6012	5848	5605	4950
100-Year	7882	7244	7169	6935	6614	5876

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1904	9127	8440	8440	8322	8244	7864
1905	3119	2560	2560	2560	2514	2403
1906	4550	3960	3960	3960	3960	3899
1907	4713	4120	4080	4038	3993	3857
1908	2598	2050	2050	2050	2047	2023
1909	4029	3450	3317	3148	2990	2724
1910	3078	2520	2520	2472	2440	2323
1911	4029	3450	3450	3410	3364	3227
1912	2915	2360	2360	2360	2360	2328
1913	3436	2870	2870	2834	2793	2762
1930	1965	1430	1430	1430	1430	1426
1931	1750	1220	1150	1126	1107	907
1932	2261	1720	1480	1416	1389	1082
1933	2098	1560	1517	1494	1490	1452
1934	1944	1410	1370	1268	1211	1143
1935	2036	1500	1480	1476	1407	1335
1936	2690	2140	2087	2004	1904	1812
1937	2445	1900	1693	1598	1484	1432
1938	2864	2310	2270	2246	2141	1714
1939	2281	1740	1637	1580	1549	1465
1940	2608	2060	2020	1912	1864	1835
1941	2619	2070	1957	1886	1784	1723
1942	2639	2090	1950	1944	1939	1905
1943	3630	3060	3000	2924	2866	2573
1944	2410	1740	1733	1726	1723	1683
1945	2280	2240	2187	2136	2074	1992
1946	2598	2050	2017	1964	1919	1847
1947	2189	1650	1633	1626	1620	1584
1948	2700	2680	2580	2404	2323	2199
1949	2731	2180	2170	2154	2143	2067
1950	2241	1700	1697	1606	1579	1527
1951	2149	1610	1607	1594	1583	1467
1952	4253	3670	3507	3240	3041	2549
1953	6624	5990	5787	5424	4979	4549
1954	2956	2400	2367	2352	2350	2208
1955	2159	1620	1620	1552	1510	1308
1956	4366	3780	3597	3454	3321	3185
1957	2986	2430	2360	2270	2214	2112
1958	4979	4380	4317	4280	4276	3972
1959	2455	1910	1897	1884	1873	1816
1960	1740	1210	1203	1190	1179	1151
1961	2711	2160	2140	2070	2037	1899
1962	3661	3090	2927	2746	2654	2522
1963	2098	1560	1513	1508	1497	1479
1964	2118	1580	1570	1558	1554	1548
1965	3589	3020	2817	2712	2639	2558
1966	2057	1520	1520	1518	1517	1510
1967	3548	2980	2873	2838	2589	1538

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1968	1954	1420	1413	1262	1052	1045
1969	3242	2680	2660	2630	2607	2042
1970	2302	1760	1717	1576	1325	1162
1971	4958	4360	4350	4276	4164	2645
1972	2496	1950	1940	1908	1886	1729
1973	1771	1240	1150	1103	1050	1019
1974	2271	1730	1670	1646	1610	1517
1975	3129	2570	2567	2566	2564	2477
1976	2792	2240	2240	2018	1864	1659
1977	1822	1290	1253	1234	1224	1110
1978	1566	1040	1040	1040	1040	1035
1979	1566	1040	1040	1034	1033	1016
1980	1546	1020	1013	1012	1011	1011
1981	1536	1010	1010	964	892	795
1982	3313	2750	2730	2584	2464	1843
1983	3998	3420	3363	3360	3356	2834
1984	4805	4210	4207	4202	4201	3947
1985	2414	1870	1790	1604	1497	1484
1986	2057	1520	1520	1520	1520	1505
1987	1576	1050	1047	1044	1044	1039
1988	1489	964	962	959	946	831
1989	2792	2240	1777	1366	1230	1096
1990	1576	1050	1030	1028	1026	1015
1991	1163	645	641	638	636	632
1992	1170	652	652	651	650	649
1993	7288	6640	6553	6126	5300	3187
1994	1270	694	682	680	681	675
1995	1863	1330	1227	1155	1108	956
1996	2179	1640	1600	1326	1167	1143
1997	1852	1320	1317	1312	1311	1245
1998	5776	5160	5073	4982	4741	3885
1999	2261	1720	1683	1664	1593	1511
2000	1873	1340	1230	1230	1226	1156
2001	1860	1840	1837	1814	1796	1766
2002	1607	1080	981	947	886	757
2003	1985	1450	1437	1386	1361	1293
2004	1576	1050	1015	931	810	667
2005	1822	1290	1270	1150	1071	1028
2006	3272	2710	2710	2710	2710	2704
2007	1730	1200	1193	1192	1190	1186
2008	2220	1680	1623	1554	1481	1447
2009	1699	1170	1170	1168	1166	1151

## KLAMATH RIVER BELOW J.C.BOYLE NEAR KENO, OR

### ANNUAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.4939	3.3969	3.4763	3.4739	3.4712	3.4557
Std Deviation	0.423	0.5106	0.4031	0.3925	0.3854	0.3638
Skew	-1.159	-1.391	-1.204	-1.19	-1.17	-1.081
Gage Base	4000	3900	3750	3600	3550	3500

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	9058	8508	8200	7964	7802	7244
25-Year	11050	10250	9831	9527	9336	8716
50-Year	12220	11170	10750	10410	10210	9589
100-Year	13150	11830	11470	11110	10910	10300

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1905	3610	3505	3505	3505	3505	3505
1906	4094	4153	4153	4153	4153	4153
1907	5163	5390	5315	5255	5229	5194
1908	4188	4271	3728	3556	3345	3063
1909	3715	3652	3521	3456	3456	3456
1910	4275	4379	4379	4379	4379	4357
1911	3867	3859	3790	3735	3711	3681
1912	3322	3083	3024	2977	2957	2930
1913	3867	3859	3790	3735	3711	3707
1930	2653	1905	1846	1744	1686	1609
1931	2608	1787	1787	1763	1749	1685
1932	3069	2140	2036	1940	1832	1590
1933	3022	2602	2239	2026	1947	1668
1934	3215	2916	2556	2239	1995	1765
1935	4504	4507	4457	4418	4380	4171
1936	3259	2887	2887	2867	2781	2325
1937	3196	2700	2549	2347	2166	2107
1938	6807	6971	6971	6971	6926	6699
1939	2981	2494	2468	2462	2421	2157
1940	6488	6637	6526	6376	6268	5816
1941	3860	2297	2248	2142	2096	2066
1942	3875	3701	3600	3568	3499	2629
1943	6380	6519	6496	6431	6352	5857
1944	3040	2553	2579	2574	2554	2535
1945	2964	2464	2399	2321	2279	2201
1946	4471	4575	4543	4514	4495	4439
1947	2913	2327	2301	2280	2268	2200
1948	3215	2896	2798	2625	2546	2424
1949	3209	2877	2841	2729	2687	2457
1950	3252	2445	2435	2423	2425	2388

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1951	4690	4683	4657	4562	4484	4198
1952	6542	6666	6545	6462	6379	6127
1953	6285	6362	6293	6215	6129	5818
1954	5730	5901	5829	5803	5807	5454
1955	3631	3034	2739	2704	2696	2670
1956	7171	7216	7187	7151	7120	6991
1957	7241	7305	7256	7201	7148	6894
1958	7547	7550	7501	7509	7483	7282
1959	3514	3348	3338	3334	3313	3267
1960	2980	2340	2133	2054	1986	2001
1961	3320	2810	2803	2782	2749	2631
1962	3080	3410	3217	3100	3016	2829
1963	5420	5310	5217	5052	4859	4101
1964	2960	2740	2740	2738	2739	2734
1965	8830	8730	8710	8650	8561	8337
1966	4330	3990	4003	3996	4030	4077
1967	6270	6060	5690	5184	4753	3901
1968	2760	2720	2680	2672	2669	2507
1969	8180	7080	6953	6854	6626	5615
1970	9480	8930	8763	8538	8377	7431
1971	9270	8510	8447	8074	7757	6363
1972	11000	10800	10633	10440	10226	9911
1973	4700	4140	4090	4040	3934	3476
1974	9480	8660	8257	8174	8167	7577
1975	6120	5630	5453	5300	5183	4844
1976	5000	5000	5000	5000	4886	4267
1977	2840	2810	2810	2810	2810	2811
1978	6620	5210	5053	5000	4920	4313
1979	2840	2810	2787	2752	2707	2599
1980	4880	4500	4480	4444	4403	4046
1981	2850	2800	2760	2720	2661	2134
1982	10600	10000	9530	9282	9160	8758
1983	9640	8920	8563	8338	8200	7350
1984	9340	8260	7417	6976	6701	6374
1985	7320	6680	6253	6008	5654	4625
1986	10300	9630	9513	9122	9001	8516
1987	2940	2920	2920	2888	2866	2836
1988	2880	2810	2810	2778	2734	2497
1989	8500	7780	6843	6474	6329	6158
1990	2980	2500	2217	2186	2173	1909
1991	3020	2630	2450	2394	2389	2307
1992	2920	1090	959	913	896	890
1993	9820	9120	8750	8238	7930	7391
1994	2890	1560	1547	1528	1489	1397
1995	8240	7710	6850	6308	6140	5647
1996	11600	10200	9837	9396	9063	8189
1997	11400	9860	9480	9120	8981	8577
1998	8080	7550	7237	6950	6893	6687

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1999	9010	8460	8367	8296	8106	7355
2000	5100	4460	4400	4380	4371	4040
2001	3120	2200	2163	2078	2041	1989
2002	3780	2870	2870	2870	2870	2595
2003	4010	3850	3367	3216	3089	2790
2004	3570	2930	2430	2164	2049	1797
2005	5690	4880	4477	4104	3930	3741
2006	10100	8650	8440	8134	7946	6969
2007	3520	3500	3463	3390	3359	3160
2008	2890	2740	2733	2726	2696	2564
2009	2890	1830	1617	1580	1554	1446

### JULY-NOVEMBER SEASONAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.5177	3.3515	3.3169	3.3013	3.2812	3.2511
Std Deviation	0.1071	0.1421	0.1664	0.1764	0.1907	0.2005
Skew	0.421	0.239	-0.032	-0.109	-0.221	-0.25
Gage Base	3300	2250	2150	2000	1900	1750

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	4559	3443	3386	3351	3316	3178
25-Year	5245	4089	4041	4013	3982	3840
50-Year	5768	4584	4528	4500	4466	4320
100-Year	6301	5092	5015	4983	4939	4791

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1904	6718	5469	5279	5213	5126	4853
1905	3071	2062	1977	1960	1919	1801
1906	4616	3505	3505	3427	3393	3273
1907	4364	3269	3217	3171	3115	2957
1908	2861	1865	1846	1811	1791	1708
1909	3302	2278	2255	2221	2171	1988
1910	2861	1865	1865	1854	1840	1689
1911	3796	2739	2635	2614	2560	2429
1912	3460	2425	2376	2337	2320	2230
1913	3796	2739	2687	2676	2650	2562
1930	2651	1669	1669	1669	1669	1665
1931	2577	1600	1564	1536	1485	1346
1932	2661	1679	1659	1587	1532	1407
1933	2787	1797	1754	1732	1728	1691
1934	2630	1649	1610	1510	1455	1388
1935	3313	2288	2261	2219	2065	1750
1936	3660	2612	2458	2347	2166	2107

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1937	3145	2131	1928	1834	1722	1671
1938	3239	2219	2019	1885	1821	1684
1939	2976	1973	1872	1816	1786	1704
1940	3313	2288	2248	2142	2096	2066
1941	3323	2297	2186	2117	2042	1957
1942	3250	2229	2180	2174	2168	2135
1943	3649	2602	2599	2574	2554	2538
1944	3271	2248	2245	2244	2243	2094
1945	3502	2464	2412	2362	2302	2221
1946	3355	2327	2301	2280	2268	2200
1947	2882	1885	1869	1862	1856	1820
1948	3050	2042	2019	2017	2006	1970
1949	3481	2445	2435	2423	2425	2388
1950	3681	2631	2615	2602	2592	2508
1951	2871	1875	1862	1830	1826	1822
1952	3807	2749	2707	2659	2606	2548
1953	4343	3250	3217	3199	3199	3161
1954	4112	3034	2739	2704	2696	2670
1955	3376	2347	2252	2133	2117	2102
1956	4805	3682	3656	3646	3648	3630
1957	4658	3544	3538	3509	3492	3306
1958	4374	3279	3273	3254	3236	3185
1959	3369	2340	2200	2158	2064	2001
1960	3476	2440	2143	1794	1699	1599
1961	3915	2850	2830	2782	2749	2631
1962	4514	3410	3217	3100	3016	2829
1963	3797	2740	2733	2732	2731	2727
1964	2823	1830	1760	1736	1686	1671
1965	5382	4220	4163	4132	4116	4077
1966	3347	2320	2080	1772	1743	1721
1967	3594	2550	2430	2006	1813	1676
1968	2759	1770	1720	1668	1483	1415
1969	3754	2700	2650	2640	2634	2576
1970	3893	2830	2827	2822	2813	2737
1971	4504	3400	3060	2946	2897	2833
1972	4322	3230	3227	3226	3193	3021
1973	4011	2940	2933	2928	2926	2405
1974	3829	2770	2770	2754	2731	2712
1975	4718	3600	3600	3520	3407	3046
1976	3883	2820	2813	2812	2811	2811
1977	2598	1620	1593	1550	1519	1388
1978	3037	2030	1847	1736	1691	1641
1979	2470	1500	1320	1258	1241	1217
1980	2448	1480	1293	1258	1243	1217
1981	3529	2490	1963	1537	1299	1087
1982	4322	3230	3213	3204	3207	2999
1983	6324	5100	5057	5022	4930	4758
1984	5831	4640	4640	4640	4640	4625

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1985	4118	3040	3017	2976	2804	2392
1986	3390	2360	2327	2170	2064	1868
1987	2641	1660	1470	1354	1303	1291
1988	2255	1300	1223	1200	1190	1074
1989	2630	1650	1477	1426	1401	1317
1990	2619	1640	1410	1364	1339	1300
1991	1901	969	897	886	880	865
1992	2031	1090	959	913	896	890
1993	2566	1590	1487	1460	1453	1434
1994	1882	951	916	897	886	868
1995	2480	1510	1470	1392	1361	1335
1996	3273	2250	1780	1616	1529	1415
1997	3101	2090	1860	1730	1671	1653
1998	4236	3150	3143	3136	3133	2483
1999	2941	1940	1850	1822	1827	1739
2000	2470	1500	1390	1336	1331	1319
2001	2737	1750	1670	1566	1479	1292
2002	2480	1510	1306	1251	1151	997
2003	2598	1620	1460	1408	1387	1348
2004	2148	1200	1073	1018	973	887
2005	2448	1480	1400	1332	1334	1288
2006	4150	3070	2870	2582	2250	1595
2007	2373	1410	1320	1294	1267	1234
2008	2662	1680	1457	1396	1364	1278
2009	2341	1380	1333	1314	1269	1232

### JUNE-OCTOBER SEASONAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.4987	3.3212	3.2839	3.2665	3.2549	3.2509
Std Deviation	0.1580	0.2090	0.2341	0.2413	0.2418	0.2047
Skew	0.630	0.379	0.185	0.107	0.062	0.362
Gage Base	3200	2180	1980	1900	1860	1800

Return Period	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	5115	3946	3874	3788	3685	3311
25-Year	6403	5163	5107	4985	4825	4300
50-Year	7476	6190	6130	5968	5750	5127
100-Year	8654	7326	7244	7027	6739	6036

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1904	10019	8552	8552	8436	8359	7986
1905	3838	2779	2779	2779	2734	2625
1906	5310	4153	4153	4153	4153	4093
1907	5478	4310	4271	4230	4185	4052
1908	3302	2278	2278	2278	2275	2252
1909	4774	3652	3521	3356	3201	2940
1910	3796	2739	2739	2692	2661	2546
1911	4774	3652	3652	3613	3568	3434
1912	3628	2582	2582	2582	2582	2551
1913	4164	3083	3083	3048	3007	2977
1930	2651	1669	1669	1669	1669	1665
1931	2430	1463	1394	1371	1352	1155
1932	2955	1954	1718	1655	1628	1328
1933	2787	1797	1754	1732	1728	1691
1934	2630	1649	1610	1510	1455	1388
1935	2724	1738	1718	1714	1646	1576
1936	3397	2366	2314	2233	2135	2044
1937	3145	2131	1928	1834	1722	1671
1938	3576	2533	2494	2470	2368	1948
1939	2976	1973	1872	1816	1786	1704
1940	3313	2288	2248	2142	2096	2066
1941	3323	2297	2186	2117	2017	1957
1942	3344	2317	2180	2174	2168	2135
1943	4364	3269	3211	3136	3079	2791
1944	2976	1973	1967	1960	1957	1918
1945	3502	2464	2412	2362	2302	2221
1946	3302	2278	2245	2193	2149	2079
1947	2882	1885	1869	1862	1856	1820
1948	3965	2896	2798	2625	2546	2424
1949	3439	2405	2396	2380	2369	2295
1950	2934	1934	1931	1842	1815	1764
1951	2840	1846	1843	1830	1819	1705
1952	5005	3868	3708	3446	3251	2768
1953	7444	6146	5946	5590	5153	4732
1954	3670	2621	2589	2574	2572	2433
1955	2850	1856	1856	1789	1748	1549
1956	5121	3976	3796	3656	3526	3392
1957	3702	2651	2582	2494	2439	2339
1958	5751	4565	4503	4467	4463	4165
1959	3369	2340	2200	2158	2064	2001
1960	2980	1840	1550	1520	1458	1411
1961	3455	2420	2260	2230	2227	2111
1962	4514	3410	3217	3100	3016	2829
1963	2941	1940	1813	1756	1696	1672
1964	2791	1800	1760	1736	1686	1671
1965	4225	3140	2920	2838	2791	2687
1966	3347	2320	1823	1772	1737	1701

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1967	4247	3160	3070	3026	2824	1823
1968	2737	1750	1603	1532	1275	1270
1969	3754	2700	2650	2640	2634	2140
1970	3101	2090	1867	1736	1467	1350
1971	5649	4470	4437	4366	4287	2796
1972	3647	2600	2263	2140	2107	1936
1973	2448	1480	1463	1400	1274	1256
1974	3080	2070	1933	1940	1904	1811
1975	3808	2750	2750	2728	2714	2619
1976	3465	2430	2343	2156	1990	1789
1977	2480	1510	1510	1510	1499	1388
1978	2470	1500	1337	1298	1279	1252
1979	2191	1240	1227	1222	1221	1217
1980	2448	1480	1293	1258	1243	1217
1981	2180	1230	1227	1186	1091	1011
1982	4065	2990	2920	2848	2703	2080
1983	4921	3790	3677	3654	3637	3166
1984	5328	4170	4170	4170	4167	3947
1985	3198	2180	2010	1834	1749	1711
1986	3091	2080	1837	1776	1756	1705
1987	2320	1360	1313	1312	1291	1288
1988	2255	1300	1223	1200	1190	1074
1989	3476	2440	2057	1620	1406	1317
1990	2619	1640	1410	1364	1339	1300
1991	1840	912	892	876	872	865
1992	2031	1090	959	913	893	877
1993	8080	6740	6640	6244	5519	3485
1994	2890	908	901	884	875	868
1995	2641	1660	1470	1456	1404	1335
1996	3273	2250	1963	1688	1529	1490
1997	2737	1750	1707	1660	1649	1558
1998	6613	5370	5250	5158	4964	4160
1999	3058	2050	1983	1960	1943	1878
2000	2577	1600	1557	1546	1527	1461
2001	3219	2200	2163	2078	2041	1989
2002	2480	1510	1306	1251	1151	997
2003	2791	1800	1733	1684	1644	1569
2004	2202	1250	1213	1138	1025	892
2005	2823	1830	1627	1466	1316	1269
2006	4161	3080	3073	3068	3066	3063
2007	2523	1550	1523	1510	1506	1482
2008	2890	2080	1977	1856	1769	1749
2009	2890	1550	1437	1406	1411	1401

## AUGUST MONTHLY FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.3423	3.0758	3.0555	3.0093	2.9836	2.9776
Std Deviation	0.1163	0.1967	0.2065	0.2448	0.2635	0.2462
Skew	-0.167	-0.473	-0.491	-0.704	-0.778	-0.661
Gage Base	2250	1300	1250	1200	1140	1060

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	3084	2070	2027	1990	1958	1865
25-Year	3460	2433	2398	2362	2331	2228
50-Year	3720	2682	2652	2606	2571	2469
100-Year	3967	2912	2888	2823	2783	2688

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1904	4406	3309	3309	3234	3177	2987
1905	2346	1384	1384	1384	1359	1325
1906	3208	2189	2189	2189	2171	2096
1907	3071	2062	1996	1960	1931	1863
1908	2262	1306	1306	1306	1300	1249
1909	2409	1443	1430	1416	1403	1344
1910	2220	1267	1239	1240	1234	1200
1911	2672	1689	1689	1665	1630	1560
1912	2735	1748	1748	1724	1697	1631
1913	3302	2278	2278	2278	2278	2127
1930	1550	641	635	631	624	608
1931	1499	593	580	571	567	539
1932	2451	1483	1453	1420	1376	1318
1933	2430	1463	1414	1213	1180	1035
1934	2346	1384	1296	1267	1166	1088
1935	2609	1630	1496	1507	1474	1397
1936	2913	1915	1888	1856	1801	1693
1937	2567	1591	1541	1490	1494	1457
1938	2693	1708	1689	1618	1570	1493
1939	2640	1659	1551	1492	1463	1351
1940	2703	1718	1715	1710	1687	1602
1941	3323	2297	2186	2013	1948	1818
1942	3250	2229	2180	2125	2045	1996
1943	3292	2268	2206	2144	2121	2087
1944	2924	1924	1918	1893	1894	1868
1945	3481	2445	2376	2296	2220	2076
1946	3124	2111	2104	2074	2048	1981
1947	2808	1816	1800	1781	1760	1693
1948	2913	1915	1862	1812	1787	1759
1949	2083	1139	1137	1136	1131	1099
1950	2230	1276	1270	1265	1257	1225
1951	2051	1109	1087	1082	1084	1066

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1952	2966	1964	1898	1881	1857	1844
1953	3302	2278	2111	2026	1972	1920
1954	3145	2131	2121	2115	2117	2034
1955	2514	1541	1541	1522	1471	1263
1956	2945	1944	1921	1887	1856	1797
1957	2524	1551	1548	1543	1540	1534
1958	3460	2425	2396	2368	2327	2253
1959	3048	2040	1930	1834	1763	1499
1960	2191	1240	1170	1144	1081	1069
1961	2245	1290	1230	1141	1095	1018
1962	2191	1240	1090	1016	943	874
1963	2138	1190	1120	1090	1069	1030
1964	2138	1190	1080	1041	964	909
1965	2630	1650	1617	1564	1506	1275
1966	2341	1380	1273	1188	1133	1111
1967	2384	1420	1267	1254	1057	946
1968	2031	1090	1083	969	885	779
1969	2213	1260	1253	1210	1097	993
1970	2448	1480	1377	1324	1267	1189
1971	2555	1580	1577	1574	1507	1240
1972	2373	1410	1148	1073	1059	997
1973	1988	1050	825	821	687	649
1974	2148	1200	1087	1048	1004	983
1975	2191	1240	1200	1164	1120	1010
1976	2395	1430	1360	1234	1164	1105
1977	1571	661	661	661	661	660
1978	2073	1130	1077	1048	1025	1018
1979	1966	1030	993	991	984	972
1980	2191	1240	1157	1112	1064	1024
1981	2159	1210	1030	983	974	962
1982	2084	1140	1110	1096	1096	1033
1983	2106	1160	1160	1158	1144	1135
1984	2148	1200	1004	962	956	948
1985	2213	1260	1083	1052	1033	1000
1986	2180	1230	1177	1069	1076	1019
1987	2180	1230	1016	1004	998	974
1988	2116	1170	1093	1058	1054	1039
1989	2116	1170	1160	1123	1079	1055
1990	2255	1300	1287	1198	1159	1055
1991	1717	797	792	791	745	697
1992	1424	523	390	361	348	357
1993	2491	1520	1300	1232	1203	1122
1994	1738	817	766	748	701	584
1995	2063	1120	1037	1026	1022	1008
1996	2277	1320	1257	1216	1207	1059
1997	2031	1090	1028	1013	1015	983
1998	2373	1410	1293	1256	1210	1139
1999	2320	1360	1263	1264	1196	1123

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
2000	2373	1410	1223	1086	1034	1000
2001	2009	1070	983	966	939	927
2002	1774	850	735	699	661	631
2003	2170	1220	991	983	959	944
2004	2148	1200	1073	1018	973	778
2005	2170	1220	989	968	950	929
2006	2073	1130	1042	1030	1033	990
2007	2106	1160	1052	1037	1026	1009
2008	2084	1140	1130	1120	1107	1039
2009	2095	1150	1037	1020	1012	973

### SEPTEMBER MONTHLY FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.3642	3.1362	3.1504	3.1334	3.1225	3.1123
Std Deviation	0.1429	0.2060	0.1658	0.1677	0.1697	0.1597
Skew	-1.065	-1.113	-0.806	-0.726	-0.702	-0.594
Gage Base	2600	1620	1510	1460	1430	1340

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	3338	2311	2205	2143	2105	2015
25-Year	3594	2558	2455	2406	2371	2274
50-Year	3734	2694	2607	2570	2538	2441
100-Year	3843	2800	2735	2711	2684	2590

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1904	3355	2327	2235	2217	2191	2088
1905	2346	1384	1355	1331	1321	1308
1906	2567	1591	1591	1591	1591	1562
1907	2672	1689	1649	1634	1616	1588
1908	2030	1090	1088	1085	1082	1064
1909	2167	1217	1208	1205	1204	1199
1910	2130	1183	1183	1183	1183	1158
1911	2262	1306	1280	1258	1258	1235
1912	2482	1512	1512	1512	1512	1505
1913	2735	1748	1748	1701	1680	1614
1930	2451	1483	1473	1471	1462	1437
1931	1690	772	741	733	730	702
1932	2619	1640	1551	1481	1438	1328
1933	2756	1767	1754	1732	1728	1668
1934	2588	1610	1525	1475	1455	1309
1935	2630	1649	1649	1620	1606	1576
1936	3313	2288	2117	1776	1787	1728
1937	3145	2131	1928	1834	1722	1671

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1938	2934	1934	1849	1781	1731	1677
1939	2976	1973	1872	1816	1786	1704
1940	3166	2150	2062	2005	1929	1830
1941	3050	2042	2019	1997	1982	1957
1942	3187	2170	2137	2103	2100	2031
1943	3649	2602	2599	2568	2551	2538
1944	2976	1973	1967	1960	1957	1918
1945	3502	2464	2399	2321	2279	2201
1946	3271	2248	2242	2193	2149	2068
1947	2882	1885	1869	1862	1856	1820
1948	3040	2032	2019	2001	1948	1911
1949	2609	1630	1630	1620	1610	1508
1950	2388	1424	1375	1349	1347	1335
1951	2356	1394	1358	1345	1344	1341
1952	3481	2445	2445	2441	2435	2399
1953	3765	2710	2582	2559	2544	2488
1954	3481	2445	2412	2388	2362	2182
1955	2630	1649	1617	1476	1433	1273
1956	3649	2602	2582	2549	2474	2146
1957	3250	2229	2144	2040	1992	1935
1958	3407	2376	2373	2370	2348	2298
1959	3251	2230	2200	2158	2064	1985
1960	2587	1610	1427	1392	1315	1299
1961	2630	1650	1610	1568	1463	1375
1962	3208	2190	1583	1468	1411	1348
1963	2834	1840	1780	1728	1689	1642
1964	2684	1700	1700	1592	1554	1458
1965	3315	2290	2263	2162	2121	2033
1966	2545	1570	1377	1362	1251	1215
1967	2427	1460	1453	1450	1450	1449
1968	2213	1260	1103	1004	993	944
1969	3016	2010	1917	1812	1761	1660
1970	3101	2090	1797	1604	1426	1350
1971	2598	1620	1607	1602	1600	1494
1972	3647	2600	2263	2140	2107	1936
1973	2009	1070	1063	978	946	848
1974	2619	1640	1567	1454	1390	1283
1975	2876	1880	1863	1842	1820	1680
1976	2502	1530	1443	1442	1436	1395
1977	2384	1420	1227	1158	1134	988
1978	2191	1240	1237	1212	1207	1140
1979	2191	1240	1227	1222	1221	1211
1980	2448	1480	1293	1258	1243	1217
1981	2180	1230	1227	1138	1024	871
1982	2951	1950	1920	1890	1790	1447
1983	3219	2200	2120	1944	1889	1703
1984	3305	2280	1927	1818	1683	1650
1985	3091	2080	1750	1688	1666	1634

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1986	2502	1530	1487	1400	1364	1334
1987	2255	1300	1297	1292	1284	1259
1988	2180	1230	1207	1200	1190	1074
1989	2630	1650	1440	1392	1341	1317
1990	2587	1610	1410	1364	1339	1241
1991	1716	796	777	756	749	699
1992	1724	804	758	651	632	567
1993	2566	1590	1443	1394	1360	1331
1994	1833	905	901	884	875	866
1995	2480	1510	1360	1330	1317	1279
1996	2662	1680	1510	1408	1404	1366
1997	2041	1100	1093	1088	1087	1045
1998	2630	1650	1470	1420	1421	1366
1999	2705	1720	1673	1518	1489	1313
2000	2373	1410	1303	1207	1205	1102
2001	1966	1030	958	954	949	945
2002	1869	939	837	828	821	763
2003	2437	1470	1367	1220	1138	1079
2004	1821	894	878	873	870	827
2005	2277	1320	1170	1152	1140	1079
2006	2116	1170	1087	1086	1081	1067
2007	2009	1070	1040	1022	1015	975
2008	2095	1150	1117	1098	1063	1008
2009	2073	1130	1026	1008	1001	933

## KLAMATH RIVER BELOW FALL CREEK NEAR COPCO, CA

### ANNUAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.5527	3.3563	3.3363	3.4732	3.328	3.3381
Std Deviation	0.4583	0.573	0.5806	0.4072	0.5672	0.5148
Skew	-1.388	-1.481	-1.509	-1.223	-1.486	-1.369
Gage Base	5400	4100	3900	3600	3500	3400

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	10750	8754	8438	8192	8079	7548
25-Year	12720	10560	10140	9804	9715	9155
50-Year	13730	11460	10970	10710	10530	10010
100-Year	14470	12090	11550	11400	11100	10640

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1905	4877	3666	3666	3666	3666	3666
1906	5608	4350	4350	4350	4350	4350
1907	7003	5656	5576	5513	5486	5449
1908	5741	4475	3901	3720	3498	3200
1909	5043	3822	3684	3615	3615	3615
1910	5862	4589	4589	4589	4589	4566
1911	5276	4039	3967	3909	3884	3852
1912	4401	3221	3159	3109	3088	3059
1913	5276	4039	3967	3909	3884	3880
1924	4880	4190	3033	2506	2383	2339
1925	4100	2750	2497	2322	2280	2116
1926	3970	2890	2837	2826	2679	2468
1927	6350	4210	3903	3640	3496	3347
1928	6950	4190	3637	3406	3399	3266
1929	3180	2610	2423	2324	2048	2016
1930	3110	2300	2143	2076	1926	1723
1931	3160	2220	2053	1902	1760	1637
1932	3370	2560	2260	2200	1977	1691
1933	3510	2610	2273	2130	1775	1712
1934	3650	2640	2387	2182	1944	1833
1935	5310	4170	4113	4074	4059	3873
1936	5310	3100	3020	2990	2899	2472
1937	3240	2810	2637	2484	2131	2117
1938	9660	7740	7740	7740	7703	7460
1939	4120	2950	2870	2782	2536	2289
1940	8140	7090	6897	6742	6569	6081
1941	3250	2480	2360	2248	2073	2010
1942	5050	3900	3567	3422	3394	2610
1943	9260	6560	6507	6442	6373	5861
1944	3340	2700	2640	2630	2596	2581
1945	4500	2530	2503	2474	2316	2238
1946	6900	4720	4477	4418	4357	4238
1947	3570	2420	2343	2316	2190	2118
1948	4770	2890	2700	2620	2549	2413
1949	4180	2960	2927	2836	2650	2449
1950	5180	2830	2650	2498	2357	2349
1951	6530	4630	4600	4526	4461	4189
1952	9360	8130	7890	7490	7273	6885
1953	7600	6840	6783	6690	6610	6310
1954	7120	6240	6180	6096	6123	5843
1955	3500	3270	3100	2960	2784	2741
1956	12000	10400	8603	8038	7841	7697
1957	8500	8100	7870	7800	7770	7479
1958	9280	8650	8410	8386	8376	8221
1959	3850	3990	3360	3356	3351	3345
1960	5110	3060	2780	2410	2064	2091
1961	3550	3273	3104	2972	2919	2820
1962	4932	3449	3280	3092	2997	2860

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1963	7302	5853	5770	5614	5425	4513
1964	4999	3066	3045	3016	2999	2977
1965	10612	8919	8864	8793	8705	8564
1966	5951	4361	4361	4367	4393	4453
1967	7944	6371	6022	5465	5080	4127
1968	4434	2983	2945	2914	2885	2790
1969	9948	7718	7576	7446	7237	6097
1970	11099	9137	9023	8789	8643	7828
1971	10701	8733	8622	8350	8134	6838
1972	12406	10380	10218	10065	9851	9605
1973	5685	4185	4185	4143	4007	3521
1974	11520	8536	8270	8215	8213	7716
1975	8088	6257	6129	5958	5825	5435
1976	6615	5241	5224	5216	5080	4413
1977	5929	2993	2990	2987	2986	2985
1978	8021	5790	5677	5623	5526	4781
1979	4578	3117	2976	2854	2827	2753
1980	7080	5065	5062	5013	4950	4484
1981	4567	2983	2910	2860	2814	2264
1982	12517	9790	9507	9336	9201	8943
1983	11299	9023	8743	8571	8455	7689
1984	11354	8702	7849	7481	7228	6724
1985	8686	7003	6561	6364	5993	5324
1986	12627	9583	9462	9193	9112	8736
1987	4124	2941	2941	2931	2913	2883
1988	4013	2838	2834	2802	2759	2531
1989	9981	7946	7175	6839	6702	6541
1990	4290	2330	2237	2185	2161	1892
1991	4179	2516	2468	2465	2459	2439
1992	2167	942	926	926	925	920
1993	11099	9137	8674	8325	8052	7545
1994	2629	1480	1422	1420	1420	1379
1995	9959	7718	7065	6568	6403	5929
1996	11764	9831	9538	9249	8999	8268
1997	12151	9893	9624	9402	9291	8951
1998	9882	7718	7352	7258	7203	6954
1999	10989	8743	8619	8536	8385	7649
2000	5896	4599	4599	4597	4586	4192
2001	3283	2154	2150	2127	2108	2077
2002	3914	2724	2724	2719	2697	2454
2003	5530	3780	3266	3099	2965	2647
2004	3936	2568	2413	2193	2078	1799
2005	7346	5003	4627	4249	4066	3867
2006	11122	8930	8757	8503	8326	7344
2007	4711	3283	3245	3186	3159	2971
2008	3936	2744	2734	2711	2698	2574
2009	3183	1812	1660	1596	1568	1440

## JULY-NOVEMBER SEASONAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.6552	3.4011	3.3725	3.3292	3.2857	3.25
Std Deviation	0.0658	0.121	0.134	0.1627	0.195	0.2096
Skew	1.172	0.676	0.52	0.216	-0.051	-0.127
Gage Base	4350	2400	2250	2200	1950	1850

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	5539	3650	3548	3477	3424	3278
25-Year	6197	4348	4258	4225	4204	4053
50-Year	6718	4909	4824	4808	4796	4637
100-Year	7265	5506	5423	5412	5396	5225

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1904	7497	5739	5538	5469	5378	5089
1905	4101	2143	2054	2036	1992	1868
1906	5540	3666	3666	3584	3548	3422
1907	5305	3418	3363	3314	3255	3088
1908	3906	1936	1915	1878	1858	1770
1909	4316	2371	2347	2311	2259	2065
1910	3906	1936	1936	1924	1910	1750
1911	4776	2858	2748	2726	2669	2531
1912	4463	2527	2475	2434	2416	2321
1913	4776	2858	2803	2792	2764	2671
1924	4136	2180	2073	1960	1907	1779
1925	4674	2750	2497	2226	2097	1899
1926	4211	2260	1677	1722	1516	1463
1927	4617	2690	2567	2410	2153	2109
1928	4684	2760	2473	2324	2159	2016
1929	3852	1880	1817	1804	1597	1544
1930	4079	2120	1920	1864	1629	1637
1931	3900	1930	1673	1584	1534	1444
1932	4117	2160	1750	1724	1539	1382
1933	4542	2610	2197	2092	1775	1715
1934	4051	2090	1890	1712	1449	1418
1935	4362	2420	2253	2254	2040	1730
1936	4731	2810	2637	2484	2131	2117
1937	4192	2240	2223	2198	1798	1673
1938	4306	2360	2273	1966	1765	1652
1939	4362	2420	2263	1996	1776	1737
1940	4362	2420	2307	2248	2073	2010
1941	4485	2550	2390	2220	2018	1918
1942	4514	2580	2533	2378	2121	2075
1943	4636	2710	2680	2630	2597	2581

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1944	4230	2280	2233	2186	2116	2023
1945	4466	2530	2503	2474	2316	2238
1946	4325	2380	2343	2316	2190	2118
1947	4126	2170	2073	2028	1826	1781
1948	4306	2360	2280	2206	1975	1934
1949	4750	2830	2650	2498	2357	2349
1950	4910	3000	2960	2820	2603	2524
1951	4221	2270	2237	2076	1934	1887
1952	5118	3220	3050	2970	2783	2743
1953	5250	3360	3330	3320	3321	3273
1954	5165	3270	3100	2960	2784	2741
1955	4731	2810	2603	2452	2163	2151
1956	5713	3850	3827	3800	3781	3739
1957	5288	3400	3400	3364	3337	3201
1958	5241	3350	3313	3312	3299	3243
1959	5845	3990	3023	2448	2206	2091
1960	4627	2700	2137	1858	1700	1573
1961	5168	3273	3104	2972	2919	2820
1962	5334	3449	3280	3092	2997	2860
1963	4923	3014	3007	3003	2999	2949
1964	3857	1884	1874	1862	1858	1851
1965	6430	4609	4533	4518	4504	4463
1966	4228	2278	2119	1855	1853	1837
1967	4825	2910	2744	2257	1969	1824
1968	4003	2040	1905	1826	1607	1513
1969	4933	3024	3003	2972	2949	2853
1970	5109	3211	3138	3115	3110	3007
1971	5285	3397	3152	3049	3018	2988
1972	5295	3407	3401	3395	3347	3153
1973	4982	3076	3041	3018	3005	2466
1974	4796	2879	2862	2850	2845	2839
1975	5520	3646	3646	3629	3572	3249
1976	4953	3045	3010	3003	2999	2990
1977	3592	1605	1598	1596	1579	1459
1978	4091	2133	2026	1899	1853	1786
1979	3632	1646	1419	1332	1317	1300
1980	3309	1304	1297	1296	1295	1294
1981	4453	2516	1960	1522	1300	1093
1982	5315	3428	3380	3368	3365	3101
1983	7409	5645	5618	5579	5486	5303
1984	7330	5563	5559	5511	5446	5324
1985	5178	3283	3228	3182	2977	2496
1986	4375	2434	2434	2286	2137	1958
1987	3543	1553	1453	1350	1329	1324
1988	3254	1246	1244	1241	1227	1108
1989	3573	1584	1577	1569	1521	1383
1990	3338	1335	1315	1312	1310	1299
1991	2966	942	912	908	906	903

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1992	2952	926	926	926	925	922
1993	3485	1491	1477	1460	1448	1445
1994	2990	966	954	952	953	946
1995	3358	1356	1356	1354	1352	1238
1996	3397	1397	1373	1373	1360	1354
1997	3612	1625	1625	1625	1621	1608
1998	5001	3097	3090	3076	3073	2417
1999	3827	1853	1850	1841	1825	1744
2000	3622	1636	1360	1337	1334	1313
2001	3847	1874	1732	1552	1468	1319
2002	3367	1366	1264	1229	1166	1031
2003	3710	1729	1567	1487	1460	1402
2004	3250	1242	1159	1036	996	956
2005	3534	1542	1425	1389	1357	1353
2006	4962	3055	2896	2471	2143	1489
2007	3397	1397	1349	1289	1223	1217
2008	3641	1656	1434	1393	1377	1305
2009	3406	1408	1394	1391	1343	1252

### JUNE-OCTOBER SEASONAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.6182	3.3658	3.3725	3.3063	3.2525	3.2518
Std Deviation	0.1255	0.1897	0.1340	0.2167	0.2545	0.2131
Skew	0.588	0.525	0.520	0.347	0.015	0.325
Gage Base	4190	2280	2250	2060	1910	1820

Return Period	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	6094	4141	3548	3898	3793	3398
25-Year	7264	5366	4258	5132	5004	4442
50-Year	8197	6407	4824	6174	5986	5317
100-Year	9183	7564	5423	7327	7035	6278

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1904	10569	8992	8992	8870	8789	8395
1905	4816	2900	2900	2900	2852	2737
1906	6185	4350	4350	4350	4350	4287
1907	6342	4516	4475	4431	4384	4243
1908	4316	2371	2371	2371	2368	2344
1909	5686	3822	3684	3509	3345	3070
1910	4776	2858	2858	2809	2775	2654
1911	5686	3822	3822	3780	3733	3591
1912	4620	2693	2693	2693	2693	2659
1913	5119	3221	3221	3184	3141	3109

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1924	4136	2180	2073	1960	1907	1760
1925	4100	2750	2497	2322	2166	2116
1926	3758	1780	1677	1558	1516	1463
1927	6350	2790	2627	2606	2653	2496
1928	4684	2760	2473	2324	2159	2008
1929	3110	1880	1817	1804	1597	1544
1930	3160	2300	2130	1928	1655	1637
1931	3409	1410	1377	1354	1290	1118
1932	4183	2230	2150	1918	1859	1410
1933	3650	2610	2197	2092	1775	1715
1934	4051	2090	1890	1712	1449	1418
1935	4221	2270	2050	1972	1676	1592
1936	3240	2740	2577	2432	2047	1984
1937	4192	2240	2223	2198	1798	1673
1938	4863	2950	2720	2604	2556	2027
1939	4362	2420	2263	1996	1776	1737
1940	4362	2420	2307	2248	2073	2010
1941	3250	2480	2360	2220	1991	1874
1942	4514	2580	2533	2378	2121	2075
1943	5401	3520	3410	3246	3169	2901
1944	4230	2280	2153	2084	1944	1890
1945	4466	2530	2503	2474	2316	2238
1946	4296	2350	2300	2278	2063	2047
1947	4126	2170	2073	2018	1826	1781
1948	4806	2890	2700	2620	2549	2413
1949	4589	2660	2513	2482	2307	2260
1950	4315	2370	2077	2032	1984	1859
1951	4221	2270	2237	2060	1844	1757
1952	6147	4310	4170	3822	3609	3080
1953	8301	6590	6420	6084	5679	5197
1954	5165	3270	3010	2856	2683	2626
1955	3500	2300	2080	2038	1804	1571
1956	5817	3960	3863	3804	3760	3579
1957	5165	3270	2713	2596	2549	2397
1958	6544	4730	4623	4592	4576	4253
1959	5845	3990	3023	2448	2206	2091
1960	3994	2030	1877	1786	1495	1467
1961	4424	2485	2465	2392	2358	2215
1962	5334	3449	3280	3092	2997	2860
1963	3837	1864	1815	1810	1799	1780
1964	3857	1884	1874	1862	1858	1851
1965	5266	3376	3166	3057	2981	2898
1966	3798	1822	1822	1820	1819	1812
1967	5226	3335	3224	3188	2929	1841
1968	3700	1719	1712	1555	1338	1330
1969	4933	3024	3003	2972	2949	2363
1970	4033	2071	2026	1880	1620	1451
1971	6577	4765	4754	4678	4562	2988

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1972	4219	2268	2257	2224	2201	2039
1973	3524	1532	1439	1391	1335	1303
1974	4003	2040	1978	1953	1915	1819
1975	4825	2910	2907	2906	2904	2814
1976	4502	2568	2568	2338	2179	1966
1977	3573	1584	1546	1526	1516	1397
1978	3328	1325	1325	1325	1325	1320
1979	3328	1325	1325	1319	1317	1300
1980	3309	1304	1297	1296	1295	1294
1981	3299	1294	1294	1246	1171	1071
1982	5001	3097	3076	2925	2801	2157
1983	5657	3791	3732	3729	3724	3184
1984	6430	4609	4606	4601	4600	4337
1985	4140	2185	2102	1909	1799	1785
1986	3798	1822	1822	1822	1822	1806
1987	3338	1335	1332	1329	1329	1324
1988	3254	1246	1244	1241	1227	1108
1989	4502	2568	2088	1662	1521	1383
1990	3338	1335	1315	1312	1310	1299
1991	2942	916	912	908	906	903
1992	2949	923	923	921	921	920
1993	8808	7127	7037	6594	5739	3549
1994	2990	966	954	952	953	946
1995	3612	1625	1518	1444	1395	1238
1996	3915	1947	1905	1621	1457	1431
1997	3602	1615	1612	1607	1606	1537
1998	7360	5594	5504	5409	5160	4272
1999	3994	2029	1991	1971	1898	1813
2000	3622	1636	1522	1522	1517	1445
2001	4111	2154	2150	2127	2108	2077
2002	3367	1366	1264	1229	1166	1031
2003	3729	1750	1736	1683	1658	1587
2004	3338	1335	1299	1212	1086	938
2005	3573	1584	1563	1438	1357	1313
2006	4962	3055	3055	3055	3055	3049
2007	3485	1491	1484	1482	1480	1476
2008	3954	1988	1929	1857	1782	1747
2009	3455	1460	1460	1458	1455	1440

## KLAMATH RIVER BELOW IRON GATE DAM, CA

### ANNUAL FREQUENCY ANALYSIS

Statical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.7965	3.7626	3.7355	3.7171	3.7026	3.6619
Std Deviation	0.313	0.3046	0.2965	0.2881	0.2824	0.268
Skew	-0.116	-0.166	-0.22	-0.272	-0.291	-0.288
Gage Base	N/A	N/A	N/A	N/A	N/A	N/A

Return Period	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	15610	14030	12820	11940	11340	9909
25-Year	21460	18970	17040	15620	14710	12690
50-Year	26280	22940	20370	18450	17290	14790
100-Year	31460	27140	23830	21350	19890	16910

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1961	6030	4230	3427	3024	2861	2657
1962	3710	3490	3433	3408	3363	3263
1963	10600	6660	5833	5754	5566	4779
1964	4850	4250	3843	3662	3524	3179
1965	29400	25000	21867	18160	15986	11983
1966	4940	4780	4727	4646	4590	4502
1967	6890	6730	6453	6000	5603	4773
1968	3470	3170	3050	3032	3023	2950
1969	9090	8590	8120	7872	7540	6449
1970	14900	12700	11400	10848	10477	9379
1971	10800	10600	10137	9908	9619	8085
1972	17000	16200	15500	14680	14086	12707
1973	4790	4680	4513	4468	4397	3797
1974	18700	16000	12307	10904	10489	9484
1975	8260	6810	6443	6112	6050	5934
1976	5900	5730	5487	5366	5206	4503
1977	3120	3080	3067	3060	3061	3044
1978	7580	6590	6430	6268	6133	5255
1979	3320	3300	3227	3144	3009	2953
1980	8580	7120	6193	6216	5994	5033
1981	3120	3080	3007	2958	2810	2292
1982	18700	16100	14100	12940	12229	10922
1983	10800	10500	10080	9736	9524	8488
1984	10900	9810	9673	9212	8683	7515
1985	7970	7830	7200	6862	6539	5487
1986	13900	13100	12267	11600	11034	10014
1987	3350	3310	3293	3272	3259	3145
1988	2890	2870	2850	2798	2767	2633
1989	10200	9780	8817	8060	7664	7171
1990	3360	3310	2810	2552	2447	2205

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1991	2430	2400	2400	2398	2399	2257
1992	1000	920	893	892	891	890
1993	11100	10800	10333	9586	9114	8470
1994	2150	1780	1540	1482	1459	1435
1995	9380	8740	8227	7482	7229	6466
1996	12600	12000	11733	11300	10981	9861
1997	20500	18500	16067	14700	13614	11477
1998	8770	8680	8420	7952	7646	7478
1999	9220	9070	8963	8880	8740	8041
2000	5190	5060	4827	4758	4711	4441
2001	2280	2120	2113	2108	2104	2099
2002	3110	3070	3037	3014	2969	2730
2003	4410	4180	3963	3678	3503	3123
2004	4380	4110	3607	3338	3099	2618
2005	5520	5380	5080	4882	4673	4479
2006	12400	11100	10457	10252	9906	8611
2007	4060	4010	3997	3956	3900	3737
2008	3450	3310	3217	3104	2967	2937
2009	1860	1780	1773	1772	1770	1763

### JULY-NOVEMBER SEASONAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.3578	3.3294	3.3152	3.3068	3.2984	3.2774
Std Deviation	0.2262	0.2134	0.2096	0.2079	0.2062	0.198
Skew	0.24	0.275	0.322	0.368	0.414	0.52
Gage Base	N/A	N/A	N/A	N/A	N/A	N/A

Return Period	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	4497	4058	3890	3802	3716	3465
25-Year	5914	5276	5061	4962	4863	4538
50-Year	7095	6286	6037	5936	5834	5458
100-Year	8387	7386	7107	7010	6912	6487

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1961	3442	3140	2977	2842	2779	2640
1962	4799	4330	3803	3666	3419	3067
1963	3590	3270	3157	3158	3014	2983
1964	2027	1900	1897	1894	1890	1883
1965	5313	4780	4727	4646	4590	4502
1966	1982	1860	1847	1842	1839	1835
1967	2826	2600	2117	1998	1947	1869
1968	1468	1410	1400	1392	1389	1383
1969	3248	2970	2950	2940	2921	2911

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1970	4389	3970	3767	3758	3717	3385
1971	3682	3350	3330	3306	3260	3210
1972	3830	3480	3393	3364	3341	3191
1973	4206	3810	3497	3408	3403	2869
1974	3362	3070	3010	2964	2949	2931
1975	4012	3640	3583	3536	3467	3233
1976	3373	3080	3067	3060	3061	3044
1977	1879	1770	1757	1716	1611	1464
1978	1947	1830	1830	1830	1824	1821
1979	1515	1450	1387	1368	1357	1350
1980	1411	1360	1360	1360	1357	1353
1981	3248	2970	2523	2242	2017	1737
1982	3955	3590	3507	3442	3434	3212
1983	6476	5800	5657	5566	5494	5269
1984	6511	5830	5647	5594	5561	5487
1985	3567	3250	3223	3164	3004	2475
1986	2792	2570	2567	2352	2189	1961
1987	1434	1380	1350	1350	1347	1344
1988	1902	1790	1707	1610	1549	1310
1989	1548	1480	1430	1418	1413	1407
1990	1411	1360	1360	1356	1350	1349
1991	890	890	890	890	888	881
1992	940	940	925	921	920	918
1993	1890	1780	1540	1482	1459	1435
1994	962	962	961	960	958	952
1995	1411	1360	1353	1352	1351	1351
1996	1913	1800	1800	1780	1723	1575
1997	1879	1770	1763	1762	1760	1760
1998	4343	3930	3873	3792	3690	2792
1999	1947	1830	1830	1830	1830	1825
2000	1400	1350	1350	1350	1341	1336
2001	1400	1350	1347	1344	1340	1337
2002	1400	1350	1350	1350	1350	1302
2003	1548	1480	1400	1384	1377	1369
2004	1366	1320	1283	1194	1116	1006
2005	1491	1430	1397	1380	1367	1359
2006	3294	3010	2787	2558	2330	1763
2007	1525	1460	1350	1342	1336	1333
2008	1594	1520	1500	1420	1346	1331
2009	1480	1420	1330	1330	1330	1325

## JUNE-OCTOBER SEASONAL FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.3354	3.3100	3.2986	3.2871	3.2768	3.2468
Std Deviation	0.2282	0.2137	0.2078	0.2062	0.2023	0.1735
Skew	0.730	0.824	0.860	0.37	0.812	0.602
Gage Base	N/A	N/A	N/A	N/A	N/A	N/A

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	4364	3942	3773	3655	3526	3001
25-Year	6110	5460	5200	5012	4794	3831
50-Year	7724	6863	6516	6257	5945	4533
100-Year	9647	8535	8085	7733	7299	5310

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1961	3385	3090	2730	2558	2406	2237
1962	4799	4330	3803	3666	3419	3067
1963	1970	1850	1850	1840	1831	1787
1964	2438	2260	1967	1894	1887	1878
1965	3294	3010	2980	2978	2971	2928
1966	1833	1730	1723	1720	1717	1713
1967	4229	3830	3730	3598	3433	2337
1968	1468	1410	1400	1392	1389	1383
1969	3202	2930	2917	2876	2844	2203
1970	1879	1770	1760	1700	1584	1442
1971	5769	5180	5120	5044	4957	3353
1972	1913	1800	1800	1800	1800	1795
1973	1411	1360	1353	1344	1340	1339
1974	1925	1810	1810	1810	1810	1809
1975	3362	3070	3070	3046	3034	2897
1976	2643	2440	2347	2128	2034	1909
1977	1434	1380	1363	1354	1350	1344
1978	1400	1350	1350	1346	1344	1339
1979	1388	1340	1323	1318	1319	1315
1980	1411	1360	1360	1360	1357	1353
1981	1423	1370	1370	1286	1214	1120
1982	3932	3570	3480	3286	3004	2278
1983	4971	4480	4257	4170	4121	3545
1984	5050	4550	4507	4482	4481	4211
1985	2484	2300	2193	2030	1893	1807
1986	1925	1810	1810	1806	1804	1802
1987	1400	1350	1350	1350	1347	1344
1988	1126	1110	1110	1090	1053	1047
1989	2370	2200	2013	1776	1513	1406
1990	1446	1390	1373	1356	1350	1349
1991	890	890	890	890	888	881
1992	940	920	917	916	915	913

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1993	8655	7710	7357	6826	6097	3883
1994	962	1180	1130	971	955	950
1995	1856	1750	1720	1656	1619	1373
1996	2176	2030	1850	1762	1663	1538
1997	1868	1760	1663	1602	1579	1546
1998	7127	6370	5947	5724	5497	4495
1999	2301	2140	2057	2022	2013	2002
2000	1719	1630	1600	1578	1566	1551
2001	2278	2120	2113	2108	2104	2099
2002	1400	1350	1350	1350	1350	1302
2003	1811	1710	1663	1654	1614	1509
2004	1366	1320	1283	1194	1137	1070
2005	1617	1540	1520	1486	1460	1362
2006	3545	3230	3153	3140	3141	3130
2007	1651	1570	1557	1554	1554	1551
2008	2278	2120	2067	2048	2051	2019
2009	1617	1540	1540	1536	1534	1531

## AUGUST MONTHLY FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.3003	3.0267	3.0190	3.0139	3.0092	2.9987
Std Deviation	0.0492	0.0972	0.0996	0.0967	0.0952	0.0926
Skew	-0.419	-0.657	-0.995	-1.201	-1.256	-1.478
Gage Base	N/A	N/A	N/A	N/A	N/A	N/A

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	2291	1387	1361	1328	1307	1259
25-Year	2416	1533	1505	1460	1436	1365
50-Year	2503	1638	1608	1554	1527	1437
100-Year	2585	1740	1710	1646	1617	1505

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1961	2566	3140	1490	1306	1205	1125
1962	1988	4330	1003	1001	995	981
1963	2106	3270	1093	1078	1076	1068
1964	2084	1900	1113	1104	1094	1078
1965	2630	4780	1637	1634	1633	1397
1966	2041	1860	1070	1066	1069	1061
1967	1988	2600	1043	1034	1029	1021
1968	1689	1410	759	758	758	757
1969	2020	2970	1047	1036	1031	1026
1970	1977	1590	1040	1040	1033	1021
1971	2009	1050	1070	1056	1047	1037

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1972	1656	1160	732	729	726	722
1973	1988	1140	1047	1042	1039	1033
1974	2320	1650	1350	1342	1293	1199
1975	2095	1100	1137	1134	1134	1106
1976	1643	1050	726	726	724	721
1977	2009	771	1057	1054	1053	1050
1978	1998	1080	1050	1048	1043	1029
1979	2009	1040	1057	1054	1053	1051
1980	1977	1070	1040	1040	1040	1036
1981	2020	740	1060	1052	1049	1045
1982	1998	1050	1040	1032	1029	1016
1983	2159	1360	1090	1062	1050	1034
1984	1977	1150	1027	1022	1020	1015
1985	1988	728	1030	1026	1026	1019
1986	1956	1070	1013	1012	985	949
1987	1966	1060	1023	1022	1021	1021
1988	1998	1070	1053	1044	1040	1039
1989	2298	1040	1317	1228	1171	1099
1990	1669	1080	746	741	740	737
1991	1382	1060	426	415	411	404
1992	2020	1210	1060	1060	1057	1051
1993	1833	1040	905	904	836	698
1994	2009	1050	1050	1046	1044	1043
1995	2020	1020	1080	1080	1080	1074
1996	2020	1030	1073	1070	1070	1066
1997	2073	1060	1123	1122	1121	1121
1998	2266	1340	1283	1218	1190	1158
1999	2020	752	1080	1080	1080	1075
2000	1966	484	1030	1030	1030	1027
2001	1591	1080	673	673	672	669
2002	1934	905	1000	1000	999	998
2003	2277	1070	1283	1194	1116	913
2004	1956	1080	1010	1010	1010	1009
2005	1988	1080	1020	1012	1007	1002
2006	1977	1130	1040	1036	1034	1032
2007	2491	1310	1500	1420	1346	1180
2008	1934	1080	998	997	997	997
2009	1860	1030	1330	1860	1860	1860

## SEPTEMBER MONTHLY FREQUENCY ANALYSIS

Statistical Parameters	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
Log Mean	3.3645	3.1337	3.1271	3.1210	3.1150	3.1026
Std Deviation	0.0650	0.1033	0.1040	0.1059	0.1065	0.1080
Skew	0.296	-0.027	-0.130	-0.145	-0.215	-0.487
Gage Base	N/A	N/A	N/A	N/A	N/A	N/A

Return Period	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
10-Year	2816	1844	1815	1799	1773	1715
25-Year	3052	2059	2016	2000	1965	1873
50-Year	3221	2210	2155	2139	2095	1974
100-Year	3386	2355	2286	2270	2217	2064

Year	Discharge (ft³/s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1961	2983	1980	1933	1898	1595	1527
1962	2587	1610	1607	1588	1527	1413
1963	2844	1850	1850	1840	1831	1763
1964	2330	1370	1370	1370	1370	1370
1965	3540	2500	2387	2342	2321	2189
1966	2309	1350	1337	1326	1321	1315
1967	2277	1320	1317	1314	1313	1312
1968	2020	1080	1063	1058	1059	1054
1969	2352	1390	1387	1368	1357	1336
1970	2288	1330	1327	1326	1323	1311
1971	2780	1790	1790	1790	1787	1779
1972	1725	805	745	734	731	728
1973	2320	1360	1350	1346	1344	1340
1974	2812	1820	1820	1820	1810	1717
1975	2587	1610	1603	1602	1601	1516
1976	2341	1380	1363	1350	1349	1318
1977	2298	1340	1340	1340	1337	1333
1978	2277	1320	1320	1316	1316	1312
1979	2320	1360	1360	1360	1357	1353
1980	2330	1370	1370	1254	1146	988
1981	2405	1440	1407	1388	1376	1357
1982	2834	1840	1817	1814	1811	1712
1983	2994	1990	1920	1884	1849	1684
1984	2801	1810	1810	1810	1809	1796
1985	2780	1790	1727	1676	1664	1486
1986	2309	1350	1343	1342	1341	1341
1987	2009	1070	1057	1054	1053	1046
1988	2341	1380	1353	1348	1344	1340
1989	2320	1360	1360	1356	1350	1305
1990	1795	870	870	825	803	765
1991	1806	880	877	839	777	657
1992	2405	1440	1417	1386	1374	1367

Year	Discharge (ft <sup>3</sup> /s)					
	Peak	1-Day	3-Day	5-Day	7-Day	15-Day
1993	1846	918	916	915	915	910
1994	2309	1350	1350	1350	1350	1350
1995	2341	1380	1377	1372	1371	1362
1996	1988	1050	1043	1044	1043	1039
1997	2373	1410	1410	1410	1410	1405
1998	2341	1380	1360	1358	1356	1354
1999	2309	1350	1350	1350	1341	1324
2000	1977	1040	1033	1032	1031	1027
2001	2309	1350	1290	1080	989	867
2002	2352	1390	1383	1378	1373	1320
2003	1850	921	920	918	917	914
2004	2138	1190	1183	1182	1181	1180
2005	2448	1480	1310	1216	1157	1080
2006	2148	1200	1080	1056	1050	1045
2007	1998	1060	1037	1030	1027	1025
2008	1988	1050	1020	1014	1008	999
2009	1860	1860	1860	1860	1860	1860

## KLAMATH RIVER NEAR SEIAD VALLEY, CA

### ANNUAL PEAK FREQUENCY ANALYSIS

Statistical Parameters	
Log Mean	4.2383
Std Deviation	0.3909
Skew	0.374
Gage Base	N/A

Return Period	Peak Discharge (ft³/s)
10-Year	56540
25-Year	93400
50-Year	131000
100-Year	179300

Year	Peak Discharge (ft³/s)
1913	9190
1914	26500
1915	14600
1916	16600
1917	9760
1918	6380
1919	15300
1920	3650
1921	21800
1922	9760
1923	7250
1924	6170
1925	23700
1952	25400
1953	55200
1954	20900
1955	5990
1956	122000
1957	25000
1958	38800
1959	11000
1960	19600
1961	17000
1962	7910
1963	35100
1964	20100
1965	165000
1966	15000
1967	19600
1968	23400
1969	16000
1970	56000
1971	51800
1972	55800
1973	10300
1974	126000

Year	Peak Discharge (ft³/s)
1975	26900
1976	10300
1977	3630
1978	29300
1979	9310
1980	41400
1981	7250
1982	71500
1983	29000
1984	24500
1985	13800
1986	43100
1987	6820
1988	8720
1989	19700
1990	12900
1991	4950
1992	4600
1993	20900
1994	2970
1995	26900
1996	21000
1997	117000
1998	39000
1999	17900
2000	11300
2001	3560
2002	9500
2003	16400
2004	17600
2005	11000
2006	74000
2007	9570
2008	8000
2009	6610

## KLAMATH RIVER AT ORLEANS, CA

### ANNUAL PEAK FREQUENCY ANALYSIS

Statistical Parameters	
Log Mean	4.7821
Std Deviation	0.3391
Skew	-0.112
Gage Base	N/A

Return Period	Peak Discharge (ft³/s)
10-Year	163100
25-Year	230300
50-Year	287000
100-Year	348900

Year	Peak Discharge (ft³/s)
1927	141000
1928	60300
1929	13700
1931	17600
1932	51600
1933	19900
1934	21300
1935	18000
1936	60000
1937	59500
1938	73700
1939	26500
1940	70300
1941	36500
1942	58000
1943	68400
1944	13500
1945	48400
1946	97000
1947	26700
1948	92200
1949	30200
1950	41900
1951	74400
1952	67600
1953	137000
1954	57500
1955	26900

Year	Peak Discharge (ft³/s)
1956	202000
1957	79200
1958	96800
1959	73700
1960	70700
1961	57600
1962	38300
1963	85300
1964	59900
1965	307000
1966	96200
1967	98600
1968	109000
1969	77800
1970	175000
1971	190000
1972	191000
1973	38400
1974	279000
1975	74800
1976	35100
1977	7800
1978	111000
1979	48200
1980	121000
1981	40300
1982	201000

Year	Peak Discharge (ft³/s)
1983	198000
1984	76800
1985	64400
1986	278000
1987	32600
1988	58800
1989	66800
1990	56700
1991	25400
1992	22200
1993	65300
1994	19600
1995	112000
1996	56700
1997	258000
1998	113000
1999	61000
2000	46800
2001	11000
2002	37800
2003	56000
2004	63500
2005	47900
2006	213000
2007	57200
2008	30300
2009	34800

## KLAMATH RIVER NEAR KLAMATH, CA

### ANNUAL FREQUENCY ANALYSIS

Statistical Parameters	
Log Mean	5.1148
Std Deviation	0.2865
Skew	-0.218
Gage Base	N/A

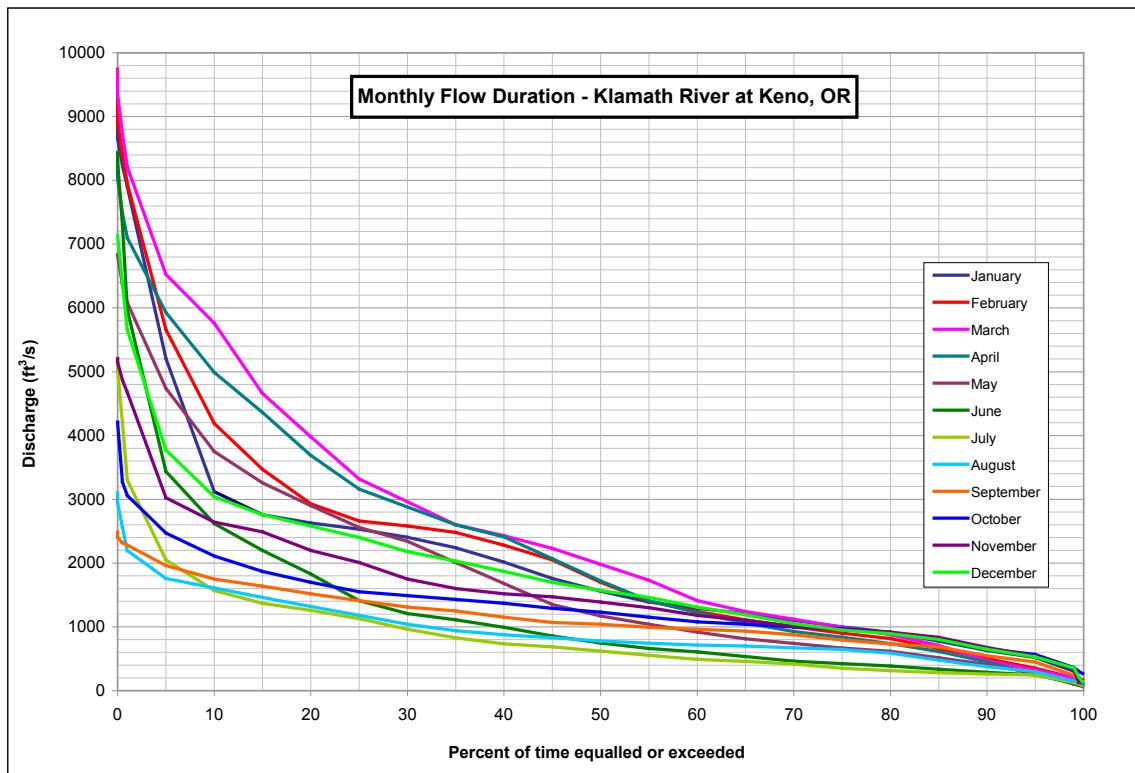
Return Period	Peak Discharge (ft³/s)
10-Year	298300
25-Year	392900
50-Year	466900
100-Year	543300

Year	Peak Discharge (ft³/s)
1862	450000
1881	360000
1890	425000
1911	66700
1912	142000
1913	74500
1914	130000
1915	182000
1916	85700
1917	73700
1918	65300
1919	133000
1920	27900
1921	130000
1922	59700
1923	60400
1924	25800
1925	175000
1926	102000
1927	300000
1932	96400
1933	46200
1934	51100
1935	60000
1936	162000
1937	121000
1938	218000
1939	71000
1940	237000
1941	124000
1942	151000
1943	162000

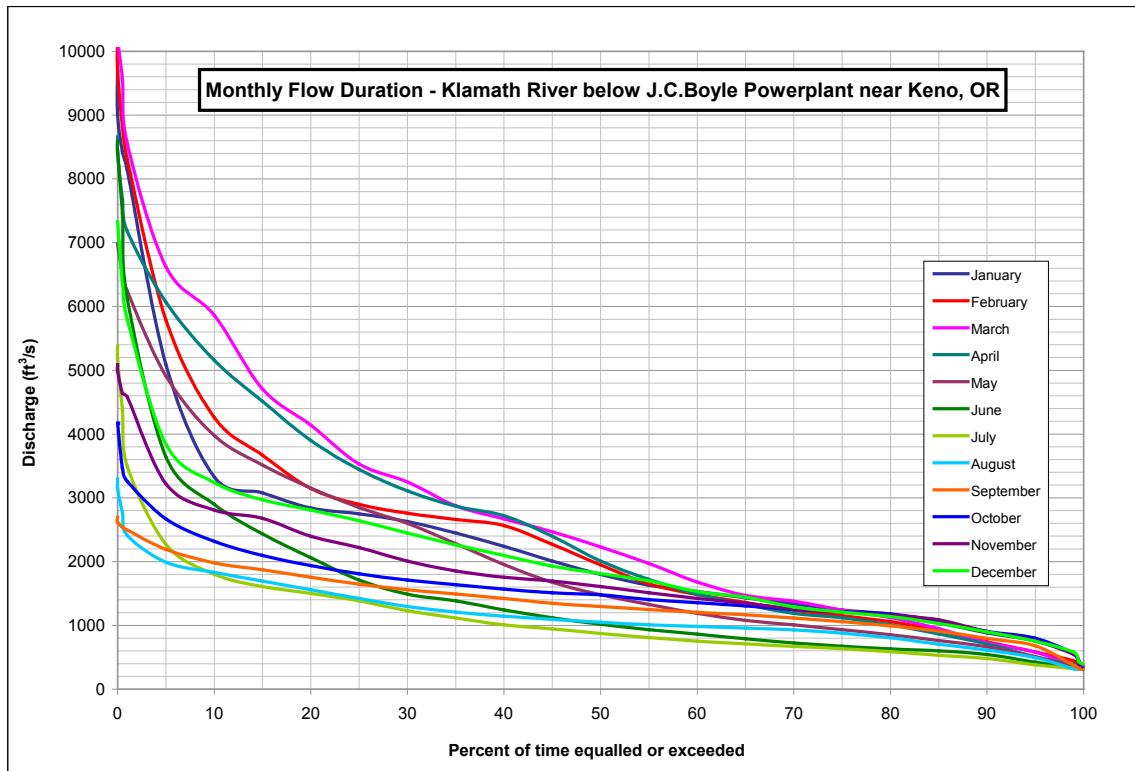
Year	Peak Discharge (ft³/s)
1944	32300
1945	102000
1946	209000
1947	73900
1948	202000
1949	95000
1950	92600
1951	173000
1952	195000
1953	297000
1954	133000
1955	74200
1956	425000
1957	160000
1958	236000
1959	175000
1960	195000
1961	123000
1962	82000
1963	176000
1964	162000
1965	557000
1966	152000
1967	170000
1968	190000
1969	177000
1970	331000
1971	334000
1972	360000
1973	97800
1974	529000
1975	198000

Year	Peak Discharge (ft³/s)
1976	76900
1977	15200
1978	312000
1979	98800
1980	234000
1981	81400
1982	384000
1983	282000
1984	172000
1985	149000
1986	459000
1987	81300
1988	113000
1989	154000
1990	131000
1991	70500
1992	59200
1993	164000
1994	46000
1996	165000
1998	240000
1999	141000
2000	141000
2001	25500
2002	134000
2003	181000
2004	195000
2005	100000
2006	342000
2007	97400
2008	72300
2009	82400

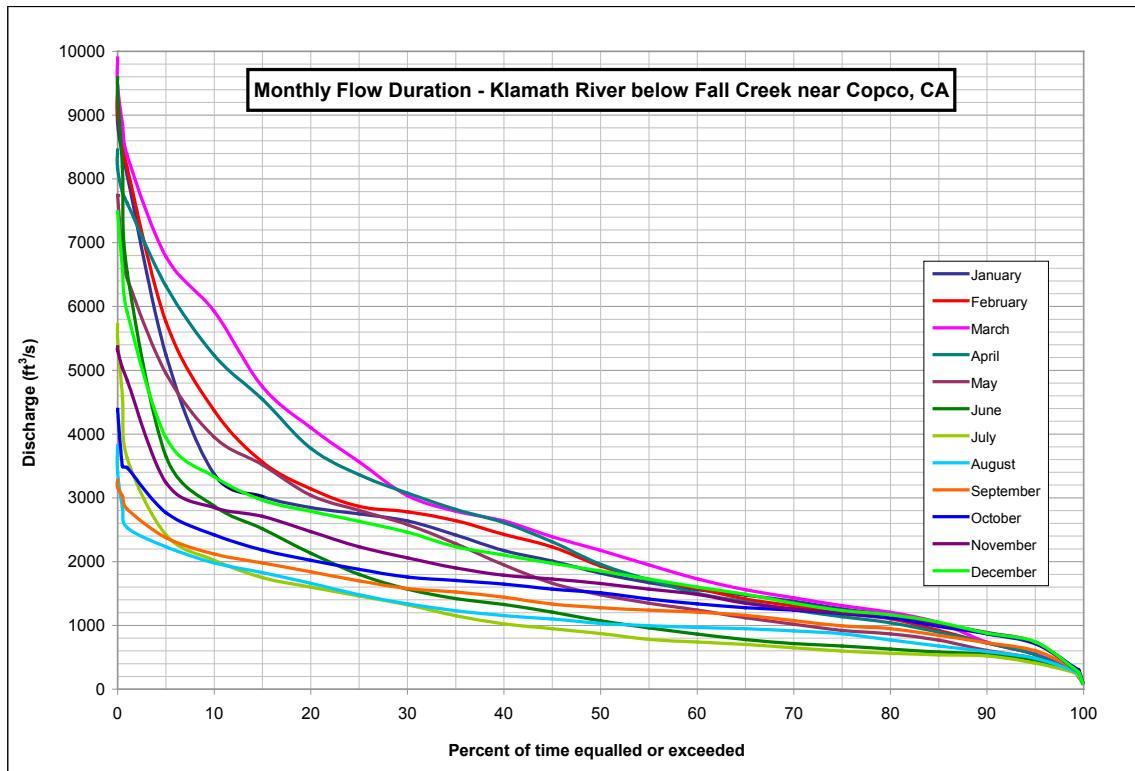
## 9 Appendix B – Monthly Flow Duration



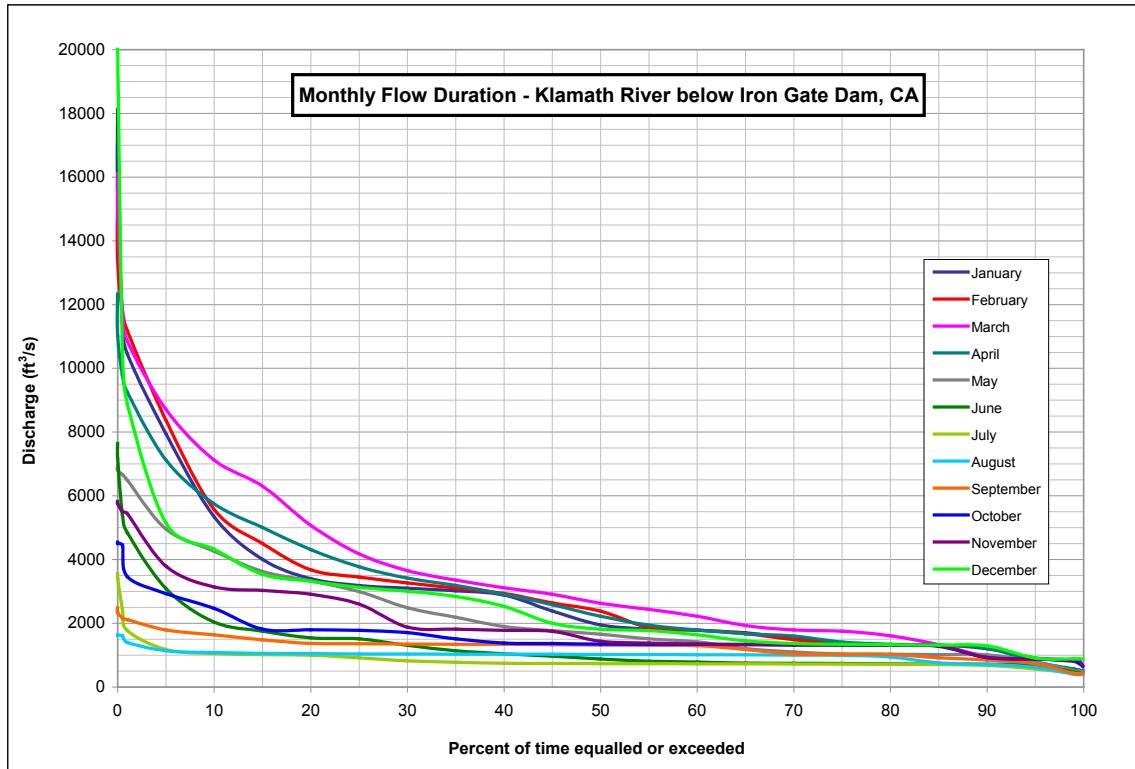
% of time equalled or exceeded	Keno Discharge (ft <sup>3</sup> /s)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
99	304	201	204	145	101	118	127	145	243	361	327	356
95	520	352	324	254	273	247	246	296	450	567	540	528
90	628	503	473	448	409	289	259	377	557	658	678	649
80	913	815	875	739	618	385	312	588	734	911	919	891
70	1100	1000	1120	928	740	461	417	672	860	1000	1010	1050
60	1290	1240	1410	1220	917	606	490	716	959	1080	1180	1310
50	1560	1700	1980	1720	1170	747	619	779	1030	1230	1390	1570
40	2014	2280	2430	2410	1680	993	733	875	1140	1370	1520	1870
30	2403	2580	2960	2880	2340	1210	962	1040	1310	1490	1750	2180
20	2630	2930	3980	3690	2900	1830	1260	1320	1510	1700	2200	2580
10	3120	4188	5761	4990	3750	2620	1570	1610	1750	2110	2640	3040
5	5206	5660	6526	5930	4740	3436	2050	1760	1960	2470	3026	3770
1	7900	7951	8210	7100	6082	5970	3300	2194	2280	3060	4677	5658



% of time equalled or exceeded	Boyle Discharge ( $\text{ft}^3/\text{s}$ )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
99	539	430	347	372	347	337	324	320	369	551	535	580
95	753	575	581	505	502	414	381	488	680	800	760	750
90	877	744	726	703	660	545	482	609	802	907	902	897
80	1174	1055	1119	1008	854	632	585	806	980	1180	1160	1140
70	1335	1238	1378	1190	1010	724	671	930	1103	1250	1260	1290
60	1530	1483	1680	1491	1190	861	752	984	1200	1355	1424	1532
50	1800	1954	2230	2011	1480	1016	870	1050	1290	1480	1610	1816
40	2240	2567	2670	2720	1954	1242	1010	1142	1420	1571	1757	2101
30	2630	2760	3250	3110	2602	1490	1230	1296	1560	1710	2013	2450
20	2840	3152	4153	3900	3160	2065	1502	1561	1750	1940	2400	2810
10	3338	4269	5862	5164	3987	2906	1807	1836	1983	2327	2810	3250
5	5086	5787	6620	6068	4919	3652	2278	1993	2199	2670	3226	3840
1	8132	8302	8553	7167	6238	6126	3505	2419	2504	3269	4580	5800



% of time equalled or exceeded	Copco Discharge ( $\text{ft}^3/\text{s}$ )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
99	339	301	290	272	273	278	263	287	325	347	320	325
95	710	533	540	538	475	453	396	476	599	719	737	743
90	870	724	736	726	602	535	505	582	730	881	894	885
80	1180	1125	1220	1051	874	623	549	772	961	1135	1181	1190
70	1390	1330	1460	1260	1030	713	647	925	1063	1272	1281	1366
60	1584	1590	1760	1540	1250	870	739	984	1221	1352	1490	1622
50	1846	1950	2233	2009	1491	1080	879	1046	1304	1532	1688	1874
40	2216	2466	2724	2693	1988	1346	1040	1169	1449	1677	1812	2140
30	2693	2889	3143	3125	2651	1580	1330	1340	1605	1812	2061	2485
20	2962	3208	4143	3884	3120	2170	1600	1660	1840	2030	2520	2910
10	3400	4450	6065	5376	4050	2950	2030	1983	2130	2425	2972	3350
5	5356	5919	7005	6445	5021	3718	2428	2250	2376	2858	3300	4116
1	8401	8441	8736	7833	6480	6381	3666	2579	2820	3470	5083	6193



% of time equalled or exceeded	Iron Gate Discharge (ft <sup>3</sup> /s)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
99	801	511	498	568	513	466	428	396	422	847	851	886
95	909	761	726	790	793	690	569	615	730	880	890	910
90	1200	914	952	1220	1010	715	676	715	849	924	932	1290
80	1330	1322	1610	1340	1030	731	715	942	1020	1310	1320	1330
70	1520	1490	1790	1600	1100	745	723	1000	1040	1320	1330	1370
60	1780	1790	2220	1790	1420	782	731	1010	1286	1340	1350	1640
50	1950	2380	2630	2220	1660	883	736	1020	1320	1350	1440	1820
40	2890	2936	3114	2910	1900	1044	750	1030	1334	1380	1780	2530
30	3100	3267	3653	3420	2490	1310	822	1040	1350	1710	1883	3010
20	3402	3680	5072	4314	3332	1542	1000	1050	1370	1800	2910	3320
10	5341	5569	7121	5750	4260	2040	1050	1080	1630	2471	3140	4321
5	7948	8370	8711	7121	4960	3090	1180	1140	1790	2930	3791	5150
1	10451	11178	10851	9251	6490	4842	1770	1400	2110	3460	5440	8881

## 10 Appendix C – 1961-2010 Average Daily Discharge

**Klamath River at Keno, OR – Water Year 1961-2010 – Average Daily Discharge (ft<sup>3</sup>/s)**

Day	Discharge										
1-Jan	2108	1-Mar	2375	1-May	1744	1-Jul	597	1-Sep	795	1-Nov	1372
2-Jan	2132	2-Mar	2417	2-May	1731	2-Jul	584	2-Sep	836	2-Nov	1420
3-Jan	2163	3-Mar	2499	3-May	1727	3-Jul	573	3-Sep	842	3-Nov	1386
4-Jan	2128	4-Mar	2477	4-May	1677	4-Jul	547	4-Sep	853	4-Nov	1393
5-Jan	2104	5-Mar	2475	5-May	1660	5-Jul	539	5-Sep	834	5-Nov	1415
6-Jan	2102	6-Mar	2475	6-May	1643	6-Jul	512	6-Sep	825	6-Nov	1450
7-Jan	2128	7-Mar	2519	7-May	1642	7-Jul	487	7-Sep	843	7-Nov	1454
8-Jan	2123	8-Mar	2546	8-May	1727	8-Jul	485	8-Sep	856	8-Nov	1434
9-Jan	2104	9-Mar	2577	9-May	1702	9-Jul	463	9-Sep	878	9-Nov	1433
10-Jan	2044	10-Mar	2641	10-May	1682	10-Jul	445	10-Sep	878	10-Nov	1438
11-Jan	1985	11-Mar	2705	11-May	1697	11-Jul	439	11-Sep	891	11-Nov	1426
12-Jan	1937	12-Mar	2713	12-May	1727	12-Jul	427	12-Sep	879	12-Nov	1454
13-Jan	1975	13-Mar	2713	13-May	1757	13-Jul	407	13-Sep	842	13-Nov	1508
14-Jan	2009	14-Mar	2775	14-May	1805	14-Jul	410	14-Sep	852	14-Nov	1538
15-Jan	2022	15-Mar	2786	15-May	1787	15-Jul	419	15-Sep	876	15-Nov	1550
16-Jan	2028	16-Mar	2763	16-May	1712	16-Jul	424	16-Sep	900	16-Nov	1561
17-Jan	2038	17-Mar	2801	17-May	1692	17-Jul	433	17-Sep	937	17-Nov	1576
18-Jan	2079	18-Mar	2807	18-May	1665	18-Jul	441	18-Sep	952	18-Nov	1583
19-Jan	2101	19-Mar	2770	19-May	1525	19-Jul	448	19-Sep	933	19-Nov	1591
20-Jan	2100	20-Mar	2719	20-May	1437	20-Jul	445	20-Sep	930	20-Nov	1614
21-Jan	2115	21-Mar	2682	21-May	1409	21-Jul	439	21-Sep	947	21-Nov	1620
22-Jan	2200	22-Mar	2621	22-May	1385	22-Jul	446	22-Sep	943	22-Nov	1618
23-Jan	2275	23-Mar	2551	23-May	1360	23-Jul	451	23-Sep	941	23-Nov	1602
24-Jan	2305	24-Mar	2560	24-May	1317	24-Jul	453	24-Sep	948	24-Nov	1604
25-Jan	2282	25-Mar	2627	25-May	1273	25-Jul	463	25-Sep	970	25-Nov	1611
26-Jan	2264	26-Mar	2651	26-May	1276	26-Jul	472	26-Sep	976	26-Nov	1634
27-Jan	2261	27-Mar	2653	27-May	1276	27-Jul	473	27-Sep	963	27-Nov	1670
28-Jan	2295	28-Mar	2659	28-May	1256	28-Jul	472	28-Sep	980	28-Nov	1691
29-Jan	2265	29-Mar	2607	29-May	1210	29-Jul	475	29-Sep	976	29-Nov	1731
30-Jan	2253	30-Mar	2574	30-May	1159	30-Jul	501	30-Sep	967	30-Nov	1738
31-Jan	2213	31-Mar	2633	31-May	1101	31-Jul	520	1-Oct	1004	1-Dec	1737
1-Feb	2187	1-Apr	2599	1-Jun	1090	1-Aug	549	2-Oct	1040	2-Dec	1741
2-Feb	2181	2-Apr	2615	2-Jun	1106	2-Aug	555	3-Oct	1033	3-Dec	1759
3-Feb	2145	3-Apr	2602	3-Jun	1134	3-Aug	568	4-Oct	1037	4-Dec	1812
4-Feb	2168	4-Apr	2523	4-Jun	1128	4-Aug	590	5-Oct	1102	5-Dec	1837
5-Feb	2172	5-Apr	2497	5-Jun	1108	5-Aug	588	6-Oct	1144	6-Dec	1804
6-Feb	2203	6-Apr	2489	6-Jun	1078	6-Aug	588	7-Oct	1143	7-Dec	1812
7-Feb	2150	7-Apr	2399	7-Jun	1003	7-Aug	580	8-Oct	1140	8-Dec	1887
8-Feb	2075	8-Apr	2346	8-Jun	944	8-Aug	583	9-Oct	1194	9-Dec	1923
9-Feb	2068	9-Apr	2307	9-Jun	897	9-Aug	602	10-Oct	1187	10-Dec	1920
10-Feb	2012	10-Apr	2269	10-Jun	848	10-Aug	614	11-Oct	1192	11-Dec	1912
11-Feb	1999	11-Apr	2261	11-Jun	816	11-Aug	627	12-Oct	1199	12-Dec	1870
12-Feb	1990	12-Apr	2294	12-Jun	804	12-Aug	630	13-Oct	1244	13-Dec	1800
13-Feb	1974	13-Apr	2376	13-Jun	800	13-Aug	635	14-Oct	1254	14-Dec	1796
14-Feb	1982	14-Apr	2389	14-Jun	806	14-Aug	644	15-Oct	1236	15-Dec	1885
15-Feb	2051	15-Apr	2368	15-Jun	774	15-Aug	629	16-Oct	1233	16-Dec	1945
16-Feb	2103	16-Apr	2315	16-Jun	752	16-Aug	648	17-Oct	1216	17-Dec	1926
17-Feb	2120	17-Apr	2263	17-Jun	751	17-Aug	653	18-Oct	1199	18-Dec	1927
18-Feb	2191	18-Apr	2226	18-Jun	730	18-Aug	669	19-Oct	1223	19-Dec	1913
19-Feb	2318	19-Apr	2190	19-Jun	690	19-Aug	682	20-Oct	1234	20-Dec	1945
20-Feb	2381	20-Apr	2136	20-Jun	663	20-Aug	682	21-Oct	1228	21-Dec	1947
21-Feb	2393	21-Apr	2009	21-Jun	633	21-Aug	686	22-Oct	1229	22-Dec	1943
22-Feb	2417	22-Apr	1986	22-Jun	618	22-Aug	692	23-Oct	1259	23-Dec	1979
23-Feb	2445	23-Apr	1984	23-Jun	611	23-Aug	699	24-Oct	1240	24-Dec	2004
24-Feb	2436	24-Apr	1926	24-Jun	607	24-Aug	699	25-Oct	1235	25-Dec	1997
25-Feb	2406	25-Apr	1885	25-Jun	613	25-Aug	698	26-Oct	1261	26-Dec	2018
26-Feb	2376	26-Apr	1870	26-Jun	609	26-Aug	711	27-Oct	1277	27-Dec	2024
27-Feb	2344	27-Apr	1831	27-Jun	611	27-Aug	719	28-Oct	1304	28-Dec	2029
28-Feb	2336	28-Apr	1810	28-Jun	621	28-Aug	699	29-Oct	1338	29-Dec	2019
29-Feb	2508	29-Apr	1814	29-Jun	604	29-Aug	695	30-Oct	1370	30-Dec	2025
			1808	30-Jun	601	30-Aug	693	31-Oct	1355	31-Dec	2097
						31-Aug	722				

Klamath River below J.C. Boyle near Keno, OR – Water Year 1961-2010 – Average Daily Discharge (ft<sup>3</sup>/s)

Day	Discharge										
1-Jan	2324	1-Mar	2577	1-May	2044	1-Jul	852	1-Sep	1046	1-Nov	1594
2-Jan	2373	2-Mar	2638	2-May	2026	2-Jul	871	2-Sep	1068	2-Nov	1645
3-Jan	2376	3-Mar	2746	3-May	2042	3-Jul	816	3-Sep	1072	3-Nov	1599
4-Jan	2374	4-Mar	2705	4-May	1983	4-Jul	785	4-Sep	1085	4-Nov	1618
5-Jan	2352	5-Mar	2735	5-May	1946	5-Jul	808	5-Sep	1081	5-Nov	1617
6-Jan	2332	6-Mar	2688	6-May	1920	6-Jul	800	6-Sep	1068	6-Nov	1672
7-Jan	2341	7-Mar	2781	7-May	1909	7-Jul	748	7-Sep	1081	7-Nov	1700
8-Jan	2347	8-Mar	2788	8-May	2004	8-Jul	739	8-Sep	1100	8-Nov	1638
9-Jan	2342	9-Mar	2827	9-May	2021	9-Jul	708	9-Sep	1085	9-Nov	1636
10-Jan	2288	10-Mar	2861	10-May	1992	10-Jul	674	10-Sep	1130	10-Nov	1664
11-Jan	2215	11-Mar	2957	11-May	1972	11-Jul	660	11-Sep	1140	11-Nov	1633
12-Jan	2197	12-Mar	2943	12-May	2019	12-Jul	650	12-Sep	1116	12-Nov	1686
13-Jan	2202	13-Mar	2965	13-May	2035	13-Jul	648	13-Sep	1082	13-Nov	1712
14-Jan	2249	14-Mar	3018	14-May	2074	14-Jul	667	14-Sep	1092	14-Nov	1755
15-Jan	2282	15-Mar	3006	15-May	2076	15-Jul	650	15-Sep	1094	15-Nov	1757
16-Jan	2273	16-Mar	3019	16-May	2011	16-Jul	674	16-Sep	1116	16-Nov	1777
17-Jan	2284	17-Mar	3033	17-May	1961	17-Jul	686	17-Sep	1192	17-Nov	1780
18-Jan	2297	18-Mar	3040	18-May	1962	18-Jul	687	18-Sep	1203	18-Nov	1801
19-Jan	2292	19-Mar	2984	19-May	1840	19-Jul	699	19-Sep	1204	19-Nov	1785
20-Jan	2335	20-Mar	2958	20-May	1714	20-Jul	691	20-Sep	1191	20-Nov	1812
21-Jan	2308	21-Mar	2918	21-May	1691	21-Jul	703	21-Sep	1188	21-Nov	1813
22-Jan	2385	22-Mar	2849	22-May	1666	22-Jul	700	22-Sep	1192	22-Nov	1815
23-Jan	2468	23-Mar	2806	23-May	1608	23-Jul	667	23-Sep	1183	23-Nov	1806
24-Jan	2498	24-Mar	2788	24-May	1606	24-Jul	691	24-Sep	1182	24-Nov	1822
25-Jan	2469	25-Mar	2841	25-May	1551	25-Jul	709	25-Sep	1218	25-Nov	1837
26-Jan	2464	26-Mar	2894	26-May	1564	26-Jul	716	26-Sep	1228	26-Nov	1832
27-Jan	2435	27-Mar	2875	27-May	1554	27-Jul	724	27-Sep	1161	27-Nov	1867
28-Jan	2497	28-Mar	2903	28-May	1547	28-Jul	736	28-Sep	1212	28-Nov	1923
29-Jan	2484	29-Mar	2828	29-May	1499	29-Jul	732	29-Sep	1185	29-Nov	1929
30-Jan	2481	30-Mar	2837	30-May	1467	30-Jul	762	30-Sep	1236	30-Nov	1957
31-Jan	2450	31-Mar	2845	31-May	1344	31-Jul	744	1-Oct	1233	1-Dec	1962
1-Feb	2414	1-Apr	2839	1-Jun	1380	1-Aug	804	2-Oct	1275	2-Dec	1924
2-Feb	2413	2-Apr	2836	2-Jun	1352	2-Aug	798	3-Oct	1279	3-Dec	1983
3-Feb	2414	3-Apr	2847	3-Jun	1393	3-Aug	817	4-Oct	1276	4-Dec	2012
4-Feb	2391	4-Apr	2751	4-Jun	1389	4-Aug	820	5-Oct	1347	5-Dec	2028
5-Feb	2397	5-Apr	2745	5-Jun	1376	5-Aug	827	6-Oct	1373	6-Dec	2014
6-Feb	2395	6-Apr	2717	6-Jun	1359	6-Aug	844	7-Oct	1391	7-Dec	2003
7-Feb	2384	7-Apr	2691	7-Jun	1285	7-Aug	825	8-Oct	1351	8-Dec	2066
8-Feb	2289	8-Apr	2594	8-Jun	1196	8-Aug	849	9-Oct	1446	9-Dec	2119
9-Feb	2284	9-Apr	2545	9-Jun	1184	9-Aug	836	10-Oct	1420	10-Dec	2080
10-Feb	2243	10-Apr	2505	10-Jun	1107	10-Aug	853	11-Oct	1443	11-Dec	2101
11-Feb	2191	11-Apr	2506	11-Jun	1094	11-Aug	879	12-Oct	1446	12-Dec	2059
12-Feb	2193	12-Apr	2553	12-Jun	1088	12-Aug	851	13-Oct	1468	13-Dec	2021
13-Feb	2185	13-Apr	2602	13-Jun	1064	13-Aug	887	14-Oct	1467	14-Dec	1987
14-Feb	2191	14-Apr	2611	14-Jun	1091	14-Aug	891	15-Oct	1491	15-Dec	2069
15-Feb	2265	15-Apr	2613	15-Jun	1028	15-Aug	875	16-Oct	1460	16-Dec	2175
16-Feb	2301	16-Apr	2530	16-Jun	1015	16-Aug	923	17-Oct	1456	17-Dec	2116
17-Feb	2333	17-Apr	2517	17-Jun	1008	17-Aug	891	18-Oct	1418	18-Dec	2137
18-Feb	2402	18-Apr	2489	18-Jun	1007	18-Aug	891	19-Oct	1450	19-Dec	2108
19-Feb	2555	19-Apr	2436	19-Jun	950	19-Aug	940	20-Oct	1504	20-Dec	2137
20-Feb	2578	20-Apr	2412	20-Jun	919	20-Aug	935	21-Oct	1459	21-Dec	2143
21-Feb	2629	21-Apr	2328	21-Jun	894	21-Aug	930	22-Oct	1466	22-Dec	2190
22-Feb	2662	22-Apr	2232	22-Jun	872	22-Aug	923	23-Oct	1522	23-Dec	2240
23-Feb	2655	23-Apr	2265	23-Jun	880	23-Aug	930	24-Oct	1499	24-Dec	2277
24-Feb	2668	24-Apr	2244	24-Jun	858	24-Aug	933	25-Oct	1458	25-Dec	2238
25-Feb	2642	25-Apr	2172	25-Jun	851	25-Aug	928	26-Oct	1497	26-Dec	2280
26-Feb	2580	26-Apr	2126	26-Jun	869	26-Aug	943	27-Oct	1506	27-Dec	2271
27-Feb	2573	27-Apr	2137	27-Jun	861	27-Aug	957	28-Oct	1535	28-Dec	2281
28-Feb	2584	28-Apr	2097	28-Jun	881	28-Aug	963	29-Oct	1551	29-Dec	2275
29-Feb	2717	29-Apr	2094	29-Jun	863	29-Aug	972	30-Oct	1609	30-Dec	2286
		30-Apr	2095	30-Jun	856	30-Aug	929	31-Oct	1582	31-Dec	2345
						31-Aug	980				

Klamath River blw Fall Creek near Copco, CA – Water Year 1961-2010 – Average Daily Discharge (ft<sup>3</sup>/s)

Day	Discharge										
1-Jan	2411	1-Mar	2721	1-May	2063	1-Jul	862	1-Sep	1078	1-Nov	1669
2-Jan	2437	2-Mar	2765	2-May	2041	2-Jul	846	2-Sep	1105	2-Nov	1730
3-Jan	2490	3-Mar	2834	3-May	2038	3-Jul	837	3-Sep	1111	3-Nov	1691
4-Jan	2456	4-Mar	2799	4-May	1986	4-Jul	809	4-Sep	1122	4-Nov	1704
5-Jan	2431	5-Mar	2813	5-May	1969	5-Jul	811	5-Sep	1119	5-Nov	1702
6-Jan	2421	6-Mar	2813	6-May	1950	6-Jul	778	6-Sep	1109	6-Nov	1732
7-Jan	2444	7-Mar	2853	7-May	1944	7-Jul	752	7-Sep	1130	7-Nov	1760
8-Jan	2432	8-Mar	2884	8-May	2037	8-Jul	748	8-Sep	1137	8-Nov	1734
9-Jan	2431	9-Mar	2919	9-May	2013	9-Jul	722	9-Sep	1145	9-Nov	1739
10-Jan	2367	10-Mar	2982	10-May	1992	10-Jul	704	10-Sep	1145	10-Nov	1743
11-Jan	2307	11-Mar	3034	11-May	2007	11-Jul	708	11-Sep	1179	11-Nov	1729
12-Jan	2263	12-Mar	3044	12-May	2038	12-Jul	696	12-Sep	1162	12-Nov	1743
13-Jan	2295	13-Mar	3055	13-May	2068	13-Jul	668	13-Sep	1124	13-Nov	1791
14-Jan	2316	14-Mar	3136	14-May	2118	14-Jul	675	14-Sep	1134	14-Nov	1842
15-Jan	2330	15-Mar	3141	15-May	2099	15-Jul	678	15-Sep	1159	15-Nov	1857
16-Jan	2349	16-Mar	3128	16-May	2022	16-Jul	681	16-Sep	1168	16-Nov	1864
17-Jan	2356	17-Mar	3168	17-May	2000	17-Jul	698	17-Sep	1208	17-Nov	1887
18-Jan	2404	18-Mar	3141	18-May	1973	18-Jul	706	18-Sep	1238	18-Nov	1894
19-Jan	2427	19-Mar	3096	19-May	1828	19-Jul	714	19-Sep	1222	19-Nov	1889
20-Jan	2424	20-Mar	3083	20-May	1740	20-Jul	711	20-Sep	1219	20-Nov	1901
21-Jan	2429	21-Mar	3025	21-May	1711	21-Jul	705	21-Sep	1233	21-Nov	1930
22-Jan	2506	22-Mar	2962	22-May	1685	22-Jul	704	22-Sep	1230	22-Nov	1931
23-Jan	2605	23-Mar	2890	23-May	1654	23-Jul	709	23-Sep	1209	23-Nov	1897
24-Jan	2642	24-Mar	2899	24-May	1610	24-Jul	720	24-Sep	1211	24-Nov	1889
25-Jan	2617	25-Mar	2971	25-May	1565	25-Jul	730	25-Sep	1259	25-Nov	1943
26-Jan	2593	26-Mar	2995	26-May	1567	26-Jul	739	26-Sep	1264	26-Nov	1940
27-Jan	2589	27-Mar	2997	27-May	1570	27-Jul	741	27-Sep	1251	27-Nov	1962
28-Jan	2610	28-Mar	3005	28-May	1546	28-Jul	740	28-Sep	1269	28-Nov	1999
29-Jan	2585	29-Mar	2953	29-May	1499	29-Jul	733	29-Sep	1265	29-Nov	2045
30-Jan	2584	30-Mar	2922	30-May	1453	30-Jul	760	30-Sep	1234	30-Nov	2044
31-Jan	2545	31-Mar	2986	31-May	1395	31-Jul	789	1-Oct	1273	1-Dec	2057
1-Feb	2525	1-Apr	2931	1-Jun	1378	1-Aug	820	2-Oct	1312	2-Dec	2067
2-Feb	2520	2-Apr	2957	2-Jun	1403	2-Aug	825	3-Oct	1318	3-Dec	2055
3-Feb	2468	3-Apr	2945	3-Jun	1420	3-Aug	838	4-Oct	1336	4-Dec	2105
4-Feb	2480	4-Apr	2861	4-Jun	1420	4-Aug	862	5-Oct	1398	5-Dec	2155
5-Feb	2480	5-Apr	2834	5-Jun	1399	5-Aug	851	6-Oct	1441	6-Dec	2121
6-Feb	2539	6-Apr	2827	6-Jun	1368	6-Aug	851	7-Oct	1437	7-Dec	2124
7-Feb	2496	7-Apr	2734	7-Jun	1291	7-Aug	852	8-Oct	1419	8-Dec	2203
8-Feb	2431	8-Apr	2677	8-Jun	1230	8-Aug	856	9-Oct	1471	9-Dec	2243
9-Feb	2378	9-Apr	2633	9-Jun	1182	9-Aug	875	10-Oct	1487	10-Dec	2219
10-Feb	2317	10-Apr	2604	10-Jun	1125	10-Aug	887	11-Oct	1490	11-Dec	2213
11-Feb	2312	11-Apr	2592	11-Jun	1085	11-Aug	901	12-Oct	1499	12-Dec	2186
12-Feb	2310	12-Apr	2626	12-Jun	1080	12-Aug	895	13-Oct	1541	13-Dec	2113
13-Feb	2300	13-Apr	2711	13-Jun	1081	13-Aug	899	14-Oct	1542	14-Dec	2110
14-Feb	2316	14-Apr	2725	14-Jun	1086	14-Aug	919	15-Oct	1509	15-Dec	2203
15-Feb	2392	15-Apr	2693	15-Jun	1053	15-Aug	903	16-Oct	1509	16-Dec	2266
16-Feb	2427	16-Apr	2627	16-Jun	1031	16-Aug	923	17-Oct	1506	17-Dec	2232
17-Feb	2448	17-Apr	2596	17-Jun	1019	17-Aug	928	18-Oct	1498	18-Dec	2232
18-Feb	2500	18-Apr	2562	18-Jun	993	18-Aug	944	19-Oct	1528	19-Dec	2234
19-Feb	2637	19-Apr	2519	19-Jun	964	19-Aug	948	20-Oct	1533	20-Dec	2273
20-Feb	2720	20-Apr	2467	20-Jun	935	20-Aug	948	21-Oct	1528	21-Dec	2270
21-Feb	2720	21-Apr	2332	21-Jun	904	21-Aug	962	22-Oct	1505	22-Dec	2260
22-Feb	2756	22-Apr	2301	22-Jun	887	22-Aug	968	23-Oct	1537	23-Dec	2295
23-Feb	2789	23-Apr	2286	23-Jun	882	23-Aug	975	24-Oct	1537	24-Dec	2311
24-Feb	2774	24-Apr	2239	24-Jun	879	24-Aug	976	25-Oct	1535	25-Dec	2313
25-Feb	2726	25-Apr	2209	25-Jun	873	25-Aug	975	26-Oct	1562	26-Dec	2320
26-Feb	2690	26-Apr	2192	26-Jun	884	26-Aug	976	27-Oct	1573	27-Dec	2353
27-Feb	2678	27-Apr	2155	27-Jun	886	27-Aug	984	28-Oct	1607	28-Dec	2357
28-Feb	2667	28-Apr	2126	28-Jun	897	28-Aug	979	29-Oct	1616	29-Dec	2349
29-Feb	2846	29-Apr	2115	29-Jun	880	29-Aug	973	30-Oct	1649	30-Dec	2350
		30-Apr	2106	30-Jun	875	30-Aug	971	31-Oct	1656	31-Dec	2422
						31-Aug	1003				

Klamath River below Iron Gate Dam, CA – Water Year 1961-2010 – Average Daily Discharge (ft<sup>3</sup>/s)

Day	Discharge											
1-Jan	2886	1-Mar	3142	1-May	2414	1-Jul	918	1-Sep	1189	1-Nov	1728	
2-Jan	2830	2-Mar	3205	2-May	2389	2-Jul	890	2-Sep	1176	2-Nov	1740	
3-Jan	2858	3-Mar	3299	3-May	2352	3-Jul	898	3-Sep	1172	3-Nov	1747	
4-Jan	2793	4-Mar	3256	4-May	2327	4-Jul	894	4-Sep	1173	4-Nov	1726	
5-Jan	2754	5-Mar	3255	5-May	2336	5-Jul	898	5-Sep	1187	5-Nov	1713	
6-Jan	2680	6-Mar	3240	6-May	2308	6-Jul	889	6-Sep	1192	6-Nov	1737	
7-Jan	2623	7-Mar	3249	7-May	2293	7-Jul	870	7-Sep	1205	7-Nov	1818	
8-Jan	2624	8-Mar	3290	8-May	2329	8-Jul	853	8-Sep	1212	8-Nov	1845	
9-Jan	2636	9-Mar	3361	9-May	2362	9-Jul	840	9-Sep	1207	9-Nov	1860	
10-Jan	2567	10-Mar	3401	10-May	2340	10-Jul	835	10-Sep	1210	10-Nov	1871	
11-Jan	2556	11-Mar	3455	11-May	2332	11-Jul	832	11-Sep	1221	11-Nov	1839	
12-Jan	2547	12-Mar	3456	12-May	2337	12-Jul	827	12-Sep	1219	12-Nov	1852	
13-Jan	2613	13-Mar	3483	13-May	2399	13-Jul	811	13-Sep	1219	13-Nov	1849	
14-Jan	2692	14-Mar	3544	14-May	2386	14-Jul	795	14-Sep	1221	14-Nov	1896	
15-Jan	2755	15-Mar	3588	15-May	2404	15-Jul	790	15-Sep	1225	15-Nov	1952	
16-Jan	3028	16-Mar	3546	16-May	2343	16-Jul	784	16-Sep	1215	16-Nov	1969	
17-Jan	2984	17-Mar	3550	17-May	2317	17-Jul	791	17-Sep	1234	17-Nov	1984	
18-Jan	2885	18-Mar	3641	18-May	2271	18-Jul	799	18-Sep	1264	18-Nov	1997	
19-Jan	2822	19-Mar	3531	19-May	2160	19-Jul	805	19-Sep	1274	19-Nov	1982	
20-Jan	2839	20-Mar	3487	20-May	2076	20-Jul	798	20-Sep	1284	20-Nov	1982	
21-Jan	2835	21-Mar	3391	21-May	2037	21-Jul	795	21-Sep	1289	21-Nov	2014	
22-Jan	2963	22-Mar	3330	22-May	1980	22-Jul	781	22-Sep	1287	22-Nov	2042	
23-Jan	2989	23-Mar	3323	23-May	1927	23-Jul	784	23-Sep	1276	23-Nov	2066	
24-Jan	2957	24-Mar	3354	24-May	1858	24-Jul	794	24-Sep	1277	24-Nov	2086	
25-Jan	2862	25-Mar	3377	25-May	1842	25-Jul	795	25-Sep	1311	25-Nov	2143	
26-Jan	2848	26-Mar	3401	26-May	1813	26-Jul	799	26-Sep	1313	26-Nov	2130	
27-Jan	2921	27-Mar	3294	27-May	1835	27-Jul	801	27-Sep	1314	27-Nov	2115	
28-Jan	2889	28-Mar	3366	28-May	1779	28-Jul	803	28-Sep	1327	28-Nov	2111	
29-Jan	2877	29-Mar	3378	29-May	1764	29-Jul	789	29-Sep	1338	29-Nov	2115	
30-Jan	2871	30-Mar	3411	30-May	1714	30-Jul	789	30-Sep	1328	30-Nov	2130	
31-Jan	2853	31-Mar	3409	31-May	1652	31-Jul	821	1-Oct	1368	1-Dec	2177	
1-Feb	2860	1-Apr	3433	1-Jun	1552	1-Aug	959	2-Oct	1401	2-Dec	2232	
2-Feb	2877	2-Apr	3377	2-Jun	1534	2-Aug	958	3-Oct	1411	3-Dec	2221	
3-Feb	2835	3-Apr	3348	3-Jun	1521	3-Aug	956	4-Oct	1429	4-Dec	2276	
4-Feb	2824	4-Apr	3267	4-Jun	1565	4-Aug	958	5-Oct	1448	5-Dec	2328	
5-Feb	2780	5-Apr	3232	5-Jun	1578	5-Aug	947	6-Oct	1471	6-Dec	2324	
6-Feb	2795	6-Apr	3199	6-Jun	1570	6-Aug	945	7-Oct	1468	7-Dec	2338	
7-Feb	2807	7-Apr	3190	7-Jun	1513	7-Aug	956	8-Oct	1458	8-Dec	2335	
8-Feb	2800	8-Apr	3102	8-Jun	1426	8-Aug	958	9-Oct	1510	9-Dec	2372	
9-Feb	2732	9-Apr	3036	9-Jun	1359	9-Aug	957	10-Oct	1544	10-Dec	2353	
10-Feb	2672	10-Apr	3002	10-Jun	1291	10-Aug	958	11-Oct	1548	11-Dec	2349	
11-Feb	2672	11-Apr	2983	11-Jun	1250	11-Aug	963	12-Oct	1591	12-Dec	2377	
12-Feb	2649	12-Apr	2993	12-Jun	1233	12-Aug	956	13-Oct	1600	13-Dec	2400	
13-Feb	2617	13-Apr	3096	13-Jun	1218	13-Aug	954	14-Oct	1561	14-Dec	2467	
14-Feb	2686	14-Apr	3155	14-Jun	1235	14-Aug	964	15-Oct	1543	15-Dec	2437	
15-Feb	2740	15-Apr	3088	15-Jun	1230	15-Aug	967	16-Oct	1572	16-Dec	2471	
16-Feb	2794	16-Apr	3018	16-Jun	1216	16-Aug	973	17-Oct	1576	17-Dec	2479	
17-Feb	2875	17-Apr	2953	17-Jun	1173	17-Aug	972	18-Oct	1582	18-Dec	2360	
18-Feb	2966	18-Apr	2918	18-Jun	1121	18-Aug	972	19-Oct	1599	19-Dec	2443	
19-Feb	3062	19-Apr	2863	19-Jun	1097	19-Aug	963	20-Oct	1616	20-Dec	2499	
20-Feb	3172	20-Apr	2786	20-Jun	1063	20-Aug	971	21-Oct	1613	21-Dec	2579	
21-Feb	3262	21-Apr	2711	21-Jun	1039	21-Aug	989	22-Oct	1581	22-Dec	2839	
22-Feb	3200	22-Apr	2624	22-Jun	1025	22-Aug	992	23-Oct	1605	23-Dec	2787	
23-Feb	3206	23-Apr	2634	23-Jun	1026	23-Aug	997	24-Oct	1657	24-Dec	2677	
24-Feb	3130	24-Apr	2626	24-Jun	1000	24-Aug	1000	25-Oct	1657	25-Dec	2589	
25-Feb	3081	25-Apr	2619	25-Jun	970	25-Aug	1002	26-Oct	1669	26-Dec	2561	
26-Feb	3054	26-Apr	2529	26-Jun	975	26-Aug	1004	27-Oct	1672	27-Dec	2609	
27-Feb	3039	27-Apr	2468	27-Jun	966	27-Aug	1011	28-Oct	1653	28-Dec	2602	
28-Feb	3092	28-Apr	2439	28-Jun	958	28-Aug	1028	29-Oct	1643	29-Dec	2590	
29-Feb	3413	29-Apr	2455	29-Jun	975	29-Aug	1025	30-Oct	1700	30-Dec	2694	
			30-Apr	2450	30-Jun	980	30-Aug	1018	31-Oct	1705	31-Dec	2825
						31-Aug	1034					

# 11 Appendix D – Hydrographs

## KLAMATH RIVER AT KENO, OR

Annual	Keno Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
0	6016	7331	8247	8957
1	6027	7343	8257	8966
2	6039	7355	8268	8976
3	6050	7367	8278	8985
4	6062	7379	8288	8994
5	6073	7391	8299	9003
6	6085	7403	8309	9012
7	6096	7414	8320	9021
8	6108	7426	8330	9031
9	6120	7438	8340	9040
10	6131	7450	8351	9049
11	6143	7462	8361	9058
12	6154	7474	8372	9067
13	6166	7486	8382	9076
14	6177	7498	8392	9086
15	6189	7510	8403	9095
16	6200	7522	8413	9104
17	6212	7534	8424	9113
18	6223	7545	8434	9122
19	6235	7557	8444	9131
20	6246	7569	8455	9141
21	6258	7581	8465	9150
22	6270	7593	8476	9159
23	6281	7605	8486	9168
24	6293	7617	8496	9177
25	6304	7629	8507	9187
26	6316	7641	8517	9196
27	6327	7653	8528	9205
28	6339	7665	8538	9214
29	6350	7677	8548	9223
30	6362	7688	8559	9232
31	6373	7700	8569	9242
32	6385	7712	8580	9251
33	6396	7724	8590	9260
34	6408	7736	8600	9269
35	6420	7748	8611	9278
36	6431	7760	8621	9287
37	6443	7772	8632	9297
38	6454	7784	8642	9306
39	6466	7796	8652	9315
40	6477	7808	8663	9324
41	6489	7819	8673	9333
42	6500	7831	8684	9342

Annual	Keno Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
181	8343	9963	10697	11194
182	8185	9753	10435	10885
183	8168	9720	10412	10875
184	8151	9688	10390	10865
185	8134	9656	10367	10854
186	8118	9624	10345	10844
187	8101	9591	10323	10834
188	8084	9559	10300	10823
189	8067	9527	10278	10813
190	8050	9495	10255	10803
191	8033	9463	10233	10792
192	8017	9430	10210	10782
193	7997	9409	10188	10761
194	7978	9388	10165	10739
195	7959	9366	10143	10718
196	7940	9345	10120	10696
197	7920	9324	10098	10675
198	7901	9302	10075	10654
199	7882	9281	10053	10632
200	7863	9259	10030	10611
201	7843	9238	10008	10589
202	7824	9217	9985	10568
203	7805	9195	9963	10546
204	7786	9174	9940	10525
205	7766	9153	9917	10504
206	7747	9131	9895	10482
207	7728	9110	9872	10461
208	7708	9089	9850	10439
209	7689	9067	9827	10418
210	7670	9046	9805	10396
211	7651	9025	9782	10375
212	7631	9003	9760	10354
213	7612	8982	9737	10332
214	7593	8960	9715	10311
215	7574	8939	9692	10289
216	7554	8918	9670	10268
217	7545	8908	9658	10252
218	7537	8898	9646	10236
219	7528	8888	9634	10220
220	7519	8878	9622	10204
221	7510	8869	9610	10187
222	7501	8859	9599	10171
223	7492	8849	9587	10155

<b>Annual</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
43	6512	7843	8694	9352
44	6523	7855	8705	9361
45	6535	7867	8715	9370
46	6546	7879	8725	9379
47	6558	7891	8736	9388
48	6570	7903	8746	9398
49	6581	7915	8757	9407
50	6593	7927	8767	9416
51	6604	7939	8777	9425
52	6616	7951	8788	9434
53	6627	7962	8798	9443
54	6639	7974	8809	9453
55	6650	7986	8819	9462
56	6662	7998	8829	9471
57	6673	8010	8840	9480
58	6685	8022	8850	9489
59	6696	8034	8861	9498
60	6708	8046	8871	9508
61	6719	8058	8881	9517
62	6731	8070	8892	9526
63	6743	8082	8902	9535
64	6754	8093	8913	9544
65	6766	8105	8923	9553
66	6777	8117	8933	9563
67	6789	8129	8944	9572
68	6800	8141	8954	9581
69	6812	8153	8965	9590
70	6823	8165	8975	9599
71	6835	8177	8985	9608
72	6846	8189	8996	9618
73	6858	8201	9006	9627
74	6869	8213	9017	9636
75	6881	8225	9027	9645
76	6893	8236	9037	9654
77	6904	8248	9048	9664
78	6916	8260	9058	9673
79	6927	8272	9069	9682
80	6939	8284	9079	9691
81	6950	8296	9089	9700
82	6962	8308	9100	9709
83	6973	8320	9110	9719
84	6985	8332	9121	9728
85	6996	8344	9131	9737
86	7008	8356	9141	9746
87	7019	8367	9152	9755
88	7031	8379	9162	9764
89	7043	8391	9173	9774
90	7054	8403	9183	9783
91	7066	8415	9194	9792
224	7483	8839	9575	10139
225	7474	8829	9563	10123
226	7465	8820	9551	10107
227	7456	8810	9539	10091
228	7448	8800	9528	10075
229	7439	8790	9516	10059
230	7430	8780	9504	10043
231	7421	8771	9492	10027
232	7412	8761	9480	10011
233	7403	8751	9468	9995
234	7394	8741	9456	9979
235	7385	8731	9445	9963
236	7376	8722	9433	9946
237	7367	8712	9421	9930
238	7358	8702	9409	9914
239	7350	8692	9397	9898
240	7341	8682	9385	9882
241	7332	8674	9380	9880
242	7323	8665	9374	9878
243	7314	8656	9368	9877
244	7304	8648	9362	9875
245	7295	8639	9356	9873
246	7286	8630	9350	9871
247	7277	8622	9345	9869
248	7268	8613	9339	9867
249	7259	8604	9333	9866
250	7250	8596	9327	9864
251	7241	8587	9321	9862
252	7232	8579	9316	9860
253	7223	8570	9310	9858
254	7214	8561	9304	9856
255	7205	8553	9298	9854
256	7196	8544	9292	9853
257	7187	8535	9286	9851
258	7178	8527	9281	9849
259	7169	8518	9275	9847
260	7160	8509	9269	9845
261	7150	8501	9263	9843
262	7141	8492	9257	9842
263	7132	8483	9251	9840
264	7123	8475	9246	9838
265	7112	8463	9235	9829
266	7100	8451	9225	9819
267	7089	8439	9214	9810
268	7077	8427	9204	9801
269	7066	8415	9194	9792
270	7054	8403	9183	9783
271	7043	8391	9173	9774
272	7031	8379	9162	9764

<b>Annual</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
92	7077	8427	9204	9801
93	7089	8439	9214	9810
94	7100	8451	9225	9819
95	7112	8463	9235	9829
96	7123	8475	9246	9838
97	7132	8483	9251	9840
98	7141	8492	9257	9842
99	7150	8501	9263	9843
100	7160	8509	9269	9845
101	7169	8518	9275	9847
102	7178	8527	9281	9849
103	7187	8535	9286	9851
104	7196	8544	9292	9853
105	7205	8553	9298	9854
106	7214	8561	9304	9856
107	7223	8570	9310	9858
108	7232	8579	9316	9860
109	7241	8587	9321	9862
110	7250	8596	9327	9864
111	7259	8604	9333	9866
112	7268	8613	9339	9867
113	7277	8622	9345	9869
114	7286	8630	9350	9871
115	7295	8639	9356	9873
116	7304	8648	9362	9875
117	7314	8656	9368	9877
118	7323	8665	9374	9878
119	7332	8674	9380	9880
120	7341	8682	9385	9882
121	7350	8692	9397	9898
122	7358	8702	9409	9914
123	7367	8712	9421	9930
124	7376	8722	9433	9946
125	7385	8731	9445	9963
126	7394	8741	9456	9979
127	7403	8751	9468	9995
128	7412	8761	9480	10011
129	7421	8771	9492	10027
130	7430	8780	9504	10043
131	7439	8790	9516	10059
132	7448	8800	9528	10075
133	7456	8810	9539	10091
134	7465	8820	9551	10107
135	7474	8829	9563	10123
136	7483	8839	9575	10139
137	7492	8849	9587	10155
138	7501	8859	9599	10171
139	7510	8869	9610	10187
140	7519	8878	9622	10204

<b>Annual</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
273	7019	8367	9152	9755
274	7008	8356	9141	9746
275	6996	8344	9131	9737
276	6985	8332	9121	9728
277	6973	8320	9110	9719
278	6962	8308	9100	9709
279	6950	8296	9089	9700
280	6939	8284	9079	9691
281	6927	8272	9069	9682
282	6916	8260	9058	9673
283	6904	8248	9048	9664
284	6893	8236	9037	9654
285	6881	8225	9027	9645
286	6869	8213	9017	9636
287	6858	8201	9006	9627
288	6846	8189	8996	9618
289	6835	8177	8985	9608
290	6823	8165	8975	9599
291	6812	8153	8965	9590
292	6800	8141	8954	9581
293	6789	8129	8944	9572
294	6777	8117	8933	9563
295	6766	8105	8923	9553
296	6754	8093	8913	9544
298	6743	8082	8902	9535
297	6731	8070	8892	9526
298	6719	8058	8881	9517
299	6708	8046	8871	9508
300	6696	8034	8861	9498
301	6685	8022	8850	9489
302	6673	8010	8840	9480
303	6662	7998	8829	9471
304	6650	7986	8819	9462
305	6639	7974	8809	9453
306	6627	7962	8798	9443
307	6616	7951	8788	9434
308	6604	7939	8777	9425
309	6593	7927	8767	9416
310	6581	7915	8757	9407
311	6570	7903	8746	9398
312	6558	7891	8736	9388
313	6546	7879	8725	9379
314	6535	7867	8715	9370
315	6523	7855	8705	9361
316	6512	7843	8694	9352
317	6500	7831	8684	9342
318	6489	7819	8673	9333
319	6477	7808	8663	9324
320	6466	7796	8652	9315

<b>Annual</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
141	7528	8888	9634	10220
142	7537	8898	9646	10236
143	7545	8908	9658	10252
144	7554	8918	9670	10268
145	7574	8939	9692	10289
146	7593	8960	9715	10311
147	7612	8982	9737	10332
148	7631	9003	9760	10354
149	7651	9025	9782	10375
150	7670	9046	9805	10396
151	7689	9067	9827	10418
152	7708	9089	9850	10439
153	7728	9110	9872	10461
154	7747	9131	9895	10482
155	7766	9153	9917	10504
156	7786	9174	9940	10525
157	7805	9195	9963	10546
158	7824	9217	9985	10568
159	7843	9238	10008	10589
160	7863	9259	10030	10611
161	7882	9281	10053	10632
162	7901	9302	10075	10654
163	7920	9324	10098	10675
164	7940	9345	10120	10696
165	7959	9366	10143	10718
166	7978	9388	10165	10739
167	7997	9409	10188	10761
168	8017	9430	10210	10782
169	8033	9463	10233	10792
170	8050	9495	10255	10803
171	8067	9527	10278	10813
172	8084	9559	10300	10823
173	8101	9591	10323	10834
174	8118	9624	10345	10844
175	8134	9656	10367	10854
176	8151	9688	10390	10865
177	8168	9720	10412	10875
178	8185	9753	10435	10885
179	8343	9963	10697	11194
180	8642	10350	11200	11800

<b>Annual</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
321	6454	7784	8642	9306
322	6443	7772	8632	9297
323	6431	7760	8621	9287
324	6420	7748	8611	9278
325	6408	7736	8600	9269
326	6396	7724	8590	9260
327	6385	7712	8580	9251
328	6373	7700	8569	9242
329	6362	7688	8559	9232
330	6350	7677	8548	9223
331	6339	7665	8538	9214
332	6327	7653	8528	9205
333	6316	7641	8517	9196
334	6304	7629	8507	9187
335	6293	7617	8496	9177
336	6281	7605	8486	9168
337	6270	7593	8476	9159
338	6258	7581	8465	9150
339	6246	7569	8455	9141
340	6235	7557	8444	9131
341	6223	7545	8434	9122
342	6212	7534	8424	9113
343	6200	7522	8413	9104
344	6189	7510	8403	9095
345	6177	7498	8392	9086
346	6166	7486	8382	9076
347	6154	7474	8372	9067
348	6143	7462	8361	9058
349	6131	7450	8351	9049
350	6120	7438	8340	9040
351	6108	7426	8330	9031
352	6096	7414	8320	9021
353	6085	7403	8309	9012
354	6073	7391	8299	9003
355	6062	7379	8288	8994
356	6050	7367	8278	8985
357	6039	7355	8268	8976
358	6027	7343	8257	8966
359	6016	7331	8247	8957
360	6016	7331	8247	8957

<b>7/01-11/30</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	2738	3415	4026	4652
1	2741	3419	4029	4653
2	2744	3423	4032	4654
3	2747	3428	4035	4655
4	2750	3432	4038	4656
5	2754	3436	4041	4657
6	2757	3440	4044	4658
7	2760	3444	4047	4660
8	2763	3449	4050	4661
9	2766	3453	4052	4662
10	2769	3457	4055	4663
11	2772	3461	4058	4664
12	2775	3465	4061	4665
13	2778	3469	4064	4666
14	2781	3474	4067	4667
15	2785	3478	4070	4668
16	2788	3482	4073	4669
17	2791	3486	4076	4670
18	2794	3490	4078	4671
19	2797	3494	4081	4672
20	2800	3499	4084	4673
21	2803	3503	4087	4674
22	2806	3507	4090	4675
23	2809	3511	4093	4676
24	2812	3515	4096	4677
25	2816	3519	4099	4678
26	2819	3524	4102	4679
27	2822	3528	4104	4680
28	2825	3532	4107	4682
29	2828	3536	4110	4683
30	2831	3540	4113	4684
31	2834	3544	4116	4685
32	2837	3549	4119	4686
33	2840	3553	4122	4687
34	2843	3557	4125	4688
35	2847	3561	4127	4689
36	2850	3565	4130	4690
37	2853	3569	4133	4691
38	2856	3574	4136	4692
39	2859	3578	4139	4693
40	2862	3582	4142	4694
41	2865	3586	4145	4695
42	2868	3590	4148	4696
43	2871	3594	4151	4697
44	2874	3599	4153	4698
45	2878	3603	4156	4699
46	2881	3607	4159	4700
47	2884	3611	4162	4701

<b>6/01-10/31</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	2403	3271	4045	4912
1	2410	3278	4051	4919
2	2418	3285	4058	4925
3	2425	3293	4065	4932
4	2432	3300	4072	4939
5	2440	3307	4079	4945
6	2447	3315	4086	4952
7	2454	3322	4093	4959
8	2462	3329	4100	4965
9	2469	3337	4107	4972
10	2476	3344	4114	4978
11	2484	3351	4121	4985
12	2491	3359	4128	4992
13	2498	3366	4135	4998
14	2506	3374	4141	5005
15	2513	3381	4148	5012
16	2520	3388	4155	5018
17	2528	3396	4162	5025
18	2535	3403	4169	5031
19	2542	3410	4176	5038
20	2550	3418	4183	5045
21	2557	3425	4190	5051
22	2564	3432	4197	5058
23	2572	3440	4204	5065
24	2579	3447	4211	5071
25	2587	3454	4218	5078
26	2594	3462	4225	5084
27	2601	3469	4231	5091
28	2609	3477	4238	5098
29	2616	3484	4245	5104
30	2623	3491	4252	5111
31	2631	3499	4259	5118
32	2638	3506	4266	5124
33	2645	3513	4273	5131
34	2653	3521	4280	5137
35	2660	3528	4287	5144
36	2667	3535	4294	5151
37	2675	3543	4301	5157
38	2682	3550	4308	5164
39	2689	3558	4315	5171
40	2697	3565	4321	5177
41	2704	3572	4328	5184
42	2711	3580	4335	5190
43	2719	3587	4342	5197
44	2726	3594	4349	5204
45	2733	3602	4356	5210
46	2741	3609	4363	5217
47	2748	3616	4370	5224

<b>7/01-11/30</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
48	2887	3615	4165	4703
49	2890	3619	4168	4704
50	2893	3624	4171	4705
51	2896	3628	4174	4706
52	2899	3632	4177	4707
53	2902	3636	4179	4708
54	2905	3640	4182	4709
55	2909	3644	4185	4710
56	2912	3649	4188	4711
57	2915	3653	4191	4712
58	2918	3657	4194	4713
59	2921	3661	4197	4714
60	2924	3665	4200	4715
61	2927	3669	4203	4716
62	2930	3674	4205	4717
63	2933	3678	4208	4718
64	2936	3682	4211	4719
65	2940	3686	4214	4720
66	2943	3690	4217	4721
67	2946	3694	4220	4722
68	2949	3699	4223	4723
69	2952	3703	4226	4725
70	2955	3707	4228	4726
71	2958	3711	4231	4727
72	2961	3715	4234	4728
73	2964	3719	4237	4729
74	2967	3724	4240	4730
75	2971	3728	4243	4731
76	2974	3732	4246	4732
77	2977	3736	4249	4733
78	2980	3740	4252	4734
79	2983	3744	4254	4735
80	2986	3749	4257	4736
81	2989	3753	4260	4737
82	2992	3757	4263	4738
83	2995	3761	4266	4739
84	2998	3765	4269	4740
85	3002	3769	4272	4741
86	3005	3774	4275	4742
87	3008	3778	4278	4743
88	3011	3782	4280	4744
89	3014	3786	4283	4745
90	3017	3790	4286	4747
91	3020	3794	4289	4748
92	3023	3799	4292	4749
93	3026	3803	4295	4750
94	3029	3807	4298	4751
95	3033	3811	4301	4752
96	3036	3815	4304	4753

<b>6/01-10/31</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
48	2756	3624	4377	5230
49	2763	3631	4384	5237
50	2770	3638	4391	5244
51	2778	3646	4398	5250
52	2785	3653	4405	5257
53	2792	3661	4411	5263
54	2800	3668	4418	5270
55	2807	3675	4425	5277
56	2814	3683	4432	5283
57	2822	3690	4439	5290
58	2829	3697	4446	5297
59	2836	3705	4453	5303
60	2844	3712	4460	5310
61	2851	3719	4467	5316
62	2858	3727	4474	5323
63	2866	3734	4481	5330
64	2873	3741	4488	5336
65	2880	3749	4495	5343
66	2888	3756	4501	5350
67	2895	3764	4508	5356
68	2902	3771	4515	5363
69	2910	3778	4522	5369
70	2917	3786	4529	5376
71	2924	3793	4536	5383
72	2932	3800	4543	5389
73	2939	3808	4550	5396
74	2947	3815	4557	5403
75	2954	3822	4564	5409
76	2961	3830	4571	5416
77	2969	3837	4578	5422
78	2976	3845	4585	5429
79	2983	3852	4591	5436
80	2991	3859	4598	5442
81	2998	3867	4605	5449
82	3005	3874	4612	5456
83	3013	3881	4619	5462
84	3020	3889	4626	5469
85	3027	3896	4633	5475
86	3035	3903	4640	5482
87	3042	3911	4647	5489
88	3049	3918	4654	5495
89	3057	3925	4661	5502
90	3064	3933	4668	5509
91	3071	3940	4675	5515
92	3079	3948	4681	5522
93	3086	3955	4688	5529
94	3093	3962	4695	5535
95	3101	3970	4702	5542
96	3108	3977	4709	5548

<b>7/01-11/30</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
97	3036	3816	4308	4765
98	3037	3817	4313	4777
99	3038	3818	4318	4790
100	3039	3818	4322	4802
101	3040	3819	4327	4814
102	3040	3820	4332	4826
103	3041	3820	4336	4839
104	3042	3821	4341	4851
105	3043	3822	4346	4863
106	3043	3823	4351	4875
107	3044	3823	4355	4888
108	3045	3824	4360	4900
109	3046	3825	4365	4912
110	3047	3825	4369	4925
111	3047	3826	4374	4937
112	3048	3827	4379	4949
113	3049	3828	4384	4961
114	3050	3828	4388	4974
115	3050	3829	4393	4986
116	3051	3830	4398	4998
117	3052	3830	4402	5010
118	3053	3831	4407	5023
119	3054	3832	4412	5035
120	3054	3833	4416	5047
121	3058	3835	4419	5047
122	3062	3837	4421	5047
123	3066	3840	4424	5047
124	3071	3842	4426	5047
125	3075	3844	4429	5047
126	3079	3847	4431	5047
127	3083	3849	4433	5047
128	3087	3852	4436	5047
129	3091	3854	4438	5047
130	3095	3856	4441	5047
131	3099	3859	4443	5047
132	3103	3861	4446	5047
133	3107	3863	4448	5046
134	3111	3866	4450	5046
135	3115	3868	4453	5046
136	3119	3870	4455	5046
137	3123	3873	4458	5046
138	3127	3875	4460	5046
139	3131	3878	4462	5046
140	3135	3880	4465	5046
141	3140	3882	4467	5046
142	3144	3885	4470	5046
143	3148	3887	4472	5046
144	3152	3889	4475	5046
145	3156	3892	4475	5047

<b>6/01-10/31</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
97	3116	3996	4733	5570
98	3124	4015	4757	5592
99	3132	4035	4781	5614
100	3141	4054	4805	5636
101	3149	4073	4829	5658
102	3157	4092	4853	5680
103	3165	4111	4877	5702
104	3173	4131	4901	5724
105	3181	4150	4925	5746
106	3189	4169	4949	5768
107	3197	4188	4973	5790
108	3206	4208	4998	5812
109	3214	4227	5022	5833
110	3222	4246	5046	5855
111	3230	4265	5070	5877
112	3238	4284	5094	5899
113	3246	4304	5118	5921
114	3254	4323	5142	5943
115	3262	4342	5166	5965
116	3270	4361	5190	5987
117	3279	4380	5214	6009
118	3287	4400	5238	6031
119	3295	4419	5262	6053
120	3303	4438	5286	6075
121	3316	4456	5312	6117
122	3328	4474	5339	6160
123	3341	4492	5365	6202
124	3354	4510	5391	6244
125	3367	4528	5418	6287
126	3379	4546	5444	6329
127	3392	4564	5470	6372
128	3405	4582	5497	6414
129	3418	4600	5523	6457
130	3430	4618	5549	6499
131	3443	4636	5576	6542
132	3456	4654	5602	6584
133	3469	4672	5628	6626
134	3482	4690	5655	6669
135	3494	4708	5681	6711
136	3507	4726	5707	6754
137	3520	4744	5734	6796
138	3533	4762	5760	6839
139	3545	4780	5786	6881
140	3558	4798	5813	6924
141	3571	4816	5839	6966
142	3584	4834	5865	7008
143	3596	4852	5892	7051
144	3609	4870	5918	7093
145	3613	4874	5923	7097

<b>7/01-11/30</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
146	3159	3895	4476	5048
147	3163	3898	4477	5049
148	3167	3901	4478	5050
149	3171	3904	4479	5052
150	3175	3907	4480	5053
151	3179	3910	4480	5054
152	3183	3913	4481	5055
153	3187	3916	4482	5056
154	3191	3919	4483	5057
155	3195	3922	4484	5058
156	3199	3925	4485	5060
157	3202	3927	4485	5061
158	3206	3930	4486	5062
159	3210	3933	4487	5063
160	3214	3936	4488	5064
161	3218	3939	4489	5065
162	3222	3942	4489	5066
163	3226	3945	4490	5067
164	3230	3948	4491	5069
165	3234	3951	4492	5070
166	3238	3954	4493	5071
167	3241	3957	4494	5072
168	3245	3960	4494	5073
169	3246	3960	4501	5082
170	3246	3961	4507	5091
171	3247	3962	4513	5100
172	3247	3963	4520	5109
173	3248	3963	4526	5118
174	3248	3964	4532	5127
175	3249	3965	4538	5136
176	3249	3965	4545	5145
177	3250	3966	4551	5154
178	3250	3967	4557	5163
179	3457	4181	4766	5365
180	3871	4609	5176	5760
181	3457	4181	4766	5365
182	3250	3967	4557	5163
183	3250	3966	4551	5154
184	3249	3965	4545	5145
185	3249	3965	4538	5136
186	3248	3964	4532	5127
187	3248	3963	4526	5118
188	3247	3963	4520	5109
189	3247	3962	4513	5100
190	3246	3961	4507	5091
191	3246	3960	4501	5082
192	3245	3960	4494	5073
193	3241	3957	4494	5072
194	3238	3954	4493	5071

<b>6/01-10/31</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
146	3617	4878	5927	7100
147	3620	4882	5932	7103
148	3624	4886	5936	7106
149	3628	4890	5941	7109
150	3632	4893	5946	7112
151	3635	4897	5950	7116
152	3639	4901	5955	7119
153	3643	4905	5959	7122
154	3647	4909	5964	7125
155	3650	4913	5968	7128
156	3654	4917	5973	7132
157	3658	4921	5978	7135
158	3661	4925	5982	7138
159	3665	4929	5987	7141
160	3669	4933	5991	7144
161	3673	4937	5996	7147
162	3676	4941	6000	7151
163	3680	4944	6005	7154
164	3684	4948	6010	7157
165	3688	4952	6014	7160
166	3691	4956	6019	7163
167	3695	4960	6023	7166
168	3699	4964	6028	7170
169	3701	4968	6031	7175
170	3703	4972	6035	7181
171	3705	4976	6039	7187
172	3707	4980	6042	7192
173	3709	4984	6046	7198
174	3711	4988	6049	7204
175	3713	4992	6053	7209
176	3715	4996	6056	7215
177	3717	5000	6060	7221
178	3719	5004	6064	7226
179	3928	5221	6284	7447
180	4344	5649	6722	7882
181	3928	5221	6284	7447
182	3719	5004	6064	7226
183	3717	5000	6060	7221
184	3715	4996	6056	7215
185	3713	4992	6053	7209
186	3711	4988	6049	7204
187	3709	4984	6046	7198
188	3707	4980	6042	7192
189	3705	4976	6039	7187
190	3703	4972	6035	7181
191	3701	4968	6031	7175
192	3699	4964	6028	7170
193	3695	4960	6023	7166
194	3691	4956	6019	7163

<b>7/01-11/30</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
195	3234	3951	4492	5070
196	3230	3948	4491	5069
197	3226	3945	4490	5067
198	3222	3942	4489	5066
199	3218	3939	4489	5065
200	3214	3936	4488	5064
201	3210	3933	4487	5063
202	3206	3930	4486	5062
203	3202	3927	4485	5061
204	3199	3925	4485	5060
205	3195	3922	4484	5058
206	3191	3919	4483	5057
207	3187	3916	4482	5056
208	3183	3913	4481	5055
209	3179	3910	4480	5054
210	3175	3907	4480	5053
211	3171	3904	4479	5052
212	3167	3901	4478	5050
213	3163	3898	4477	5049
214	3159	3895	4476	5048
215	3156	3892	4475	5047
216	3152	3889	4475	5046
217	3148	3887	4472	5046
218	3144	3885	4470	5046
219	3140	3882	4467	5046
220	3135	3880	4465	5046
221	3131	3878	4462	5046
222	3127	3875	4460	5046
223	3123	3873	4458	5046
224	3119	3870	4455	5046
225	3115	3868	4453	5046
226	3111	3866	4450	5046
227	3107	3863	4448	5046
228	3103	3861	4446	5047
229	3099	3859	4443	5047
230	3095	3856	4441	5047
231	3091	3854	4438	5047
232	3087	3852	4436	5047
233	3083	3849	4433	5047
234	3079	3847	4431	5047
235	3075	3844	4429	5047
236	3071	3842	4426	5047
237	3066	3840	4424	5047
238	3062	3837	4421	5047
239	3058	3835	4419	5047
240	3054	3833	4416	5047
241	3054	3832	4412	5035
242	3053	3831	4407	5023
243	3052	3830	4402	5010

<b>6/01-10/31</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
195	3688	4952	6014	7160
196	3684	4948	6010	7157
197	3680	4944	6005	7154
198	3676	4941	6000	7151
199	3673	4937	5996	7147
200	3669	4933	5991	7144
201	3665	4929	5987	7141
202	3661	4925	5982	7138
203	3658	4921	5978	7135
204	3654	4917	5973	7132
205	3650	4913	5968	7128
206	3647	4909	5964	7125
207	3643	4905	5959	7122
208	3639	4901	5955	7119
209	3635	4897	5950	7116
210	3632	4893	5946	7112
211	3628	4890	5941	7109
212	3624	4886	5936	7106
213	3620	4882	5932	7103
214	3617	4878	5927	7100
215	3613	4874	5923	7097
216	3609	4870	5918	7093
217	3596	4852	5892	7051
218	3584	4834	5865	7008
219	3571	4816	5839	6966
220	3558	4798	5813	6924
221	3545	4780	5786	6881
222	3533	4762	5760	6839
223	3520	4744	5734	6796
224	3507	4726	5707	6754
225	3494	4708	5681	6711
226	3482	4690	5655	6669
227	3469	4672	5628	6626
228	3456	4654	5602	6584
229	3443	4636	5576	6542
230	3430	4618	5549	6499
231	3418	4600	5523	6457
232	3405	4582	5497	6414
233	3392	4564	5470	6372
234	3379	4546	5444	6329
235	3367	4528	5418	6287
236	3354	4510	5391	6244
237	3341	4492	5365	6202
238	3328	4474	5339	6160
239	3316	4456	5312	6117
240	3303	4438	5286	6075
241	3295	4419	5262	6053
242	3287	4400	5238	6031
243	3279	4380	5214	6009

<b>7/01-11/30</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
244	3051	3830	4398	4998
245	3050	3829	4393	4986
246	3050	3828	4388	4974
247	3049	3828	4384	4961
248	3048	3827	4379	4949
249	3047	3826	4374	4937
250	3047	3825	4369	4925
251	3046	3825	4365	4912
252	3045	3824	4360	4900
253	3044	3823	4355	4888
254	3043	3823	4351	4875
255	3043	3822	4346	4863
256	3042	3821	4341	4851
257	3041	3820	4336	4839
258	3040	3820	4332	4826
259	3040	3819	4327	4814
260	3039	3818	4322	4802
261	3038	3818	4318	4790
262	3037	3817	4313	4777
263	3036	3816	4308	4765
264	3036	3815	4304	4753
265	3033	3811	4301	4752
266	3029	3807	4298	4751
267	3026	3803	4295	4750
268	3023	3799	4292	4749
269	3020	3794	4289	4748
270	3017	3790	4286	4747
271	3014	3786	4283	4745
272	3011	3782	4280	4744
273	3008	3778	4278	4743
274	3005	3774	4275	4742
275	3002	3769	4272	4741
276	2998	3765	4269	4740
277	2995	3761	4266	4739
278	2992	3757	4263	4738
279	2989	3753	4260	4737
280	2986	3749	4257	4736
281	2983	3744	4254	4735
282	2980	3740	4252	4734
283	2977	3736	4249	4733
284	2974	3732	4246	4732
285	2971	3728	4243	4731
286	2967	3724	4240	4730
287	2964	3719	4237	4729
288	2961	3715	4234	4728
289	2958	3711	4231	4727
290	2955	3707	4228	4726
291	2952	3703	4226	4725
292	2949	3699	4223	4723

<b>6/01-10/31</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
244	3270	4361	5190	5987
245	3262	4342	5166	5965
246	3254	4323	5142	5943
247	3246	4304	5118	5921
248	3238	4284	5094	5899
249	3230	4265	5070	5877
250	3222	4246	5046	5855
251	3214	4227	5022	5833
252	3206	4208	4998	5812
253	3197	4188	4973	5790
254	3189	4169	4949	5768
255	3181	4150	4925	5746
256	3173	4131	4901	5724
257	3165	4111	4877	5702
258	3157	4092	4853	5680
259	3149	4073	4829	5658
260	3141	4054	4805	5636
261	3132	4035	4781	5614
262	3124	4015	4757	5592
263	3116	3996	4733	5570
264	3108	3977	4709	5548
265	3101	3970	4702	5542
266	3093	3962	4695	5535
267	3086	3955	4688	5529
268	3079	3948	4681	5522
269	3071	3940	4675	5515
270	3064	3933	4668	5509
271	3057	3925	4661	5502
272	3049	3918	4654	5495
273	3042	3911	4647	5489
274	3035	3903	4640	5482
275	3027	3896	4633	5475
276	3020	3889	4626	5469
277	3013	3881	4619	5462
278	3005	3874	4612	5456
279	2998	3867	4605	5449
280	2991	3859	4598	5442
281	2983	3852	4591	5436
282	2976	3845	4585	5429
283	2969	3837	4578	5422
284	2961	3830	4571	5416
285	2954	3822	4564	5409
286	2947	3815	4557	5403
287	2939	3808	4550	5396
288	2932	3800	4543	5389
289	2924	3793	4536	5383
290	2917	3786	4529	5376
291	2910	3778	4522	5369
292	2902	3771	4515	5363

<b>7/01-11/30</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
293	2946	3694	4220	4722
294	2943	3690	4217	4721
295	2940	3686	4214	4720
296	2936	3682	4211	4719
298	2933	3678	4208	4718
297	2930	3674	4205	4717
298	2927	3669	4203	4716
299	2924	3665	4200	4715
300	2921	3661	4197	4714
301	2918	3657	4194	4713
302	2915	3653	4191	4712
303	2912	3649	4188	4711
304	2909	3644	4185	4710
305	2905	3640	4182	4709
306	2902	3636	4179	4708
307	2899	3632	4177	4707
308	2896	3628	4174	4706
309	2893	3624	4171	4705
310	2890	3619	4168	4704
311	2887	3615	4165	4703
312	2884	3611	4162	4701
313	2881	3607	4159	4700
314	2878	3603	4156	4699
315	2874	3599	4153	4698
316	2871	3594	4151	4697
317	2868	3590	4148	4696
318	2865	3586	4145	4695
319	2862	3582	4142	4694
320	2859	3578	4139	4693
321	2856	3574	4136	4692
322	2853	3569	4133	4691
323	2850	3565	4130	4690
324	2847	3561	4127	4689
325	2843	3557	4125	4688
326	2840	3553	4122	4687
327	2837	3549	4119	4686
328	2834	3544	4116	4685
329	2831	3540	4113	4684
330	2828	3536	4110	4683
331	2825	3532	4107	4682
332	2822	3528	4104	4680
333	2819	3524	4102	4679
334	2816	3519	4099	4678
335	2812	3515	4096	4677
336	2809	3511	4093	4676
337	2806	3507	4090	4675
338	2803	3503	4087	4674
339	2800	3499	4084	4673
340	2797	3494	4081	4672

<b>6/01-10/31</b>	<b>Keno Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
293	2895	3764	4508	5356
294	2888	3756	4501	5350
295	2880	3749	4495	5343
296	2873	3741	4488	5336
298	2866	3734	4481	5330
297	2858	3727	4474	5323
298	2851	3719	4467	5316
299	2844	3712	4460	5310
300	2836	3705	4453	5303
301	2829	3697	4446	5297
302	2822	3690	4439	5290
303	2814	3683	4432	5283
304	2807	3675	4425	5277
305	2800	3668	4418	5270
306	2792	3661	4411	5263
307	2785	3653	4405	5257
308	2778	3646	4398	5250
309	2770	3638	4391	5244
310	2763	3631	4384	5237
311	2756	3624	4377	5230
312	2748	3616	4370	5224
313	2741	3609	4363	5217
314	2733	3602	4356	5210
315	2726	3594	4349	5204
316	2719	3587	4342	5197
317	2711	3580	4335	5190
318	2704	3572	4328	5184
319	2697	3565	4321	5177
320	2689	3558	4315	5171
321	2682	3550	4308	5164
322	2675	3543	4301	5157
323	2667	3535	4294	5151
324	2660	3528	4287	5144
325	2653	3521	4280	5137
326	2645	3513	4273	5131
327	2638	3506	4266	5124
328	2631	3499	4259	5118
329	2623	3491	4252	5111
330	2616	3484	4245	5104
331	2609	3477	4238	5098
332	2601	3469	4231	5091
333	2594	3462	4225	5084
334	2587	3454	4218	5078
335	2579	3447	4211	5071
336	2572	3440	4204	5065
337	2564	3432	4197	5058
338	2557	3425	4190	5051
339	2550	3418	4183	5045
340	2542	3410	4176	5038

7/01-11/30	Keno Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
341	2794	3490	4078	4671
342	2791	3486	4076	4670
343	2788	3482	4073	4669
344	2785	3478	4070	4668
345	2781	3474	4067	4667
346	2778	3469	4064	4666
347	2775	3465	4061	4665
348	2772	3461	4058	4664
349	2769	3457	4055	4663
350	2766	3453	4052	4662
351	2763	3449	4050	4661
352	2760	3444	4047	4660
353	2757	3440	4044	4658
354	2754	3436	4041	4657
355	2750	3432	4038	4656
356	2747	3428	4035	4655
357	2744	3423	4032	4654
358	2741	3419	4029	4653
359	2738	3415	4026	4652
360	2738	3415	4026	4652

6/01-10/31	Keno Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
341	2535	3403	4169	5031
342	2528	3396	4162	5025
343	2520	3388	4155	5018
344	2513	3381	4148	5012
345	2506	3374	4141	5005
346	2498	3366	4135	4998
347	2491	3359	4128	4992
348	2484	3351	4121	4985
349	2476	3344	4114	4978
350	2469	3337	4107	4972
351	2462	3329	4100	4965
352	2454	3322	4093	4959
353	2447	3315	4086	4952
354	2440	3307	4079	4945
355	2432	3300	4072	4939
356	2425	3293	4065	4932
357	2418	3285	4058	4925
358	2410	3278	4051	4919
359	2403	3271	4045	4912
360	2403	3271	4045	4912

## KLAMATH RIVER BELOW J.C. BOYLE NEAR KENO, OR

Annual	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
0	6170	7541	8431	9399
1	6181	7552	8443	9409
2	6192	7564	8456	9419
3	6203	7576	8468	9429
4	6214	7587	8481	9439
5	6225	7599	8493	9448
6	6236	7610	8506	9458
7	6247	7622	8518	9468
8	6258	7633	8531	9478
9	6269	7645	8543	9488
10	6280	7656	8556	9498
11	6291	7668	8568	9507
12	6302	7680	8581	9517
13	6313	7691	8593	9527
14	6324	7703	8606	9537
15	6335	7714	8618	9547
16	6346	7726	8631	9557
17	6357	7737	8643	9566
18	6368	7749	8656	9576
19	6379	7761	8668	9586
20	6390	7772	8681	9596

Annual	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
181	8751	10609	11491	12220
182	8585	10368	11124	11754
183	8559	10329	11119	11751
184	8533	10290	11113	11748
185	8508	10251	11108	11746
186	8482	10212	11102	11743
187	8456	10173	11097	11740
188	8430	10134	11091	11738
189	8404	10095	11086	11735
190	8378	10056	11080	11732
191	8352	10017	11075	11730
192	8327	9978	11069	11727
193	8303	9948	11025	11690
194	8280	9919	10981	11654
195	8256	9889	10937	11618
196	8233	9859	10893	11581
197	8210	9830	10849	11545
198	8186	9800	10805	11508
199	8163	9770	10761	11472
200	8140	9740	10716	11436
201	8116	9711	10672	11399

<b>Annual</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
21	6401	7784	8693	9606
22	6412	7795	8706	9616
23	6423	7807	8718	9625
24	6434	7818	8731	9635
25	6445	7830	8743	9645
26	6456	7841	8756	9655
27	6467	7853	8768	9665
28	6478	7865	8781	9675
29	6489	7876	8793	9684
30	6500	7888	8806	9694
31	6511	7899	8818	9704
32	6522	7911	8831	9714
33	6533	7922	8843	9724
34	6544	7934	8856	9734
35	6555	7946	8868	9743
36	6566	7957	8881	9753
37	6577	7969	8893	9763
38	6588	7980	8906	9773
39	6599	7992	8918	9783
40	6610	8003	8931	9793
41	6621	8015	8943	9802
42	6632	8026	8956	9812
43	6643	8038	8968	9822
44	6654	8050	8981	9832
45	6665	8061	8993	9842
46	6676	8073	9006	9852
47	6687	8084	9018	9861
48	6699	8096	9031	9871
49	6710	8107	9043	9881
50	6721	8119	9056	9891
51	6732	8131	9068	9901
52	6743	8142	9081	9911
53	6754	8154	9093	9920
54	6765	8165	9106	9930
55	6776	8177	9118	9940
56	6787	8188	9131	9950
57	6798	8200	9143	9960
58	6809	8212	9156	9970
59	6820	8223	9168	9979
60	6831	8235	9181	9989
61	6842	8246	9193	9999
62	6853	8258	9206	10009
63	6864	8269	9218	10019
64	6875	8281	9231	10029
65	6886	8292	9243	10038
66	6897	8304	9256	10048
67	6908	8316	9268	10058
68	6919	8327	9281	10068
69	6930	8339	9293	10078

<b>Annual</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
202	8093	9681	10628	11363
203	8069	9651	10584	11326
204	8046	9622	10540	11290
205	8023	9592	10496	11254
206	7999	9562	10452	11217
207	7976	9532	10408	11181
208	7952	9503	10364	11144
209	7929	9473	10319	11108
210	7906	9443	10275	11072
211	7882	9413	10231	11035
212	7859	9384	10187	10999
213	7836	9354	10143	10962
214	7812	9324	10099	10926
215	7789	9295	10055	10890
216	7765	9265	10011	10853
217	7753	9249	10001	10838
218	7740	9233	9992	10823
219	7727	9216	9983	10807
220	7714	9200	9974	10792
221	7701	9184	9965	10777
222	7688	9168	9955	10762
223	7675	9152	9946	10746
224	7662	9136	9937	10731
225	7649	9119	9928	10716
226	7636	9103	9918	10701
227	7623	9087	9909	10685
228	7610	9071	9900	10670
229	7597	9055	9891	10655
230	7584	9039	9882	10639
231	7571	9023	9872	10624
232	7558	9006	9863	10609
233	7545	8990	9854	10594
234	7532	8974	9845	10578
235	7519	8958	9835	10563
236	7506	8942	9826	10548
237	7493	8926	9817	10533
238	7480	8909	9808	10517
239	7467	8893	9799	10502
240	7455	8877	9789	10487
241	7445	8868	9783	10481
242	7436	8858	9776	10475
243	7426	8849	9770	10469
244	7417	8839	9763	10463
245	7407	8830	9756	10457
246	7398	8821	9750	10451
247	7388	8811	9743	10445
248	7379	8802	9736	10439
249	7369	8792	9730	10433
250	7360	8783	9723	10427

Annual	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
70	6941	8350	9306	10088
71	6952	8362	9318	10097
72	6963	8373	9331	10107
73	6974	8385	9343	10117
74	6985	8397	9356	10127
75	6996	8408	9368	10137
76	7007	8420	9381	10147
77	7018	8431	9393	10156
78	7029	8443	9406	10166
79	7040	8454	9418	10176
80	7051	8466	9431	10186
81	7062	8477	9443	10196
82	7073	8489	9456	10206
83	7084	8501	9468	10215
84	7095	8512	9481	10225
85	7106	8524	9493	10235
86	7117	8535	9506	10245
87	7128	8547	9518	10255
88	7139	8558	9531	10265
89	7150	8570	9543	10274
90	7161	8582	9556	10284
91	7172	8593	9568	10294
92	7183	8605	9581	10304
93	7194	8616	9593	10314
94	7205	8628	9606	10323
95	7216	8639	9618	10333
96	7227	8651	9631	10343
97	7237	8660	9637	10349
98	7246	8670	9644	10355
99	7256	8679	9650	10361
100	7265	8689	9657	10367
101	7275	8698	9664	10373
102	7284	8707	9670	10379
103	7294	8717	9677	10385
104	7303	8726	9684	10391
105	7313	8736	9690	10397
106	7322	8745	9697	10403
107	7332	8755	9703	10409
108	7341	8764	9710	10415
109	7350	8773	9717	10421
110	7360	8783	9723	10427
111	7369	8792	9730	10433
112	7379	8802	9736	10439
113	7388	8811	9743	10445
114	7398	8821	9750	10451
115	7407	8830	9756	10457
116	7417	8839	9763	10463
117	7426	8849	9770	10469
118	7436	8858	9776	10475

<b>Annual</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
119	7445	8868	9783	10481
120	7455	8877	9789	10487
121	7467	8893	9799	10502
122	7480	8909	9808	10517
123	7493	8926	9817	10533
124	7506	8942	9826	10548
125	7519	8958	9835	10563
126	7532	8974	9845	10578
127	7545	8990	9854	10594
128	7558	9006	9863	10609
129	7571	9023	9872	10624
130	7584	9039	9882	10639
131	7597	9055	9891	10655
132	7610	9071	9900	10670
133	7623	9087	9909	10685
134	7636	9103	9918	10701
135	7649	9119	9928	10716
136	7662	9136	9937	10731
137	7675	9152	9946	10746
138	7688	9168	9955	10762
139	7701	9184	9965	10777
140	7714	9200	9974	10792
141	7727	9216	9983	10807
142	7740	9233	9992	10823
143	7753	9249	10001	10838
144	7765	9265	10011	10853
145	7789	9295	10055	10890
146	7812	9324	10099	10926
147	7836	9354	10143	10962
148	7859	9384	10187	10999
149	7882	9413	10231	11035
150	7906	9443	10275	11072
151	7929	9473	10319	11108
152	7952	9503	10364	11144
153	7976	9532	10408	11181
154	7999	9562	10452	11217
155	8023	9592	10496	11254
156	8046	9622	10540	11290
157	8069	9651	10584	11326
158	8093	9681	10628	11363
159	8116	9711	10672	11399
160	8140	9740	10716	11436
161	8163	9770	10761	11472
162	8186	9800	10805	11508
163	8210	9830	10849	11545
164	8233	9859	10893	11581
165	8256	9889	10937	11618
166	8280	9919	10981	11654
167	8303	9948	11025	11690
299	6831	8235	9181	9989
300	6820	8223	9168	9979
301	6809	8212	9156	9970
302	6798	8200	9143	9960
303	6787	8188	9131	9950
304	6776	8177	9118	9940
305	6765	8165	9106	9930
306	6754	8154	9093	9920
307	6743	8142	9081	9911
308	6732	8131	9068	9901
309	6721	8119	9056	9891
310	6710	8107	9043	9881
311	6699	8096	9031	9871
312	6687	8084	9018	9861
313	6676	8073	9006	9852
314	6665	8061	8993	9842
315	6654	8050	8981	9832
316	6643	8038	8968	9822
317	6632	8026	8956	9812
318	6621	8015	8943	9802
319	6610	8003	8931	9793
320	6599	7992	8918	9783
321	6588	7980	8906	9773
322	6577	7969	8893	9763
323	6566	7957	8881	9753
324	6555	7946	8868	9743
325	6544	7934	8856	9734
326	6533	7922	8843	9724
327	6522	7911	8831	9714
328	6511	7899	8818	9704
329	6500	7888	8806	9694
330	6489	7876	8793	9684
331	6478	7865	8781	9675
332	6467	7853	8768	9665
333	6456	7841	8756	9655
334	6445	7830	8743	9645
335	6434	7818	8731	9635
336	6423	7807	8718	9625
337	6412	7795	8706	9616
338	6401	7784	8693	9606
339	6390	7772	8681	9596
340	6379	7761	8668	9586
341	6368	7749	8656	9576
342	6357	7737	8643	9566
343	6346	7726	8631	9557
344	6335	7714	8618	9547
345	6324	7703	8606	9537
346	6313	7691	8593	9527
347	6302	7680	8581	9517

<b>Annual</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
168	8327	9978	11069	11727
169	8352	10017	11075	11730
170	8378	10056	11080	11732
171	8404	10095	11086	11735
172	8430	10134	11091	11738
173	8456	10173	11097	11740
174	8482	10212	11102	11743
175	8508	10251	11108	11746
176	8533	10290	11113	11748
177	8559	10329	11119	11751
178	8585	10368	11124	11754
179	8751	10609	11491	12220
180	9058	11050	12220	13150

<b>7/01-11/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	2910	3537	4044	4572
1	2913	3541	4048	4574
2	2916	3545	4051	4576
3	2919	3548	4054	4577
4	2922	3552	4057	4579
5	2925	3556	4060	4581
6	2928	3560	4063	4583
7	2931	3563	4066	4585
8	2934	3567	4069	4587
9	2937	3571	4072	4589
10	2940	3574	4075	4590
11	2943	3578	4078	4592
12	2946	3582	4081	4594
13	2950	3586	4084	4596
14	2953	3589	4088	4598
15	2956	3593	4091	4600
16	2959	3597	4094	4602
17	2962	3600	4097	4604
18	2965	3604	4100	4605
19	2968	3608	4103	4607
20	2971	3612	4106	4609
21	2974	3615	4109	4611
22	2977	3619	4112	4613
23	2980	3623	4115	4615
24	2983	3627	4118	4617
25	2986	3630	4121	4619
26	2990	3634	4125	4620
27	2993	3638	4128	4622
28	2996	3641	4131	4624
29	2999	3645	4134	4626
30	3002	3649	4137	4628

<b>Annual</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
348	6291	7668	8568	9507
349	6280	7656	8556	9498
350	6269	7645	8543	9488
351	6258	7633	8531	9478
352	6247	7622	8518	9468
353	6236	7610	8506	9458
354	6225	7599	8493	9448
355	6214	7587	8481	9439
356	6203	7576	8468	9429
357	6192	7564	8456	9419
358	6181	7552	8443	9409
359	6170	7541	8431	9399
360	6170	7541	8431	9399

<b>6/01-10/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	2641	3391	4117	4994
1	2648	3400	4126	5003
2	2655	3410	4136	5012
3	2662	3419	4146	5020
4	2670	3428	4155	5029
5	2677	3438	4165	5038
6	2684	3447	4175	5047
7	2691	3456	4185	5056
8	2698	3466	4194	5065
9	2705	3475	4204	5074
10	2712	3485	4214	5083
11	2720	3494	4223	5092
12	2727	3503	4233	5100
13	2734	3513	4243	5109
14	2741	3522	4252	5118
15	2748	3531	4262	5127
16	2755	3541	4272	5136
17	2762	3550	4281	5145
18	2770	3560	4291	5154
19	2777	3569	4301	5163
20	2784	3578	4311	5172
21	2791	3588	4320	5181
22	2798	3597	4330	5189
23	2805	3606	4340	5198
24	2812	3616	4349	5207
25	2820	3625	4359	5216
26	2827	3634	4369	5225
27	2834	3644	4378	5234
28	2841	3653	4388	5243
29	2848	3663	4398	5252
30	2855	3672	4407	5261

<b>7/01-11/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
31	3005	3653	4140	4630
32	3008	3656	4143	4632
33	3011	3660	4146	4633
34	3014	3664	4149	4635
35	3017	3667	4152	4637
36	3020	3671	4155	4639
37	3023	3675	4158	4641
38	3026	3679	4161	4643
39	3030	3682	4165	4645
40	3033	3686	4168	4647
41	3036	3690	4171	4648
42	3039	3693	4174	4650
43	3042	3697	4177	4652
44	3045	3701	4180	4654
45	3048	3705	4183	4656
46	3051	3708	4186	4658
47	3054	3712	4189	4660
48	3057	3716	4192	4662
49	3060	3719	4195	4663
50	3063	3723	4198	4665
51	3066	3727	4201	4667
52	3070	3731	4205	4669
53	3073	3734	4208	4671
54	3076	3738	4211	4673
55	3079	3742	4214	4675
56	3082	3745	4217	4676
57	3085	3749	4220	4678
58	3088	3753	4223	4680
59	3091	3757	4226	4682
60	3094	3760	4229	4684
61	3097	3764	4232	4686
62	3100	3768	4235	4688
63	3103	3772	4238	4690
64	3106	3775	4242	4691
65	3110	3779	4245	4693
66	3113	3783	4248	4695
67	3116	3786	4251	4697
68	3119	3790	4254	4699
69	3122	3794	4257	4701
70	3125	3798	4260	4703
71	3128	3801	4263	4704
72	3131	3805	4266	4706
73	3134	3809	4269	4708
74	3137	3812	4272	4710
75	3140	3816	4275	4712
76	3143	3820	4278	4714
77	3146	3824	4282	4716
78	3150	3827	4285	4718
79	3153	3831	4288	4719

<b>6/01-10/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
31	2862	3681	4417	5270
32	2870	3691	4427	5278
33	2877	3700	4436	5287
34	2884	3709	4446	5296
35	2891	3719	4456	5305
36	2898	3728	4466	5314
37	2905	3738	4475	5323
38	2912	3747	4485	5332
39	2919	3756	4495	5341
40	2927	3766	4504	5350
41	2934	3775	4514	5359
42	2941	3784	4524	5367
43	2948	3794	4533	5376
44	2955	3803	4543	5385
45	2962	3813	4553	5394
46	2969	3822	4562	5403
47	2977	3831	4572	5412
48	2984	3841	4582	5421
49	2991	3850	4592	5430
50	2998	3859	4601	5439
51	3005	3869	4611	5448
52	3012	3878	4621	5456
53	3019	3887	4630	5465
54	3027	3897	4640	5474
55	3034	3906	4650	5483
56	3041	3916	4659	5492
57	3048	3925	4669	5501
58	3055	3934	4679	5510
59	3062	3944	4688	5519
60	3069	3953	4698	5528
61	3077	3962	4708	5537
62	3084	3972	4718	5545
63	3091	3981	4727	5554
64	3098	3991	4737	5563
65	3105	4000	4747	5572
66	3112	4009	4756	5581
67	3119	4019	4766	5590
68	3127	4028	4776	5599
69	3134	4037	4785	5608
70	3141	4047	4795	5617
71	3148	4056	4805	5626
72	3155	4066	4814	5634
73	3162	4075	4824	5643
74	3169	4084	4834	5652
75	3177	4094	4844	5661
76	3184	4103	4853	5670
77	3191	4112	4863	5679
78	3198	4122	4873	5688
79	3205	4131	4882	5697

<b>7/01-11/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
80	3156	3835	4291	4721
81	3159	3838	4294	4723
82	3162	3842	4297	4725
83	3165	3846	4300	4727
84	3168	3850	4303	4729
85	3171	3853	4306	4731
86	3174	3857	4309	4733
87	3177	3861	4312	4734
88	3180	3864	4315	4736
89	3183	3868	4318	4738
90	3186	3872	4322	4740
91	3190	3876	4325	4742
92	3193	3879	4328	4744
93	3196	3883	4331	4746
94	3199	3887	4334	4747
95	3202	3891	4337	4749
96	3205	3894	4340	4751
97	3207	3896	4343	4758
98	3209	3897	4347	4764
99	3211	3899	4350	4771
100	3213	3900	4354	4777
101	3215	3902	4357	4784
102	3217	3903	4361	4790
103	3219	3905	4364	4797
104	3221	3906	4367	4803
105	3223	3908	4371	4810
106	3225	3909	4374	4816
107	3227	3911	4378	4823
108	3229	3912	4381	4829
109	3230	3913	4384	4835
110	3232	3915	4388	4842
111	3234	3916	4391	4848
112	3236	3918	4395	4855
113	3238	3919	4398	4861
114	3240	3921	4401	4868
115	3242	3922	4405	4874
116	3244	3924	4408	4881
117	3246	3925	4412	4887
118	3248	3927	4415	4894
119	3250	3928	4419	4900
120	3252	3930	4422	4907
121	3256	3933	4425	4909
122	3260	3936	4428	4912
123	3264	3939	4431	4914
124	3268	3942	4434	4916
125	3271	3944	4437	4919
126	3275	3947	4440	4921
127	3279	3950	4443	4923
128	3283	3953	4446	4926

<b>6/01-10/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
80	3212	4140	4892	5706
81	3219	4150	4902	5715
82	3227	4159	4911	5723
83	3234	4169	4921	5732
84	3241	4178	4931	5741
85	3248	4187	4940	5750
86	3255	4197	4950	5759
87	3262	4206	4960	5768
88	3269	4215	4970	5777
89	3276	4225	4979	5786
90	3284	4234	4989	5795
91	3291	4244	4999	5804
92	3298	4253	5008	5812
93	3305	4262	5018	5821
94	3312	4272	5028	5830
95	3319	4281	5037	5839
96	3326	4290	5047	5848
97	3335	4302	5060	5862
98	3343	4313	5073	5877
99	3352	4324	5087	5891
100	3360	4335	5100	5905
101	3369	4346	5113	5919
102	3377	4358	5126	5934
103	3385	4369	5139	5948
104	3394	4380	5152	5962
105	3402	4391	5166	5976
106	3411	4403	5179	5991
107	3419	4414	5192	6005
108	3428	4425	5205	6019
109	3436	4436	5218	6033
110	3444	4447	5231	6047
111	3453	4459	5244	6062
112	3461	4470	5258	6076
113	3470	4481	5271	6090
114	3478	4492	5284	6104
115	3486	4504	5297	6119
116	3495	4515	5310	6133
117	3503	4526	5323	6147
118	3512	4537	5337	6161
119	3520	4548	5350	6176
120	3529	4560	5363	6190
121	3539	4580	5393	6233
122	3550	4600	5423	6275
123	3561	4620	5453	6318
124	3572	4640	5484	6360
125	3583	4661	5514	6403
126	3594	4681	5544	6446
127	3605	4701	5574	6488
128	3616	4721	5604	6531

<b>7/01-11/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
129	3287	3956	4449	4928
130	3291	3959	4452	4930
131	3295	3962	4455	4933
132	3299	3965	4458	4935
133	3302	3968	4461	4937
134	3306	3971	4464	4940
135	3310	3974	4467	4942
136	3314	3977	4470	4944
137	3318	3980	4473	4947
138	3322	3983	4476	4949
139	3326	3986	4479	4951
140	3329	3988	4482	4954
141	3333	3991	4485	4956
142	3337	3994	4488	4958
143	3341	3997	4491	4961
144	3345	4000	4494	4963
145	3346	4001	4495	4964
146	3347	4002	4495	4965
147	3348	4003	4496	4967
148	3349	4003	4496	4968
149	3350	4004	4497	4969
150	3351	4005	4497	4970
151	3352	4006	4498	4971
152	3353	4007	4498	4972
153	3354	4008	4499	4973
154	3355	4008	4499	4974
155	3356	4009	4500	4975
156	3358	4010	4500	4977
157	3359	4011	4500	4978
158	3360	4012	4501	4979
159	3361	4012	4501	4980
160	3362	4013	4502	4981
161	3363	4014	4502	4982
162	3364	4015	4503	4983
163	3365	4016	4503	4984
164	3366	4017	4504	4985
165	3367	4017	4504	4986
166	3368	4018	4505	4988
167	3369	4019	4505	4989
168	3370	4020	4506	4990
169	3370	4020	4506	4994
170	3370	4021	4506	4998
171	3369	4022	4505	5001
172	3369	4023	4505	5005
173	3369	4023	4505	5009
174	3368	4024	4505	5013
175	3368	4025	4505	5017
176	3368	4025	4505	5021
177	3368	4026	4505	5025

<b>6/01-10/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
129	3626	4741	5634	6574
130	3637	4762	5665	6616
131	3648	4782	5695	6659
132	3659	4802	5725	6702
133	3670	4822	5755	6744
134	3681	4842	5785	6787
135	3692	4863	5816	6829
136	3702	4883	5846	6872
137	3713	4903	5876	6915
138	3724	4923	5906	6957
139	3735	4943	5936	7000
140	3746	4964	5966	7043
141	3757	4984	5997	7085
142	3768	5004	6027	7128
143	3779	5024	6057	7170
144	3789	5044	6087	7213
145	3794	5047	6088	7212
146	3798	5050	6089	7211
147	3802	5053	6090	7211
148	3806	5056	6091	7210
149	3810	5059	6092	7209
150	3814	5062	6094	7208
151	3818	5065	6095	7207
152	3822	5067	6096	7206
153	3826	5070	6097	7206
154	3830	5073	6098	7205
155	3834	5076	6099	7204
156	3838	5079	6100	7203
157	3842	5082	6101	7202
158	3846	5085	6102	7201
159	3850	5088	6103	7200
160	3854	5091	6104	7200
161	3858	5093	6105	7199
162	3862	5096	6106	7198
163	3866	5099	6108	7197
164	3870	5102	6109	7196
165	3874	5105	6110	7195
166	3878	5108	6111	7195
167	3882	5111	6112	7194
168	3887	5114	6113	7193
169	3883	5108	6111	7201
170	3880	5102	6110	7209
171	3877	5096	6108	7217
172	3873	5090	6107	7225
173	3870	5084	6105	7233
174	3867	5078	6104	7241
175	3863	5072	6102	7249
176	3860	5066	6101	7257
177	3857	5060	6099	7264

<b>7/01-11/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
178	3367	4027	4504	5028
179	3765	4433	4926	5454
180	4559	5245	5768	6301
181	3765	4433	4926	5454
182	3367	4027	4504	5028
183	3368	4026	4505	5025
184	3368	4025	4505	5021
185	3368	4025	4505	5017
186	3368	4024	4505	5013
187	3369	4023	4505	5009
188	3369	4023	4505	5005
189	3369	4022	4505	5001
190	3370	4021	4506	4998
191	3370	4020	4506	4994
192	3370	4020	4506	4990
193	3369	4019	4505	4989
194	3368	4018	4505	4988
195	3367	4017	4504	4986
196	3366	4017	4504	4985
197	3365	4016	4503	4984
198	3364	4015	4503	4983
199	3363	4014	4502	4982
200	3362	4013	4502	4981
201	3361	4012	4501	4980
202	3360	4012	4501	4979
203	3359	4011	4500	4978
204	3358	4010	4500	4977
205	3356	4009	4500	4975
206	3355	4008	4499	4974
207	3354	4008	4499	4973
208	3353	4007	4498	4972
209	3352	4006	4498	4971
210	3351	4005	4497	4970
211	3350	4004	4497	4969
212	3349	4003	4496	4968
213	3348	4003	4496	4967
214	3347	4002	4495	4965
215	3346	4001	4495	4964
216	3345	4000	4494	4963
217	3341	3997	4491	4961
218	3337	3994	4488	4958
219	3333	3991	4485	4956
220	3329	3988	4482	4954
221	3326	3986	4479	4951
222	3322	3983	4476	4949
223	3318	3980	4473	4947
224	3314	3977	4470	4944
225	3310	3974	4467	4942
226	3306	3971	4464	4940
<b>6/01-10/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
178	3854	5054	6097	7272
179	4273	5502	6556	7736
180	5115	6403	7476	8654
181	4273	5502	6556	7736
182	3854	5054	6097	7272
183	3857	5060	6099	7264
184	3860	5066	6101	7257
185	3863	5072	6102	7249
186	3867	5078	6104	7241
187	3870	5084	6105	7233
188	3873	5090	6107	7225
189	3877	5096	6108	7217
190	3880	5102	6110	7209
191	3883	5108	6111	7201
192	3887	5114	6113	7193
193	3882	5111	6112	7194
194	3878	5108	6111	7195
195	3874	5105	6110	7195
196	3870	5102	6109	7196
197	3866	5099	6108	7197
198	3862	5096	6106	7198
199	3858	5093	6105	7199
200	3854	5091	6104	7200
201	3850	5088	6103	7200
202	3846	5085	6102	7201
203	3842	5082	6101	7202
204	3838	5079	6100	7203
205	3834	5076	6099	7204
206	3830	5073	6098	7205
207	3826	5070	6097	7206
208	3822	5067	6096	7206
209	3818	5065	6095	7207
210	3814	5062	6094	7208
211	3810	5059	6092	7209
212	3806	5056	6091	7210
213	3802	5053	6090	7211
214	3798	5050	6089	7211
215	3794	5047	6088	7212
216	3789	5044	6087	7213
217	3779	5024	6057	7170
218	3768	5004	6027	7128
219	3757	4984	5997	7085
220	3746	4964	5966	7043
221	3735	4943	5936	7000
222	3724	4923	5906	6957
223	3713	4903	5876	6915
224	3702	4883	5846	6872
225	3692	4863	5816	6829
226	3681	4842	5785	6787

<b>7/01-11/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
227	3302	3968	4461	4937
228	3299	3965	4458	4935
229	3295	3962	4455	4933
230	3291	3959	4452	4930
231	3287	3956	4449	4928
232	3283	3953	4446	4926
233	3279	3950	4443	4923
234	3275	3947	4440	4921
235	3271	3944	4437	4919
236	3268	3942	4434	4916
237	3264	3939	4431	4914
238	3260	3936	4428	4912
239	3256	3933	4425	4909
240	3252	3930	4422	4907
241	3250	3928	4419	4900
242	3248	3927	4415	4894
243	3246	3925	4412	4887
244	3244	3924	4408	4881
245	3242	3922	4405	4874
246	3240	3921	4401	4868
247	3238	3919	4398	4861
248	3236	3918	4395	4855
249	3234	3916	4391	4848
250	3232	3915	4388	4842
251	3230	3913	4384	4835
252	3229	3912	4381	4829
253	3227	3911	4378	4823
254	3225	3909	4374	4816
255	3223	3908	4371	4810
256	3221	3906	4367	4803
257	3219	3905	4364	4797
258	3217	3903	4361	4790
259	3215	3902	4357	4784
260	3213	3900	4354	4777
261	3211	3899	4350	4771
262	3209	3897	4347	4764
263	3207	3896	4343	4758
264	3205	3894	4340	4751
265	3202	3891	4337	4749
266	3199	3887	4334	4747
267	3196	3883	4331	4746
268	3193	3879	4328	4744
269	3190	3876	4325	4742
270	3186	3872	4322	4740
271	3183	3868	4318	4738
272	3180	3864	4315	4736
273	3177	3861	4312	4734
274	3174	3857	4309	4733
275	3171	3853	4306	4731
<b>6/01-10/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
227	3670	4822	5755	6744
228	3659	4802	5725	6702
229	3648	4782	5695	6659
230	3637	4762	5665	6616
231	3626	4741	5634	6574
232	3616	4721	5604	6531
233	3605	4701	5574	6488
234	3594	4681	5544	6446
235	3583	4661	5514	6403
236	3572	4640	5484	6360
237	3561	4620	5453	6318
238	3550	4600	5423	6275
239	3539	4580	5393	6233
240	3529	4560	5363	6190
241	3520	4548	5350	6176
242	3512	4537	5337	6161
243	3503	4526	5323	6147
244	3495	4515	5310	6133
245	3486	4504	5297	6119
246	3478	4492	5284	6104
247	3470	4481	5271	6090
248	3461	4470	5258	6076
249	3453	4459	5244	6062
250	3444	4447	5231	6047
251	3436	4436	5218	6033
252	3428	4425	5205	6019
253	3419	4414	5192	6005
254	3411	4403	5179	5991
255	3402	4391	5166	5976
256	3394	4380	5152	5962
257	3385	4369	5139	5948
258	3377	4358	5126	5934
259	3369	4346	5113	5919
260	3360	4335	5100	5905
261	3352	4324	5087	5891
262	3343	4313	5073	5877
263	3335	4302	5060	5862
264	3326	4290	5047	5848
265	3319	4281	5037	5839
266	3312	4272	5028	5830
267	3305	4262	5018	5821
268	3298	4253	5008	5812
269	3291	4244	4999	5804
270	3284	4234	4989	5795
271	3276	4225	4979	5786
272	3269	4215	4970	5777
273	3262	4206	4960	5768
274	3255	4197	4950	5759
275	3248	4187	4940	5750

<b>7/01-11/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
276	3168	3850	4303	4729
277	3165	3846	4300	4727
278	3162	3842	4297	4725
279	3159	3838	4294	4723
280	3156	3835	4291	4721
281	3153	3831	4288	4719
282	3150	3827	4285	4718
283	3146	3824	4282	4716
284	3143	3820	4278	4714
285	3140	3816	4275	4712
286	3137	3812	4272	4710
287	3134	3809	4269	4708
288	3131	3805	4266	4706
289	3128	3801	4263	4704
290	3125	3798	4260	4703
291	3122	3794	4257	4701
292	3119	3790	4254	4699
293	3116	3786	4251	4697
294	3113	3783	4248	4695
295	3110	3779	4245	4693
296	3106	3775	4242	4691
298	3103	3772	4238	4690
297	3100	3768	4235	4688
298	3097	3764	4232	4686
299	3094	3760	4229	4684
300	3091	3757	4226	4682
301	3088	3753	4223	4680
302	3085	3749	4220	4678
303	3082	3745	4217	4676
304	3079	3742	4214	4675
305	3076	3738	4211	4673
306	3073	3734	4208	4671
307	3070	3731	4205	4669
308	3066	3727	4201	4667
309	3063	3723	4198	4665
310	3060	3719	4195	4663
311	3057	3716	4192	4662
312	3054	3712	4189	4660
313	3051	3708	4186	4658
314	3048	3705	4183	4656
315	3045	3701	4180	4654
316	3042	3697	4177	4652
317	3039	3693	4174	4650
318	3036	3690	4171	4648
319	3033	3686	4168	4647
320	3030	3682	4165	4645
321	3026	3679	4161	4643
322	3023	3675	4158	4641
323	3020	3671	4155	4639
<b>6/01-10/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
276	3241	4178	4931	5741
277	3234	4169	4921	5732
278	3227	4159	4911	5723
279	3219	4150	4902	5715
280	3212	4140	4892	5706
281	3205	4131	4882	5697
282	3198	4122	4873	5688
283	3191	4112	4863	5679
284	3184	4103	4853	5670
285	3177	4094	4844	5661
286	3169	4084	4834	5652
287	3162	4075	4824	5643
288	3155	4066	4814	5634
289	3148	4056	4805	5626
290	3141	4047	4795	5617
291	3134	4037	4785	5608
292	3127	4028	4776	5599
293	3119	4019	4766	5590
294	3112	4009	4756	5581
295	3105	4000	4747	5572
296	3098	3991	4737	5563
298	3091	3981	4727	5554
297	3084	3972	4718	5545
298	3077	3962	4708	5537
299	3069	3953	4698	5528
300	3062	3944	4688	5519
301	3055	3934	4679	5510
302	3048	3925	4669	5501
303	3041	3916	4659	5492
304	3034	3906	4650	5483
305	3027	3897	4640	5474
306	3019	3887	4630	5465
307	3012	3878	4621	5456
308	3005	3869	4611	5448
309	2998	3859	4601	5439
310	2991	3850	4592	5430
311	2984	3841	4582	5421
312	2977	3831	4572	5412
313	2969	3822	4562	5403
314	2962	3813	4553	5394
315	2955	3803	4543	5385
316	2948	3794	4533	5376
317	2941	3784	4524	5367
318	2934	3775	4514	5359
319	2927	3766	4504	5350
320	2919	3756	4495	5341
321	2912	3747	4485	5332
322	2905	3738	4475	5323
323	2898	3728	4466	5314

<b>7/01-11/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
324	3017	3667	4152	4637
325	3014	3664	4149	4635
326	3011	3660	4146	4633
327	3008	3656	4143	4632
328	3005	3653	4140	4630
329	3002	3649	4137	4628
330	2999	3645	4134	4626
331	2996	3641	4131	4624
332	2993	3638	4128	4622
333	2990	3634	4125	4620
334	2986	3630	4121	4619
335	2983	3627	4118	4617
336	2980	3623	4115	4615
337	2977	3619	4112	4613
338	2974	3615	4109	4611
339	2971	3612	4106	4609
340	2968	3608	4103	4607
341	2965	3604	4100	4605
342	2962	3600	4097	4604
343	2959	3597	4094	4602
344	2956	3593	4091	4600
345	2953	3589	4088	4598
346	2950	3586	4084	4596
347	2946	3582	4081	4594
348	2943	3578	4078	4592
349	2940	3574	4075	4590
350	2937	3571	4072	4589
351	2934	3567	4069	4587
352	2931	3563	4066	4585
353	2928	3560	4063	4583
354	2925	3556	4060	4581
355	2922	3552	4057	4579
356	2919	3548	4054	4577
357	2916	3545	4051	4576
358	2913	3541	4048	4574
359	2910	3537	4044	4572
360	2910	3537	4044	4572

<b>6/01-10/30</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
324	2891	3719	4456	5305
325	2884	3709	4446	5296
326	2877	3700	4436	5287
327	2870	3691	4427	5278
328	2862	3681	4417	5270
329	2855	3672	4407	5261
330	2848	3663	4398	5252
331	2841	3653	4388	5243
332	2834	3644	4378	5234
333	2827	3634	4369	5225
334	2820	3625	4359	5216
335	2812	3616	4349	5207
336	2805	3606	4340	5198
337	2798	3597	4330	5189
338	2791	3588	4320	5181
339	2784	3578	4311	5172
340	2777	3569	4301	5163
341	2770	3560	4291	5154
342	2762	3550	4281	5145
343	2755	3541	4272	5136
344	2748	3531	4262	5127
345	2741	3522	4252	5118
346	2734	3513	4243	5109
347	2727	3503	4233	5100
348	2720	3494	4223	5092
349	2712	3485	4214	5083
350	2705	3475	4204	5074
351	2698	3466	4194	5065
352	2691	3456	4185	5056
353	2684	3447	4175	5047
354	2677	3438	4165	5038
355	2670	3428	4155	5029
356	2662	3419	4146	5020
357	2655	3410	4136	5012
358	2648	3400	4126	5003
359	2641	3391	4117	4994
360	2641	3391	4117	4994

<b>August</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	1712	2063	2331	2549
1	1714	2064	2332	2550
2	1715	2066	2333	2551
3	1717	2068	2334	2552
4	1718	2069	2335	2554
5	1720	2071	2336	2555
6	1721	2072	2337	2556

<b>September</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	1876	2118	2281	2441
1	1877	2120	2283	2442
2	1878	2121	2284	2444
3	1879	2123	2286	2445
4	1881	2124	2287	2447
5	1882	2126	2289	2448
6	1883	2127	2290	2449

August	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
7	1723	2074	2338	2557
8	1724	2075	2339	2558
9	1726	2077	2340	2559
10	1727	2078	2341	2561
11	1729	2080	2342	2562
12	1730	2082	2343	2563
13	1732	2083	2344	2564
14	1733	2085	2345	2565
15	1735	2086	2346	2566
16	1736	2088	2347	2568
17	1738	2089	2348	2569
18	1739	2091	2349	2570
19	1741	2093	2350	2571
20	1742	2094	2351	2572
21	1744	2096	2352	2573
22	1745	2097	2353	2575
23	1746	2099	2354	2576
24	1748	2100	2355	2577
25	1749	2102	2356	2578
26	1751	2103	2357	2579
27	1752	2105	2358	2580
28	1754	2107	2359	2582
29	1755	2108	2360	2583
30	1757	2110	2361	2584
31	1758	2111	2362	2585
32	1760	2113	2363	2586
33	1761	2114	2364	2587
34	1763	2116	2365	2589
35	1764	2118	2366	2590
36	1766	2119	2367	2591
37	1767	2121	2369	2592
38	1769	2122	2370	2593
39	1770	2124	2371	2594
40	1772	2125	2372	2596
41	1773	2127	2373	2597
42	1775	2128	2374	2598
43	1776	2130	2375	2599
44	1778	2132	2376	2600
45	1779	2133	2377	2601
46	1781	2135	2378	2603
47	1782	2136	2379	2604
48	1784	2138	2380	2605
49	1785	2139	2381	2606
50	1787	2141	2382	2607
51	1788	2143	2383	2608
52	1790	2144	2384	2610
53	1791	2146	2385	2611
54	1793	2147	2386	2612
55	1794	2149	2387	2613

September	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
7	1885	2129	2292	2451
8	1886	2130	2294	2452
9	1887	2132	2295	2454
10	1888	2133	2297	2455
11	1890	2135	2298	2456
12	1891	2136	2300	2458
13	1892	2138	2301	2459
14	1893	2139	2303	2461
15	1895	2140	2305	2462
16	1896	2142	2306	2463
17	1897	2143	2308	2465
18	1898	2145	2309	2466
19	1900	2146	2311	2467
20	1901	2148	2312	2469
21	1902	2149	2314	2470
22	1903	2151	2315	2472
23	1905	2152	2317	2473
24	1906	2154	2319	2474
25	1907	2155	2320	2476
26	1908	2157	2322	2477
27	1910	2158	2323	2479
28	1911	2160	2325	2480
29	1912	2161	2326	2481
30	1914	2163	2328	2483
31	1915	2164	2330	2484
32	1916	2166	2331	2486
33	1917	2167	2333	2487
34	1919	2168	2334	2488
35	1920	2170	2336	2490
36	1921	2171	2337	2491
37	1922	2173	2339	2492
38	1924	2174	2340	2494
39	1925	2176	2342	2495
40	1926	2177	2344	2497
41	1927	2179	2345	2498
42	1929	2180	2347	2499
43	1930	2182	2348	2501
44	1931	2183	2350	2502
45	1932	2185	2351	2504
46	1934	2186	2353	2505
47	1935	2188	2355	2506
48	1936	2189	2356	2508
49	1938	2191	2358	2509
50	1939	2192	2359	2511
51	1940	2194	2361	2512
52	1941	2195	2362	2513
53	1943	2196	2364	2515
54	1944	2198	2366	2516
55	1945	2199	2367	2517

August	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
56	1796	2150	2388	2614
57	1797	2152	2389	2615
58	1798	2154	2390	2617
59	1800	2155	2391	2618
60	1801	2157	2392	2619
61	1803	2158	2393	2620
62	1804	2160	2394	2621
63	1806	2161	2395	2622
64	1807	2163	2396	2624
65	1809	2164	2397	2625
66	1810	2166	2398	2626
67	1812	2168	2399	2627
68	1813	2169	2400	2628
69	1815	2171	2401	2629
70	1816	2172	2402	2631
71	1818	2174	2403	2632
72	1819	2175	2404	2633
73	1821	2177	2405	2634
74	1822	2179	2406	2635
75	1824	2180	2407	2636
76	1825	2182	2408	2637
77	1827	2183	2409	2639
78	1828	2185	2410	2640
79	1830	2186	2411	2641
80	1831	2188	2412	2642
81	1833	2189	2413	2643
82	1834	2191	2414	2644
83	1836	2193	2415	2646
84	1837	2194	2417	2647
85	1839	2196	2418	2648
86	1840	2197	2419	2649
87	1842	2199	2420	2650
88	1843	2200	2421	2651
89	1845	2202	2422	2653
90	1846	2204	2423	2654
91	1847	2205	2424	2655
92	1849	2207	2425	2656
93	1850	2208	2426	2657
94	1852	2210	2427	2658
95	1853	2211	2428	2660
96	1855	2213	2429	2661
97	1857	2216	2433	2663
98	1859	2220	2438	2664
99	1861	2223	2442	2666
100	1863	2226	2447	2668
101	1865	2230	2452	2670
102	1866	2233	2456	2672
103	1868	2237	2461	2674
104	1870	2240	2465	2676

September	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
56	1946	2201	2369	2519
57	1948	2202	2370	2520
58	1949	2204	2372	2522
59	1950	2205	2373	2523
60	1951	2207	2375	2524
61	1953	2208	2376	2526
62	1954	2210	2378	2527
63	1955	2211	2380	2529
64	1956	2213	2381	2530
65	1958	2214	2383	2531
66	1959	2216	2384	2533
67	1960	2217	2386	2534
68	1961	2219	2387	2536
69	1963	2220	2389	2537
70	1964	2222	2391	2538
71	1965	2223	2392	2540
72	1967	2225	2394	2541
73	1968	2226	2395	2542
74	1969	2227	2397	2544
75	1970	2229	2398	2545
76	1972	2230	2400	2547
77	1973	2232	2401	2548
78	1974	2233	2403	2549
79	1975	2235	2405	2551
80	1977	2236	2406	2552
81	1978	2238	2408	2554
82	1979	2239	2409	2555
83	1980	2241	2411	2556
84	1982	2242	2412	2558
85	1983	2244	2414	2559
86	1984	2245	2416	2561
87	1985	2247	2417	2562
88	1987	2248	2419	2563
89	1988	2250	2420	2565
90	1989	2251	2422	2566
91	1990	2253	2423	2567
92	1992	2254	2425	2569
93	1993	2255	2426	2570
94	1994	2257	2428	2572
95	1996	2258	2430	2573
96	1997	2260	2431	2574
97	1998	2262	2433	2578
98	1999	2264	2436	2581
99	2000	2266	2438	2585
100	2001	2268	2440	2588
101	2002	2270	2442	2592
102	2003	2272	2445	2595
103	2004	2274	2447	2599
104	2006	2276	2449	2602

August	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
105	1872	2243	2470	2677
106	1874	2247	2474	2679
107	1876	2250	2479	2681
108	1878	2254	2484	2683
109	1880	2257	2488	2685
110	1882	2260	2493	2687
111	1884	2264	2497	2689
112	1886	2267	2502	2690
113	1888	2270	2506	2692
114	1890	2274	2511	2694
115	1891	2277	2515	2696
116	1893	2281	2520	2698
117	1895	2284	2525	2700
118	1897	2287	2529	2702
119	1899	2291	2534	2703
120	1901	2294	2538	2705
121	1905	2297	2541	2710
122	1908	2300	2544	2716
123	1912	2302	2546	2721
124	1916	2305	2549	2726
125	1919	2308	2551	2731
126	1923	2311	2554	2736
127	1927	2314	2557	2742
128	1930	2316	2559	2747
129	1934	2319	2562	2752
130	1938	2322	2565	2757
131	1941	2325	2567	2762
132	1945	2328	2570	2768
133	1949	2330	2573	2773
134	1952	2333	2575	2778
135	1956	2336	2578	2783
136	1960	2339	2581	2788
137	1963	2341	2583	2793
138	1967	2344	2586	2799
139	1971	2347	2589	2804
140	1974	2350	2591	2809
141	1978	2353	2594	2814
142	1982	2355	2596	2819
143	1985	2358	2599	2825
144	1989	2361	2602	2830
145	1989	2361	2602	2830
146	1990	2361	2602	2830
147	1990	2361	2602	2831
148	1991	2361	2603	2831
149	1991	2361	2603	2832
150	1992	2361	2603	2832
151	1992	2361	2603	2832
152	1993	2361	2603	2833
153	1993	2361	2603	2833

September	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
105	2007	2278	2451	2606
106	2008	2280	2454	2609
107	2009	2282	2456	2613
108	2010	2284	2458	2617
109	2011	2285	2460	2620
110	2012	2287	2462	2624
111	2013	2289	2465	2627
112	2014	2291	2467	2631
113	2016	2293	2469	2634
114	2017	2295	2471	2638
115	2018	2297	2474	2641
116	2019	2299	2476	2645
117	2020	2301	2478	2648
118	2021	2303	2480	2652
119	2022	2305	2483	2655
120	2023	2307	2485	2659
121	2025	2309	2487	2660
122	2028	2311	2490	2661
123	2030	2313	2492	2663
124	2032	2316	2495	2664
125	2034	2318	2497	2665
126	2037	2320	2500	2667
127	2039	2322	2502	2668
128	2041	2324	2505	2670
129	2043	2326	2507	2671
130	2046	2328	2510	2672
131	2048	2330	2512	2674
132	2050	2333	2515	2675
133	2052	2335	2517	2676
134	2054	2337	2519	2678
135	2057	2339	2522	2679
136	2059	2341	2524	2680
137	2061	2343	2527	2682
138	2063	2345	2529	2683
139	2066	2347	2532	2685
140	2068	2349	2534	2686
141	2070	2352	2537	2687
142	2072	2354	2539	2689
143	2075	2356	2542	2690
144	2077	2358	2544	2691
145	2083	2362	2546	2692
146	2089	2366	2547	2693
147	2096	2369	2549	2694
148	2102	2373	2551	2695
149	2108	2377	2552	2696
150	2114	2381	2554	2697
151	2121	2385	2555	2698
152	2127	2388	2557	2699
153	2133	2392	2559	2700

<b>August</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
154	1994	2361	2604	2833
155	1994	2361	2604	2834
156	1995	2361	2604	2834
157	1996	2361	2604	2834
158	1996	2361	2604	2835
159	1997	2361	2605	2835
160	1997	2361	2605	2835
161	1998	2361	2605	2836
162	1998	2361	2605	2836
163	1999	2361	2605	2836
164	1999	2361	2605	2837
165	2000	2361	2606	2837
166	2000	2361	2606	2838
167	2001	2361	2606	2838
168	2001	2361	2606	2838
169	2001	2362	2607	2839
170	2002	2362	2609	2839
171	2002	2363	2610	2840
172	2002	2364	2611	2841
173	2002	2364	2612	2841
174	2002	2365	2613	2842
175	2003	2365	2614	2843
176	2003	2366	2616	2843
177	2003	2367	2617	2844
178	2003	2367	2618	2844
179	2364	2732	2986	3219
180	3084	3460	3720	3967
181	2364	2732	2986	3219
182	2003	2367	2618	2844
183	2003	2367	2617	2844
184	2003	2366	2616	2843
185	2003	2365	2614	2843
186	2002	2365	2613	2842
187	2002	2364	2612	2841
188	2002	2364	2611	2841
189	2002	2363	2610	2840
190	2002	2362	2609	2839
191	2001	2362	2607	2839
192	2001	2361	2606	2838
193	2001	2361	2606	2838
194	2000	2361	2606	2838
195	2000	2361	2606	2837
196	1999	2361	2605	2837
197	1999	2361	2605	2836
198	1998	2361	2605	2836
199	1998	2361	2605	2836
200	1997	2361	2605	2835
201	1997	2361	2605	2835
202	1996	2361	2604	2835

<b>September</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
154	2139	2396	2560	2701
155	2146	2400	2562	2702
156	2152	2404	2564	2703
157	2158	2407	2565	2703
158	2165	2411	2567	2704
159	2171	2415	2568	2705
160	2177	2419	2570	2706
161	2183	2422	2572	2707
162	2190	2426	2573	2708
163	2196	2430	2575	2709
164	2202	2434	2576	2710
165	2208	2438	2578	2711
166	2215	2441	2580	2712
167	2221	2445	2581	2713
168	2227	2449	2583	2714
169	2230	2456	2590	2717
170	2233	2463	2598	2720
171	2235	2470	2605	2723
172	2238	2478	2613	2726
173	2241	2485	2620	2729
174	2244	2492	2628	2732
175	2246	2499	2635	2735
176	2249	2506	2643	2738
177	2252	2513	2650	2741
178	2255	2520	2658	2744
179	2617	2881	3019	3111
180	3338	3594	3734	3843
181	2617	2881	3019	3111
182	2255	2520	2658	2744
183	2252	2513	2650	2741
184	2249	2506	2643	2738
185	2246	2499	2635	2735
186	2244	2492	2628	2732
187	2241	2485	2620	2729
188	2238	2478	2613	2726
189	2235	2470	2605	2723
190	2233	2463	2598	2720
191	2230	2456	2590	2717
192	2227	2449	2583	2714
193	2221	2445	2581	2713
194	2215	2441	2580	2712
195	2208	2438	2578	2711
196	2202	2434	2576	2710
197	2196	2430	2575	2709
198	2190	2426	2573	2708
199	2183	2422	2572	2707
200	2177	2419	2570	2706
201	2171	2415	2568	2705
202	2165	2411	2567	2704

August	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
203	1996	2361	2604	2834
204	1995	2361	2604	2834
205	1994	2361	2604	2834
206	1994	2361	2604	2833
207	1993	2361	2603	2833
208	1993	2361	2603	2833
209	1992	2361	2603	2832
210	1992	2361	2603	2832
211	1991	2361	2603	2832
212	1991	2361	2603	2831
213	1990	2361	2602	2831
214	1990	2361	2602	2830
215	1989	2361	2602	2830
216	1989	2361	2602	2830
217	1985	2358	2599	2825
218	1982	2355	2596	2819
219	1978	2353	2594	2814
220	1974	2350	2591	2809
221	1971	2347	2589	2804
222	1967	2344	2586	2799
223	1963	2341	2583	2793
224	1960	2339	2581	2788
225	1956	2336	2578	2783
226	1952	2333	2575	2778
227	1949	2330	2573	2773
228	1945	2328	2570	2768
229	1941	2325	2567	2762
230	1938	2322	2565	2757
231	1934	2319	2562	2752
232	1930	2316	2559	2747
233	1927	2314	2557	2742
234	1923	2311	2554	2736
235	1919	2308	2551	2731
236	1916	2305	2549	2726
237	1912	2302	2546	2721
238	1908	2300	2544	2716
239	1905	2297	2541	2710
240	1901	2294	2538	2705
241	1899	2291	2534	2703
242	1897	2287	2529	2702
243	1895	2284	2525	2700
244	1893	2281	2520	2698
245	1891	2277	2515	2696
246	1890	2274	2511	2694
247	1888	2270	2506	2692
248	1886	2267	2502	2690
249	1884	2264	2497	2689
250	1882	2260	2493	2687
251	1880	2257	2488	2685

September	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
203	2158	2407	2565	2703
204	2152	2404	2564	2703
205	2146	2400	2562	2702
206	2139	2396	2560	2701
207	2133	2392	2559	2700
208	2127	2388	2557	2699
209	2121	2385	2555	2698
210	2114	2381	2554	2697
211	2108	2377	2552	2696
212	2102	2373	2551	2695
213	2096	2369	2549	2694
214	2089	2366	2547	2693
215	2083	2362	2546	2692
216	2077	2358	2544	2691
217	2075	2356	2542	2690
218	2072	2354	2539	2689
219	2070	2352	2537	2687
220	2068	2349	2534	2686
221	2066	2347	2532	2685
222	2063	2345	2529	2683
223	2061	2343	2527	2682
224	2059	2341	2524	2680
225	2057	2339	2522	2679
226	2054	2337	2519	2678
227	2052	2335	2517	2676
228	2050	2333	2515	2675
229	2048	2330	2512	2674
230	2046	2328	2510	2672
231	2043	2326	2507	2671
232	2041	2324	2505	2670
233	2039	2322	2502	2668
234	2037	2320	2500	2667
235	2034	2318	2497	2665
236	2032	2316	2495	2664
237	2030	2313	2492	2663
238	2028	2311	2490	2661
239	2025	2309	2487	2660
240	2023	2307	2485	2659
241	2022	2305	2483	2655
242	2021	2303	2480	2652
243	2020	2301	2478	2648
244	2019	2299	2476	2645
245	2018	2297	2474	2641
246	2017	2295	2471	2638
247	2016	2293	2469	2634
248	2014	2291	2467	2631
249	2013	2289	2465	2627
250	2012	2287	2462	2624
251	2011	2285	2460	2620

<b>August</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
252	1878	2254	2484	2683
253	1876	2250	2479	2681
254	1874	2247	2474	2679
255	1872	2243	2470	2677
256	1870	2240	2465	2676
257	1868	2237	2461	2674
258	1866	2233	2456	2672
259	1865	2230	2452	2670
260	1863	2226	2447	2668
261	1861	2223	2442	2666
262	1859	2220	2438	2664
263	1857	2216	2433	2663
264	1855	2213	2429	2661
265	1853	2211	2428	2660
266	1852	2210	2427	2658
267	1850	2208	2426	2657
268	1849	2207	2425	2656
269	1847	2205	2424	2655
270	1846	2204	2423	2654
271	1845	2202	2422	2653
272	1843	2200	2421	2651
273	1842	2199	2420	2650
274	1840	2197	2419	2649
275	1839	2196	2418	2648
276	1837	2194	2417	2647
277	1836	2193	2415	2646
278	1834	2191	2414	2644
279	1833	2189	2413	2643
280	1831	2188	2412	2642
281	1830	2186	2411	2641
282	1828	2185	2410	2640
283	1827	2183	2409	2639
284	1825	2182	2408	2637
285	1824	2180	2407	2636
286	1822	2179	2406	2635
287	1821	2177	2405	2634
288	1819	2175	2404	2633
289	1818	2174	2403	2632
290	1816	2172	2402	2631
291	1815	2171	2401	2629
292	1813	2169	2400	2628
293	1812	2168	2399	2627
294	1810	2166	2398	2626
295	1809	2164	2397	2625
296	1807	2163	2396	2624
298	1806	2161	2395	2622
297	1804	2160	2394	2621
298	1803	2158	2393	2620
299	1801	2157	2392	2619

<b>September</b>	<b>Boyle Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
252	2010	2284	2458	2617
253	2009	2282	2456	2613
254	2008	2280	2454	2609
255	2007	2278	2451	2606
256	2006	2276	2449	2602
257	2004	2274	2447	2599
258	2003	2272	2445	2595
259	2002	2270	2442	2592
260	2001	2268	2440	2588
261	2000	2266	2438	2585
262	1999	2264	2436	2581
263	1998	2262	2433	2578
264	1997	2260	2431	2574
265	1996	2258	2430	2573
266	1994	2257	2428	2572
267	1993	2255	2426	2570
268	1992	2254	2425	2569
269	1990	2253	2423	2567
270	1989	2251	2422	2566
271	1988	2250	2420	2565
272	1987	2248	2419	2563
273	1985	2247	2417	2562
274	1984	2245	2416	2561
275	1983	2244	2414	2559
276	1982	2242	2412	2558
277	1980	2241	2411	2556
278	1979	2239	2409	2555
279	1978	2238	2408	2554
280	1977	2236	2406	2552
281	1975	2235	2405	2551
282	1974	2233	2403	2549
283	1973	2232	2401	2548
284	1972	2230	2400	2547
285	1970	2229	2398	2545
286	1969	2227	2397	2544
287	1968	2226	2395	2542
288	1967	2225	2394	2541
289	1965	2223	2392	2540
290	1964	2222	2391	2538
291	1963	2220	2389	2537
292	1961	2219	2387	2536
293	1960	2217	2386	2534
294	1959	2216	2384	2533
295	1958	2214	2383	2531
296	1956	2213	2381	2530
298	1955	2211	2380	2529
297	1954	2210	2378	2527
298	1953	2208	2376	2526
299	1951	2207	2375	2524

August	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
300	1800	2155	2391	2618
301	1798	2154	2390	2617
302	1797	2152	2389	2615
303	1796	2150	2388	2614
304	1794	2149	2387	2613
305	1793	2147	2386	2612
306	1791	2146	2385	2611
307	1790	2144	2384	2610
308	1788	2143	2383	2608
309	1787	2141	2382	2607
310	1785	2139	2381	2606
311	1784	2138	2380	2605
312	1782	2136	2379	2604
313	1781	2135	2378	2603
314	1779	2133	2377	2601
315	1778	2132	2376	2600
316	1776	2130	2375	2599
317	1775	2128	2374	2598
318	1773	2127	2373	2597
319	1772	2125	2372	2596
320	1770	2124	2371	2594
321	1769	2122	2370	2593
322	1767	2121	2369	2592
323	1766	2119	2367	2591
324	1764	2118	2366	2590
325	1763	2116	2365	2589
326	1761	2114	2364	2587
327	1760	2113	2363	2586
328	1758	2111	2362	2585
329	1757	2110	2361	2584
330	1755	2108	2360	2583
331	1754	2107	2359	2582
332	1752	2105	2358	2580
333	1751	2103	2357	2579
334	1749	2102	2356	2578
335	1748	2100	2355	2577
336	1746	2099	2354	2576
337	1745	2097	2353	2575
338	1744	2096	2352	2573
339	1742	2094	2351	2572
340	1741	2093	2350	2571
341	1739	2091	2349	2570
342	1738	2089	2348	2569
343	1736	2088	2347	2568
344	1735	2086	2346	2566
345	1733	2085	2345	2565
346	1732	2083	2344	2564
347	1730	2082	2343	2563
348	1729	2080	2342	2562

September	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
300	1950	2205	2373	2523
301	1949	2204	2372	2522
302	1948	2202	2370	2520
303	1946	2201	2369	2519
304	1945	2199	2367	2517
305	1944	2198	2366	2516
306	1943	2196	2364	2515
307	1941	2195	2362	2513
308	1940	2194	2361	2512
309	1939	2192	2359	2511
310	1938	2191	2358	2509
311	1936	2189	2356	2508
312	1935	2188	2355	2506
313	1934	2186	2353	2505
314	1932	2185	2351	2504
315	1931	2183	2350	2502
316	1930	2182	2348	2501
317	1929	2180	2347	2499
318	1927	2179	2345	2498
319	1926	2177	2344	2497
320	1925	2176	2342	2495
321	1924	2174	2340	2494
322	1922	2173	2339	2492
323	1921	2171	2337	2491
324	1920	2170	2336	2490
325	1919	2168	2334	2488
326	1917	2167	2333	2487
327	1916	2166	2331	2486
328	1915	2164	2330	2484
329	1914	2163	2328	2483
330	1912	2161	2326	2481
331	1911	2160	2325	2480
332	1910	2158	2323	2479
333	1908	2157	2322	2477
334	1907	2155	2320	2476
335	1906	2154	2319	2474
336	1905	2152	2317	2473
337	1903	2151	2315	2472
338	1902	2149	2314	2470
339	1901	2148	2312	2469
340	1900	2146	2311	2467
341	1898	2145	2309	2466
342	1897	2143	2308	2465
343	1896	2142	2306	2463
344	1895	2140	2305	2462
345	1893	2139	2303	2461
346	1892	2138	2301	2459
347	1891	2136	2300	2458
348	1890	2135	2298	2456

August	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
349	1727	2078	2341	2561
350	1726	2077	2340	2559
351	1724	2075	2339	2558
352	1723	2074	2338	2557
353	1721	2072	2337	2556
354	1720	2071	2336	2555
355	1718	2069	2335	2554
356	1717	2068	2334	2552
357	1715	2066	2333	2551
358	1714	2064	2332	2550
359	1712	2063	2331	2549
360	1712	2063	2331	2549

September	Boyle Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
349	1888	2133	2297	2455
350	1887	2132	2295	2454
351	1886	2130	2294	2452
352	1885	2129	2292	2451
353	1883	2127	2290	2449
354	1882	2126	2289	2448
355	1881	2124	2287	2447
356	1879	2123	2286	2445
357	1878	2121	2284	2444
358	1877	2120	2283	2442
359	1876	2118	2281	2441
360	1876	2118	2281	2441

### KLAMATH RIVER BELOW FALL CREEK NEAR COPCO, CA

Annual	Copco Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
0	6858	8497	9160	10028
1	6864	8502	9168	10033
2	6870	8508	9177	10037
3	6876	8514	9185	10041
4	6882	8519	9193	10046
5	6888	8525	9201	10050
6	6895	8530	9210	10055
7	6901	8536	9218	10059
8	6907	8542	9226	10063
9	6913	8547	9234	10068
10	6919	8553	9242	10072
11	6925	8558	9251	10076
12	6931	8564	9259	10081
13	6938	8570	9267	10085
14	6944	8575	9275	10089
15	6950	8581	9284	10094
16	6956	8586	9292	10098
17	6962	8592	9300	10102
18	6968	8598	9308	10107
19	6974	8603	9317	10111
20	6981	8609	9325	10116
21	6987	8614	9333	10120
22	6993	8620	9341	10124
23	6999	8626	9349	10129
24	7005	8631	9358	10133
25	7011	8637	9366	10137
26	7017	8642	9374	10142
27	7024	8648	9382	10146
28	7030	8654	9391	10150

Annual	Copco Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
181	9386	11190	12284	13051
182	8695	10424	11535	12299
183	8678	10422	11484	12215
184	8661	10421	11432	12132
185	8644	10419	11381	12048
186	8628	10417	11329	11965
187	8611	10415	11278	11881
188	8594	10413	11226	11798
189	8577	10411	11175	11714
190	8560	10409	11123	11630
191	8544	10407	11072	11547
192	8527	10405	11020	11463
193	8506	10366	10996	11448
194	8486	10326	10971	11433
195	8465	10287	10946	11418
196	8445	10247	10922	11402
197	8424	10207	10897	11387
198	8403	10168	10873	11372
199	8383	10128	10848	11356
200	8362	10088	10823	11341
201	8342	10049	10799	11326
202	8321	10009	10774	11311
203	8301	9970	10750	11295
204	8280	9930	10725	11280
205	8259	9890	10700	11265
206	8239	9851	10676	11249
207	8218	9811	10651	11234
208	8198	9772	10627	11219
209	8177	9732	10602	11204

Annual	Copco Discharge (ft³/s) by Return Period (years)			
Time (hr)	10	25	50	100
29	7036	8659	9399	10155
30	7042	8665	9407	10159
31	7048	8670	9415	10163
32	7054	8676	9423	10168
33	7060	8682	9432	10172
34	7067	8687	9440	10177
35	7073	8693	9448	10181
36	7079	8698	9456	10185
37	7085	8704	9465	10190
38	7091	8710	9473	10194
39	7097	8715	9481	10198
40	7103	8721	9489	10203
41	7110	8726	9497	10207
42	7116	8732	9506	10211
43	7122	8738	9514	10216
44	7128	8743	9522	10220
45	7134	8749	9530	10224
46	7140	8754	9539	10229
47	7146	8760	9547	10233
48	7153	8766	9555	10238
49	7159	8771	9563	10242
50	7165	8777	9571	10246
51	7171	8782	9580	10251
52	7177	8788	9588	10255
53	7183	8794	9596	10259
54	7189	8799	9604	10264
55	7195	8805	9613	10268
56	7202	8810	9621	10272
57	7208	8816	9629	10277
58	7214	8822	9637	10281
59	7220	8827	9645	10285
60	7226	8833	9654	10290
61	7232	8838	9662	10294
62	7238	8844	9670	10298
63	7245	8850	9678	10303
64	7251	8855	9687	10307
65	7257	8861	9695	10312
66	7263	8866	9703	10316
67	7269	8872	9711	10320
68	7275	8878	9719	10325
69	7281	8883	9728	10329
70	7288	8889	9736	10333
71	7294	8894	9744	10338
72	7300	8900	9752	10342
73	7306	8906	9761	10346
74	7312	8911	9769	10351
75	7318	8917	9777	10355
76	7324	8922	9785	10359
77	7331	8928	9793	10364

Annual	Copco Discharge (ft <sup>3</sup> /s) by Return Period (years)			
	10	25	50	100
Time (hr)	10	25	50	100
210	8157	9692	10577	11188
211	8136	9653	10553	11173
212	8115	9613	10528	11158
213	8095	9573	10504	11142
214	8074	9534	10479	11127
215	8054	9494	10454	11112
216	8033	9455	10430	11097
217	8015	9442	10421	11082
218	7997	9429	10411	11068
219	7979	9416	10402	11054
220	7961	9403	10393	11039
221	7944	9390	10384	11025
222	7926	9377	10375	11011
223	7908	9364	10366	10997
224	7890	9352	10357	10982
225	7872	9339	10347	10968
226	7854	9326	10338	10954
227	7836	9313	10329	10939
228	7818	9300	10320	10925
229	7800	9287	10311	10911
230	7782	9274	10302	10896
231	7764	9261	10293	10882
232	7746	9248	10283	10868
233	7728	9236	10274	10853
234	7710	9223	10265	10839
235	7692	9210	10256	10825
236	7675	9197	10247	10811
237	7657	9184	10238	10796
238	7639	9171	10229	10782
239	7621	9158	10219	10768
240	7603	9145	10210	10753
241	7596	9141	10199	10741
242	7590	9136	10189	10728
243	7583	9132	10178	10715
244	7577	9127	10167	10702
245	7570	9122	10156	10689
246	7564	9118	10145	10677
247	7557	9113	10134	10664
248	7551	9108	10123	10651
249	7544	9104	10113	10638
250	7538	9099	10102	10626
251	7531	9095	10091	10613
252	7525	9090	10080	10600
253	7519	9085	10069	10587
254	7512	9081	10058	10574
255	7506	9076	10047	10562
256	7499	9072	10037	10549
257	7493	9067	10026	10536
258	7486	9062	10015	10523

<b>Annual</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
78	7337	8934	9802	10368
79	7343	8939	9810	10373
80	7349	8945	9818	10377
81	7355	8950	9826	10381
82	7361	8956	9835	10386
83	7367	8962	9843	10390
84	7374	8967	9851	10394
85	7380	8973	9859	10399
86	7386	8979	9868	10403
87	7392	8984	9876	10407
88	7398	8990	9884	10412
89	7404	8995	9892	10416
90	7410	9001	9900	10420
91	7417	9007	9909	10425
92	7423	9012	9917	10429
93	7429	9018	9925	10434
94	7435	9023	9933	10438
95	7441	9029	9942	10442
96	7447	9035	9950	10447
97	7454	9039	9961	10459
98	7460	9044	9971	10472
99	7467	9048	9982	10485
100	7473	9053	9993	10498
101	7480	9058	10004	10511
102	7486	9062	10015	10523
103	7493	9067	10026	10536
104	7499	9072	10037	10549
105	7506	9076	10047	10562
106	7512	9081	10058	10574
107	7519	9085	10069	10587
108	7525	9090	10080	10600
109	7531	9095	10091	10613
110	7538	9099	10102	10626
111	7544	9104	10113	10638
112	7551	9108	10123	10651
113	7557	9113	10134	10664
114	7564	9118	10145	10677
115	7570	9122	10156	10689
116	7577	9127	10167	10702
117	7583	9132	10178	10715
118	7590	9136	10189	10728
119	7596	9141	10199	10741
120	7603	9145	10210	10753
121	7621	9158	10219	10768
122	7639	9171	10229	10782
123	7657	9184	10238	10796
124	7675	9197	10247	10811
125	7692	9210	10256	10825
126	7710	9223	10265	10839

<b>Annual</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
259	7480	9058	10004	10511
260	7473	9053	9993	10498
261	7467	9048	9982	10485
262	7460	9044	9971	10472
263	7454	9039	9961	10459
264	7447	9035	9950	10447
265	7441	9029	9942	10442
266	7435	9023	9933	10438
267	7429	9018	9925	10434
268	7423	9012	9917	10429
269	7417	9007	9909	10425
270	7410	9001	9900	10420
271	7404	8995	9892	10416
272	7398	8990	9884	10412
273	7392	8984	9876	10407
274	7386	8979	9868	10403
275	7380	8973	9859	10399
276	7374	8967	9851	10394
277	7367	8962	9843	10390
278	7361	8956	9835	10386
279	7355	8950	9826	10381
280	7349	8945	9818	10377
281	7343	8939	9810	10373
282	7337	8934	9802	10368
283	7331	8928	9793	10364
284	7324	8922	9785	10359
285	7318	8917	9777	10355
286	7312	8911	9769	10351
287	7306	8906	9761	10346
288	7300	8900	9752	10342
289	7294	8894	9744	10338
290	7288	8889	9736	10333
291	7281	8883	9728	10329
292	7275	8878	9719	10325
293	7269	8872	9711	10320
294	7263	8866	9703	10316
295	7257	8861	9695	10312
296	7251	8855	9687	10307
298	7245	8850	9678	10303
297	7238	8844	9670	10298
298	7232	8838	9662	10294
299	7226	8833	9654	10290
300	7220	8827	9645	10285
301	7214	8822	9637	10281
302	7208	8816	9629	10277
303	7202	8810	9621	10272
304	7195	8805	9613	10268
305	7189	8799	9604	10264
306	7183	8794	9596	10259

<b>Annual</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
127	7728	9236	10274	10853
128	7746	9248	10283	10868
129	7764	9261	10293	10882
130	7782	9274	10302	10896
131	7800	9287	10311	10911
132	7818	9300	10320	10925
133	7836	9313	10329	10939
134	7854	9326	10338	10954
135	7872	9339	10347	10968
136	7890	9352	10357	10982
137	7908	9364	10366	10997
138	7926	9377	10375	11011
139	7944	9390	10384	11025
140	7961	9403	10393	11039
141	7979	9416	10402	11054
142	7997	9429	10411	11068
143	8015	9442	10421	11082
144	8033	9455	10430	11097
145	8054	9494	10454	11112
146	8074	9534	10479	11127
147	8095	9573	10504	11142
148	8115	9613	10528	11158
149	8136	9653	10553	11173
150	8157	9692	10577	11188
151	8177	9732	10602	11204
152	8198	9772	10627	11219
153	8218	9811	10651	11234
154	8239	9851	10676	11249
155	8259	9890	10700	11265
156	8280	9930	10725	11280
157	8301	9970	10750	11295
158	8321	10009	10774	11311
159	8342	10049	10799	11326
160	8362	10088	10823	11341
161	8383	10128	10848	11356
162	8403	10168	10873	11372
163	8424	10207	10897	11387
164	8445	10247	10922	11402
165	8465	10287	10946	11418
166	8486	10326	10971	11433
167	8506	10366	10996	11448
168	8527	10405	11020	11463
169	8544	10407	11072	11547
170	8560	10409	11123	11630
171	8577	10411	11175	11714
172	8594	10413	11226	11798
173	8611	10415	11278	11881
174	8628	10417	11329	11965
175	8644	10419	11381	12048
307	7177	8788	9588	10255
308	7171	8782	9580	10251
309	7165	8777	9571	10246
310	7159	8771	9563	10242
311	7153	8766	9555	10238
312	7146	8760	9547	10233
313	7140	8754	9539	10229
314	7134	8749	9530	10224
315	7128	8743	9522	10220
316	7122	8738	9514	10216
317	7116	8732	9506	10211
318	7110	8726	9497	10207
319	7103	8721	9489	10203
320	7097	8715	9481	10198
321	7091	8710	9473	10194
322	7085	8704	9465	10190
323	7079	8698	9456	10185
324	7073	8693	9448	10181
325	7067	8687	9440	10177
326	7060	8682	9432	10172
327	7054	8676	9423	10168
328	7048	8670	9415	10163
329	7042	8665	9407	10159
330	7036	8659	9399	10155
331	7030	8654	9391	10150
332	7024	8648	9382	10146
333	7017	8642	9374	10142
334	7011	8637	9366	10137
335	7005	8631	9358	10133
336	6999	8626	9349	10129
337	6993	8620	9341	10124
338	6987	8614	9333	10120
339	6981	8609	9325	10116
340	6974	8603	9317	10111
341	6968	8598	9308	10107
342	6962	8592	9300	10102
343	6956	8586	9292	10098
344	6950	8581	9284	10094
345	6944	8575	9275	10089
346	6938	8570	9267	10085
347	6931	8564	9259	10081
348	6925	8558	9251	10076
349	6919	8553	9242	10072
350	6913	8547	9234	10068
351	6907	8542	9226	10063
352	6901	8536	9218	10059
353	6895	8530	9210	10055
354	6888	8525	9201	10050
355	6882	8519	9193	10046

<b>Annual</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
176	8661	10421	11432	12132
177	8678	10422	11484	12215
178	8695	10424	11535	12299
179	9386	11190	12284	13051
180	10750	12720	13730	14470

<b>Annual</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
356	6876	8514	9185	10041
357	6870	8508	9177	10037
358	6864	8502	9168	10033
359	6858	8497	9160	10028
360	6858	8497	9160	10028

<b>7/01-11/30</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	3097	3714	4236	4781
1	3098	3718	4242	4787
2	3100	3723	4247	4793
3	3101	3727	4253	4800
4	3102	3732	4259	4806
5	3104	3736	4264	4812
6	3105	3740	4270	4818
7	3107	3745	4275	4824
8	3108	3749	4281	4830
9	3109	3753	4286	4836
10	3111	3758	4292	4842
11	3112	3762	4297	4849
12	3113	3767	4303	4855
13	3115	3771	4309	4861
14	3116	3775	4314	4867
15	3117	3780	4320	4873
16	3119	3784	4325	4879
17	3120	3789	4331	4885
18	3122	3793	4336	4892
19	3123	3797	4342	4898
20	3124	3802	4348	4904
21	3126	3806	4353	4910
22	3127	3810	4359	4916
23	3128	3815	4364	4922
24	3130	3819	4370	4928
25	3131	3824	4375	4934
26	3132	3828	4381	4941
27	3134	3832	4387	4947
28	3135	3837	4392	4953
29	3137	3841	4398	4959
30	3138	3846	4403	4965
31	3139	3850	4409	4971
32	3141	3854	4414	4977
33	3142	3859	4420	4983
34	3143	3863	4426	4990
35	3145	3867	4431	4996
36	3146	3872	4437	5002
37	3147	3876	4442	5008
38	3149	3881	4448	5014

<b>6/01-10/31</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	2637	3330	4059	5276
1	2646	3343	4073	5283
2	2654	3356	4087	5290
3	2663	3369	4101	5297
4	2672	3383	4115	5304
5	2680	3396	4129	5311
6	2689	3409	4143	5318
7	2698	3422	4157	5325
8	2706	3435	4171	5332
9	2715	3448	4185	5339
10	2724	3461	4199	5347
11	2732	3474	4213	5354
12	2741	3487	4227	5361
13	2750	3500	4241	5368
14	2758	3513	4255	5375
15	2767	3526	4269	5382
16	2775	3540	4283	5389
17	2784	3553	4297	5396
18	2793	3566	4311	5403
19	2801	3579	4325	5410
20	2810	3592	4339	5417
21	2819	3605	4353	5424
22	2827	3618	4367	5432
23	2836	3631	4381	5439
24	2845	3644	4395	5446
25	2853	3657	4409	5453
26	2862	3670	4423	5460
27	2871	3683	4437	5467
28	2879	3697	4451	5474
29	2888	3710	4465	5481
30	2897	3723	4480	5488
31	2905	3736	4494	5495
32	2914	3749	4508	5502
33	2923	3762	4522	5509
34	2931	3775	4536	5516
35	2940	3788	4550	5524
36	2949	3801	4564	5531
37	2957	3814	4578	5538
38	2966	3827	4592	5545

<b>7/01-11/30</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
39	3150	3885	4453	5020
40	3152	3889	4459	5026
41	3153	3894	4465	5032
42	3154	3898	4470	5039
43	3156	3902	4476	5045
44	3157	3907	4481	5051
45	3158	3911	4487	5057
46	3160	3916	4492	5063
47	3161	3920	4498	5069
48	3163	3924	4504	5075
49	3164	3929	4509	5082
50	3165	3933	4515	5088
51	3167	3938	4520	5094
52	3168	3942	4526	5100
53	3169	3946	4531	5106
54	3171	3951	4537	5112
55	3172	3955	4542	5118
56	3173	3959	4548	5124
57	3175	3964	4554	5131
58	3176	3968	4559	5137
59	3178	3973	4565	5143
60	3179	3977	4570	5149
61	3180	3981	4576	5155
62	3182	3986	4581	5161
63	3183	3990	4587	5167
64	3184	3994	4593	5173
65	3186	3999	4598	5180
66	3187	4003	4604	5186
67	3188	4008	4609	5192
68	3190	4012	4615	5198
69	3191	4016	4620	5204
70	3193	4021	4626	5210
71	3194	4025	4632	5216
72	3195	4030	4637	5222
73	3197	4034	4643	5229
74	3198	4038	4648	5235
75	3199	4043	4654	5241
76	3201	4047	4659	5247
77	3202	4051	4665	5253
78	3203	4056	4671	5259
79	3205	4060	4676	5265
80	3206	4065	4682	5271
81	3208	4069	4687	5278
82	3209	4073	4693	5284
83	3210	4078	4698	5290
84	3212	4082	4704	5296
85	3213	4086	4710	5302
86	3214	4091	4715	5308
87	3216	4095	4721	5314

<b>6/01-10/31</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
39	2974	3840	4606	5552
40	2983	3853	4620	5559
41	2992	3867	4634	5566
42	3000	3880	4648	5573
43	3009	3893	4662	5580
44	3018	3906	4676	5587
45	3026	3919	4690	5594
46	3035	3932	4704	5601
47	3044	3945	4718	5609
48	3052	3958	4732	5616
49	3061	3971	4746	5623
50	3070	3984	4760	5630
51	3078	3997	4774	5637
52	3087	4010	4788	5644
53	3096	4024	4802	5651
54	3104	4037	4816	5658
55	3113	4050	4830	5665
56	3122	4063	4844	5672
57	3130	4076	4858	5679
58	3139	4089	4872	5686
59	3148	4102	4886	5694
60	3156	4115	4900	5701
61	3165	4128	4914	5708
62	3174	4141	4928	5715
63	3182	4154	4942	5722
64	3191	4167	4956	5729
65	3199	4181	4970	5736
66	3208	4194	4984	5743
67	3217	4207	4998	5750
68	3225	4220	5012	5757
69	3234	4233	5026	5764
70	3243	4246	5040	5771
71	3251	4259	5054	5778
72	3260	4272	5068	5786
73	3269	4285	5082	5793
74	3277	4298	5096	5800
75	3286	4311	5110	5807
76	3295	4324	5124	5814
77	3303	4337	5138	5821
78	3312	4351	5152	5828
79	3321	4364	5166	5835
80	3329	4377	5180	5842
81	3338	4390	5194	5849
82	3347	4403	5208	5856
83	3355	4416	5222	5863
84	3364	4429	5236	5871
85	3373	4442	5250	5878
86	3381	4455	5264	5885
87	3390	4468	5278	5892

<b>7/01-11/30</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
88	3217	4100	4726	5321
89	3218	4104	4732	5327
90	3220	4108	4737	5333
91	3221	4113	4743	5339
92	3223	4117	4748	5345
93	3224	4122	4754	5351
94	3225	4126	4760	5357
95	3227	4130	4765	5363
96	3228	4135	4771	5370
97	3229	4135	4771	5370
98	3230	4135	4771	5370
99	3232	4135	4771	5371
100	3233	4136	4772	5371
101	3234	4136	4772	5371
102	3235	4136	4772	5372
103	3236	4136	4772	5372
104	3238	4137	4773	5372
105	3239	4137	4773	5373
106	3240	4137	4773	5373
107	3241	4137	4773	5373
108	3243	4138	4774	5374
109	3244	4138	4774	5374
110	3245	4138	4774	5374
111	3246	4138	4774	5374
112	3247	4138	4774	5375
113	3249	4139	4775	5375
114	3250	4139	4775	5375
115	3251	4139	4775	5376
116	3252	4139	4775	5376
117	3253	4140	4776	5376
118	3255	4140	4776	5377
119	3256	4140	4776	5377
120	3257	4140	4776	5377
121	3266	4143	4776	5378
122	3276	4146	4776	5378
123	3285	4149	4776	5378
124	3295	4152	4776	5378
125	3304	4155	4776	5378
126	3314	4158	4776	5378
127	3323	4161	4776	5378
128	3333	4164	4776	5378
129	3342	4167	4776	5378
130	3352	4170	4776	5378
131	3361	4173	4776	5378
132	3371	4176	4777	5378
133	3380	4178	4777	5378
134	3389	4181	4777	5378
135	3399	4184	4777	5378
136	3408	4187	4777	5378

<b>6/01-10/31</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
88	3398	4481	5292	5899
89	3407	4494	5306	5906
90	3416	4508	5320	5913
91	3424	4521	5334	5920
92	3433	4534	5348	5927
93	3442	4547	5362	5934
94	3450	4560	5376	5941
95	3459	4573	5390	5948
96	3468	4586	5404	5956
97	3473	4591	5413	5985
98	3478	4596	5423	6014
99	3483	4601	5432	6043
100	3489	4607	5441	6072
101	3494	4612	5451	6101
102	3499	4617	5460	6130
103	3504	4622	5469	6159
104	3510	4627	5479	6189
105	3515	4632	5488	6218
106	3520	4637	5497	6247
107	3525	4642	5507	6276
108	3531	4648	5516	6305
109	3536	4653	5525	6334
110	3541	4658	5535	6363
111	3546	4663	5544	6392
112	3551	4668	5553	6421
113	3557	4673	5563	6451
114	3562	4678	5572	6480
115	3567	4683	5581	6509
116	3572	4688	5591	6538
117	3578	4694	5600	6567
118	3583	4699	5609	6596
119	3588	4704	5619	6625
120	3593	4709	5628	6654
121	3605	4728	5655	6688
122	3616	4747	5681	6722
123	3628	4766	5708	6756
124	3639	4786	5735	6790
125	3651	4805	5761	6823
126	3662	4824	5788	6857
127	3674	4843	5814	6891
128	3685	4862	5841	6925
129	3697	4881	5868	6959
130	3708	4901	5894	6992
131	3720	4920	5921	7026
132	3732	4939	5948	7060
133	3743	4958	5974	7094
134	3755	4977	6001	7128
135	3766	4997	6027	7161
136	3778	5016	6054	7195

<b>7/01-11/30</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
137	3418	4190	4777	5378
138	3427	4193	4777	5378
139	3437	4196	4777	5378
140	3446	4199	4777	5378
141	3456	4202	4777	5378
142	3465	4205	4777	5378
143	3475	4208	4777	5378
144	3484	4211	4777	5379
145	3485	4211	4777	5379
146	3486	4211	4778	5379
147	3487	4211	4778	5379
148	3488	4211	4778	5380
149	3489	4212	4779	5380
150	3490	4212	4779	5380
151	3492	4212	4780	5380
152	3493	4212	4780	5381
153	3494	4212	4780	5381
154	3495	4213	4781	5381
155	3496	4213	4781	5381
156	3497	4213	4782	5382
157	3498	4213	4782	5382
158	3499	4213	4782	5382
159	3500	4214	4783	5382
160	3501	4214	4783	5382
161	3502	4214	4783	5383
162	3504	4214	4784	5383
163	3505	4214	4784	5383
164	3506	4215	4785	5383
165	3507	4215	4785	5384
166	3508	4215	4785	5384
167	3509	4215	4786	5384
168	3510	4215	4786	5384
169	3513	4217	4787	5385
170	3515	4219	4787	5386
171	3518	4220	4787	5387
172	3520	4222	4788	5388
173	3523	4224	4788	5388
174	3525	4225	4789	5389
175	3528	4227	4789	5390
176	3530	4229	4789	5391
177	3533	4230	4790	5391
178	3535	4232	4790	5392
179	4204	4888	5433	6017
180	5539	6197	6718	7265
181	4204	4888	5433	6017
182	3535	4232	4790	5392
183	3533	4230	4790	5391
184	3530	4229	4789	5391
185	3528	4227	4789	5390

<b>6/01-10/31</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
137	3789	5035	6081	7229
138	3801	5054	6107	7263
139	3812	5073	6134	7297
140	3824	5092	6160	7330
141	3835	5112	6187	7364
142	3847	5131	6214	7398
143	3858	5150	6240	7432
144	3870	5169	6267	7466
145	3876	5173	6268	7466
146	3882	5176	6270	7466
147	3888	5180	6271	7466
148	3894	5184	6273	7466
149	3900	5187	6274	7466
150	3906	5191	6275	7467
151	3912	5195	6277	7467
152	3919	5198	6278	7467
153	3925	5202	6280	7467
154	3931	5206	6281	7467
155	3937	5209	6283	7467
156	3943	5213	6284	7468
157	3949	5217	6285	7468
158	3955	5220	6287	7468
159	3961	5224	6288	7468
160	3967	5228	6290	7468
161	3974	5231	6291	7468
162	3980	5235	6293	7468
163	3986	5239	6294	7469
164	3992	5242	6295	7469
165	3998	5246	6297	7469
166	4004	5250	6298	7469
167	4010	5253	6300	7469
168	4016	5257	6301	7469
169	4015	5254	6299	7470
170	4014	5251	6296	7471
171	4013	5248	6294	7471
172	4012	5244	6291	7472
173	4011	5241	6289	7473
174	4010	5238	6287	7473
175	4009	5235	6284	7474
176	4008	5232	6282	7475
177	4007	5229	6280	7475
178	4006	5226	6277	7476
179	4702	5904	6916	8045
180	6094	7264	8197	9183
181	4702	5904	6916	8045
182	4006	5226	6277	7476
183	4007	5229	6280	7475
184	4008	5232	6282	7475
185	4009	5235	6284	7474

<b>7/01-11/30</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
186	3525	4225	4789	5389
187	3523	4224	4788	5388
188	3520	4222	4788	5388
189	3518	4220	4787	5387
190	3515	4219	4787	5386
191	3513	4217	4787	5385
192	3510	4215	4786	5384
193	3509	4215	4786	5384
194	3508	4215	4785	5384
195	3507	4215	4785	5384
196	3506	4215	4785	5383
197	3505	4214	4784	5383
198	3504	4214	4784	5383
199	3502	4214	4783	5383
200	3501	4214	4783	5382
201	3500	4214	4783	5382
202	3499	4213	4782	5382
203	3498	4213	4782	5382
204	3497	4213	4782	5382
205	3496	4213	4781	5381
206	3495	4213	4781	5381
207	3494	4212	4780	5381
208	3493	4212	4780	5381
209	3492	4212	4780	5380
210	3490	4212	4779	5380
211	3489	4212	4779	5380
212	3488	4211	4778	5380
213	3487	4211	4778	5379
214	3486	4211	4778	5379
215	3485	4211	4777	5379
216	3484	4211	4777	5379
217	3475	4208	4777	5378
218	3465	4205	4777	5378
219	3456	4202	4777	5378
220	3446	4199	4777	5378
221	3437	4196	4777	5378
222	3427	4193	4777	5378
223	3418	4190	4777	5378
224	3408	4187	4777	5378
225	3399	4184	4777	5378
226	3389	4181	4777	5378
227	3380	4178	4777	5378
228	3371	4176	4777	5378
229	3361	4173	4776	5378
230	3352	4170	4776	5378
231	3342	4167	4776	5378
232	3333	4164	4776	5378
233	3323	4161	4776	5378
234	3314	4158	4776	5378

<b>6/01-10/31</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
186	4010	5238	6287	7473
187	4011	5241	6289	7473
188	4012	5244	6291	7472
189	4013	5248	6294	7471
190	4014	5251	6296	7471
191	4015	5254	6299	7470
192	4016	5257	6301	7469
193	4010	5253	6300	7469
194	4004	5250	6298	7469
195	3998	5246	6297	7469
196	3992	5242	6295	7469
197	3986	5239	6294	7469
198	3980	5235	6293	7468
199	3974	5231	6291	7468
200	3967	5228	6290	7468
201	3961	5224	6288	7468
202	3955	5220	6287	7468
203	3949	5217	6285	7468
204	3943	5213	6284	7468
205	3937	5209	6283	7467
206	3931	5206	6281	7467
207	3925	5202	6280	7467
208	3919	5198	6278	7467
209	3912	5195	6277	7467
210	3906	5191	6275	7467
211	3900	5187	6274	7466
212	3894	5184	6273	7466
213	3888	5180	6271	7466
214	3882	5176	6270	7466
215	3876	5173	6268	7466
216	3870	5169	6267	7466
217	3858	5150	6240	7432
218	3847	5131	6214	7398
219	3835	5112	6187	7364
220	3824	5092	6160	7330
221	3812	5073	6134	7297
222	3801	5054	6107	7263
223	3789	5035	6081	7229
224	3778	5016	6054	7195
225	3766	4997	6027	7161
226	3755	4977	6001	7128
227	3743	4958	5974	7094
228	3732	4939	5948	7060
229	3720	4920	5921	7026
230	3708	4901	5894	6992
231	3697	4881	5868	6959
232	3685	4862	5841	6925
233	3674	4843	5814	6891
234	3662	4824	5788	6857

<b>7/01-11/30</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
235	3304	4155	4776	5378
236	3295	4152	4776	5378
237	3285	4149	4776	5378
238	3276	4146	4776	5378
239	3266	4143	4776	5378
240	3257	4140	4776	5377
241	3256	4140	4776	5377
242	3255	4140	4776	5377
243	3253	4140	4776	5376
244	3252	4139	4775	5376
245	3251	4139	4775	5376
246	3250	4139	4775	5375
247	3249	4139	4775	5375
248	3247	4138	4774	5375
249	3246	4138	4774	5374
250	3245	4138	4774	5374
251	3244	4138	4774	5374
252	3243	4138	4774	5374
253	3241	4137	4773	5373
254	3240	4137	4773	5373
255	3239	4137	4773	5373
256	3238	4137	4773	5372
257	3236	4136	4772	5372
258	3235	4136	4772	5372
259	3234	4136	4772	5371
260	3233	4136	4772	5371
261	3232	4135	4771	5371
262	3230	4135	4771	5370
263	3229	4135	4771	5370
264	3228	4135	4771	5370
265	3227	4130	4765	5363
266	3225	4126	4760	5357
267	3224	4122	4754	5351
268	3223	4117	4748	5345
269	3221	4113	4743	5339
270	3220	4108	4737	5333
271	3218	4104	4732	5327
272	3217	4100	4726	5321
273	3216	4095	4721	5314
274	3214	4091	4715	5308
275	3213	4086	4710	5302
276	3212	4082	4704	5296
277	3210	4078	4698	5290
278	3209	4073	4693	5284
279	3208	4069	4687	5278
280	3206	4065	4682	5271
281	3205	4060	4676	5265
282	3203	4056	4671	5259
283	3202	4051	4665	5253

<b>6/01-10/31</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
235	3651	4805	5761	6823
236	3639	4786	5735	6790
237	3628	4766	5708	6756
238	3616	4747	5681	6722
239	3605	4728	5655	6688
240	3593	4709	5628	6654
241	3588	4704	5619	6625
242	3583	4699	5609	6596
243	3578	4694	5600	6567
244	3572	4688	5591	6538
245	3567	4683	5581	6509
246	3562	4678	5572	6480
247	3557	4673	5563	6451
248	3551	4668	5553	6421
249	3546	4663	5544	6392
250	3541	4658	5535	6363
251	3536	4653	5525	6334
252	3531	4648	5516	6305
253	3525	4642	5507	6276
254	3520	4637	5497	6247
255	3515	4632	5488	6218
256	3510	4627	5479	6189
257	3504	4622	5469	6159
258	3499	4617	5460	6130
259	3494	4612	5451	6101
260	3489	4607	5441	6072
261	3483	4601	5432	6043
262	3478	4596	5423	6014
263	3473	4591	5413	5985
264	3468	4586	5404	5956
265	3459	4573	5390	5948
266	3450	4560	5376	5941
267	3442	4547	5362	5934
268	3433	4534	5348	5927
269	3424	4521	5334	5920
270	3416	4508	5320	5913
271	3407	4494	5306	5906
272	3398	4481	5292	5899
273	3390	4468	5278	5892
274	3381	4455	5264	5885
275	3373	4442	5250	5878
276	3364	4429	5236	5871
277	3355	4416	5222	5863
278	3347	4403	5208	5856
279	3338	4390	5194	5849
280	3329	4377	5180	5842
281	3321	4364	5166	5835
282	3312	4351	5152	5828
283	3303	4337	5138	5821

<b>7/01-11/30</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
284	3201	4047	4659	5247
285	3199	4043	4654	5241
286	3198	4038	4648	5235
287	3197	4034	4643	5229
288	3195	4030	4637	5222
289	3194	4025	4632	5216
290	3193	4021	4626	5210
291	3191	4016	4620	5204
292	3190	4012	4615	5198
293	3188	4008	4609	5192
294	3187	4003	4604	5186
295	3186	3999	4598	5180
296	3184	3994	4593	5173
298	3183	3990	4587	5167
297	3182	3986	4581	5161
298	3180	3981	4576	5155
299	3179	3977	4570	5149
300	3178	3973	4565	5143
301	3176	3968	4559	5137
302	3175	3964	4554	5131
303	3173	3959	4548	5124
304	3172	3955	4542	5118
305	3171	3951	4537	5112
306	3169	3946	4531	5106
307	3168	3942	4526	5100
308	3167	3938	4520	5094
309	3165	3933	4515	5088
310	3164	3929	4509	5082
311	3163	3924	4504	5075
312	3161	3920	4498	5069
313	3160	3916	4492	5063
314	3158	3911	4487	5057
315	3157	3907	4481	5051
316	3156	3902	4476	5045
317	3154	3898	4470	5039
318	3153	3894	4465	5032
319	3152	3889	4459	5026
320	3150	3885	4453	5020
321	3149	3881	4448	5014
322	3147	3876	4442	5008
323	3146	3872	4437	5002
324	3145	3867	4431	4996
325	3143	3863	4426	4990
326	3142	3859	4420	4983
327	3141	3854	4414	4977
328	3139	3850	4409	4971
329	3138	3846	4403	4965
330	3137	3841	4398	4959
331	3135	3837	4392	4953

<b>6/01-10/31</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
284	3295	4324	5124	5814
285	3286	4311	5110	5807
286	3277	4298	5096	5800
287	3269	4285	5082	5793
288	3260	4272	5068	5786
289	3251	4259	5054	5778
290	3243	4246	5040	5771
291	3234	4233	5026	5764
292	3225	4220	5012	5757
293	3217	4207	4998	5750
294	3208	4194	4984	5743
295	3199	4181	4970	5736
296	3191	4167	4956	5729
298	3182	4154	4942	5722
297	3174	4141	4928	5715
298	3165	4128	4914	5708
299	3156	4115	4900	5701
300	3148	4102	4886	5694
301	3139	4089	4872	5686
302	3130	4076	4858	5679
303	3122	4063	4844	5672
304	3113	4050	4830	5665
305	3104	4037	4816	5658
306	3096	4024	4802	5651
307	3087	4010	4788	5644
308	3078	3997	4774	5637
309	3070	3984	4760	5630
310	3061	3971	4746	5623
311	3052	3958	4732	5616
312	3044	3945	4718	5609
313	3035	3932	4704	5601
314	3026	3919	4690	5594
315	3018	3906	4676	5587
316	3009	3893	4662	5580
317	3000	3880	4648	5573
318	2992	3867	4634	5566
319	2983	3853	4620	5559
320	2974	3840	4606	5552
321	2966	3827	4592	5545
322	2957	3814	4578	5538
323	2949	3801	4564	5531
324	2940	3788	4550	5524
325	2931	3775	4536	5516
326	2923	3762	4522	5509
327	2914	3749	4508	5502
328	2905	3736	4494	5495
329	2897	3723	4480	5488
330	2888	3710	4465	5481
331	2879	3697	4451	5474

<b>7/01-11/30</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
332	3134	3832	4387	4947
333	3132	3828	4381	4941
334	3131	3824	4375	4934
335	3130	3819	4370	4928
336	3128	3815	4364	4922
337	3127	3810	4359	4916
338	3126	3806	4353	4910
339	3124	3802	4348	4904
340	3123	3797	4342	4898
341	3122	3793	4336	4892
342	3120	3789	4331	4885
343	3119	3784	4325	4879
344	3117	3780	4320	4873
345	3116	3775	4314	4867
346	3115	3771	4309	4861
347	3113	3767	4303	4855
348	3112	3762	4297	4849
349	3111	3758	4292	4842
350	3109	3753	4286	4836
351	3108	3749	4281	4830
352	3107	3745	4275	4824
353	3105	3740	4270	4818
354	3104	3736	4264	4812
355	3102	3732	4259	4806
356	3101	3727	4253	4800
357	3100	3723	4247	4793
358	3098	3718	4242	4787
359	3097	3714	4236	4781
360	3097	3714	4236	4781

<b>6/01-10/31</b>	<b>Copco Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
332	2871	3683	4437	5467
333	2862	3670	4423	5460
334	2853	3657	4409	5453
335	2845	3644	4395	5446
336	2836	3631	4381	5439
337	2827	3618	4367	5432
338	2819	3605	4353	5424
339	2810	3592	4339	5417
340	2801	3579	4325	5410
341	2793	3566	4311	5403
342	2784	3553	4297	5396
343	2775	3540	4283	5389
344	2767	3526	4269	5382
345	2758	3513	4255	5375
346	2750	3500	4241	5368
347	2741	3487	4227	5361
348	2732	3474	4213	5354
349	2724	3461	4199	5347
350	2715	3448	4185	5339
351	2706	3435	4171	5332
352	2698	3422	4157	5325
353	2689	3409	4143	5318
354	2680	3396	4129	5311
355	2672	3383	4115	5304
356	2663	3369	4101	5297
357	2654	3356	4087	5290
358	2646	3343	4073	5283
359	2637	3330	4059	5276
360	2637	3330	4059	5276

### KLAMATH RIVER BELOW IRON GATE DAM, CA

<b>Annual</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	7686	9686	11115	12640
1	7706	9712	11146	12674
2	7727	9737	11177	12709
3	7747	9763	11208	12743
4	7767	9789	11239	12778
5	7787	9815	11270	12813
6	7808	9840	11301	12847
7	7828	9866	11332	12882
8	7848	9892	11363	12917
9	7868	9918	11394	12951
10	7888	9944	11425	12986
11	7909	9969	11456	13021
12	7929	9995	11487	13055

<b>Annual</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
181	14884	20228	24486	29116
182	14461	19529	23501	27832
183	14339	19364	23323	27609
184	14217	19200	23145	27387
185	14095	19035	22967	27164
186	13973	18870	22789	26941
187	13852	18705	22611	26718
188	13730	18540	22433	26496
189	13608	18375	22255	26273
190	13486	18211	22077	26050
191	13364	18046	21899	25827
192	13243	17881	21720	25605
193	13157	17730	21501	25319

<b>Annual</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
13	7949	10021	11518	13090
14	7969	10047	11549	13125
15	7990	10072	11580	13159
16	8010	10098	11611	13194
17	8030	10124	11642	13228
18	8050	10150	11673	13263
19	8070	10175	11704	13298
20	8091	10201	11735	13332
21	8111	10227	11766	13367
22	8131	10253	11797	13402
23	8151	10278	11828	13436
24	8172	10304	11859	13471
25	8192	10330	11890	13506
26	8212	10356	11921	13540
27	8232	10381	11952	13575
28	8252	10407	11983	13610
29	8273	10433	12014	13644
30	8293	10459	12045	13679
31	8313	10485	12076	13714
32	8333	10510	12107	13748
33	8354	10536	12138	13783
34	8374	10562	12169	13817
35	8394	10588	12200	13852
36	8414	10613	12231	13887
37	8434	10639	12262	13921
38	8455	10665	12293	13956
39	8475	10691	12324	13991
40	8495	10716	12355	14025
41	8515	10742	12386	14060
42	8536	10768	12417	14095
43	8556	10794	12448	14129
44	8576	10819	12479	14164
45	8596	10845	12510	14199
46	8616	10871	12541	14233
47	8637	10897	12572	14268
48	8657	10923	12603	14303
49	8677	10948	12633	14337
50	8697	10974	12664	14372
51	8718	11000	12695	14406
52	8738	11026	12726	14441
53	8758	11051	12757	14476
54	8778	11077	12788	14510
55	8798	11103	12819	14545
56	8819	11129	12850	14580
57	8839	11154	12881	14614
58	8859	11180	12912	14649
59	8879	11206	12943	14684
60	8900	11232	12974	14718
61	8920	11257	13005	14753
<b>Annual</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
194	13071	17580	21281	25033
195	12986	17429	21062	24747
196	12900	17279	20842	24461
197	12814	17128	20622	24176
198	12729	16978	20403	23890
199	12643	16827	20183	23604
200	12558	16677	19963	23318
201	12472	16526	19744	23032
202	12386	16376	19524	22747
203	12301	16225	19305	22461
204	12215	16075	19085	22175
205	12129	15925	18865	21889
206	12044	15774	18646	21603
207	11958	15624	18426	21318
208	11872	15473	18207	21032
209	11787	15323	17987	20746
210	11701	15172	17767	20460
211	11616	15022	17548	20174
212	11530	14871	17328	19889
213	11444	14721	17108	19603
214	11359	14570	16889	19317
215	11273	14420	16669	19031
216	11187	14269	16450	18745
217	11140	14204	16376	18653
218	11093	14139	16303	18560
219	11046	14074	16230	18467
220	10998	14009	16156	18374
221	10951	13944	16083	18281
222	10904	13880	16010	18188
223	10856	13815	15936	18095
224	10809	13750	15863	18002
225	10762	13685	15790	17909
226	10715	13620	15717	17816
227	10667	13555	15643	17723
228	10620	13490	15570	17630
229	10573	13425	15497	17537
230	10525	13360	15423	17444
231	10478	13295	15350	17351
232	10431	13230	15277	17258
233	10384	13165	15204	17165
234	10336	13100	15130	17072
235	10289	13036	15057	16979
236	10242	12971	14984	16886
237	10194	12906	14910	16793
238	10147	12841	14837	16700
239	10100	12776	14764	16607
240	10053	12711	14690	16515
241	10035	12688	14665	16492
242	10017	12665	14640	16469

<b>Annual</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
62	8940	11283	13036	14788
63	8960	11309	13067	14822
64	8980	11335	13098	14857
65	9001	11360	13129	14891
66	9021	11386	13160	14926
67	9041	11412	13191	14961
68	9061	11438	13222	14995
69	9082	11464	13253	15030
70	9102	11489	13284	15065
71	9122	11515	13315	15099
72	9142	11541	13346	15134
73	9162	11567	13377	15169
74	9183	11592	13408	15203
75	9203	11618	13439	15238
76	9223	11644	13470	15273
77	9243	11670	13501	15307
78	9264	11695	13532	15342
79	9284	11721	13563	15377
80	9304	11747	13594	15411
81	9324	11773	13625	15446
82	9344	11798	13656	15480
83	9365	11824	13687	15515
84	9385	11850	13718	15550
85	9405	11876	13749	15584
86	9425	11901	13780	15619
87	9445	11927	13811	15654
88	9466	11953	13842	15688
89	9486	11979	13873	15723
90	9506	12005	13904	15758
91	9526	12030	13935	15792
92	9547	12056	13966	15827
93	9567	12082	13997	15862
94	9587	12108	14028	15896
95	9607	12133	14059	15931
96	9627	12159	14090	15965
97	9645	12182	14115	15988
98	9663	12205	14140	16011
99	9681	12228	14165	16034
100	9698	12251	14190	16057
101	9716	12274	14215	16080
102	9734	12297	14240	16103
103	9751	12320	14265	16126
104	9769	12343	14290	16148
105	9787	12366	14315	16171
106	9805	12389	14340	16194
107	9822	12412	14365	16217
108	9840	12435	14390	16240
109	9858	12458	14415	16263
110	9875	12481	14440	16286
243	9999	12642	14615	16446
244	9982	12619	14590	16423
245	9964	12596	14565	16400
246	9946	12573	14540	16377
247	9929	12550	14515	16354
248	9911	12527	14490	16332
249	9893	12504	14465	16309
250	9875	12481	14440	16286
251	9858	12458	14415	16263
252	9840	12435	14390	16240
253	9822	12412	14365	16217
254	9805	12389	14340	16194
255	9787	12366	14315	16171
256	9769	12343	14290	16148
257	9751	12320	14265	16126
258	9734	12297	14240	16103
259	9716	12274	14215	16080
260	9698	12251	14190	16057
261	9681	12228	14165	16034
262	9663	12205	14140	16011
263	9645	12182	14115	15988
264	9627	12159	14090	15965
265	9607	12133	14059	15931
266	9587	12108	14028	15896
267	9567	12082	13997	15862
268	9547	12056	13966	15827
269	9526	12030	13935	15792
270	9506	12005	13904	15758
271	9486	11979	13873	15723
272	9466	11953	13842	15688
273	9445	11927	13811	15654
274	9425	11901	13780	15619
275	9405	11876	13749	15584
276	9385	11850	13718	15550
277	9365	11824	13687	15515
278	9344	11798	13656	15480
279	9324	11773	13625	15446
280	9304	11747	13594	15411
281	9284	11721	13563	15377
282	9264	11695	13532	15342
283	9243	11670	13501	15307
284	9223	11644	13470	15273
285	9203	11618	13439	15238
286	9183	11592	13408	15203
287	9162	11567	13377	15169
288	9142	11541	13346	15134
289	9122	11515	13315	15099
290	9102	11489	13284	15065
291	9082	11464	13253	15030

<b>Annual</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
111	9893	12504	14465	16309
112	9911	12527	14490	16332
113	9929	12550	14515	16354
114	9946	12573	14540	16377
115	9964	12596	14565	16400
116	9982	12619	14590	16423
117	9999	12642	14615	16446
118	10017	12665	14640	16469
119	10035	12688	14665	16492
120	10053	12711	14690	16515
121	10100	12776	14764	16607
122	10147	12841	14837	16700
123	10194	12906	14910	16793
124	10242	12971	14984	16886
125	10289	13036	15057	16979
126	10336	13100	15130	17072
127	10384	13165	15204	17165
128	10431	13230	15277	17258
129	10478	13295	15350	17351
130	10525	13360	15423	17444
131	10573	13425	15497	17537
132	10620	13490	15570	17630
133	10667	13555	15643	17723
134	10715	13620	15717	17816
135	10762	13685	15790	17909
136	10809	13750	15863	18002
137	10856	13815	15936	18095
138	10904	13880	16010	18188
139	10951	13944	16083	18281
140	10998	14009	16156	18374
141	11046	14074	16230	18467
142	11093	14139	16303	18560
143	11140	14204	16376	18653
144	11187	14269	16450	18745
145	11273	14420	16669	19031
146	11359	14570	16889	19317
147	11444	14721	17108	19603
148	11530	14871	17328	19889
149	11616	15022	17548	20174
150	11701	15172	17767	20460
151	11787	15323	17987	20746
152	11872	15473	18207	21032
153	11958	15624	18426	21318
154	12044	15774	18646	21603
155	12129	15925	18865	21889
156	12215	16075	19085	22175
157	12301	16225	19305	22461
158	12386	16376	19524	22747
159	12472	16526	19744	23032
292	9061	11438	13222	14995
293	9041	11412	13191	14961
294	9021	11386	13160	14926
295	9001	11360	13129	14891
296	8980	11335	13098	14857
298	8960	11309	13067	14822
297	8940	11283	13036	14788
298	8920	11257	13005	14753
299	8900	11232	12974	14718
300	8879	11206	12943	14684
301	8859	11180	12912	14649
302	8839	11154	12881	14614
303	8819	11129	12850	14580
304	8798	11103	12819	14545
305	8778	11077	12788	14510
306	8758	11051	12757	14476
307	8738	11026	12726	14441
308	8718	11000	12695	14406
309	8697	10974	12664	14372
310	8677	10948	12633	14337
311	8657	10923	12603	14303
312	8637	10897	12572	14268
313	8616	10871	12541	14233
314	8596	10845	12510	14199
315	8576	10819	12479	14164
316	8556	10794	12448	14129
317	8536	10768	12417	14095
318	8515	10742	12386	14060
319	8495	10716	12355	14025
320	8475	10691	12324	13991
321	8455	10665	12293	13956
322	8434	10639	12262	13921
323	8414	10613	12231	13887
324	8394	10588	12200	13852
325	8374	10562	12169	13817
326	8354	10536	12138	13783
327	8333	10510	12107	13748
328	8313	10485	12076	13714
329	8293	10459	12045	13679
330	8273	10433	12014	13644
331	8252	10407	11983	13610
332	8232	10381	11952	13575
333	8212	10356	11921	13540
334	8192	10330	11890	13506
335	8172	10304	11859	13471
336	8151	10278	11828	13436
337	8131	10253	11797	13402
338	8111	10227	11766	13367
339	8091	10201	11735	13332

<b>Annual</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
160	12558	16677	19963	23318
161	12643	16827	20183	23604
162	12729	16978	20403	23890
163	12814	17128	20622	24176
164	12900	17279	20842	24461
165	12986	17429	21062	24747
166	13071	17580	21281	25033
167	13157	17730	21501	25319
168	13243	17881	21720	25605
169	13364	18046	21899	25827
170	13486	18211	22077	26050
171	13608	18375	22255	26273
172	13730	18540	22433	26496
173	13852	18705	22611	26718
174	13973	18870	22789	26941
175	14095	19035	22967	27164
176	14217	19200	23145	27387
177	14339	19364	23323	27609
178	14461	19529	23501	27832
179	14884	20228	24486	29116
180	15610	21460	26280	31460

<b>Annual</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
340	8070	10175	11704	13298
341	8050	10150	11673	13263
342	8030	10124	11642	13228
343	8010	10098	11611	13194
344	7990	10072	11580	13159
345	7969	10047	11549	13125
346	7949	10021	11518	13090
347	7929	9995	11487	13055
348	7909	9969	11456	13021
349	7888	9944	11425	12986
350	7868	9918	11394	12951
351	7848	9892	11363	12917
352	7828	9866	11332	12882
353	7808	9840	11301	12847
354	7787	9815	11270	12813
355	7767	9789	11239	12778
356	7747	9763	11208	12743
357	7727	9737	11177	12709
358	7706	9712	11146	12674
359	7686	9686	11115	12640
360	7686	9686	11115	12640

<b>7/01-11/30</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	3069	4003	4795	5684
1	3073	4008	4802	5693
2	3076	4013	4809	5702
3	3080	4018	4816	5711
4	3084	4023	4823	5720
5	3087	4029	4830	5729
6	3091	4034	4837	5738
7	3095	4039	4844	5747
8	3098	4044	4851	5756
9	3102	4050	4858	5765
10	3106	4055	4865	5774
11	3109	4060	4872	5783
12	3113	4065	4878	5792
13	3117	4071	4885	5801
14	3120	4076	4892	5810
15	3124	4081	4899	5819
16	3128	4086	4906	5828
17	3131	4091	4913	5837
18	3135	4097	4920	5845
19	3139	4102	4927	5854
20	3142	4107	4934	5863
21	3146	4112	4941	5872
22	3150	4118	4948	5881

<b>6/01-10/31</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	2005	2005	2007	2009
1	2016	2026	2034	2042
2	2027	2046	2061	2075
3	2038	2067	2088	2108
4	2049	2087	2115	2141
5	2060	2108	2142	2174
6	2071	2128	2169	2207
7	2082	2149	2196	2240
8	2093	2169	2223	2273
9	2104	2190	2250	2306
10	2114	2210	2277	2339
11	2125	2231	2304	2372
12	2136	2251	2331	2405
13	2147	2272	2359	2438
14	2158	2292	2386	2471
15	2169	2313	2413	2504
16	2180	2333	2440	2537
17	2191	2354	2467	2570
18	2202	2374	2494	2603
19	2213	2394	2521	2636
20	2224	2415	2548	2669
21	2235	2435	2575	2702
22	2246	2456	2602	2735

<b>7/01-11/30</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
23	3153	4123	4955	5890
24	3157	4128	4962	5899
25	3161	4133	4969	5908
26	3165	4139	4976	5917
27	3168	4144	4983	5926
28	3172	4149	4990	5935
29	3176	4154	4997	5944
30	3179	4159	5004	5953
31	3183	4165	5011	5962
32	3187	4170	5018	5971
33	3190	4175	5025	5980
34	3194	4180	5032	5989
35	3198	4186	5039	5998
36	3201	4191	5045	6007
37	3205	4196	5052	6016
38	3209	4201	5059	6025
39	3212	4207	5066	6034
40	3216	4212	5073	6043
41	3220	4217	5080	6052
42	3223	4222	5087	6061
43	3227	4227	5094	6070
44	3231	4233	5101	6079
45	3234	4238	5108	6088
46	3238	4243	5115	6097
47	3242	4248	5122	6106
48	3245	4254	5129	6115
49	3249	4259	5136	6124
50	3253	4264	5143	6133
51	3256	4269	5150	6142
52	3260	4275	5157	6151
53	3264	4280	5164	6160
54	3267	4285	5171	6169
55	3271	4290	5178	6178
56	3275	4295	5185	6187
57	3278	4301	5192	6196
58	3282	4306	5199	6205
59	3286	4311	5206	6214
60	3289	4316	5213	6223
61	3293	4322	5219	6232
62	3297	4327	5226	6241
63	3301	4332	5233	6250
64	3304	4337	5240	6259
65	3308	4343	5247	6268
66	3312	4348	5254	6277
67	3315	4353	5261	6286
68	3319	4358	5268	6295
69	3323	4363	5275	6304
70	3326	4369	5282	6313
71	3330	4374	5289	6322

<b>6/01-10/31</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
23	2257	2476	2629	2768
24	2268	2497	2656	2801
25	2279	2517	2683	2834
26	2290	2538	2711	2867
27	2301	2558	2738	2900
28	2312	2579	2765	2933
29	2323	2599	2792	2966
30	2334	2620	2819	2999
31	2345	2640	2846	3032
32	2356	2661	2873	3065
33	2367	2681	2900	3098
34	2378	2702	2927	3131
35	2389	2722	2954	3164
36	2400	2743	2981	3198
37	2411	2763	3008	3231
38	2422	2784	3035	3264
39	2433	2804	3063	3297
40	2444	2825	3090	3330
41	2454	2845	3117	3363
42	2465	2865	3144	3396
43	2476	2886	3171	3429
44	2487	2906	3198	3462
45	2498	2927	3225	3495
46	2509	2947	3252	3528
47	2520	2968	3279	3561
48	2531	2988	3306	3594
49	2542	3009	3333	3627
50	2553	3029	3360	3660
51	2564	3050	3387	3693
52	2575	3070	3415	3726
53	2586	3091	3442	3759
54	2597	3111	3469	3792
55	2608	3132	3496	3825
56	2619	3152	3523	3858
57	2630	3173	3550	3891
58	2641	3193	3577	3924
59	2652	3214	3604	3957
60	2663	3234	3631	3990
61	2674	3255	3658	4023
62	2685	3275	3685	4056
63	2696	3296	3712	4089
64	2707	3316	3739	4122
65	2718	3337	3767	4155
66	2729	3357	3794	4188
67	2740	3377	3821	4221
68	2751	3398	3848	4254
69	2762	3418	3875	4287
70	2773	3439	3902	4320
71	2784	3459	3929	4353

<b>7/01-11/30</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
72	3334	4379	5296	6331
73	3337	4384	5303	6340
74	3341	4390	5310	6349
75	3345	4395	5317	6358
76	3348	4400	5324	6367
77	3352	4405	5331	6376
78	3356	4411	5338	6385
79	3359	4416	5345	6394
80	3363	4421	5352	6403
81	3367	4426	5359	6412
82	3370	4431	5366	6421
83	3374	4437	5373	6430
84	3378	4442	5380	6439
85	3381	4447	5386	6448
86	3385	4452	5393	6457
87	3389	4458	5400	6466
88	3392	4463	5407	6475
89	3396	4468	5414	6484
90	3400	4473	5421	6493
91	3403	4479	5428	6502
92	3407	4484	5435	6511
93	3411	4489	5442	6520
94	3414	4494	5449	6529
95	3418	4499	5456	6538
96	3422	4505	5463	6547
97	3428	4514	5473	6557
98	3435	4523	5482	6567
99	3442	4532	5492	6577
100	3448	4542	5502	6587
101	3455	4551	5511	6597
102	3461	4560	5521	6607
103	3468	4569	5531	6617
104	3475	4579	5540	6627
105	3481	4588	5550	6637
106	3488	4597	5560	6647
107	3494	4606	5569	6657
108	3501	4616	5579	6667
109	3508	4625	5589	6677
110	3514	4634	5598	6687
111	3521	4643	5608	6697
112	3527	4652	5618	6707
113	3534	4662	5627	6717
114	3541	4671	5637	6727
115	3547	4680	5647	6737
116	3554	4689	5656	6747
117	3560	4699	5666	6757
118	3567	4708	5676	6767
119	3574	4717	5685	6777
120	3580	4726	5695	6787

<b>6/01-10/31</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
72	2794	3480	3956	4386
73	2805	3500	3983	4419
74	2816	3521	4010	4452
75	2827	3541	4037	4485
76	2838	3562	4064	4518
77	2849	3582	4092	4551
78	2860	3603	4119	4584
79	2871	3623	4146	4617
80	2882	3644	4173	4650
81	2893	3664	4200	4683
82	2904	3685	4227	4716
83	2915	3705	4254	4749
84	2926	3726	4281	4782
85	2937	3746	4308	4816
86	2948	3767	4335	4849
87	2959	3787	4362	4882
88	2970	3808	4389	4915
89	2981	3828	4416	4948
90	2992	3849	4444	4981
91	3003	3869	4471	5014
92	3014	3889	4498	5047
93	3025	3910	4525	5080
94	3036	3930	4552	5113
95	3047	3951	4579	5146
96	3058	3971	4606	5179
97	3070	3995	4650	5257
98	3081	4018	4693	5335
99	3093	4041	4737	5413
100	3105	4064	4781	5492
101	3117	4087	4824	5570
102	3129	4110	4868	5648
103	3141	4133	4912	5726
104	3153	4156	4955	5805
105	3164	4180	4999	5883
106	3176	4203	5043	5961
107	3188	4226	5086	6039
108	3200	4249	5130	6118
109	3212	4272	5174	6196
110	3224	4295	5217	6274
111	3236	4318	5261	6352
112	3247	4342	5305	6430
113	3259	4365	5348	6509
114	3271	4388	5392	6587
115	3283	4411	5436	6665
116	3295	4434	5479	6743
117	3307	4457	5523	6822
118	3319	4480	5567	6900
119	3330	4503	5610	6978
120	3342	4527	5654	7056

<b>7/01-11/30</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
121	3588	4734	5702	6794
122	3595	4741	5710	6800
123	3603	4748	5717	6807
124	3610	4755	5725	6813
125	3618	4763	5732	6820
126	3625	4770	5740	6826
127	3633	4777	5747	6832
128	3640	4784	5755	6839
129	3648	4792	5762	6845
130	3655	4799	5770	6852
131	3663	4806	5777	6858
132	3670	4814	5785	6865
133	3677	4821	5792	6871
134	3685	4828	5799	6877
135	3692	4835	5807	6884
136	3700	4843	5814	6890
137	3707	4850	5822	6897
138	3715	4857	5829	6903
139	3722	4864	5837	6909
140	3730	4872	5844	6916
141	3737	4879	5852	6922
142	3745	4886	5859	6929
143	3752	4893	5867	6935
144	3760	4901	5874	6942
145	3764	4905	5877	6944
146	3768	4909	5880	6946
147	3771	4914	5884	6948
148	3775	4918	5887	6950
149	3779	4923	5890	6952
150	3783	4927	5893	6955
151	3787	4931	5896	6957
152	3791	4936	5900	6959
153	3794	4940	5903	6961
154	3798	4945	5906	6963
155	3802	4949	5909	6965
156	3806	4954	5913	6968
157	3810	4958	5916	6970
158	3814	4962	5919	6972
159	3818	4967	5922	6974
160	3821	4971	5925	6976
161	3825	4976	5929	6978
162	3829	4980	5932	6980
163	3833	4984	5935	6983
164	3837	4989	5938	6985
165	3841	4993	5941	6987
166	3844	4998	5945	6989
167	3848	5002	5948	6991
168	3852	5006	5951	6993
169	3884	5047	6001	7052

<b>6/01-10/31</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
121	3354	4544	5672	7069
122	3365	4561	5690	7082
123	3376	4577	5708	7095
124	3388	4594	5726	7108
125	3399	4611	5743	7121
126	3410	4628	5761	7134
127	3421	4645	5779	7147
128	3433	4662	5797	7160
129	3444	4679	5815	7173
130	3455	4696	5833	7186
131	3467	4713	5851	7199
132	3478	4730	5869	7213
133	3489	4747	5886	7226
134	3501	4764	5904	7239
135	3512	4781	5922	7252
136	3523	4798	5940	7265
137	3535	4815	5958	7278
138	3546	4832	5976	7291
139	3557	4849	5994	7304
140	3568	4866	6011	7317
141	3580	4883	6029	7330
142	3591	4899	6047	7343
143	3602	4916	6065	7356
144	3614	4933	6083	7369
145	3620	4945	6105	7412
146	3626	4956	6126	7454
147	3632	4968	6148	7497
148	3639	4979	6169	7540
149	3645	4990	6191	7583
150	3651	5002	6213	7626
151	3657	5013	6234	7668
152	3664	5024	6256	7711
153	3670	5036	6278	7754
154	3676	5047	6299	7797
155	3682	5059	6321	7840
156	3689	5070	6343	7883
157	3695	5081	6364	7925
158	3701	5093	6386	7968
159	3707	5104	6407	8011
160	3713	5116	6429	8054
161	3720	5127	6451	8097
162	3726	5138	6472	8139
163	3732	5150	6494	8182
164	3738	5161	6516	8225
165	3745	5172	6537	8268
166	3751	5184	6559	8311
167	3757	5195	6580	8353
168	3763	5207	6602	8396
169	3790	5244	6638	8408

<b>7/01-11/30</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
170	3915	5087	6051	7110
171	3947	5128	6102	7168
172	3978	5169	6152	7226
173	4010	5209	6202	7284
174	4041	5250	6252	7343
175	4073	5290	6302	7401
176	4104	5331	6353	7459
177	4136	5371	6403	7517
178	4167	5412	6453	7575
179	4288	5593	6684	7865
180	4497	5914	7095	8387
181	4288	5593	6684	7865
182	4167	5412	6453	7575
183	4136	5371	6403	7517
184	4104	5331	6353	7459
185	4073	5290	6302	7401
186	4041	5250	6252	7343
187	4010	5209	6202	7284
188	3978	5169	6152	7226
189	3947	5128	6102	7168
190	3915	5087	6051	7110
191	3884	5047	6001	7052
192	3852	5006	5951	6993
193	3848	5002	5948	6991
194	3844	4998	5945	6989
195	3841	4993	5941	6987
196	3837	4989	5938	6985
197	3833	4984	5935	6983
198	3829	4980	5932	6980
199	3825	4976	5929	6978
200	3821	4971	5925	6976
201	3818	4967	5922	6974
202	3814	4962	5919	6972
203	3810	4958	5916	6970
204	3806	4954	5913	6968
205	3802	4949	5909	6965
206	3798	4945	5906	6963
207	3794	4940	5903	6961
208	3791	4936	5900	6959
209	3787	4931	5896	6957
210	3783	4927	5893	6955
211	3779	4923	5890	6952
212	3775	4918	5887	6950
213	3771	4914	5884	6948
214	3768	4909	5880	6946
215	3764	4905	5877	6944
216	3760	4901	5874	6942
217	3752	4893	5867	6935
218	3745	4886	5859	6929

<b>6/01-10/31</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
170	3817	5282	6675	8419
171	3844	5319	6711	8431
172	3871	5357	6747	8442
173	3898	5394	6784	8454
174	3925	5432	6820	8465
175	3952	5469	6856	8477
176	3978	5507	6893	8489
177	4005	5544	6929	8500
178	4032	5582	6966	8512
179	4152	5770	7230	8894
180	4364	6110	7724	9647
181	4152	5770	7230	8894
182	4032	5582	6966	8512
183	4005	5544	6929	8500
184	3978	5507	6893	8489
185	3952	5469	6856	8477
186	3925	5432	6820	8465
187	3898	5394	6784	8454
188	3871	5357	6747	8442
189	3844	5319	6711	8431
190	3817	5282	6675	8419
191	3790	5244	6638	8408
192	3763	5207	6602	8396
193	3757	5195	6580	8353
194	3751	5184	6559	8311
195	3745	5172	6537	8268
196	3738	5161	6516	8225
197	3732	5150	6494	8182
198	3726	5138	6472	8139
199	3720	5127	6451	8097
200	3713	5116	6429	8054
201	3707	5104	6407	8011
202	3701	5093	6386	7968
203	3695	5081	6364	7925
204	3689	5070	6343	7883
205	3682	5059	6321	7840
206	3676	5047	6299	7797
207	3670	5036	6278	7754
208	3664	5024	6256	7711
209	3657	5013	6234	7668
210	3651	5002	6213	7626
211	3645	4990	6191	7583
212	3639	4979	6169	7540
213	3632	4968	6148	7497
214	3626	4956	6126	7454
215	3620	4945	6105	7412
216	3614	4933	6083	7369
217	3602	4916	6065	7356
218	3591	4899	6047	7343

<b>7/01-11/30</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
219	3737	4879	5852	6922
220	3730	4872	5844	6916
221	3722	4864	5837	6909
222	3715	4857	5829	6903
223	3707	4850	5822	6897
224	3700	4843	5814	6890
225	3692	4835	5807	6884
226	3685	4828	5799	6877
227	3677	4821	5792	6871
228	3670	4814	5785	6865
229	3663	4806	5777	6858
230	3655	4799	5770	6852
231	3648	4792	5762	6845
232	3640	4784	5755	6839
233	3633	4777	5747	6832
234	3625	4770	5740	6826
235	3618	4763	5732	6820
236	3610	4755	5725	6813
237	3603	4748	5717	6807
238	3595	4741	5710	6800
239	3588	4734	5702	6794
240	3580	4726	5695	6787
241	3574	4717	5685	6777
242	3567	4708	5676	6767
243	3560	4699	5666	6757
244	3554	4689	5656	6747
245	3547	4680	5647	6737
246	3541	4671	5637	6727
247	3534	4662	5627	6717
248	3527	4652	5618	6707
249	3521	4643	5608	6697
250	3514	4634	5598	6687
251	3508	4625	5589	6677
252	3501	4616	5579	6667
253	3494	4606	5569	6657
254	3488	4597	5560	6647
255	3481	4588	5550	6637
256	3475	4579	5540	6627
257	3468	4569	5531	6617
258	3461	4560	5521	6607
259	3455	4551	5511	6597
260	3448	4542	5502	6587
261	3442	4532	5492	6577
262	3435	4523	5482	6567
263	3428	4514	5473	6557
264	3422	4505	5463	6547
265	3418	4499	5456	6538
266	3414	4494	5449	6529
267	3411	4489	5442	6520

<b>6/01-10/31</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
219	3580	4883	6029	7330
220	3568	4866	6011	7317
221	3557	4849	5994	7304
222	3546	4832	5976	7291
223	3535	4815	5958	7278
224	3523	4798	5940	7265
225	3512	4781	5922	7252
226	3501	4764	5904	7239
227	3489	4747	5886	7226
228	3478	4730	5869	7213
229	3467	4713	5851	7199
230	3455	4696	5833	7186
231	3444	4679	5815	7173
232	3433	4662	5797	7160
233	3421	4645	5779	7147
234	3410	4628	5761	7134
235	3399	4611	5743	7121
236	3388	4594	5726	7108
237	3376	4577	5708	7095
238	3365	4561	5690	7082
239	3354	4544	5672	7069
240	3342	4527	5654	7056
241	3330	4503	5610	6978
242	3319	4480	5567	6900
243	3307	4457	5523	6822
244	3295	4434	5479	6743
245	3283	4411	5436	6665
246	3271	4388	5392	6587
247	3259	4365	5348	6509
248	3247	4342	5305	6430
249	3236	4318	5261	6352
250	3224	4295	5217	6274
251	3212	4272	5174	6196
252	3200	4249	5130	6118
253	3188	4226	5086	6039
254	3176	4203	5043	5961
255	3164	4180	4999	5883
256	3153	4156	4955	5805
257	3141	4133	4912	5726
258	3129	4110	4868	5648
259	3117	4087	4824	5570
260	3105	4064	4781	5492
261	3093	4041	4737	5413
262	3081	4018	4693	5335
263	3070	3995	4650	5257
264	3058	3971	4606	5179
265	3047	3951	4579	5146
266	3036	3930	4552	5113
267	3025	3910	4525	5080

<b>7/01-11/30</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
268	3407	4484	5435	6511
269	3403	4479	5428	6502
270	3400	4473	5421	6493
271	3396	4468	5414	6484
272	3392	4463	5407	6475
273	3389	4458	5400	6466
274	3385	4452	5393	6457
275	3381	4447	5386	6448
276	3378	4442	5380	6439
277	3374	4437	5373	6430
278	3370	4431	5366	6421
279	3367	4426	5359	6412
280	3363	4421	5352	6403
281	3359	4416	5345	6394
282	3356	4411	5338	6385
283	3352	4405	5331	6376
284	3348	4400	5324	6367
285	3345	4395	5317	6358
286	3341	4390	5310	6349
287	3337	4384	5303	6340
288	3334	4379	5296	6331
289	3330	4374	5289	6322
290	3326	4369	5282	6313
291	3323	4363	5275	6304
292	3319	4358	5268	6295
293	3315	4353	5261	6286
294	3312	4348	5254	6277
295	3308	4343	5247	6268
296	3304	4337	5240	6259
298	3301	4332	5233	6250
297	3297	4327	5226	6241
298	3293	4322	5219	6232
299	3289	4316	5213	6223
300	3286	4311	5206	6214
301	3282	4306	5199	6205
302	3278	4301	5192	6196
303	3275	4295	5185	6187
304	3271	4290	5178	6178
305	3267	4285	5171	6169
306	3264	4280	5164	6160
307	3260	4275	5157	6151
308	3256	4269	5150	6142
309	3253	4264	5143	6133
310	3249	4259	5136	6124
311	3245	4254	5129	6115
312	3242	4248	5122	6106
313	3238	4243	5115	6097
314	3234	4238	5108	6088
315	3231	4233	5101	6079

<b>6/01-10/31</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
268	3014	3889	4498	5047
269	3003	3869	4471	5014
270	2992	3849	4444	4981
271	2981	3828	4416	4948
272	2970	3808	4389	4915
273	2959	3787	4362	4882
274	2948	3767	4335	4849
275	2937	3746	4308	4816
276	2926	3726	4281	4782
277	2915	3705	4254	4749
278	2904	3685	4227	4716
279	2893	3664	4200	4683
280	2882	3644	4173	4650
281	2871	3623	4146	4617
282	2860	3603	4119	4584
283	2849	3582	4092	4551
284	2838	3562	4064	4518
285	2827	3541	4037	4485
286	2816	3521	4010	4452
287	2805	3500	3983	4419
288	2794	3480	3956	4386
289	2784	3459	3929	4353
290	2773	3439	3902	4320
291	2762	3418	3875	4287
292	2751	3398	3848	4254
293	2740	3377	3821	4221
294	2729	3357	3794	4188
295	2718	3337	3767	4155
296	2707	3316	3739	4122
298	2696	3296	3712	4089
297	2685	3275	3685	4056
298	2674	3255	3658	4023
299	2663	3234	3631	3990
300	2652	3214	3604	3957
301	2641	3193	3577	3924
302	2630	3173	3550	3891
303	2619	3152	3523	3858
304	2608	3132	3496	3825
305	2597	3111	3469	3792
306	2586	3091	3442	3759
307	2575	3070	3415	3726
308	2564	3050	3387	3693
309	2553	3029	3360	3660
310	2542	3009	3333	3627
311	2531	2988	3306	3594
312	2520	2968	3279	3561
313	2509	2947	3252	3528
314	2498	2927	3225	3495
315	2487	2906	3198	3462

<b>7/01-11/30</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
316	3227	4227	5094	6070
317	3223	4222	5087	6061
318	3220	4217	5080	6052
319	3216	4212	5073	6043
320	3212	4207	5066	6034
321	3209	4201	5059	6025
322	3205	4196	5052	6016
323	3201	4191	5045	6007
324	3198	4186	5039	5998
325	3194	4180	5032	5989
326	3190	4175	5025	5980
327	3187	4170	5018	5971
328	3183	4165	5011	5962
329	3179	4159	5004	5953
330	3176	4154	4997	5944
331	3172	4149	4990	5935
332	3168	4144	4983	5926
333	3165	4139	4976	5917
334	3161	4133	4969	5908
335	3157	4128	4962	5899
336	3153	4123	4955	5890
337	3150	4118	4948	5881
338	3146	4112	4941	5872
339	3142	4107	4934	5863
340	3139	4102	4927	5854
341	3135	4097	4920	5845
342	3131	4091	4913	5837
343	3128	4086	4906	5828
344	3124	4081	4899	5819
345	3120	4076	4892	5810
346	3117	4071	4885	5801
347	3113	4065	4878	5792
348	3109	4060	4872	5783
349	3106	4055	4865	5774
350	3102	4050	4858	5765
351	3098	4044	4851	5756
352	3095	4039	4844	5747
353	3091	4034	4837	5738
354	3087	4029	4830	5729
355	3084	4023	4823	5720
356	3080	4018	4816	5711
357	3076	4013	4809	5702
358	3073	4008	4802	5693
359	3069	4003	4795	5684
360	3069	4003	4795	5684

<b>6/01-10/31</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
316	2476	2886	3171	3429
317	2465	2865	3144	3396
318	2454	2845	3117	3363
319	2444	2825	3090	3330
320	2433	2804	3063	3297
321	2422	2784	3035	3264
322	2411	2763	3008	3231
323	2400	2743	2981	3198
324	2389	2722	2954	3164
325	2378	2702	2927	3131
326	2367	2681	2900	3098
327	2356	2661	2873	3065
328	2345	2640	2846	3032
329	2334	2620	2819	2999
330	2323	2599	2792	2966
331	2312	2579	2765	2933
332	2301	2558	2738	2900
333	2290	2538	2711	2867
334	2279	2517	2683	2834
335	2268	2497	2656	2801
336	2257	2476	2629	2768
337	2246	2456	2602	2735
338	2235	2435	2575	2702
339	2224	2415	2548	2669
340	2213	2394	2521	2636
341	2202	2374	2494	2603
342	2191	2354	2467	2570
343	2180	2333	2440	2537
344	2169	2313	2413	2504
345	2158	2292	2386	2471
346	2147	2272	2359	2438
347	2136	2251	2331	2405
348	2125	2231	2304	2372
349	2114	2210	2277	2339
350	2104	2190	2250	2306
351	2093	2169	2223	2273
352	2082	2149	2196	2240
353	2071	2128	2169	2207
354	2060	2108	2142	2174
355	2049	2087	2115	2141
356	2038	2067	2088	2108
357	2027	2046	2061	2075
358	2016	2026	2034	2042
359	2005	2005	2007	2009
360	2005	2005	2007	2009

<b>August</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	1192	1271	1337	1378
1	1192	1271	1338	1379
2	1193	1272	1338	1380
3	1193	1273	1339	1381
4	1194	1273	1339	1381
5	1194	1274	1340	1382
6	1194	1275	1340	1383
7	1195	1275	1341	1384
8	1195	1276	1341	1384
9	1196	1277	1342	1385
10	1196	1277	1342	1386
11	1197	1278	1343	1386
12	1197	1279	1343	1387
13	1198	1279	1343	1388
14	1198	1280	1344	1389
15	1199	1281	1344	1389
16	1199	1281	1345	1390
17	1200	1282	1345	1391
18	1200	1283	1346	1391
19	1201	1283	1346	1392
20	1201	1284	1347	1393
21	1202	1285	1347	1394
22	1202	1285	1348	1394
23	1203	1286	1348	1395
24	1203	1287	1349	1396
25	1203	1287	1349	1397
26	1204	1288	1350	1397
27	1204	1289	1350	1398
28	1205	1289	1351	1399
29	1205	1290	1351	1399
30	1206	1291	1351	1400
31	1206	1291	1352	1401
32	1207	1292	1352	1402
33	1207	1293	1353	1402
34	1208	1294	1353	1403
35	1208	1294	1354	1404
36	1209	1295	1354	1404
37	1209	1296	1355	1405
38	1210	1296	1355	1406
39	1210	1297	1356	1407
40	1211	1298	1356	1407
41	1211	1298	1357	1408
42	1212	1299	1357	1409
43	1212	1300	1358	1410
44	1212	1300	1358	1410
45	1213	1301	1359	1411
46	1213	1302	1359	1412
47	1214	1302	1360	1412
48	1214	1303	1360	1413

<b>September</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
0	1640	1762	1831	1906
1	1641	1763	1832	1907
2	1641	1763	1833	1907
3	1642	1764	1833	1907
4	1642	1764	1834	1908
5	1643	1765	1835	1908
6	1643	1765	1835	1909
7	1644	1766	1836	1909
8	1644	1767	1837	1910
9	1645	1767	1837	1910
10	1645	1768	1838	1911
11	1646	1768	1839	1911
12	1646	1769	1839	1911
13	1647	1769	1840	1912
14	1647	1770	1841	1912
15	1648	1770	1841	1913
16	1648	1771	1842	1913
17	1649	1771	1843	1914
18	1649	1772	1843	1914
19	1650	1772	1844	1915
20	1650	1773	1845	1915
21	1651	1774	1845	1915
22	1651	1774	1846	1916
23	1652	1775	1847	1916
24	1652	1775	1847	1917
25	1653	1776	1848	1917
26	1653	1776	1849	1918
27	1654	1777	1849	1918
28	1654	1777	1850	1919
29	1655	1778	1851	1919
30	1655	1778	1852	1919
31	1656	1779	1852	1920
32	1656	1780	1853	1920
33	1657	1780	1854	1921
34	1657	1781	1854	1921
35	1658	1781	1855	1922
36	1658	1782	1856	1922
37	1659	1782	1856	1923
38	1659	1783	1857	1923
39	1660	1783	1858	1923
40	1660	1784	1858	1924
41	1661	1784	1859	1924
42	1661	1785	1860	1925
43	1662	1785	1860	1925
44	1662	1786	1861	1926
45	1663	1787	1862	1926
46	1663	1787	1862	1927
47	1664	1788	1863	1927
48	1664	1788	1864	1928

August	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
49	1215	1304	1360	1414
50	1215	1304	1361	1415
51	1216	1305	1361	1415
52	1216	1306	1362	1416
53	1217	1306	1362	1417
54	1217	1307	1363	1417
55	1218	1308	1363	1418
56	1218	1308	1364	1419
57	1219	1309	1364	1420
58	1219	1310	1365	1420
59	1220	1310	1365	1421
60	1220	1311	1366	1422
61	1221	1312	1366	1423
62	1221	1312	1367	1423
63	1221	1313	1367	1424
64	1222	1314	1368	1425
65	1222	1314	1368	1425
66	1223	1315	1369	1426
67	1223	1316	1369	1427
68	1224	1316	1369	1428
69	1224	1317	1370	1428
70	1225	1318	1370	1429
71	1225	1318	1371	1430
72	1226	1319	1371	1430
73	1226	1320	1372	1431
74	1227	1320	1372	1432
75	1227	1321	1373	1433
76	1228	1322	1373	1433
77	1228	1322	1374	1434
78	1229	1323	1374	1435
79	1229	1324	1375	1436
80	1230	1324	1375	1436
81	1230	1325	1376	1437
82	1230	1326	1376	1438
83	1231	1326	1377	1438
84	1231	1327	1377	1439
85	1232	1328	1377	1440
86	1232	1328	1378	1441
87	1233	1329	1378	1441
88	1233	1330	1379	1442
89	1234	1330	1379	1443
90	1234	1331	1380	1443
91	1235	1332	1380	1444
92	1235	1332	1381	1445
93	1236	1333	1381	1446
94	1236	1334	1382	1446
95	1237	1334	1382	1447
96	1237	1335	1383	1448
97	1239	1337	1386	1451

September	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time( hr)	10	25	50	100
49	1665	1789	1864	1928
50	1665	1789	1865	1928
51	1666	1790	1866	1929
52	1666	1790	1866	1929
53	1667	1791	1867	1930
54	1667	1791	1868	1930
55	1668	1792	1869	1931
56	1668	1792	1869	1931
57	1669	1793	1870	1932
58	1669	1794	1871	1932
59	1670	1794	1871	1932
60	1670	1795	1872	1933
61	1671	1795	1873	1933
62	1671	1796	1873	1934
63	1672	1796	1874	1934
64	1672	1797	1875	1935
65	1673	1797	1875	1935
66	1673	1798	1876	1936
67	1674	1798	1877	1936
68	1674	1799	1877	1936
69	1675	1799	1878	1937
70	1675	1800	1879	1937
71	1676	1801	1879	1938
72	1676	1801	1880	1938
73	1677	1802	1881	1939
74	1677	1802	1881	1939
75	1678	1803	1882	1940
76	1678	1803	1883	1940
77	1679	1804	1883	1940
78	1679	1804	1884	1941
79	1680	1805	1885	1941
80	1680	1805	1885	1942
81	1681	1806	1886	1942
82	1681	1806	1887	1943
83	1682	1807	1888	1943
84	1682	1808	1888	1944
85	1683	1808	1889	1944
86	1683	1809	1890	1944
87	1684	1809	1890	1945
88	1684	1810	1891	1945
89	1685	1810	1892	1946
90	1685	1811	1892	1946
91	1686	1811	1893	1947
92	1686	1812	1894	1947
93	1687	1812	1894	1948
94	1687	1813	1895	1948
95	1688	1813	1896	1948
96	1688	1814	1896	1949
97	1692	1821	1905	1961

August	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
98	1242	1340	1390	1454
99	1244	1342	1393	1457
100	1246	1344	1397	1460
101	1249	1347	1400	1463
102	1251	1349	1404	1466
103	1253	1352	1407	1469
104	1256	1354	1411	1473
105	1258	1356	1414	1476
106	1260	1359	1418	1479
107	1263	1361	1421	1482
108	1265	1364	1425	1485
109	1267	1366	1429	1488
110	1270	1368	1432	1491
111	1272	1371	1436	1494
112	1274	1373	1439	1497
113	1277	1375	1443	1501
114	1279	1378	1446	1504
115	1281	1380	1450	1507
116	1284	1383	1453	1510
117	1286	1385	1457	1513
118	1288	1387	1460	1516
119	1291	1390	1464	1519
120	1293	1392	1467	1522
121	1294	1395	1472	1529
122	1295	1398	1476	1535
123	1296	1401	1480	1542
124	1297	1404	1485	1548
125	1298	1407	1489	1555
126	1299	1410	1494	1561
127	1300	1413	1498	1568
128	1301	1416	1502	1574
129	1302	1419	1507	1581
130	1303	1422	1511	1587
131	1304	1425	1516	1594
132	1306	1428	1520	1600
133	1307	1430	1524	1606
134	1308	1433	1529	1613
135	1309	1436	1533	1619
136	1310	1439	1538	1626
137	1311	1442	1542	1632
138	1312	1445	1546	1639
139	1313	1448	1551	1645
140	1314	1451	1555	1652
141	1315	1454	1560	1658
142	1316	1457	1564	1665
143	1317	1460	1568	1671
144	1318	1463	1573	1678
145	1318	1463	1573	1678
146	1319	1464	1573	1678

September	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time( hr)	10	25	50	100
98	1695	1827	1914	1973
99	1699	1834	1923	1985
100	1702	1841	1932	1998
101	1706	1848	1941	2010
102	1709	1854	1949	2022
103	1713	1861	1958	2034
104	1716	1868	1967	2046
105	1720	1875	1976	2058
106	1723	1881	1985	2071
107	1727	1888	1994	2083
108	1731	1895	2003	2095
109	1734	1902	2011	2107
110	1738	1909	2020	2119
111	1741	1915	2029	2132
112	1745	1922	2038	2144
113	1748	1929	2047	2156
114	1752	1936	2056	2168
115	1755	1942	2064	2180
116	1759	1949	2073	2192
117	1762	1956	2082	2205
118	1766	1963	2091	2217
119	1769	1969	2100	2229
120	1773	1976	2109	2241
121	1773	1977	2109	2241
122	1773	1977	2110	2242
123	1773	1978	2110	2242
124	1773	1978	2111	2243
125	1774	1979	2111	2243
126	1774	1979	2112	2244
127	1774	1980	2112	2244
128	1774	1980	2113	2244
129	1774	1981	2113	2245
130	1775	1981	2114	2245
131	1775	1982	2114	2246
132	1775	1982	2115	2246
133	1775	1982	2116	2246
134	1775	1983	2116	2247
135	1776	1983	2117	2247
136	1776	1984	2117	2248
137	1776	1984	2118	2248
138	1776	1985	2118	2248
139	1776	1985	2119	2249
140	1777	1986	2119	2249
141	1777	1986	2120	2250
142	1777	1987	2120	2250
143	1777	1987	2121	2251
144	1777	1988	2121	2251
145	1777	1988	2122	2251
146	1777	1988	2122	2251

August	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
147	1319	1464	1573	1678
148	1319	1465	1573	1679
149	1319	1465	1573	1679
150	1320	1466	1573	1679
151	1320	1466	1573	1679
152	1320	1467	1573	1679
153	1320	1467	1573	1679
154	1321	1468	1573	1680
155	1321	1468	1573	1680
156	1321	1469	1574	1680
157	1321	1469	1574	1680
158	1321	1469	1574	1680
159	1322	1470	1574	1681
160	1322	1470	1574	1681
161	1322	1471	1574	1681
162	1322	1471	1574	1681
163	1323	1472	1574	1681
164	1323	1472	1574	1681
165	1323	1473	1574	1682
166	1323	1473	1574	1682
167	1324	1474	1574	1682
168	1324	1474	1574	1682
169	1324	1474	1575	1682
170	1325	1474	1576	1683
171	1325	1474	1578	1683
172	1326	1474	1579	1683
173	1326	1474	1580	1684
174	1327	1474	1581	1684
175	1327	1474	1582	1684
176	1328	1474	1583	1684
177	1328	1474	1584	1685
178	1329	1474	1585	1685
179	1650	1788	1891	1985
180	2291	2416	2503	2585
181	1650	1788	1891	1985
182	1329	1474	1585	1685
183	1328	1474	1584	1685
184	1328	1474	1583	1684
185	1327	1474	1582	1684
186	1327	1474	1581	1684
187	1326	1474	1580	1684
188	1326	1474	1579	1683
189	1325	1474	1578	1683
190	1325	1474	1576	1683
191	1324	1474	1575	1682
192	1324	1474	1574	1682
193	1324	1474	1574	1682
194	1323	1473	1574	1682
195	1323	1473	1574	1682

September	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time( hr)	10	25	50	100
147	1777	1988	2123	2251
148	1778	1988	2123	2251
149	1778	1988	2124	2251
150	1778	1988	2124	2251
151	1778	1988	2125	2251
152	1778	1988	2125	2251
153	1778	1988	2126	2251
154	1778	1988	2126	2251
155	1778	1988	2127	2251
156	1778	1989	2128	2252
157	1778	1989	2128	2252
158	1778	1989	2129	2252
159	1778	1989	2129	2252
160	1778	1989	2130	2252
161	1778	1989	2130	2252
162	1778	1989	2131	2252
163	1778	1989	2131	2252
164	1778	1989	2132	2252
165	1779	1989	2132	2252
166	1779	1989	2133	2252
167	1779	1989	2133	2252
168	1779	1989	2134	2252
169	1779	1990	2135	2258
170	1779	1990	2137	2264
171	1779	1991	2138	2270
172	1779	1992	2140	2276
173	1779	1992	2142	2283
174	1779	1993	2143	2289
175	1779	1994	2145	2295
176	1779	1994	2146	2301
177	1780	1995	2148	2307
178	1780	1996	2150	2313
179	2125	2348	2507	2673
180	2816	3052	3221	3386
181	2125	2348	2507	2673
182	1780	1996	2150	2313
183	1780	1995	2148	2307
184	1779	1994	2146	2301
185	1779	1994	2145	2295
186	1779	1993	2143	2289
187	1779	1992	2142	2283
188	1779	1992	2140	2276
189	1779	1991	2138	2270
190	1779	1990	2137	2264
191	1779	1990	2135	2258
192	1779	1989	2134	2252
193	1779	1989	2133	2252
194	1779	1989	2133	2252
195	1779	1989	2132	2252

August	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
196	1323	1472	1574	1681
197	1323	1472	1574	1681
198	1322	1471	1574	1681
199	1322	1471	1574	1681
200	1322	1470	1574	1681
201	1322	1470	1574	1681
202	1321	1469	1574	1680
203	1321	1469	1574	1680
204	1321	1469	1574	1680
205	1321	1468	1573	1680
206	1321	1468	1573	1680
207	1320	1467	1573	1679
208	1320	1467	1573	1679
209	1320	1466	1573	1679
210	1320	1466	1573	1679
211	1319	1465	1573	1679
212	1319	1465	1573	1679
213	1319	1464	1573	1678
214	1319	1464	1573	1678
215	1318	1463	1573	1678
216	1318	1463	1573	1678
217	1317	1460	1568	1671
218	1316	1457	1564	1665
219	1315	1454	1560	1658
220	1314	1451	1555	1652
221	1313	1448	1551	1645
222	1312	1445	1546	1639
223	1311	1442	1542	1632
224	1310	1439	1538	1626
225	1309	1436	1533	1619
226	1308	1433	1529	1613
227	1307	1430	1524	1606
228	1306	1428	1520	1600
229	1304	1425	1516	1594
230	1303	1422	1511	1587
231	1302	1419	1507	1581
232	1301	1416	1502	1574
233	1300	1413	1498	1568
234	1299	1410	1494	1561
235	1298	1407	1489	1555
236	1297	1404	1485	1548
237	1296	1401	1480	1542
238	1295	1398	1476	1535
239	1294	1395	1472	1529
240	1293	1392	1467	1522
241	1291	1390	1464	1519
242	1288	1387	1460	1516
243	1286	1385	1457	1513
244	1284	1383	1453	1510

September	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time( hr)	10	25	50	100
196	1778	1989	2132	2252
197	1778	1989	2131	2252
198	1778	1989	2131	2252
199	1778	1989	2130	2252
200	1778	1989	2130	2252
201	1778	1989	2129	2252
202	1778	1989	2129	2252
203	1778	1989	2128	2252
204	1778	1989	2128	2252
205	1778	1988	2127	2251
206	1778	1988	2126	2251
207	1778	1988	2126	2251
208	1778	1988	2125	2251
209	1778	1988	2125	2251
210	1778	1988	2124	2251
211	1778	1988	2124	2251
212	1778	1988	2123	2251
213	1777	1988	2123	2251
214	1777	1988	2122	2251
215	1777	1988	2122	2251
216	1777	1988	2121	2251
217	1777	1987	2121	2251
218	1777	1987	2120	2250
219	1777	1986	2120	2250
220	1777	1986	2119	2249
221	1776	1985	2119	2249
222	1776	1985	2118	2248
223	1776	1984	2118	2248
224	1776	1984	2117	2248
225	1776	1983	2117	2247
226	1775	1983	2116	2247
227	1775	1982	2116	2246
228	1775	1982	2115	2246
229	1775	1982	2114	2246
230	1775	1981	2114	2245
231	1774	1981	2113	2245
232	1774	1980	2113	2244
233	1774	1980	2112	2244
234	1774	1979	2112	2244
235	1774	1979	2111	2243
236	1773	1978	2111	2243
237	1773	1978	2110	2242
238	1773	1977	2110	2242
239	1773	1977	2109	2241
240	1773	1976	2109	2241
241	1769	1969	2100	2229
242	1766	1963	2091	2217
243	1762	1956	2082	2205
244	1759	1949	2073	2192

August	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
245	1281	1380	1450	1507
246	1279	1378	1446	1504
247	1277	1375	1443	1501
248	1274	1373	1439	1497
249	1272	1371	1436	1494
250	1270	1368	1432	1491
251	1267	1366	1429	1488
252	1265	1364	1425	1485
253	1263	1361	1421	1482
254	1260	1359	1418	1479
255	1258	1356	1414	1476
256	1256	1354	1411	1473
257	1253	1352	1407	1469
258	1251	1349	1404	1466
259	1249	1347	1400	1463
260	1246	1344	1397	1460
261	1244	1342	1393	1457
262	1242	1340	1390	1454
263	1239	1337	1386	1451
264	1237	1335	1383	1448
265	1237	1334	1382	1447
266	1236	1334	1382	1446
267	1236	1333	1381	1446
268	1235	1332	1381	1445
269	1235	1332	1380	1444
270	1234	1331	1380	1443
271	1234	1330	1379	1443
272	1233	1330	1379	1442
273	1233	1329	1378	1441
274	1232	1328	1378	1441
275	1232	1328	1377	1440
276	1231	1327	1377	1439
277	1231	1326	1377	1438
278	1230	1326	1376	1438
279	1230	1325	1376	1437
280	1230	1324	1375	1436
281	1229	1324	1375	1436
282	1229	1323	1374	1435
283	1228	1322	1374	1434
284	1228	1322	1373	1433
285	1227	1321	1373	1433
286	1227	1320	1372	1432
287	1226	1320	1372	1431
288	1226	1319	1371	1430
289	1225	1318	1371	1430
290	1225	1318	1370	1429
291	1224	1317	1370	1428
292	1224	1316	1369	1428
293	1223	1316	1369	1427

September	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time( hr)	10	25	50	100
245	1755	1942	2064	2180
246	1752	1936	2056	2168
247	1748	1929	2047	2156
248	1745	1922	2038	2144
249	1741	1915	2029	2132
250	1738	1909	2020	2119
251	1734	1902	2011	2107
252	1731	1895	2003	2095
253	1727	1888	1994	2083
254	1723	1881	1985	2071
255	1720	1875	1976	2058
256	1716	1868	1967	2046
257	1713	1861	1958	2034
258	1709	1854	1949	2022
259	1706	1848	1941	2010
260	1702	1841	1932	1998
261	1699	1834	1923	1985
262	1695	1827	1914	1973
263	1692	1821	1905	1961
264	1688	1814	1896	1949
265	1688	1813	1896	1948
266	1687	1813	1895	1948
267	1687	1812	1894	1948
268	1686	1812	1894	1947
269	1686	1811	1893	1947
270	1685	1811	1892	1946
271	1685	1810	1892	1946
272	1684	1810	1891	1945
273	1684	1809	1890	1945
274	1683	1809	1890	1944
275	1683	1808	1889	1944
276	1682	1808	1888	1944
277	1682	1807	1888	1943
278	1681	1806	1887	1943
279	1681	1806	1886	1942
280	1680	1805	1885	1942
281	1680	1805	1885	1941
282	1679	1804	1884	1941
283	1679	1804	1883	1940
284	1678	1803	1883	1940
285	1678	1803	1882	1940
286	1677	1802	1881	1939
287	1677	1802	1881	1939
288	1676	1801	1880	1938
289	1676	1801	1879	1938
290	1675	1800	1879	1937
291	1675	1799	1878	1937
292	1674	1799	1877	1936
293	1674	1798	1877	1936

August	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time (hr)	10	25	50	100
294	1223	1315	1369	1426
295	1222	1314	1368	1425
296	1222	1314	1368	1425
298	1221	1313	1367	1424
297	1221	1312	1367	1423
298	1221	1312	1366	1423
299	1220	1311	1366	1422
300	1220	1310	1365	1421
301	1219	1310	1365	1420
302	1219	1309	1364	1420
303	1218	1308	1364	1419
304	1218	1308	1363	1418
305	1217	1307	1363	1417
306	1217	1306	1362	1417
307	1216	1306	1362	1416
308	1216	1305	1361	1415
309	1215	1304	1361	1415
310	1215	1304	1360	1414
311	1214	1303	1360	1413
312	1214	1302	1360	1412
313	1213	1302	1359	1412
314	1213	1301	1359	1411
315	1212	1300	1358	1410
316	1212	1300	1358	1410
317	1212	1299	1357	1409
318	1211	1298	1357	1408
319	1211	1298	1356	1407
320	1210	1297	1356	1407
321	1210	1296	1355	1406
322	1209	1296	1355	1405
323	1209	1295	1354	1404
324	1208	1294	1354	1404
325	1208	1294	1353	1403
326	1207	1293	1353	1402
327	1207	1292	1352	1402
328	1206	1291	1352	1401
329	1206	1291	1351	1400
330	1205	1290	1351	1399
331	1205	1289	1351	1399
332	1204	1289	1350	1398
333	1204	1288	1350	1397
334	1203	1287	1349	1397
335	1203	1287	1349	1396
336	1203	1286	1348	1395
337	1202	1285	1348	1394
338	1202	1285	1347	1394
339	1201	1284	1347	1393
340	1201	1283	1346	1392
341	1200	1283	1346	1391

September	Iron Gate Discharge (ft <sup>3</sup> /s) by Return Period (years)			
Time( hr)	10	25	50	100
294	1673	1798	1876	1936
295	1673	1797	1875	1935
296	1672	1797	1875	1935
298	1672	1796	1874	1934
297	1671	1796	1873	1934
298	1671	1795	1873	1933
299	1670	1795	1872	1933
300	1670	1794	1871	1932
301	1669	1794	1871	1932
302	1669	1793	1870	1932
303	1668	1792	1869	1931
304	1668	1792	1869	1931
305	1667	1791	1868	1930
306	1667	1791	1867	1930
307	1666	1790	1866	1929
308	1666	1790	1866	1929
309	1665	1789	1865	1928
310	1665	1789	1864	1928
311	1664	1788	1864	1928
312	1664	1788	1863	1927
313	1663	1787	1862	1927
314	1663	1787	1862	1926
315	1662	1786	1861	1926
316	1662	1785	1860	1925
317	1661	1785	1860	1925
318	1661	1784	1859	1924
319	1660	1784	1858	1924
320	1660	1783	1858	1923
321	1659	1783	1857	1923
322	1659	1782	1856	1923
323	1658	1782	1856	1922
324	1658	1781	1855	1922
325	1657	1781	1854	1921
326	1657	1780	1854	1921
327	1656	1780	1853	1920
328	1656	1779	1852	1920
329	1655	1778	1852	1919
330	1655	1778	1851	1919
331	1654	1777	1850	1919
332	1654	1777	1849	1918
333	1653	1776	1849	1918
334	1653	1776	1848	1917
335	1652	1775	1847	1917
336	1652	1775	1847	1916
337	1651	1774	1846	1916
338	1651	1774	1845	1915
339	1650	1773	1845	1915
340	1650	1772	1844	1915
341	1649	1772	1843	1914

<b>August</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time (hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
342	1200	1282	1345	1391
343	1199	1281	1345	1390
344	1199	1281	1344	1389
345	1198	1280	1344	1389
346	1198	1279	1343	1388
347	1197	1279	1343	1387
348	1197	1278	1343	1386
349	1196	1277	1342	1386
350	1196	1277	1342	1385
351	1195	1276	1341	1384
352	1195	1275	1341	1384
353	1194	1275	1340	1383
354	1194	1274	1340	1382
355	1194	1273	1339	1381
356	1193	1273	1339	1381
357	1193	1272	1338	1380
358	1192	1271	1338	1379
359	1192	1271	1337	1378
360	1192	1271	1337	1378

<b>September</b>	<b>Iron Gate Discharge (ft<sup>3</sup>/s) by Return Period (years)</b>			
<b>Time( hr)</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>
342	1649	1771	1843	1914
343	1648	1771	1842	1913
344	1648	1770	1841	1913
345	1647	1770	1841	1912
346	1647	1769	1840	1912
347	1646	1769	1839	1911
348	1646	1768	1839	1911
349	1645	1768	1838	1911
350	1645	1767	1837	1910
351	1644	1767	1837	1910
352	1644	1766	1836	1909
353	1643	1765	1835	1909
354	1643	1765	1835	1908
355	1642	1764	1834	1908
356	1642	1764	1833	1907
357	1641	1763	1833	1907
358	1641	1763	1832	1907
359	1640	1762	1831	1906
360	1640	1762	1831	1906