

Figure 6. Location of surface-water and water-quality stations in The Great Basin and the Klamath River Basin.

THE GREAT BASIN
MALHEUR AND HARNEY LAKES BASIN
10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR

LOCATION.--(Revised)Lat 42°47'27", long 118°52'03" (NAD 83), in NW ¼ NW ¼ sec.20, T.32 S., R.32-½ E., Harney County, Hydrologic Unit 17120003, Bureau of Land Management land, on left bank 1.5 mi upstream from upper diversions for Malheur National Wildlife Refuge, 2.0 mi downstream from Fish Creek, and 3.5 mi southeast of Frenchglen.

DRAINAGE AREA.--200 mi², approximately.

PERIOD OF RECORD.--March 1911 to September 1913, March 1914 to September 1916, April 1917 to September 1921, August to November 1929, April to September 1930, December 1937 to current year. Monthly discharge only for some periods, published in WSP 1314. Published as "near Diamond" 1911-21. Records of discharge for January 1909 to September 1910 (published in WSP 270, 290, and 370, for a nonequivalent site as "near Diamond") have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 330: Drainage area (former site). WSP 860: Drainage area (present site). WSP 1564: 1938-39(M), 1942-43(M), 1948(M), 1951(P), 1952-53. WSP 1714: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,254 ft above NGVD of 1929, (levels by Fish and Wildlife Service). Prior to December 1937, nonrecording gage at several sites within 2 mi downstream at different datums. Dec. 6, 1937, to Feb. 14, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station. Periodic water-quality records for the period March 1975 to September 1986 and continuous water-quality records for the period October 1975 to September 1981 have been collected at this location. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--74 years (water years 1912-13, 1915-16, 1918-21, 1939-2004), 126 ft³/s, 91,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,270 ft³/s Apr. 26, 1978, gage height, 7.15 ft, from floodmarks, from rating curve extended above 1,900 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 4.2 ft³/s Dec. 9, 1972, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 17	1900	752	*3.86	Mar. 9	2100	*759	3.84

Minimum daily discharge, 22 ft³/s, Jan. 22, Feb. 11-13.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	30	37	36	39	66	171	173	296	152	45	37
2	33	35	36	27	37	94	153	196	328	138	44	38
3	34	37	35	e28	36	75	170	239	390	134	43	39
4	34	35	34	e26	36	66	187	307	408	132	43	39
5	34	35	35	e28	31	58	203	372	409	123	42	39
6	34	34	38	e32	35	78	219	353	401	108	41	38
7	33	35	39	e34	39	117	214	316	329	107	41	37
8	33	35	35	37	34	235	207	302	266	102	40	37
9	33	35	30	40	25	381	202	281	227	93	39	36
10	34	36	38	50	e24	352	191	282	262	90	38	36
11	34	35	34	51	e22	260	187	261	237	84	38	36
12	34	34	35	43	e22	275	186	232	212	80	37	37
13	34	33	39	39	e22	275	188	212	199	78	37	37
14	34	33	37	41	e26	288	167	203	224	74	37	37
15	34	37	28	41	39	257	154	204	221	71	39	38
16	34	36	34	39	57	198	143	203	224	67	45	38
17	34	36	39	35	471	203	133	203	202	67	49	37
18	34	34	38	36	548	198	125	225	203	70	44	38
19	33	35	44	38	290	221	121	240	195	68	42	38
20	33	35	39	38	181	204	115	226	202	70	47	44
21	33	32	36	31	128	222	125	252	196	64	42	43
22	33	26	34	22	99	263	116	253	192	61	43	41
23	33	30	34	e24	106	290	130	239	198	58	65	41
24	33	40	36	e28	130	296	138	222	201	56	46	38
25	34	35	35	33	81	258	134	215	189	55	44	37
26	34	37	33	37	97	214	137	250	191	54	48	36
27	34	33	33	38	90	187	155	330	187	52	48	36
28	34	38	38	36	71	168	185	453	187	49	44	36
29	34	40	34	37	58	169	159	353	191	47	42	36
30	34	42	33	40	---	195	159	299	172	47	40	36
31	34	---	39	33	---	194	---	294	---	46	38	---
TOTAL	1,042	1,048	1,109	1,098	2,874	6,357	4,874	8,190	7,339	2,497	1,331	1,136
MEAN	33.6	34.9	35.8	35.4	99.1	205	162	264	245	80.5	42.9	37.9
MAX	34	42	44	51	548	381	219	453	409	152	65	44
MIN	32	26	28	22	22	58	115	173	172	46	37	36
AC-FT	2,070	2,080	2,200	2,180	5,700	12,610	9,670	16,240	14,560	4,950	2,640	2,250

THE GREAT BASIN
MALHEUR AND HARNEY LAKES BASIN
10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2004, BY WATER YEAR (WY)														
MEAN	43.6	47.4	54.6	66.8	89.9	151	223	380	284	97.5	48.0	42.4		
MAX	86.4	94.3	181	277	310	500	666	826	802	320	113	87.3		
(WY)	(1985)	(1985)	(1965)	(1997)	(1921)	(1993)	(1952)	(1998)	(1917)	(1984)	(1984)	(1984)		
MIN	24.2	25.3	25.2	25.0	27.8	40.5	61.2	105	44.7	28.9	21.1	22.2		
(WY)	(1993)	(1962)	(1960)	(1916)	(1964)	(1977)	(1968)	(1992)	(1992)	(1968)	(1992)	(1992)		
SUMMARY STATISTICS														
	FOR 2003 CALENDAR YEAR					FOR 2004 WATER YEAR			WATER YEARS 1912 - 2004					
ANNUAL TOTAL	35,681					38,895								
ANNUAL MEAN	97.8					106			126					
HIGHEST ANNUAL MEAN									273					
LOWEST ANNUAL MEAN									49.1					
HIGHEST DAILY MEAN	966					May 30			548		Feb 18		2,700	
LOWEST DAILY MEAN	26					Nov 22			22		Jan 22		11	
ANNUAL SEVEN-DAY MINIMUM	32					Sep 1			25		Feb 8		14	
ANNUAL RUNOFF (AC-FT)	70,770								77,150		91,310			
10 PERCENT EXCEEDS	239								254		319			
50 PERCENT EXCEEDS	40								44		57			
90 PERCENT EXCEEDS	33								33		32			

e Estimated



2004 Water Year

MALHEUR AND HARNEY LAKES BASIN

10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR

Latitude: 42° 47' 27"

Longitude: 118° 52' 03"

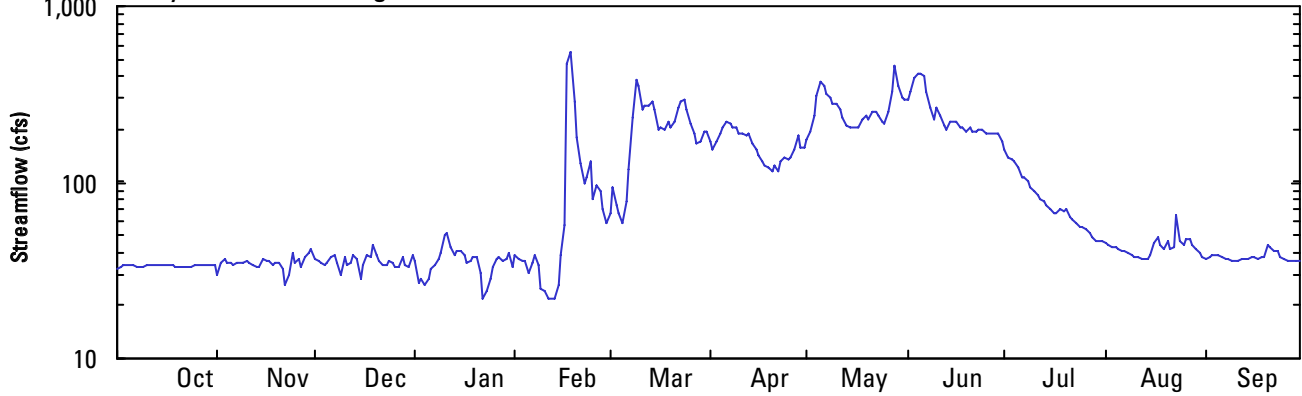
Hydrologic Unit Code: 17120003

Harney County

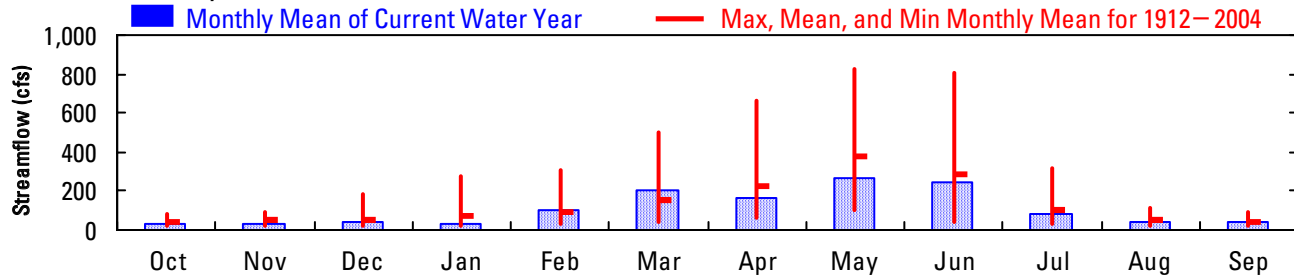
Datum: 4,254 feet

Drainage Area: 200 square miles

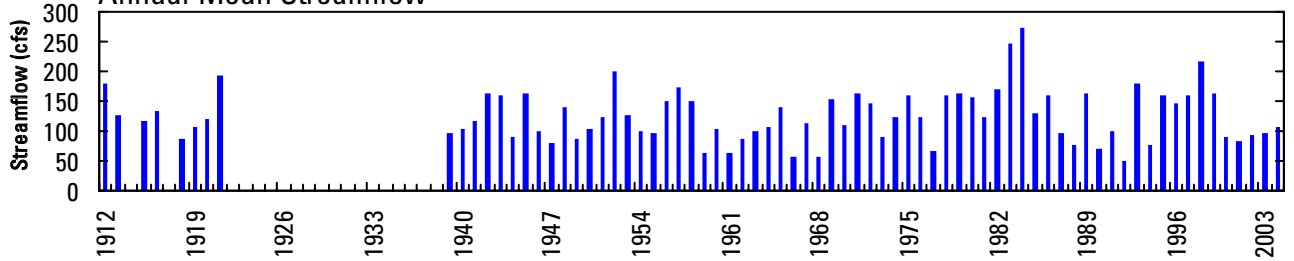
Daily Mean Discharge



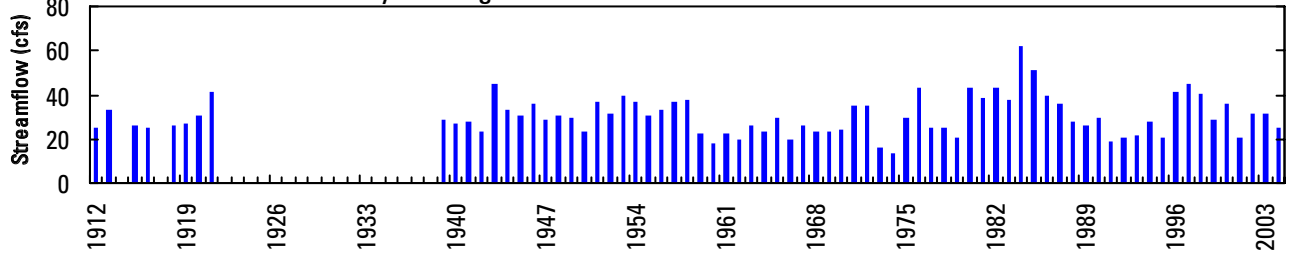
Monthly Statistics



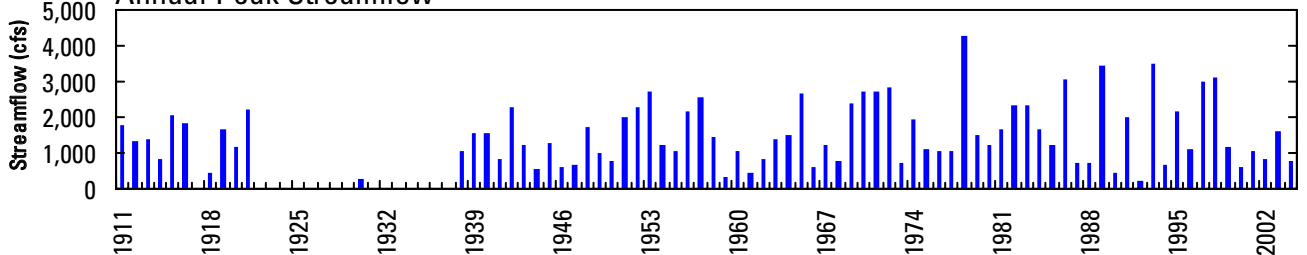
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



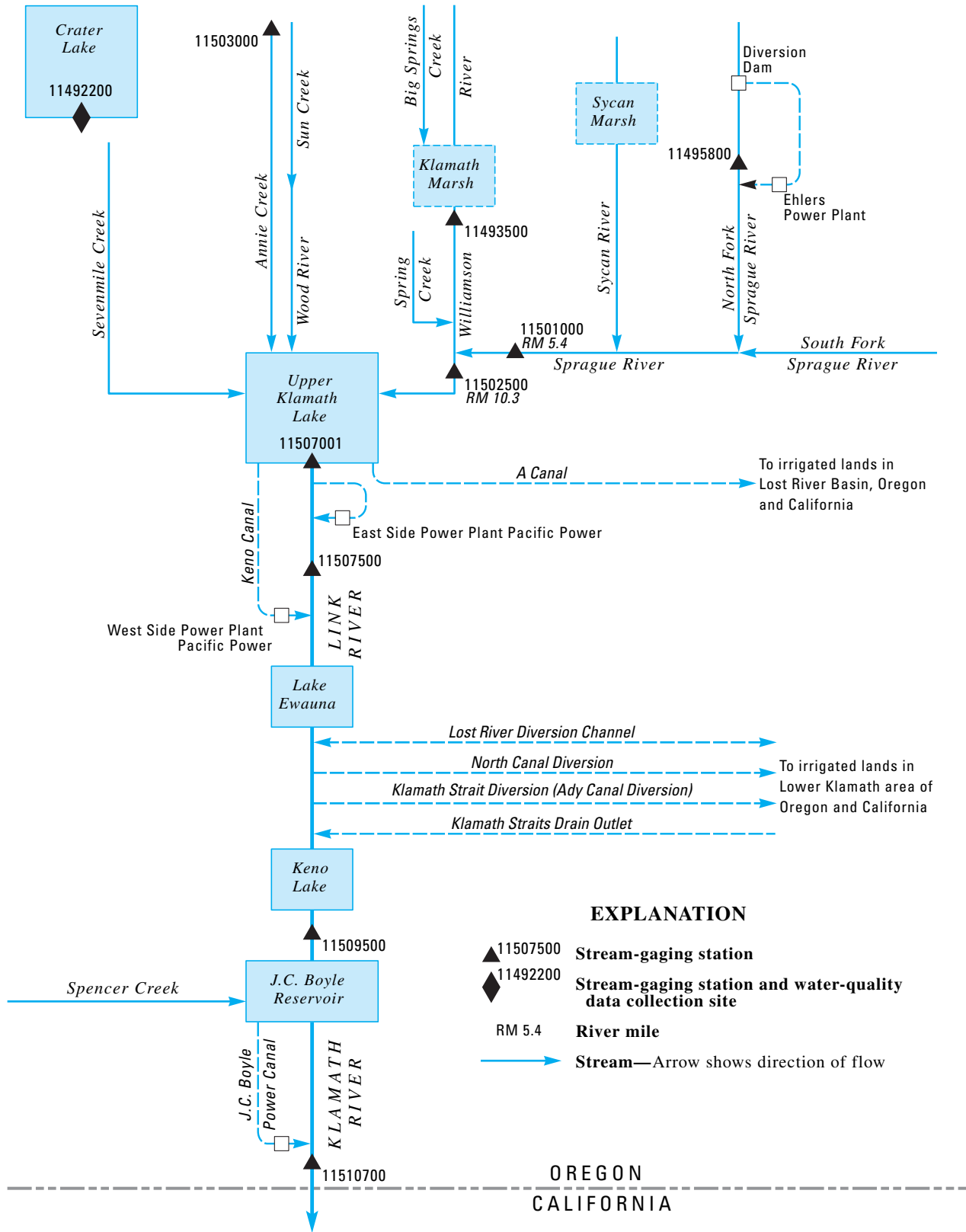


Figure 7. Schematic diagram showing gaging stations and major diversions in the Klamath Basin in Oregon.

PACIFIC SLOPE BASINS IN CALIFORNIA
 KLAMATH RIVER BASIN
 11492200 CRATER LAKE NEAR CRATER LAKE, OR
 (Hydrologic bench-mark station)

LOCATION.--Lat 42°58'33", long 122°05'17", Crater Lake National Park and Vicinity Quadrangle, Klamath County, Hydrologic Unit 18010201, at boat harbor at end of trail in Cleetwood Cove and 6 mi northeast of Crater Lake post office.

DRAINAGE AREA.--26.2 mi², of which 20.5 mi² is lake area at elevation 6,176 ft.

WATER-ELEVATION RECORDS

PERIOD OF RECORD.--October 1961 to current year. 1878 to September 1961 (fragmentary records) available in files of U.S. Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to September 1961, nonrecording gage and various reference points used near old boat landing at abandoned trail (Eagle Cove) directly across Lake.

REMARKS.--Crater Lake occupies the caldera of prehistoric Mount Mazama. It has no visible inlet or outlet. Over a period of years precipitation and runoff from snowmelt on the walls of the crater are offset by seepage and evaporation. Records of accumulated annual precipitation, collected at the north rim of Crater Lake as part of the operation of this station, are published annually in reports of the National Weather Service. U.S. Geological Survey satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 6,179.34 ft Mar. 25, 1975; minimum elevation observed, 6,163.2 ft Sept. 10, 1942.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 6,180.5 ft, average of several observations of line of crustose lichens made between 1916 and 1960; that stage may have occurred near the close of the 19th century. The occurrence of living pine trees slightly higher suggests that the lake has not been materially higher for several centuries.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6,171.54 ft May 30, June 9, 10; minimum elevation, 6,169.60 Nov. 14, 15.

ELEVATION ABOVE NGVD 1929, FEET
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,170.34	6,169.72	6,169.81	6,170.65	6,171.00	6,171.47	6,171.31	6,171.38	6,171.50	6,171.41	6,171.01	6,170.69
2	6,170.32	6,169.72	6,169.79	6,170.66	6,171.01	6,171.45	6,171.30	6,171.38	6,171.50	6,171.40	6,171.00	6,170.65
3	6,170.31	6,169.70	6,169.79	6,170.67	6,171.00	6,171.46	6,171.29	6,171.38	6,171.50	6,171.39	6,170.98	6,170.63
4	6,170.29	6,169.69	6,169.82	6,170.68	6,170.98	6,171.48	6,171.28	6,171.37	6,171.50	6,171.39	6,170.97	6,170.61
5	6,170.28	6,169.67	6,169.86	6,170.66	6,170.97	6,171.49	6,171.27	6,171.36	6,171.51	6,171.37	6,170.94	6,170.59
6	6,170.26	6,169.65	6,169.96	6,170.64	6,171.00	6,171.48	6,171.27	6,171.35	6,171.51	6,171.37	6,170.90	6,170.58
7	6,170.24	6,169.64	6,170.01	6,170.67	6,170.99	6,171.47	6,171.25	6,171.37	6,171.52	6,171.35	6,170.88	6,170.57
8	6,170.20	6,169.64	6,169.98	6,170.73	6,170.97	6,171.46	6,171.25	6,171.36	6,171.51	6,171.35	6,170.86	6,170.54
9	6,170.17	6,169.64	6,169.98	6,170.79	6,170.96	6,171.45	6,171.24	6,171.37	6,171.54	6,171.32	6,170.85	6,170.53
10	6,170.14	6,169.67	6,169.98	6,170.77	6,170.95	6,171.43	6,171.22	6,171.39	6,171.53	6,171.30	6,170.83	6,170.50
11	6,170.18	6,169.65	6,169.98	6,170.75	6,170.93	6,171.42	6,171.21	6,171.40	6,171.52	6,171.30	6,170.82	6,170.49
12	6,170.12	6,169.63	6,170.12	6,170.74	6,170.89	6,171.41	6,171.21	6,171.38	6,171.51	6,171.27	6,170.81	6,170.46
13	6,170.11	6,169.61	6,170.28	6,170.73	6,170.91	6,171.40	6,171.21	6,171.38	6,171.50	6,171.26	6,170.80	6,170.45
14	6,170.07	6,169.60	6,170.30	6,170.75	6,170.93	6,171.39	6,171.27	6,171.37	6,171.49	6,171.25	6,170.81	6,170.43
15	6,170.08	6,169.64	6,170.28	6,170.74	6,170.92	6,171.38	6,171.29	6,171.36	6,171.49	6,171.24	6,170.80	6,170.43
16	6,170.05	6,169.72	6,170.25	6,170.73	6,171.06	6,171.36	6,171.29	6,171.35	6,171.47	6,171.23	6,170.79	6,170.41
17	6,170.02	6,169.70	6,170.25	6,170.72	6,171.24	6,171.36	6,171.30	6,171.38	6,171.46	6,171.22	6,170.77	6,170.44
18	6,170.00	6,169.69	6,170.21	6,170.72	6,171.27	6,171.35	6,171.30	6,171.41	6,171.46	6,171.21	6,170.76	6,170.41
19	6,169.98	6,169.72	6,170.22	6,170.72	6,171.26	6,171.31	6,171.36	6,171.40	6,171.45	6,171.21	6,170.74	6,170.41
20	6,169.96	6,169.71	6,170.22	6,170.70	6,171.24	6,171.31	6,171.43	6,171.41	6,171.45	6,171.19	6,170.73	6,170.37
21	6,169.94	6,169.71	6,170.21	6,170.69	6,171.24	6,171.30	6,171.49	6,171.41	6,171.45	6,171.18	6,170.71	6,170.36
22	6,169.93	6,169.68	6,170.16	6,170.68	6,171.25	6,171.29	6,171.47	6,171.41	6,171.44	6,171.17	6,170.80	6,170.35
23	6,169.90	6,169.68	6,170.16	6,170.74	6,171.24	6,171.28	6,171.46	6,171.41	6,171.44	6,171.15	6,170.78	6,170.34
24	6,169.88	6,169.67	6,170.30	6,170.77	6,171.22	6,171.28	6,171.45	6,171.40	6,171.43	6,171.14	6,170.76	6,170.33
25	6,169.86	6,169.72	6,170.28	6,170.75	6,171.35	6,171.36	6,171.45	6,171.39	6,171.43	6,171.13	6,170.78	6,170.32
26	6,169.86	6,169.73	6,170.26	6,170.77	6,171.42	6,171.40	6,171.44	6,171.39	6,171.42	6,171.12	6,170.77	6,170.30
27	6,169.85	6,169.71	6,170.30	6,170.84	6,171.43	6,171.39	6,171.43	6,171.49	6,171.42	6,171.10	6,170.76	6,170.29
28	6,169.84	6,169.71	6,170.38	6,170.89	6,171.41	6,171.37	6,171.41	6,171.53	6,171.40	6,171.08	6,170.75	6,170.28
29	6,169.81	6,169.80	6,170.42	6,170.93	6,171.44	6,171.35	6,171.40	6,171.52	6,171.42	6,171.06	6,170.74	6,170.27
30	6,169.78	6,169.79	6,170.41	6,170.99	---	6,171.35	6,171.39	6,171.52	6,171.41	6,171.05	6,170.73	6,170.25
31	6,169.73	---	6,170.45	6,170.99	---	6,171.34	---	6,171.51	---	6,171.03	6,170.71	---
MAX	6,170.34	6,169.80	6,170.45	6,170.99	6,171.44	6,171.49	6,171.49	6,171.53	6,171.54	6,171.41	6,171.01	6,170.69
MIN	6,169.73	6,169.60	6,169.79	6,170.64	6,170.89	6,171.28	6,171.21	6,171.35	6,171.40	6,171.03	6,170.71	6,170.25
CAL YR2003	MAX 6,172.32	MIN 6169.60										
WTR YR2004	MAX 6,171.54	MIN 6169.60										

KLAMATH RIVER BASIN

11492200 CRATER LAKE NEAR CRATER LAKE, OR

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder from October 1963 to current year. Elevation of probe is approximately 6,140 ft above sea level.

REMARKS.--Records good. Records represent water temperature at the probe and are not necessarily representative of the entire lake.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum 18.5°C Aug. 9, 10, 1978, several days in July and August, 1994, Aug. 14-16, 1998, July 14, 2002; minimum recorded, 0.5°C on several days in 1969, but may have been as low or lower during period of missing record Oct. 29, 1985 to July 1, 1986.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 20.4°C Aug. 2; minimum, 4.1°C Mar. 2.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.9	14.6	14.8	10.5	10.2	10.3	6.4	6.3	6.4	5.4	5.2	5.3
2	14.8	14.4	14.6	10.2	9.9	10.1	6.5	6.3	6.4	5.3	5.1	5.2
3	14.6	14.4	14.5	10.1	9.8	9.9	6.4	6.3	6.3	5.4	5.2	5.3
4	14.6	14.4	14.5	9.9	9.6	9.8	6.4	6.2	6.3	5.3	5.3	5.3
5	14.7	14.4	14.5	9.8	9.6	9.7	6.3	6.2	6.3	5.4	5.1	5.3
6	14.5	14.3	14.4	9.6	9.5	9.6	6.3	6.0	6.2	5.2	5.1	5.1
7	14.6	14.3	14.4	9.5	9.3	9.4	6.2	6.1	6.1	5.1	4.9	5.0
8	14.3	13.9	14.1	9.4	9.2	9.3	6.2	5.9	6.1	5.0	4.9	4.9
9	14.2	13.4	13.9	9.2	9.0	9.1	6.1	6.0	6.1	5.0	4.9	5.0
10	14.0	13.8	13.9	9.0	8.8	8.9	6.1	5.9	6.0	5.1	5.0	5.0
11	13.8	13.4	13.6	8.9	8.7	8.8	6.1	5.8	6.0	5.2	5.0	5.1
12	13.4	13.2	13.3	8.7	8.5	8.6	6.1	5.9	6.0	5.1	5.0	5.0
13	13.3	12.8	13.1	8.7	8.5	8.6	5.9	5.8	5.9	5.1	5.0	5.0
14	12.9	12.7	12.8	8.6	8.5	8.6	5.9	5.7	5.8	5.1	5.0	5.0
15	12.7	12.4	12.6	8.5	8.3	8.4	5.8	5.8	5.8	5.2	5.0	5.1
16	12.5	12.2	12.4	8.4	8.1	8.2	5.8	5.8	5.8	5.2	5.0	5.1
17	12.3	12.1	12.2	8.1	7.7	7.9	5.9	5.7	5.8	5.1	4.9	5.0
18	12.3	12.1	12.2	7.7	7.5	7.6	5.8	5.7	5.8	5.1	4.7	5.0
19	12.1	12.0	12.1	7.6	7.2	7.5	5.8	5.7	5.8	5.1	4.9	5.0
20	12.0	11.7	11.9	7.5	7.2	7.3	5.8	5.6	5.7	4.9	4.6	4.8
21	12.0	11.7	11.8	7.3	7.1	7.2	5.8	5.6	5.7	5.3	4.9	5.1
22	11.9	11.7	11.8	7.2	7.0	7.1	5.8	5.6	5.7	5.3	4.9	5.1
23	11.9	11.5	11.7	7.1	6.9	7.0	5.7	5.6	5.6	5.1	4.9	5.0
24	11.8	11.5	11.6	7.1	6.8	6.9	5.6	5.5	5.5	5.1	4.8	5.0
25	11.7	11.4	11.5	6.9	6.8	6.9	5.6	5.5	5.6	5.3	4.8	5.1
26	11.5	11.3	11.4	6.8	6.7	6.8	5.5	5.3	5.4	5.2	4.7	4.9
27	11.6	11.4	11.5	6.7	6.7	6.7	5.6	5.5	5.5	4.9	4.7	4.8
28	11.6	11.3	11.4	6.7	6.6	6.6	5.5	5.3	5.5	4.8	4.7	4.7
29	11.3	11.1	11.2	6.6	6.4	6.5	5.5	5.2	5.4	4.9	4.8	4.9
30	11.2	10.7	11.0	6.4	6.4	6.4	5.4	5.2	5.3	4.9	4.8	4.8
31	10.7	10.4	10.6	---	---	---	5.4	5.3	5.4	5.0	4.7	4.8
MONTH	14.9	10.4	12.8	10.5	6.4	8.2	6.5	5.2	5.8	5.4	4.6	5.0

11493500 WILLIAMSON RIVER NEAR KLAMATH AGENCY, OR

LOCATION.--Lat 42°44'25", long 121°50'00", in NW ¼ SW ¼ sec.1, T.33 S., R.7 E., Klamath County, Hydrologic Unit 18010201, on right bank 250 ft downstream from highway bridge, 0.6 mi southwest of railroad station at Kirk, 10 mi upstream from Spring Creek, and 10 mi northeast of Klamath Agency.

DRAINAGE AREA.--1,290 mi², approximately.

PERIOD OF RECORD.--March 1908 to January 1909, April 1909 to June 1910, October 1954 to September 1995, October 1998 to current year. Monthly discharge only June 1910, published in WSP 1315-B.

REVISED RECORDS.--WSP 1565: 1908-9.

GAGE.--Water-stage recorder. Datum of gage is 4,483.16 ft above NGVD of 1929. Mar. 25, 1908, to June 30, 1910, nonrecording gage or water-stage recorder at two sites about 0.5 mi upstream at different datums. Oct. 1, 1954, to Sept. 30, 1955, water-stage recorder at present site at datum 2.05 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow affected by natural storage in Klamath Marsh. Small diversions upstream from station for irrigation in vicinity of marsh.

AVERAGE DISCHARGE.--47 years (water years 1955-95, 1999-2004), 178 ft³/s, 129,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,590 ft³/s Mar. 13, 1910, gage height, 3.7 ft, site and datum then in use, from rating curve extended above 800 ft³/s; maximum gage height, 5.75 ft Mar. 3, 1958; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 278 ft³/s Mar. 22, 28, Apr. 2, gage height, 4.27 ft; minimum discharge, no flow Oct. 1 to Jan. 34, June 17 to Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.00	27	217	268	110	1.8	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	35	220	267	101	2.4	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	42	219	253	91	2.1	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	43	217	246	82	1.6	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	53	215	240	78	0.96	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	60	214	233	73	0.64	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	66	223	233	68	0.87	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	71	227	230	66	0.80	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	78	229	224	66	0.35	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	85	232	218	64	0.26	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	86	234	209	60	0.29	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	91	235	198	53	0.16	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	93	237	189	43	0.06	0.00	0.00	0.00
14	0.00	0.00	0.00	0.16	98	237	178	37	0.05	0.00	0.00	0.00
15	0.00	0.00	0.00	1.6	101	243	175	31	0.05	0.00	0.00	0.00
16	0.00	0.00	0.00	10	112	249	178	28	0.02	0.00	0.00	0.00
17	0.00	0.00	0.00	7.7	121	253	176	26	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	2.1	131	236	170	22	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	1.9	141	255	166	18	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	1.9	149	267	163	16	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	1.8	153	272	162	13	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	1.2	164	274	168	9.8	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.92	171	271	162	10	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.96	175	261	162	9.2	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	1.1	181	257	154	7.1	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	1.9	185	255	145	4.6	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	3.9	196	258	133	3.8	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	5.4	204	270	132	3.6	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	8.3	208	268	126	4.0	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	14	---	266	119	2.8	0.00	0.00	0.00	0.00
31	0.00	---	0.00	21	---	266	---	2.2	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	85.84	3,320	7,577	5,677	1,203.1	12.41	0.00	0.00	0.00
MEAN	0.00	0.00	0.00	2.77	114	244	189	38.8	0.41	0.00	0.00	0.00
MAX	0.00	0.00	0.00	21	208	274	268	110	2.4	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	27	214	119	2.2	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	170	6,590	15,030	11,260	2,390	25	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2004, BY WATER YEAR (WY)

MEAN	39.4	112	208	217	287	420	429	249	117	42.0	13.7	12.1
MAX	255	391	580	730	799	1,039	1,081	952	531	332	146	95.8
(WY)	(1958)	(1957)	(1956)	(1956)	(1965)	(1986)	(1956)	(1956)	(1956)	(1958)	(1958)	(1958)
MIN	0.00	0.00	0.00	0.00	0.00	58.6	22.3	7.35	0.00	0.00	0.00	0.00
(WY)	(1962)	(1965)	(1991)	(1992)	(1993)	(1994)	(1992)	(1992)	(1992)	(1981)	(1961)	(1960)

11493500 WILLIAMSON RIVER NEAR KLAMATH AGENCY, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1955 - 2004	
ANNUAL TOTAL	27,333.36		17,875.35			
ANNUAL MEAN	74.9		48.8		178	
HIGHEST ANNUAL MEAN					468	1956
LOWEST ANNUAL MEAN					7.84	1992
HIGHEST DAILY MEAN	403	Feb 6	274	Mar 22	1,250	Mar 1, 1958
LOWEST DAILY MEAN	0.00	Jul 10	0.00	Oct 1	0.00	Jul 23, 1960
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 10	0.00	Oct 1	0.00	Jul 23, 1960
ANNUAL RUNOFF (AC-FT)	54,220		35,460		129,200	
10 PERCENT EXCEEDS	244		218		472	
50 PERCENT EXCEEDS	0.53		0.00		103	
90 PERCENT EXCEEDS	0.00		0.00		0.00	



2004 Water Year KLAMATH RIVER BASIN

11493500 WILLIAMSON RIVER NEAR KLAMATH AGENCY, OR

Latitude: 42° 44 ' 25"

Longitude: 121° 50 ' 00"

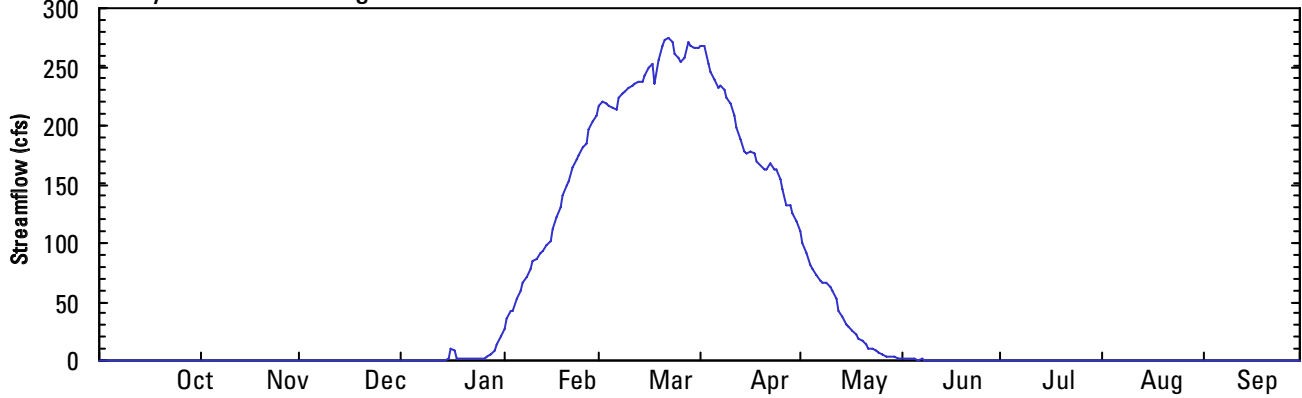
Hydrologic Unit Code: 18010201

Klamath County

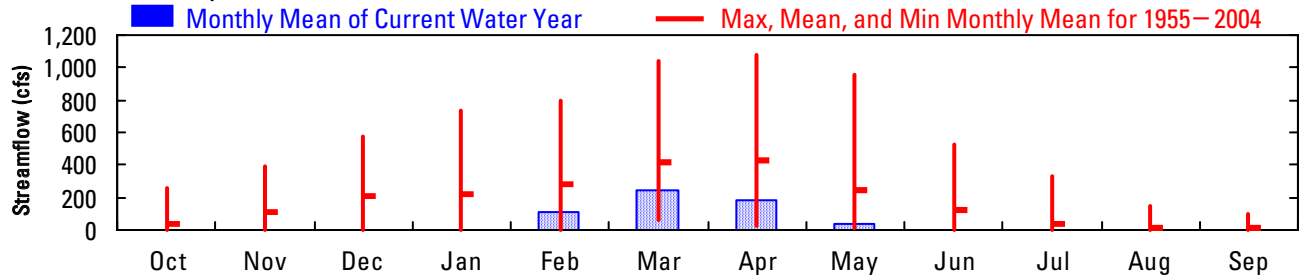
Datum: 4,483.16 feet

Drainage Area: 1,290 square miles

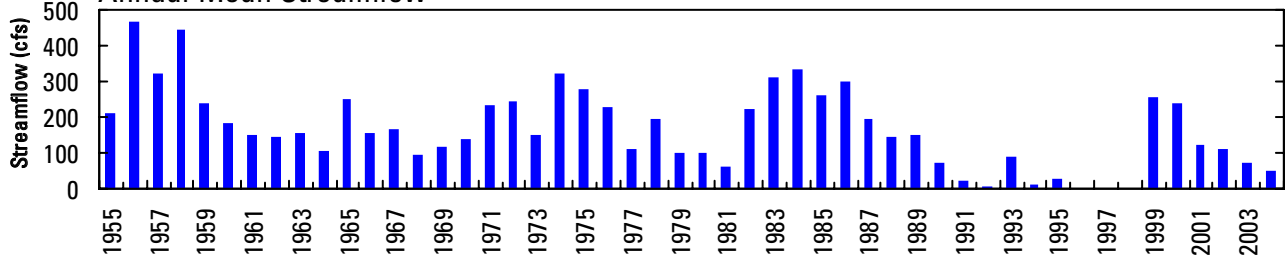
Daily Mean Discharge



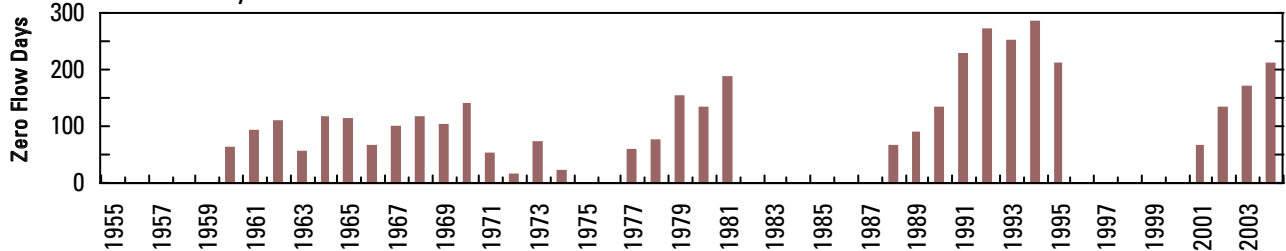
Monthly Statistics



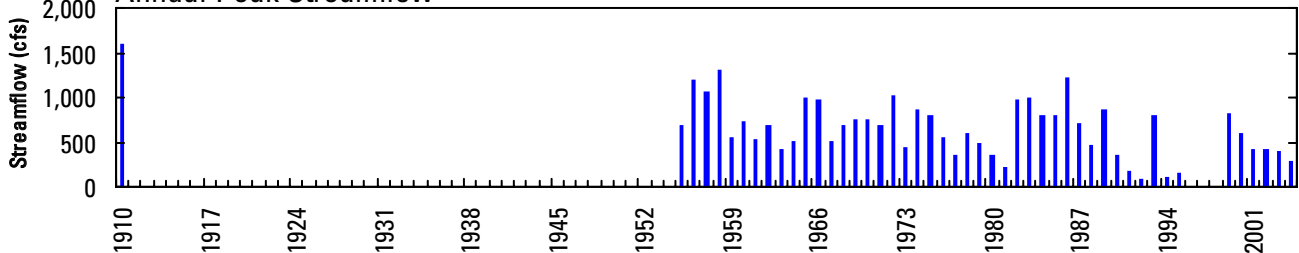
Annual Mean Streamflow



Annual Days of Zero Flow



Annual Peak Streamflow



11495800 NORTH FORK SPRAGUE RIVER AT POWERPLANT, NEAR BLY, OR

LOCATION.--Lat 42°30'06", long 120°59'13", in SW ¼ SE ¼ sec.30, T.35 S., R.15 E., Klamath County, Hydrologic Unit 18010202, at powerplant 0.1 mi upstream from Yaden Creek, and 7.6 mi northeast of Bly.

DRAINAGE AREA.--77.7 mi².

PERIOD OF RECORD.--May 1993 to current year.

GAGE.--Water-stage record. Elevation of gage is 4,750 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. All records given herein do not include flow diverted through powerplant.

AVERAGE DISCHARGE.--11 years (water years 1994-2004), 67.5 ft³/s, 48,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft³/s Apr. 24, 1996, gage height, 7.12 ft; minimum discharge, 12 ft³/s Dec. 10, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 262 ft³/s Apr. 12, gage height, 5.77 ft; minimum discharge, 20 ft³/s Feb. 23.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	34	40	37	37	39	33	71	31	30	33	33
2	35	36	39	32	37	38	43	77	48	30	32	33
3	35	38	39	32	37	37	87	88	96	30	32	33
4	35	37	38	36	36	36	179	96	70	29	32	33
5	35	38	43	37	35	38	141	136	38	29	32	33
6	35	36	55	37	35	37	107	92	37	29	32	32
7	35	39	37	37	36	38	100	95	36	29	32	32
8	35	39	32	37	35	40	105	76	32	28	32	32
9	35	38	34	39	34	38	109	57	35	28	32	32
10	35	37	37	40	36	31	106	75	37	28	31	32
11	36	37	36	39	36	32	112	109	29	28	32	32
12	36	37	35	38	36	32	156	91	32	28	33	32
13	36	36	36	38	36	31	189	60	31	28	33	33
14	36	37	33	38	36	31	99	74	32	28	33	33
15	36	38	34	38	36	31	81	119	32	28	34	33
16	36	38	35	38	38	31	64	101	32	28	34	33
17	35	38	36	37	35	31	55	82	31	28	34	32
18	35	37	34	37	31	48	51	106	31	28	33	33
19	35	38	35	38	31	83	43	83	31	28	33	33
20	35	38	35	37	30	76	40	124	31	28	33	34
21	35	35	36	35	26	40	38	128	31	28	33	33
22	35	32	34	35	32	69	38	84	31	28	37	33
23	35	33	38	36	31	63	67	63	31	28	37	33
24	35	37	36	38	30	47	86	96	30	28	35	32
25	35	35	36	36	30	123	47	76	30	34	35	32
26	35	36	35	36	30	75	49	97	30	35	35	32
27	35	35	36	37	32	32	67	84	30	34	34	32
28	35	37	36	36	38	32	133	55	32	33	33	33
29	36	43	35	37	40	36	122	32	40	33	33	33
30	36	43	30	37	---	45	73	38	30	33	33	33
31	35	---	37	35	---	41	---	33	---	34	33	---
TOTAL	1,093	1,112	1,132	1,140	992	1,401	2,620	2,598	1,087	918	1,030	979
MEAN	35.3	37.1	36.5	36.8	34.2	45.2	87.3	83.8	36.2	29.6	33.2	32.6
MAX	36	43	55	40	40	123	189	136	96	35	37	34
MIN	35	32	30	32	26	31	33	32	29	28	31	32
AC-FT	2,170	2,210	2,250	2,260	1,970	2,780	5,200	5,150	2,160	1,820	2,040	1,940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2004, BY WATER YEAR (WY)

	(1997)	(1997)	(1996)	(1997)	(1996)	(1998)	(2000)	(1999)	(1998)	(1995)	(1998)	(1995)
MEAN	36.1	39.7	41.5	51.5	41.1	51.2	135	208	100	40.5	32.0	31.3
MAX	51.2	75.7	81.4	211	83.1	91.4	271	425	253	67.2	38.3	43.8
(WY)	(1997)	(1997)	(1996)	(1997)	(1996)	(1998)	(2000)	(1999)	(1998)	(1995)	(1998)	(1995)
MIN	27.5	29.5	29.7	32.4	30.3	33.5	37.7	41.6	33.7	29.6	25.3	23.1
(WY)	(2001)	(1995)	(2000)	(2000)	(1999)	(1999)	(2001)	(2001)	(2002)	(2004)	(2000)	(2000)

SUMMARY STATISTICS

	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1994 - 2004
ANNUAL TOTAL	19,299	16,102	
ANNUAL MEAN	52.9	44.0	67.5
HIGHEST ANNUAL MEAN			93.4
LOWEST ANNUAL MEAN			36.8
HIGHEST DAILY MEAN	394	189	735
LOWEST DAILY MEAN	21	26	16
ANNUAL SEVEN-DAY MINIMUM	25	28	22
ANNUAL RUNOFF (AC-FT)	38,280	31,940	48,880
10 PERCENT EXCEEDS	88	81	161
50 PERCENT EXCEEDS	35	35	36
90 PERCENT EXCEEDS	28	31	29



2004 Water Year
KLAMATH RIVER BASIN

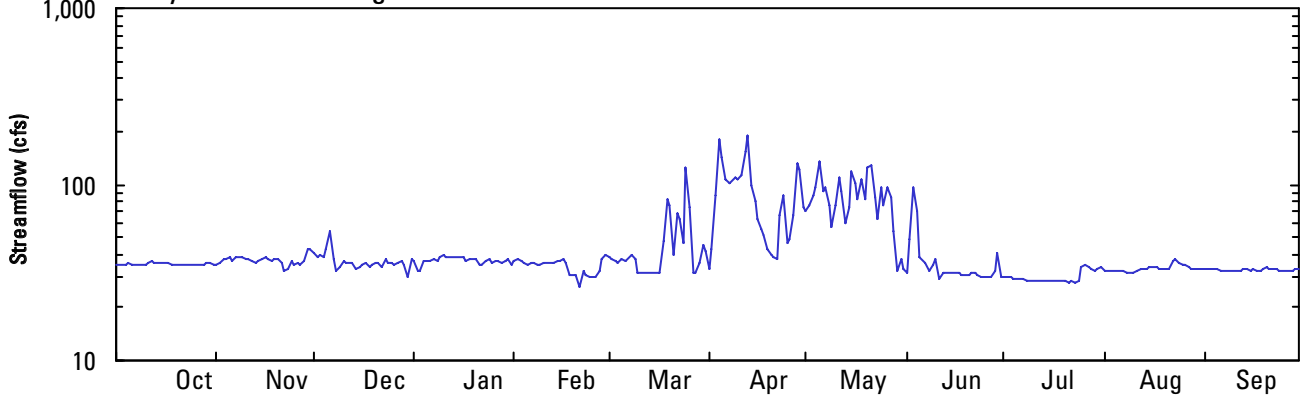
11495800 N FORK SPRAGUE RIVER AT POWER PLANT, NEAR BLY, OR

Latitude: 42° 30' 06"
Klamath County

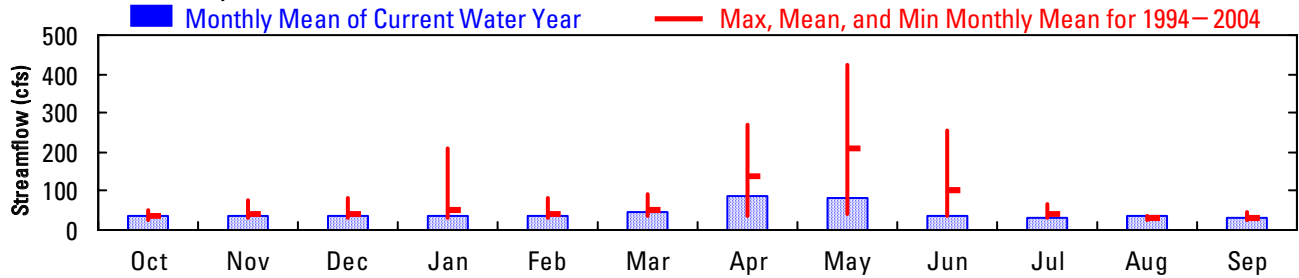
Longitude: 120° 59' 13"
Datum: 47.50 feet

Hydrologic Unit Code: 18010202
Drainage Area: 77.7 square miles

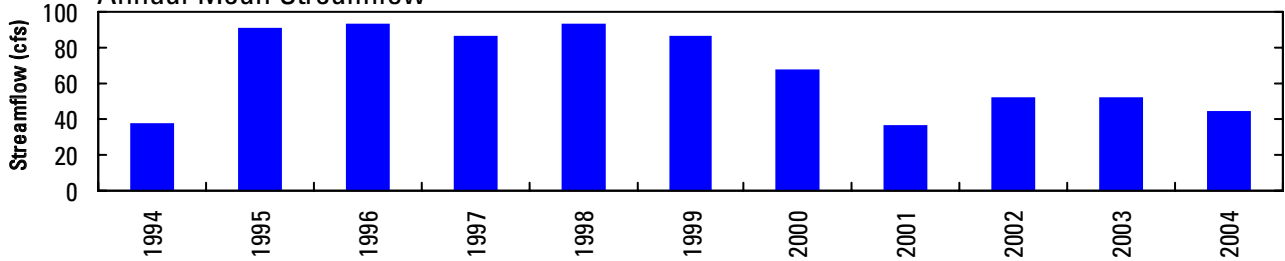
Daily Mean Discharge



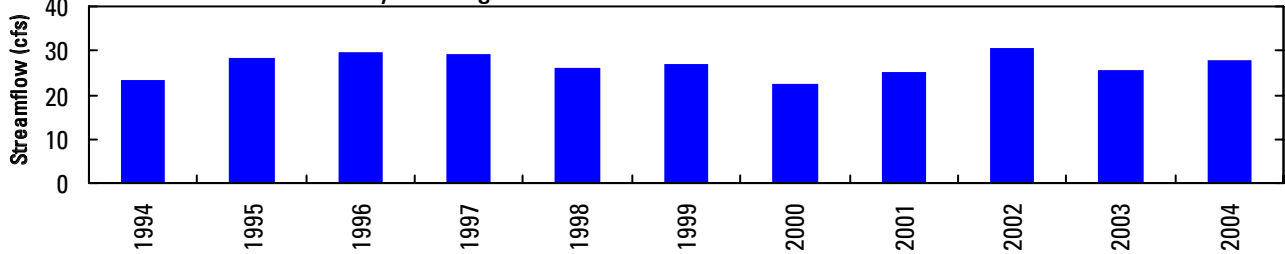
Monthly Statistics



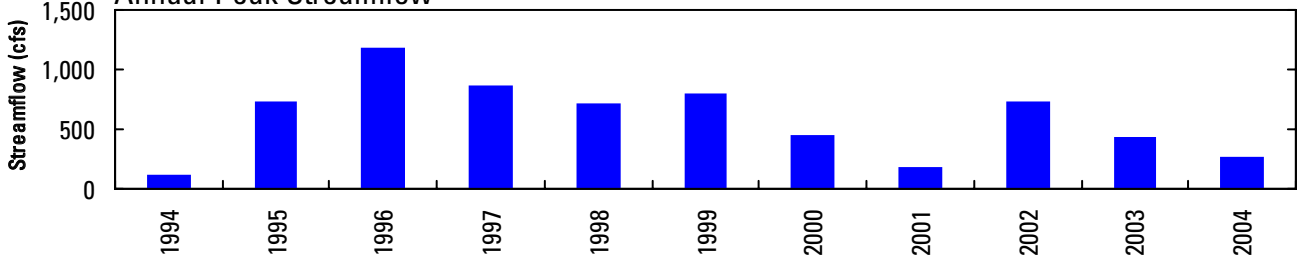
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



11501000 SPRAGUE RIVER NEAR CHILOQUIN, OR

LOCATION.--Lat 42°35'05", long 121°50'55", in NE ¼ NW ¼ sec.35, T.34 S., R.7 E., Klamath County, Hydrologic Unit 18010202, on right bank 1.0 mi northeast of Chiloquin, 4.6 mi upstream from Modoc Point Canal intake, and at mile 5.4.

DRAINAGE AREA.--1,565 mi².

PERIOD OF RECORD.--July to October 1920, March 1921 to current year. Monthly discharge only July 1920, published in WSP 1315-B. Prior to October 1931, published as "at McCready Ranch, near Chiloquin."

REVISED RECORDS.--WSP 591: 1922(M), WSP 1011: 1943(M), WSP 1565: 1921-22.

GAGE.--Water-stage recorder. Datum of gage is 4,202.43 ft above NGVD of 1929. Prior to Oct. 1, 1931, nonrecording gage at site 12 mi upstream at different datum.

REMARKS.--Records good. Minor regulation from irrigation diversions upstream from station.

AVERAGE DISCHARGE.--83 years (water years 1922-2004), 579 ft³/s, 419,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft³/s Dec. 26, 1964, gage height, 10.37 ft; minimum daily discharge, 50 ft³/s May 26, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,720 ft³/s Feb. 21, gage height, 3.86 ft; minimum discharge, 74 ft³/s Aug. 3.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	255	299	296	457	647	868	557	469	186	85	110
2	123	256	310	270	424	637	892	543	410	193	82	104
3	129	252	293	320	396	693	870	526	353	172	81	108
4	149	261	284	287	407	722	830	533	334	168	91	111
5	176	265	280	322	434	627	807	535	305	181	89	124
6	182	263	289	308	421	573	812	544	288	165	80	127
7	180	269	291	315	370	549	832	565	290	150	86	135
8	189	277	307	322	352	543	851	571	293	136	94	136
9	185	278	320	339	341	560	856	550	295	127	87	129
10	196	281	302	334	321	633	849	541	306	134	81	129
11	205	273	284	360	307	752	823	554	311	125	85	134
12	224	267	289	426	303	891	795	600	309	120	87	124
13	234	270	298	455	302	979	785	633	313	116	92	125
14	241	268	312	439	299	1,010	783	578	300	112	85	131
15	247	267	316	404	298	1,050	777	510	276	103	94	141
16	259	268	325	403	317	1,100	783	468	266	89	94	146
17	257	266	306	457	384	1,160	792	443	253	91	93	157
18	255	270	285	490	701	1,190	796	483	227	90	90	166
19	254	274	289	460	1,210	1,200	773	496	206	93	85	169
20	250	267	288	427	1,540	1,210	740	566	206	100	82	172
21	250	266	287	412	1,700	1,260	717	606	204	96	82	178
22	245	270	304	395	1,390	1,230	687	575	194	100	91	191
23	240	266	311	358	961	1,130	694	523	203	96	103	188
24	240	258	314	328	835	1,090	712	480	198	106	110	187
25	239	246	314	327	798	1,080	678	447	182	108	114	203
26	238	260	328	339	783	1,080	629	412	166	103	128	194
27	244	258	325	334	790	1,060	597	402	158	105	128	181
28	246	263	289	323	792	1,030	566	390	167	112	124	180
29	247	274	256	320	714	993	555	426	163	108	128	186
30	250	283	283	348	---	934	559	494	179	95	131	189
31	257	---	309	405	---	873	---	519	---	92	124	---
TOTAL	6,750	7,991	9,287	11,323	18,347	28,486	22,708	16,070	7,824	3,772	3,006	4,555
MEAN	218	266	300	365	633	919	757	518	261	122	97.0	152
MAX	259	283	328	490	1,700	1,260	892	633	469	193	131	203
MIN	119	246	256	270	298	543	555	390	158	89	80	104
AC-FT	13,390	15,850	18,420	22,460	36,390	56,500	45,040	31,870	15,520	7,480	5,960	9,030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2004, BY WATER YEAR (WY)

MEAN	292	342	462	540	688	931	1,258	1,128	602	274	213	232
MAX	848	789	2,853	3,017	2,877	2,904	4,250	3,211	1,762	560	405	374
(WY)	(1963)	(1974)	(1965)	(1997)	(1996)	(1972)	(1956)	(1956)	(1983)	(1983)	(1956)	(1956)
MIN	183	218	215	196	223	286	263	119	93.8	85.1	76.9	121
(WY)	(1934)	(1995)	(1933)	(1937)	(1933)	(1992)	(1977)	(1992)	(1992)	(1994)	(1992)	(2003)

KLAMATH RIVER BASIN

11501000 SPRAGUE RIVER NEAR CHILOQUIN, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1922 - 2004	
ANNUAL TOTAL	160,309		140,119			
ANNUAL MEAN	439		383		579	
HIGHEST ANNUAL MEAN					1,395	1956
LOWEST ANNUAL MEAN					199	1992
HIGHEST DAILY MEAN	1,440	Mar 30	1,700	Feb 21	14,500	Dec 26, 1964
LOWEST DAILY MEAN	68	Aug 20	80	Aug 6	50	May 26, 1926
ANNUAL SEVEN-DAY MINIMUM	73	Aug 15	85	Aug 1	65	Aug 5, 1992
ANNUAL RUNOFF (AC-FT)	318,000		277,900		419,600	
10 PERCENT EXCEEDS	995		808		1,290	
50 PERCENT EXCEEDS	316		289		345	
90 PERCENT EXCEEDS	107		105		197	



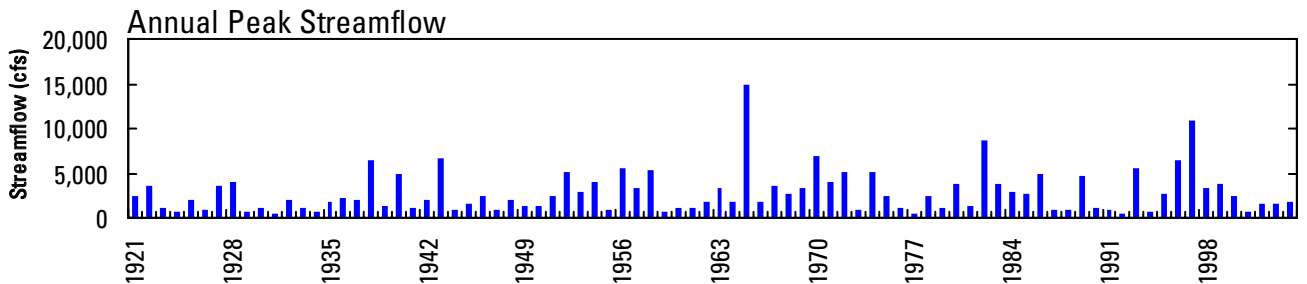
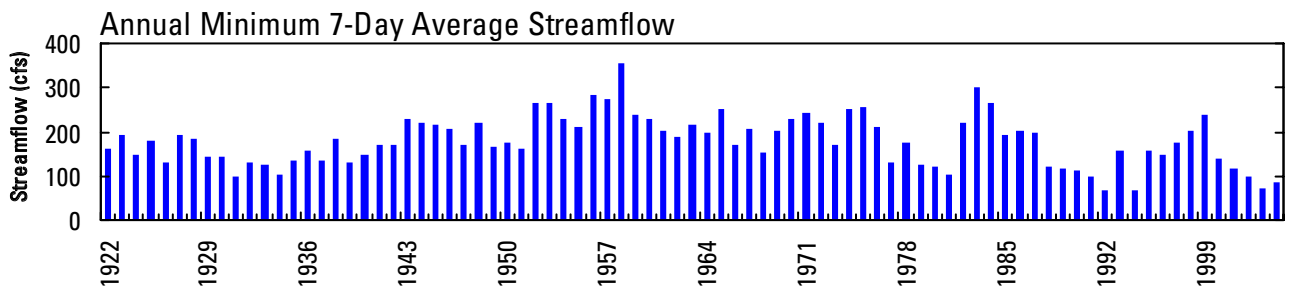
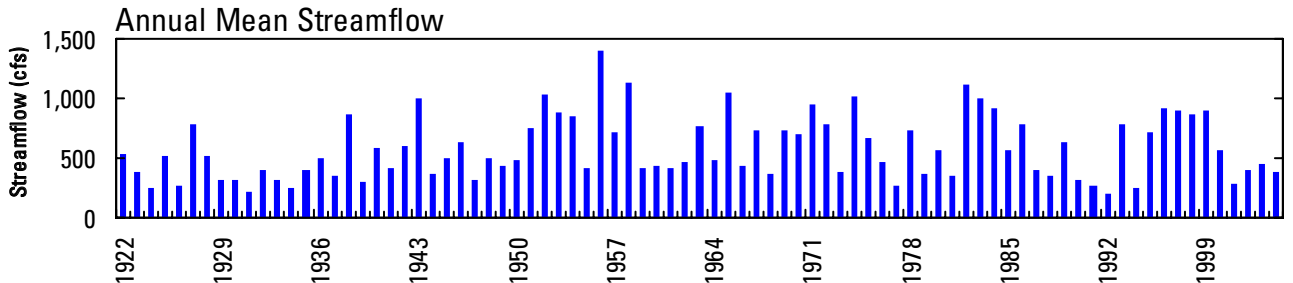
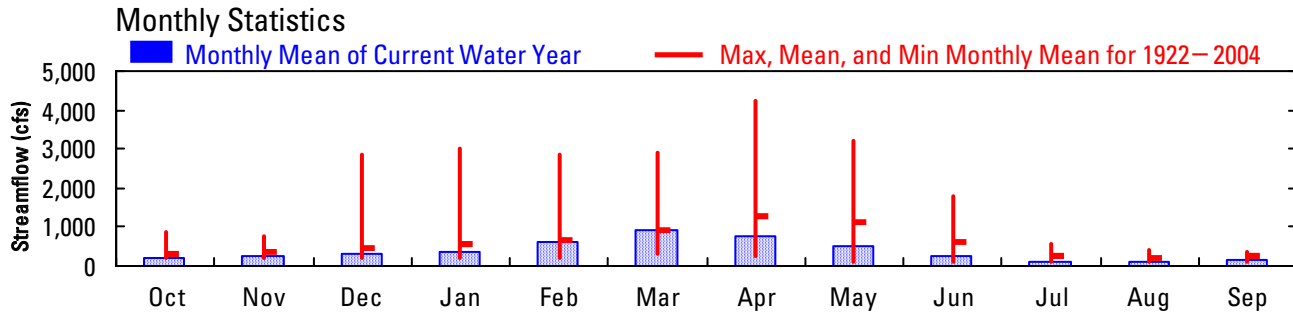
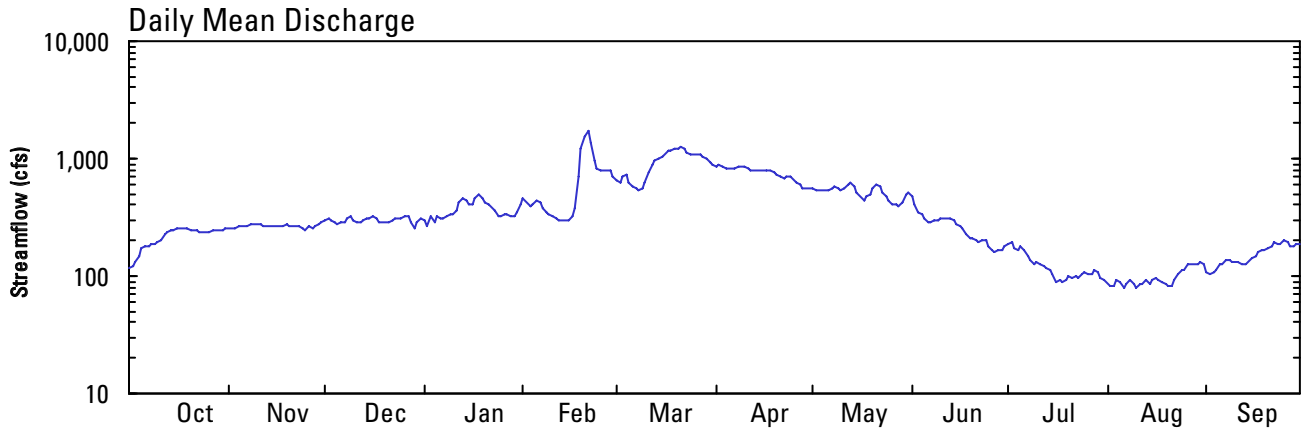
2004 Water Year
KLAMATH RIVER BASIN

11501000 SPRAGUE RIVER NEAR CHILOQUIN, OR

Latitude: 42° 35 ' 05"
Klamath County

Longitude: 121° 50 ' 55"
Datum: 4,202.43 feet

Hydrologic Unit Code: 18010202
Drainage Area: 1,565 square miles



11502500 WILLIAMSON RIVER BELOW SPRAGUE RIVER, NEAR CHILOQUIN, OR

LOCATION.--Lat 42°33'54", long 121°52'42", in NE ¼ SE ¼ sec.4, T.35 S., R.7 E., Klamath County, Hydrologic Unit 18010201, on right bank 0.8 mi downstream from Sprague River and 1.2 mi southwest of Chiloquin, and at mile 10.3.

DRAINAGE AREA.--3,000 mi², approximately.

PERIOD OF RECORD.--June 1917 to current year. Monthly discharge only for October 1922 to August 1923 published in WSP 1315-B.

REVISED RECORDS.--WSP 981: 1938(M). WSP 1565: 1920(M), 1927(M), 1938.

GAGE.--Water-stage recorder. Datum of gage is 4,148.50 ft above NGVD of 1929. September 1, 1923 to July 12, 1991 at site 0.6 mi upstream at datum 7.05 ft higher. Prior to Sept. 1, 1923, at different datum.

REMARKS.--Records good. Some regulation by diversion dams and log pond operations on Sprague River. Diversions for irrigation upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--86 years (water years 1918-22, 1924-2004), 1,039 ft³/s, 752,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,100 ft³/s Jan. 5, 1997, gage height, 10.27 ft; minimum discharge, 285 ft³/s Aug. 6, 8, 9, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,150 ft³/s Feb. 21, gage height, 5.36 ft; minimum discharge, 369 ft³/s July 16.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	442	550	598	617	775	1,190	1,410	946	711	e465	395	415
2	447	553	611	541	761	1,180	1,440	926	664	475	391	402
3	454	548	595	533	734	1,230	1,420	904	618	464	389	404
4	470	556	580	558	736	1,270	1,370	898	596	458	401	404
5	493	566	580	597	774	1,180	1,340	894	571	471	404	416
6	499	558	594	610	782	1,110	1,330	890	554	464	390	422
7	496	566	593	631	743	1,090	1,330	903	548	451	390	425
8	497	577	599	625	721	1,090	1,340	905	545	438	401	428
9	492	579	616	633	721	1,110	1,340	888	543	427	395	419
10	495	580	602	630	708	1,180	1,330	884	550	449	386	418
11	500	574	580	648	698	1,300	1,310	881	553	430	388	427
12	510	566	591	714	697	1,430	1,270	911	549	421	394	417
13	517	567	610	748	704	1,510	1,240	945	548	419	398	415
14	525	567	627	738	705	1,540	1,230	922	540	415	391	414
15	524	569	620	704	707	1,580	1,220	836	521	407	394	423
16	534	573	629	699	739	1,630	1,220	782	508	385	395	430
17	531	569	612	742	827	1,690	1,230	762	503	383	392	442
18	527	571	588	785	1,110	1,720	1,230	779	486	389	390	450
19	527	574	592	761	1,630	1,720	1,210	778	471	397	382	454
20	520	567	597	727	1,970	1,750	1,170	829	464	404	382	454
21	517	567	592	709	2,140	1,800	1,160	861	466	401	390	459
22	513	567	604	690	1,880	1,790	1,130	834	458	405	386	472
23	507	567	617	655	1,460	1,680	1,130	791	458	400	395	474
24	507	559	626	622	1,340	1,630	1,140	764	458	e420	406	467
25	511	549	619	614	1,310	1,620	1,110	734	442	e424	416	477
26	512	560	627	629	1,300	1,620	1,060	698	428	e413	430	475
27	518	552	631	634	1,300	1,600	1,020	682	419	415	434	461
28	522	558	599	619	1,320	1,580	975	664	425	e429	423	464
29	526	586	575	621	1,250	1,550	963	678	442	e426	427	469
30	528	587	538	655	---	1,490	954	727	e454	407	433	471
31	544	---	611	706	---	1,430	---	749	---	407	425	---
TOTAL	15,705	16,982	18,653	20,395	30,542	45,290	36,622	25,645	15,493	13,159	12,413	13,168
MEAN	507	566	602	658	1,053	1,461	1,221	827	516	424	400	439
MAX	544	587	631	785	2,140	1,800	1,440	946	711	475	434	477
MIN	442	548	538	533	697	1,090	954	664	419	383	382	402
AC-FT	31,150	33,680	37,000	40,450	60,580	89,830	72,640	50,870	30,730	26,100	24,620	26,120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2004, BY WATER YEAR (WY)

MEAN	648	754	934	1,016	1,240	1,609	1,958	1,644	994	602	531	559
MAX	1,237	1,345	3,682	4,067	3,846	4,256	5,488	4,376	2,658	1,278	934	872
(WY)	(1963)	(1974)	(1965)	(1997)	(1958)	(1972)	(1952)	(1956)	(1953)	(1958)	(1958)	(1958)
MIN	488	530	545	524	547	619	583	391	338	311	304	382
(WY)	(1993)	(1995)	(1993)	(1937)	(1933)	(1992)	(1992)	(1992)	(1992)	(1994)	(1994)	(1994)

11502500 WILLIAMSON RIVER BELOW SPRAGUE RIVER, NEAR CHILOQUIN, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1918 - 2004	
ANNUAL TOTAL	290,797		264,067			
ANNUAL MEAN	797		721		1,039	
HIGHEST ANNUAL MEAN					2,187	1956
LOWEST ANNUAL MEAN					483	1992
HIGHEST DAILY MEAN	1,920	Mar 30	2,140	Feb 21	16,000	Dec 26, 1964
LOWEST DAILY MEAN	353	Aug 21	382	Aug 19	288	Aug 6, 1994
ANNUAL SEVEN-DAY MINIMUM	363	Aug 15	388	Aug 16	294	Aug 4, 1994
ANNUAL RUNOFF (AC-FT)	576,800		523,800		752,600	
10 PERCENT EXCEEDS	1,420		1,320		1,970	
50 PERCENT EXCEEDS	602		580		746	
90 PERCENT EXCEEDS	408		407		501	

e Estimated



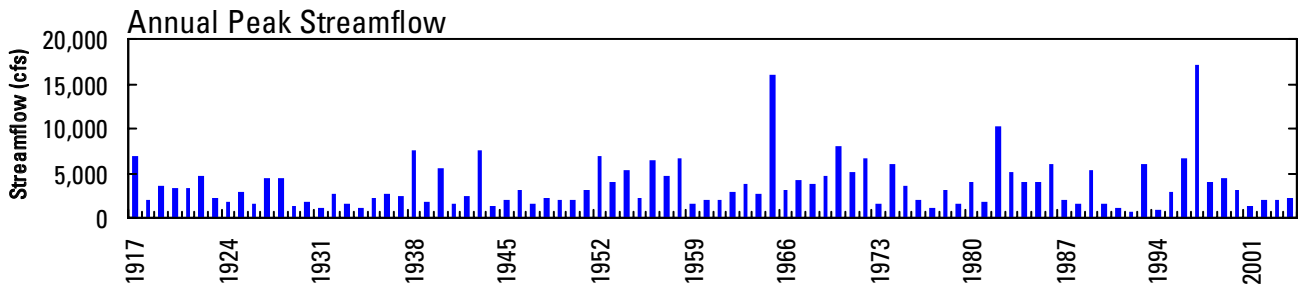
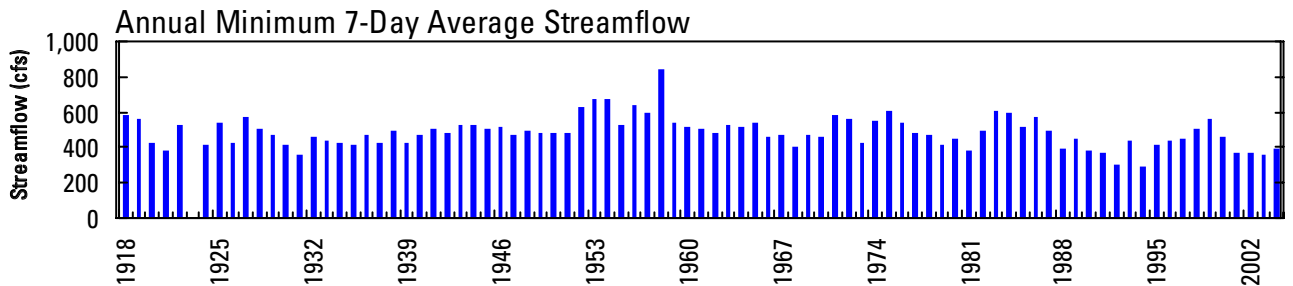
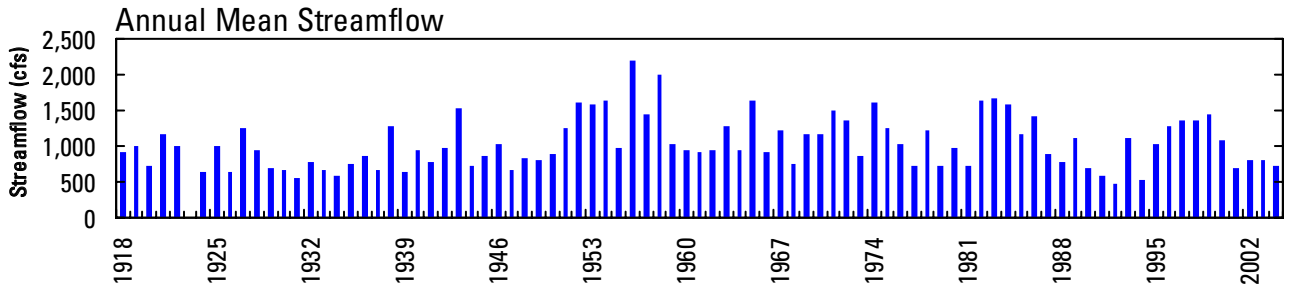
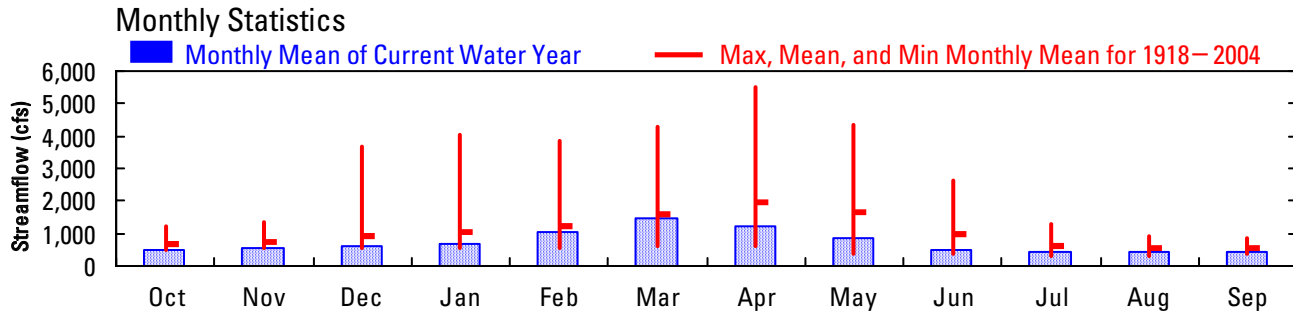
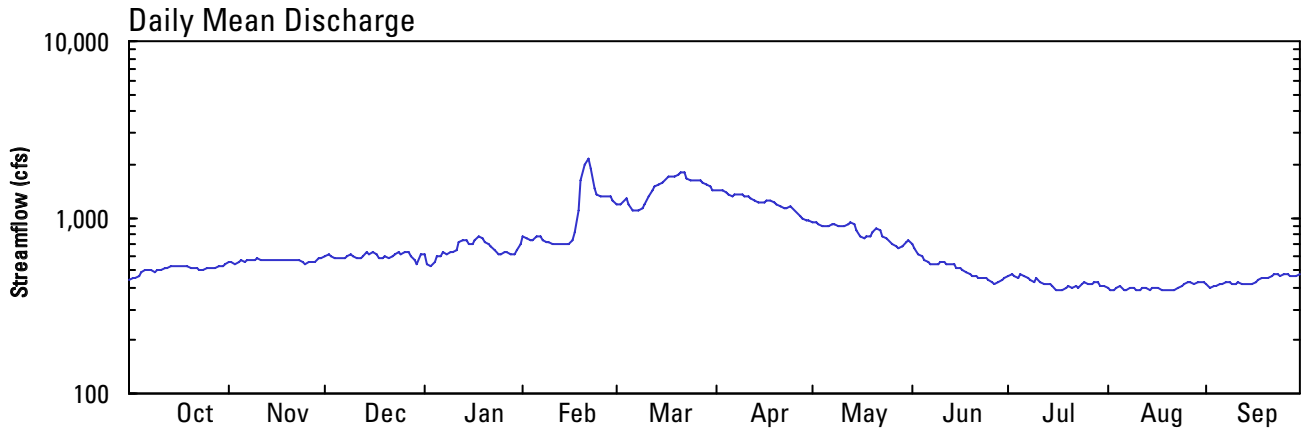
2004 Water Year
KLAMATH RIVER BASIN

11502500 WILLIAMSON RIVER BLW SPRAGUE RIVER, NR CHILOQUIN, OR

Latitude: 42° 33 ' 54"
Klamath County

Longitude: 121° 52 ' 42"
Datum: 4,148.50 feet

Hydrologic Unit Code: 18010201
Drainage Area: 3,000 square miles



11503000 ANNIE SPRING NEAR CRATER LAKE, OR

LOCATION.--Lat 42°52'18", long 122°10'04", unsurveyed, Klamath County, Hydrologic Unit 18010203, in Crater Lake National Park, at highway bridge 0.1 mi downstream from source.

DRAINAGE AREA.--Indeterminate, normal flow is entirely from Annie Spring.

PERIOD OF RECORD.--June 1977 to September 2004 (discontinued). Discharge measurement and fragmentary gage-height record August to October 1913. Discharge measurements only Oct. 11, 1967, June 26, Sept. 13, 1968.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 5,982.65 ft above NGVD of 1929 (National Park Service bench mark).

REMARKS.--Records fair. Fluctuations caused by pumps 0.1 mi upstream. Diversion for domestic use by National Park Service 0.1 mi upstream.

COOPERATION.--Records of diversion by pumping furnished by National Park Service.

AVERAGE DISCHARGE.--27 years (water years 1978-2004), 2.82 ft³/s, 2,040 acre-ft/yr, adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18 ft³/s July 6, 1984, gage height, 1.56 ft; minimum daily discharge, 0.28 ft³/s Mar. 2-5, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 9.1 ft³/s June 21, 22; maximum recorded gage height, 3.39 ft, but may have been higher during period of missing record; minimum daily discharge, 0.55 ft³/s March 14-16.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.4	1.2	1.1	0.86	0.72	0.58	0.75	1.9	6.1	e8.4	4.5	2.8
2	e1.4	1.2	1.0	0.87	0.71	0.56	0.75	2.1	6.2	e8.3	4.5	2.8
3	e1.3	1.2	1.0	0.86	0.72	0.56	0.75	2.4	6.4	e8.3	4.4	2.8
4	1.3	1.2	1.0	0.86	0.72	0.56	0.76	2.7	6.9	e8.2	4.3	2.7
5	1.3	1.2	1.0	0.86	0.70	0.56	0.78	3.2	7.2	e8.0	4.2	2.6
6	1.3	1.2	1.0	0.82	0.69	0.56	0.81	3.4	7.6	e7.9	4.1	2.7
7	1.3	1.2	0.98	0.82	0.70	0.58	0.85	3.5	8.0	e7.8	4.1	2.6
8	1.3	1.2	0.99	0.81	0.68	0.58	0.91	3.7	8.0	e7.6	3.9	2.6
9	1.3	1.2	1.00	0.83	0.68	0.58	0.95	3.7	8.2	e7.4	3.9	2.6
10	1.3	1.1	0.99	0.82	0.68	0.56	1.1	3.7	8.0	e7.2	3.8	2.5
11	1.3	1.2	0.98	0.81	0.67	0.59	1.3	3.8	8.0	e7.0	3.8	2.6
12	1.3	1.2	0.99	0.80	0.66	0.57	1.2	3.7	7.9	e6.8	3.7	2.5
13	1.3	1.2	0.99	0.79	0.65	0.57	1.3	3.7	7.9	e6.7	3.7	2.5
14	1.3	1.1	0.99	0.79	0.65	0.55	1.5	3.7	7.9	e6.5	3.6	2.5
15	1.3	1.1	0.96	0.79	0.61	0.55	1.5	3.6	8.0	e6.4	3.6	2.4
16	1.3	1.1	0.96	0.78	0.58	0.55	1.6	3.6	8.1	e6.3	3.5	2.3
17	1.3	1.1	0.96	0.78	0.63	0.57	1.6	3.6	8.3	e6.2	3.4	2.3
18	1.2	1.1	0.94	0.77	0.64	0.58	1.6	3.7	8.3	e6.1	3.4	2.4
19	1.2	1.1	0.93	0.76	0.64	0.58	1.6	3.8	8.5	e6.0	3.4	2.4
20	1.2	1.1	0.92	0.74	0.63	0.58	1.5	3.8	8.6	e5.9	3.3	2.4
21	1.2	1.1	0.93	0.75	0.61	0.58	1.5	3.9	8.9	e5.7	3.2	2.4
22	1.2	1.1	0.91	0.75	0.61	0.59	1.5	4.1	e8.9	e5.6	3.2	2.3
23	1.2	1.1	0.89	0.75	0.61	0.64	1.4	4.3	e8.8	e5.4	3.2	2.3
24	1.2	1.1	0.92	0.74	0.59	0.69	1.4	4.4	e8.8	e5.3	3.1	2.3
25	1.2	1.1	0.91	0.74	0.57	0.72	1.4	4.5	e8.8	e5.1	3.1	2.2
26	1.2	1.1	0.90	0.73	0.56	0.76	1.3	4.7	e8.7	e5.0	3.1	2.2
27	1.2	1.1	0.88	0.72	0.56	0.76	1.4	4.9	e8.7	e4.9	3.0	2.2
28	1.2	1.1	0.89	0.72	0.56	0.75	1.5	5.1	e8.6	e4.7	3.0	2.2
29	1.2	1.1	0.88	0.72	0.59	0.75	1.6	5.3	e8.6	e4.6	3.0	2.1
30	1.2	1.1	0.86	0.72	---	0.75	1.7	5.5	e8.5	e4.5	2.9	2.2
31	1.2	---	0.88	0.72	---	0.75	---	5.9	---	4.6	2.9	---
TOTAL	39.1	34.2	29.53	24.28	18.62	19.11	37.81	119.9	241.4	198.4	110.8	73.4
MEAN	1.26	1.14	0.95	0.78	0.64	0.62	1.26	3.87	8.05	6.40	3.57	2.45
MAX	1.4	1.2	1.1	0.87	0.72	0.76	1.7	5.9	8.9	8.4	4.5	2.8
MIN	1.2	1.1	0.86	0.72	0.56	0.55	0.75	1.9	6.1	4.5	2.9	2.1
AC-FT	78	68	59	48	37	38	75	238	479	394	220	146
MEAN†	1.3	1.2	1.0	0.8	0.7	0.6	1.3	3.9	8.1	6.5	3.7	2.5
AC-FT†	81	69	60	49	38	39	76	240	484	400	226	150

CAL YR2003 TOTAL 760.62 MEAN 2.08 MAX 9.2 MIN 0.74 AC-FT 1510 MEAN† 2.1 AC-FT† 1544
WTR YR2004 TOTAL 946.55 MEAN 2.59 MAX 8.9 MIN 0.55 AC-FT 1880 MEAN† 2.8 AC-FT† 2032

† Adjusted for diversion by pumping.
e Estimated



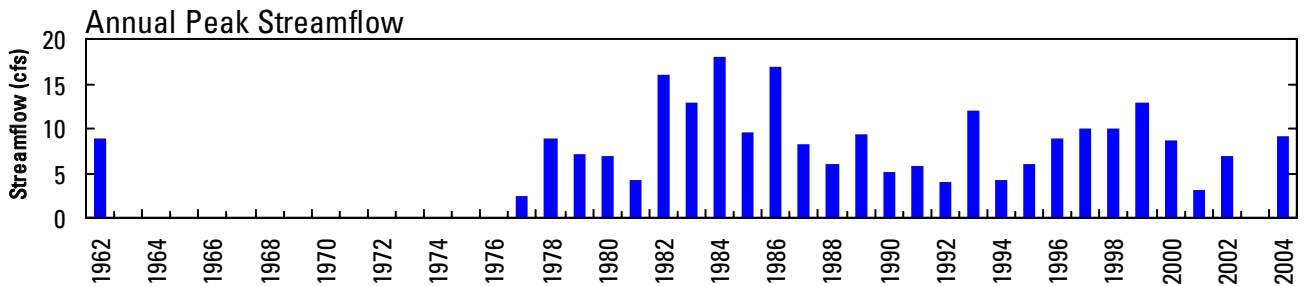
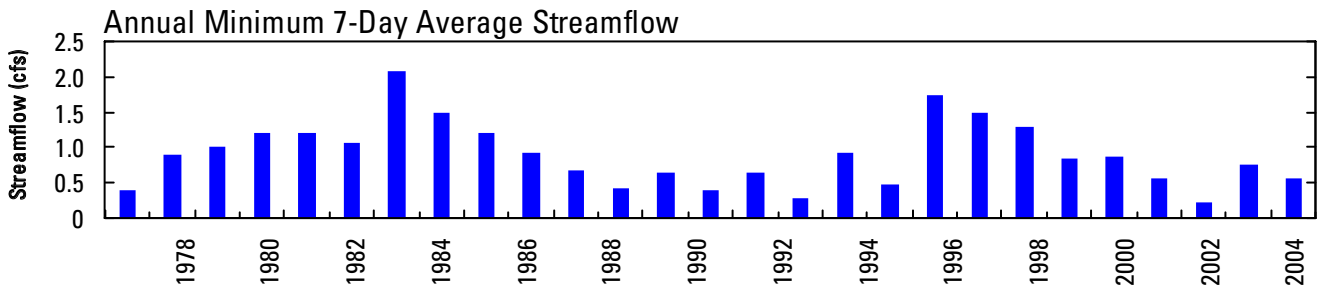
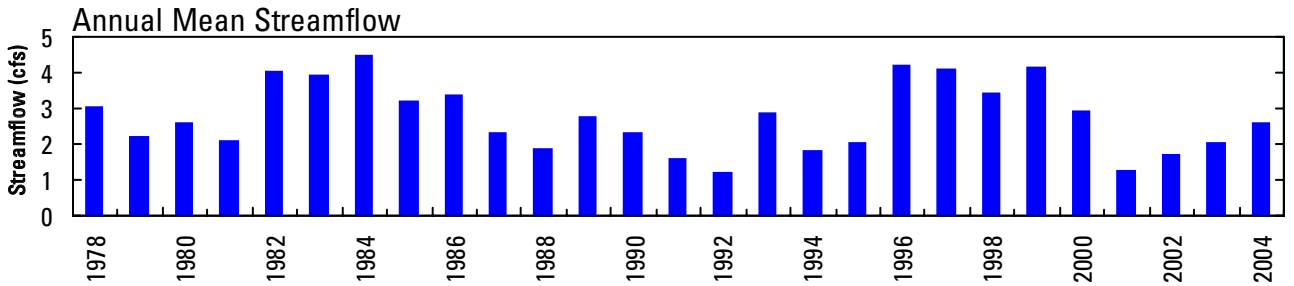
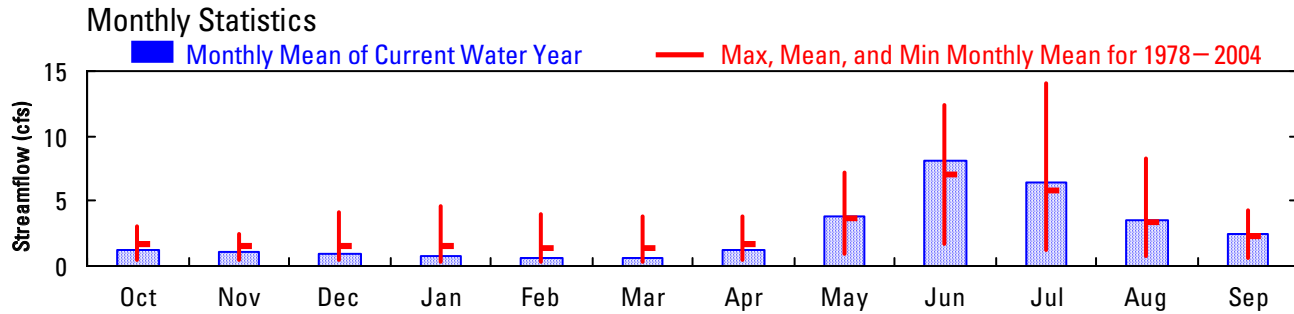
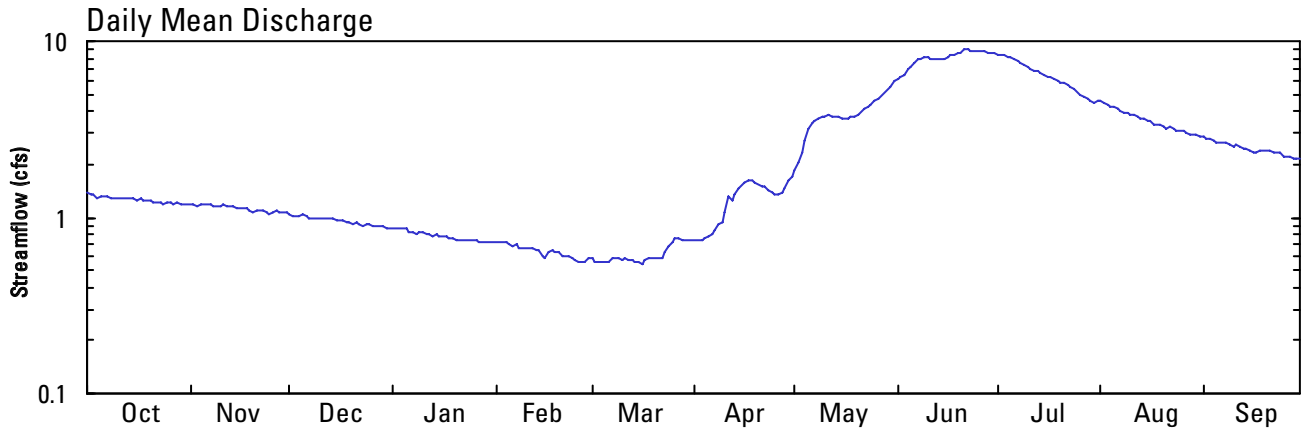
2004 Water Year
KLAMATH RIVER BASIN

11503000 ANNIE SPRING NEAR CRATER LAKE, OR

Latitude: 42° 52' 18"
Klamath County

Longitude: 122° 10' 04"
Datum: 5,982.65 feet

Hydrologic Unit Code: 18010203
Drainage Area:



11507001 UPPER KLAMATH LAKE NEAR KLAMATH FALLS, OR

LOCATION.--Lat 42°15'00", long 121°48'55", in NW ¼ SW ¼ sec.19, T.38 S., R.9 E., Klamath County, Hydrologic Unit 18010203, at southeast end of lake, 1.4 mi upstream from outlet and 2.5 mi northwest of Main Street Bridge at Klamath Falls.

DRAINAGE AREA.--3,810 mi², approximately, including 26.2 mi² in closed basin of Crater Lake.

PERIOD OF RECORD.--May 1904 to September 1922 (gage heights only), October 1922 to current year. Monthend contents only October 1923 to September 1927, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 4,098.22 ft above NGVD of 1929, or 4,100.00 ft above Bureau of Reclamation datum. Gage readings have been reduced to elevations above Bureau of Reclamation datum. See WSP 1735 for history of changes prior to Nov. 10, 1923. Since Oct. 1, 1974, supplementary water-stage recorders at sites 7 mi north and 21 mi northwest at same datum (water-surface transfer by Pacific Power and Light Co.).

REMARKS.--Reservoir is formed by concrete dam at outlet of natural lake, completed in 1921, replacing a temporary dam built in 1919; controlled storage began Apr. 15, 1919. Capacity, 523,700 acre-ft between elevations 4,136.0 ft and 4,143.3 ft. Dead storage below elevation 4,136.0 ft is 211,300 acre-ft. Stored water may be diverted through "A" Canal for irrigation on land under Klamath project of Bureau of Reclamation, or released to Link River through dam or powerplants at Klamath Falls. Contents given herein represent those above elevation 4,136.0 ft. Prior to Oct. 1, 1973, contents given represented those above elevation 4,135.0 ft. Prior to Sept. 30, 1974, contents at end of month obtained by averaging elevations for last 3 days of month and first 3 days of following month to compensate for wind effect. Since Oct. 1, 1974, daily elevations are weighted mean of elevations at base and supplementary gages; contents at end of month are obtained from weighted midnight elevations of base and supplementary gages.

COOPERATION.--Capacity table furnished by Bureau of Reclamation, Klamath Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 4,144.98 ft about Apr. 20, 1904, from high-water marks; minimum recorded, 4,135.55 ft Oct. 30, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum weighted daily elevation, 4,142.77 ft Apr. 22-24; minimum weighted daily, 4,138.67 ft Nov. 2.

Capacity Table (elevation, in feet and contents, in acre-feet)

4,136	0	4,139	193,700	4,142	414,400
4,137	61,300	4,140	262,600	4,143	498,300
4,138	127,000	4,141	335,400	4,143.3	523,700

ELEVATION ABOVE USBR DATUM, FEET
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,139.01	4,138.71	4,138.95	4,139.53	4,140.35	4,141.59	4,142.74	4,142.66	4,142.51	4,141.66	4,140.55	4,139.48
2	4,138.99	4,138.67	4,138.96	4,139.61	4,140.40	4,141.66	4,142.74	4,142.64	4,142.50	4,141.65	4,140.50	4,139.48
3	4,138.97	4,138.73	4,138.97	4,139.63	4,140.43	4,141.67	4,142.72	4,142.62	4,142.46	4,141.63	4,140.48	4,139.40
4	4,138.94	4,138.70	4,138.94	4,139.66	4,140.46	4,141.73	4,142.72	4,142.59	4,142.42	4,141.59	4,140.44	4,139.35
5	4,138.94	4,138.72	4,138.96	4,139.68	4,140.48	4,141.75	4,142.72	4,142.56	4,142.40	4,141.56	4,140.39	4,139.33
6	4,138.92	4,138.75	4,138.98	4,139.70	4,140.50	4,141.79	4,142.72	4,142.50	4,142.38	4,141.53	4,140.35	4,139.30
7	4,138.90	4,138.74	4,139.00	4,139.71	4,140.54	4,141.83	4,142.72	4,142.46	4,142.35	4,141.49	4,140.32	4,139.27
8	4,138.86	4,138.72	4,139.01	4,139.74	4,140.56	4,141.86	4,142.73	4,142.50	4,142.33	4,141.45	4,140.30	4,139.24
9	4,138.86	4,138.75	4,138.98	4,139.76	4,140.59	4,141.90	4,142.74	4,142.51	4,142.29	4,141.38	4,140.26	4,139.22
10	4,138.81	4,138.75	4,139.01	4,139.79	4,140.60	4,141.95	4,142.74	4,142.56	4,142.28	4,141.35	4,140.23	4,139.19
11	4,138.76	4,138.75	4,139.01	4,139.80	4,140.62	4,141.98	4,142.73	4,142.52	4,142.26	4,141.31	4,140.19	4,139.15
12	4,138.78	4,138.81	4,139.00	4,139.83	4,140.63	4,142.02	4,142.71	4,142.52	4,142.23	4,141.26	4,140.15	4,139.14
13	4,138.76	4,138.78	4,139.05	4,139.84	4,140.63	4,142.06	4,142.71	4,142.52	4,142.24	4,141.22	4,140.11	4,139.10
14	4,138.74	4,138.76	4,139.16	4,139.86	4,140.65	4,142.10	4,142.68	4,142.52	4,142.21	4,141.20	4,140.08	4,139.08
15	4,138.71	4,138.77	4,139.20	4,139.89	4,140.66	4,142.14	4,142.70	4,142.53	4,142.18	4,141.16	4,140.05	4,139.05
16	4,138.72	4,138.69	4,139.20	4,139.92	4,140.68	4,142.19	4,142.73	4,142.52	4,142.15	4,141.13	4,140.01	4,139.04
17	4,138.74	4,138.80	4,139.19	4,139.94	4,140.82	4,142.22	4,142.74	4,142.52	4,142.09	4,141.10	4,139.98	4,139.00
18	4,138.71	4,138.81	4,139.19	4,139.97	4,140.95	4,142.26	4,142.70	4,142.54	4,142.05	4,141.07	4,139.94	4,138.98
19	4,138.72	4,138.81	4,139.17	4,140.00	4,141.01	4,142.32	4,142.67	4,142.54	4,142.00	4,141.05	4,139.91	4,139.00
20	4,138.74	4,138.85	4,139.20	4,140.03	4,141.08	4,142.37	4,142.70	4,142.56	4,141.97	4,141.04	4,139.87	4,138.99
21	4,138.75	4,138.84	4,139.22	4,140.05	4,141.14	4,142.42	4,142.74	4,142.56	4,141.92	4,141.00	4,139.82	4,138.97
22	4,138.75	4,138.83	4,139.25	4,140.08	4,141.20	4,142.46	4,142.77	4,142.56	4,141.89	4,140.98	4,139.78	4,138.96
23	4,138.77	4,138.82	4,139.19	4,140.10	4,141.24	4,142.50	4,142.77	4,142.56	4,141.85	4,140.93	4,139.73	4,138.96
24	4,138.76	4,138.82	4,139.25	4,140.13	4,141.22	4,142.52	4,142.77	4,142.56	4,141.82	4,140.89	4,139.71	4,138.96
25	4,138.75	4,138.78	4,139.33	4,140.15	4,141.20	4,142.52	4,142.76	4,142.55	4,141.79	4,140.84	4,139.66	4,138.95
26	4,138.72	4,138.82	4,139.34	4,140.17	4,141.32	4,142.56	4,142.75	4,142.52	4,141.76	4,140.82	4,139.66	4,138.95
27	4,138.73	4,138.84	4,139.32	4,140.22	4,141.42	4,142.64	4,142.74	4,142.49	4,141.74	4,140.78	4,139.62	4,138.96
28	4,138.73	4,138.81	4,139.33	4,140.23	4,141.48	4,142.67	4,142.75	4,142.52	4,141.68	4,140.74	4,139.58	4,138.94
29	4,138.74	4,138.88	4,139.42	4,140.25	4,141.50	4,142.64	4,142.69	4,142.53	4,141.65	4,140.70	4,139.56	4,138.93
30	4,138.75	4,138.94	4,139.48	4,140.30	---	4,142.69	4,142.66	4,142.51	4,141.65	4,140.66	4,139.52	4,138.93
31	4,138.76	---	4,139.48	4,140.34	---	4,142.73	---	4,142.51	---	4,140.60	4,139.49	---
MEAN	4,138.80	4,138.78	4,139.15	4,139.93	4,140.84	4,142.19	4,142.73	4,142.54	4,142.10	4,141.15	4,140.01	4,139.11
MAX	4,139.01	4,138.94	4,139.48	4,140.34	4,141.50	4,142.73	4,142.77	4,142.66	4,142.51	4,141.66	4,140.55	4,139.48
MIN	4,138.71	4,138.67	4,138.94	4,139.53	4,140.35	4,141.59	4,142.66	4,142.46	4,141.65	4,140.60	4,139.49	4,138.93
(†)	183,000	189,700	226,400	286,800	378,000	472,800	468,600	457,700	381,200	302,800	224,400	189,000
(‡)	-37,900	+6,700	+36,700	+61,900	+90,000	+94,500	-4,200	-10,900	-76,500	-78,400	-78,400	-35,400
CAL YR2003	MEAN 4,140.99	MAX 4143.29	MIN 4138.67	AC-FT -49700								
WTR YR2004	MEAN 4,140.61	MAX 4142.77	MIN 4138.67	AC-FT -31900								

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

‡ Change in contents, in acre-feet.

11507500 LINK RIVER AT KLAMATH FALLS, OR

LOCATION.--Lat 42°13'25", long 121°47'35", in SW ¼ NW ¼ sec.32, T.38 S., R.9 E., Klamath County, Hydrologic Unit 18010204, on right bank 600 ft upstream from outlet of Keno Canal and 0.4 mi upstream from Main Street Bridge at Klamath Falls.

DRAINAGE AREA.--3,810 mi², approximately, including 26.2 mi² in closed basin of Crater Lake.

PERIOD OF RECORD.--May 1904 to current year. Records since October 1983 equivalent to earlier records if flow in Keno Canal is added to flow past station.

GAGE.--Water-stage recorder. Datum of gage is 4,083.71 ft above NGVD of 1929, or 4,085.50 ft above Bureau of Reclamation datum. Prior to Sept. 14, 1912, water-stage recorder or nonrecording gages at several sites within 0.5 mi of present site at various datums. Sept. 14, 1912, to Nov. 23, 1923, at site 600 ft downstream at datum 5.42 ft lower. Nov. 24, 1923, to Nov. 15, 1961, at site on left bank at present datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1919 by Upper Klamath Lake (station 11507001). Large diurnal fluctuation caused by powerplant upstream from station. Water diverted upstream from station by main or "A" Canal of Klamath project. Many other diversions upstream from lake. All records presented herein do not include flow in Keno Canal which, since September 1908, has diverted from Upper Klamath Lake at Link River Dam for power generation, and returns flow to Link River downstream from station.

AVERAGE DISCHARGE.--79 years (water years 1905-83), 1,593 ft³/s, 1,154,000 acre-ft/yr, not adjusted for "A" Canal. 21 years (water years 1984-2004), 1,226 ft³/s, 888,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,400 ft³/s May 12, 1904, gage height at Main Street Bridge, 7.30 ft, datum then in use, from floodmarks; minimum daily discharge, 17 ft³/s Dec. 13, 1937.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge, 2,070 ft³/s Mar. 29, gage height, 2.59 ft; minimum, 390 ft³/s June 28, result of regulation from Upper Klamath Lake.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,010	810	858	514	641	623	1,320	1,150	900	622	571	844
2	963	1,050	820	540	619	528	1,270	1,280	1,350	534	693	850
3	809	908	1,180	544	612	519	1,310	1,380	1,280	667	611	806
4	647	1,050	1,450	520	593	535	1,400	1,230	1,210	1,010	735	805
5	779	1,050	1,620	668	720	551	1,470	1,150	1,020	809	800	792
6	901	1,070	1,560	900	588	859	1,450	1,230	755	576	784	702
7	1,100	1,120	1,530	892	545	763	1,180	1,150	846	608	771	772
8	1,100	1,090	1,560	1,230	546	718	1,210	1,290	912	531	772	756
9	1,250	1,130	1,480	866	581	568	1,230	895	759	711	553	806
10	1,270	1,080	1,310	521	643	618	1,060	623	725	508	752	785
11	1,110	731	1,270	759	747	680	1,070	571	605	497	772	719
12	1,010	806	1,040	886	792	982	1,130	835	565	537	810	812
13	862	796	674	1,260	767	942	1,200	795	573	524	822	819
14	1,040	684	753	785	973	902	1,230	918	1,080	630	741	664
15	700	631	978	544	1,060	794	1,340	900	1,320	576	739	791
16	640	645	1,840	554	604	966	1,190	1,020	1,570	577	771	603
17	864	661	1,460	551	512	842	1,110	1,130	1,140	536	792	627
18	706	763	1,190	642	519	800	1,060	1,120	1,130	599	712	520
19	730	1,090	1,190	683	520	939	1,160	910	1,100	600	662	511
20	733	1,000	855	618	664	906	968	716	1,120	851	581	473
21	721	1,000	677	577	959	906	1,110	681	1,000	734	814	503
22	814	878	662	504	969	742	1,010	707	928	884	878	569
23	886	913	810	704	975	817	996	632	901	791	655	627
24	987	886	705	650	911	1,070	1,060	658	775	686	613	665
25	788	988	772	849	831	1,310	1,000	682	1,020	845	939	477
26	755	886	696	916	811	883	1,160	1,040	1,010	684	1,150	471
27	739	981	585	958	661	1,430	1,070	1,030	974	659	1,180	478
28	926	901	1,060	1,070	737	1,450	1,390	797	824	809	1,060	482
29	900	898	1,070	851	883	1,790	1,150	784	706	838	873	488
30	788	783	549	707	---	1,540	1,180	687	793	792	836	477
31	819	---	517	610	---	1,190	---	533	---	732	827	---
TOTAL	27,347	27,279	32,721	22,873	20,983	28,163	35,484	28,524	28,891	20,957	24,269	19,694
MEAN	882	909	1,056	738	724	908	1,183	920	963	676	783	656
MAX	1,270	1,130	1,840	1,260	1,060	1,790	1,470	1,380	1,570	1,010	1,180	850
MIN	640	631	517	504	512	519	968	533	565	497	553	471
AC-FT	54,240	54,110	64,900	45,370	41,620	55,860	70,380	56,580	57,310	41,570	48,140	39,060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2004, BY WATER YEAR (WY)

MEAN	935	1,077	1,270	1,394	1,484	1,890	1,802	1,396	1,108	837	802	734
MAX	2,125	3,739	4,075	5,832	4,797	5,261	3,801	3,338	1,998	1,197	1,264	1,205
(WY)	(1985)	(1985)	(1984)	(1997)	(1996)	(1986)	(1993)	(1998)	(1998)	(1999)	(2001)	(1996)
MIN	606	434	451	372	214	119	342	286	648	543	551	268
(WY)	(1990)	(1992)	(1995)	(1995)	(1994)	(1992)	(1991)	(1991)	(1990)	(1987)	(1991)	(2000)

11507500 LINK RIVER AT KLAMATH FALLS, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1984 - 2004	
ANNUAL TOTAL	355,049		317,185		1,226	
ANNUAL MEAN	973		867		2,200	
HIGHEST ANNUAL MEAN					1984	
LOWEST ANNUAL MEAN					1992	
HIGHEST DAILY MEAN	3,740	Mar 27	1,840	Dec 16	6,920	Jan 8, 1997
LOWEST DAILY MEAN	276	Jan 29	471	Sep 26	95	Mar 1, 1992
ANNUAL SEVEN-DAY MINIMUM	284	Feb 25	505	Sep 24	96	Feb 28, 1992
ANNUAL RUNOFF (AC-FT)	704,200		629,100		888,200	
10 PERCENT EXCEEDS	1,740		1,230		2,460	
50 PERCENT EXCEEDS	858		812		901	
90 PERCENT EXCEEDS	374		551		425	



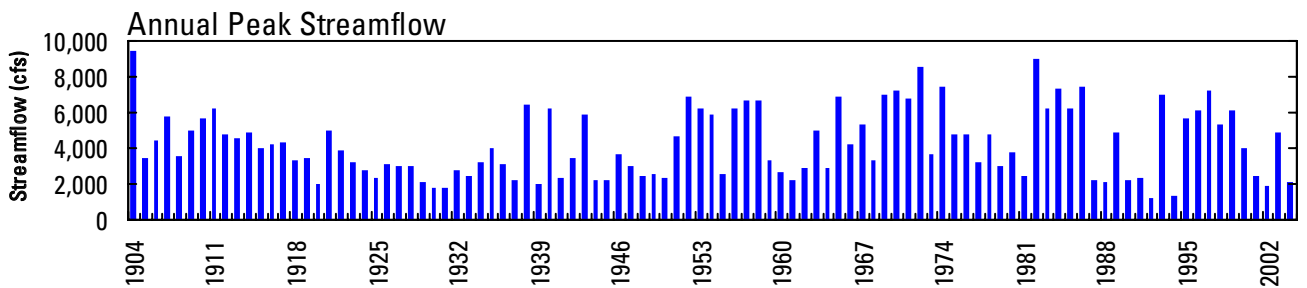
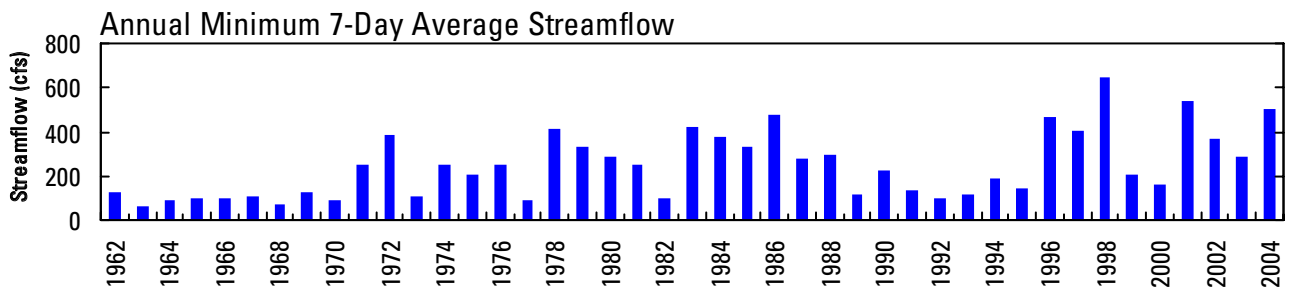
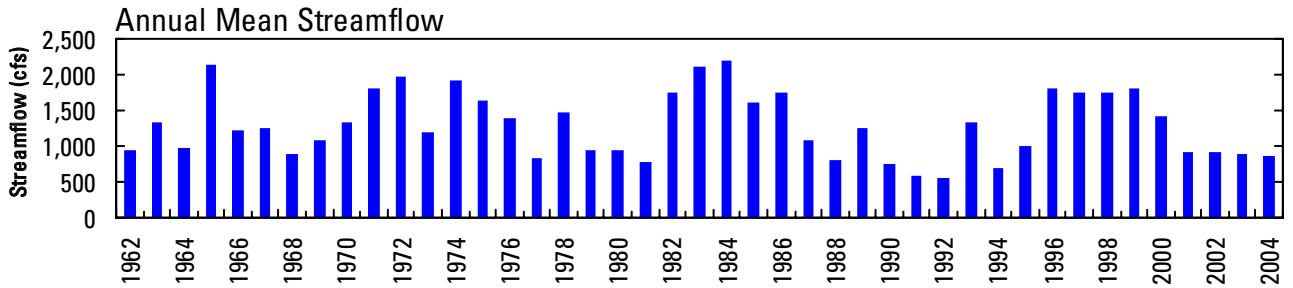
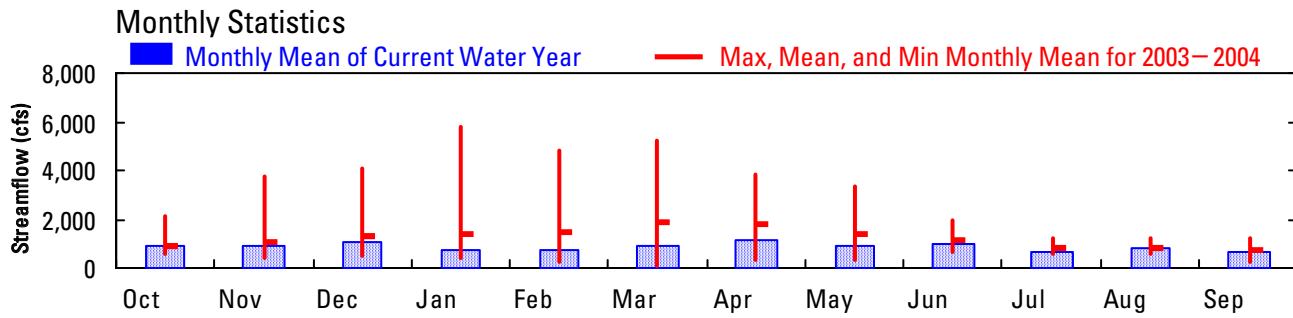
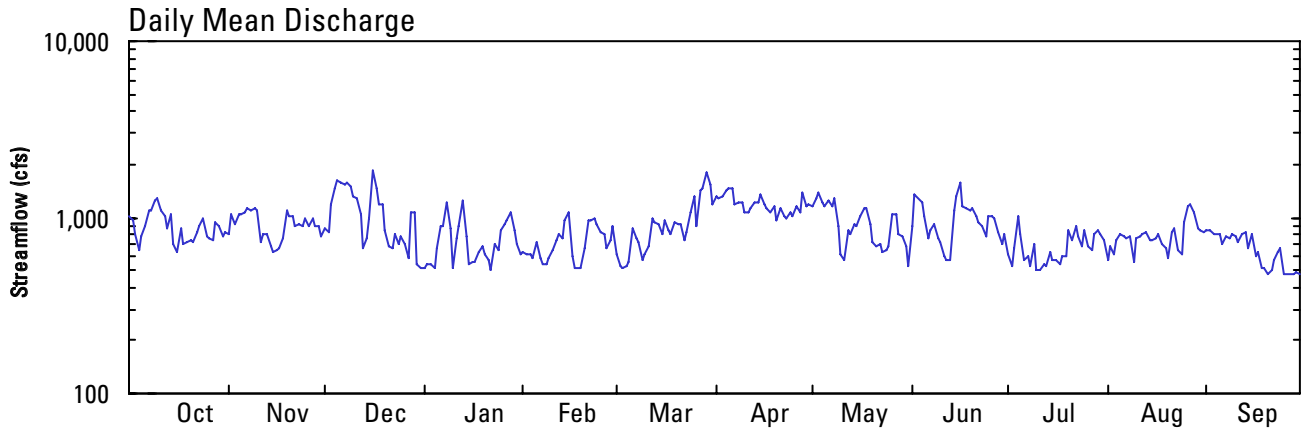
2004 Water Year
KLAMATH RIVER BASIN

11507500 LINK RIVER AT KLAMATH FALLS, OR

Latitude: 42° 13 ' 25"
Klamath County

Longitude: 121° 47 ' 35"
Datum: 4,083.71 feet

Hydrologic Unit Code: 18010204
Drainage Area: 3,810 square miles



11509500 KLAMATH RIVER AT KENO, OR

LOCATION.--Lat 42°08'00", long 121°57'40", in NW ¼ SE ¼ sec.35, T.39 S., R.7 E., Klamath County, Hydrologic Unit 18010206, on left bank 1.7 mi northwest of Keno and 4.5 mi upstream from Spencer Creek, and at mile 231.9.

DRAINAGE AREA.--3,920 mi², approximately (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--June 1904 to December 1913, October 1929 to current year. Monthly discharge only October to December 1929, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 3,961 ft above NGVD of 1929 (from river-profile survey). See WSP 1735 for history of changes prior to Nov. 6, 1954.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated since 1919 by Upper Klamath Lake (station 11507001). Fluctuation by Keno powerplant 0.9 mi upstream. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--84 years (water years 1905-13, 1930-2004), 1,620 ft³/s, 1,173,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,300 ft³/s Feb. 28, 1986, gage height, 12.82 ft, caused by regulation from Keno powerplant 0.9 mi upstream; minimum discharge, 26 ft³/s Sept. 23, 1956; minimum daily, 60 ft³/s May 19, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 15.3 ft, from floodmark (original datum), about May 10, 1904, discharge, 9,250 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,450 ft³/s Feb. 18, gage height, 7.44 ft; minimum discharge, 212 ft³/s July 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	929	1,010	1,120	647	746	1,100	1,520	1,110	794	239	252	605
2	778	1,110	1,120	656	745	965	1,450	1,100	822	289	251	605
3	686	1,030	1,240	497	745	1,290	1,410	1,110	715	486	245	603
4	685	966	1,300	476	763	1,050	1,450	1,120	733	585	251	603
5	682	966	1,300	651	805	1,010	1,450	1,120	725	476	251	603
6	777	966	1,310	827	807	1,170	1,370	1,070	577	417	279	602
7	886	964	1,310	921	806	1,210	1,200	1,110	578	429	292	599
8	1,030	963	1,310	1,170	803	1,210	1,200	1,220	602	356	292	597
9	1,140	964	1,300	918	799	1,050	1,090	1,130	513	328	294	609
10	962	965	1,230	743	891	1,000	994	610	397	378	334	637
11	889	968	1,210	741	955	1,040	993	874	397	413	415	640
12	893	965	978	937	954	1,170	1,110	901	396	450	410	640
13	897	955	792	1,370	961	1,210	1,210	880	431	369	370	659
14	975	921	793	903	1,160	1,210	1,210	841	779	304	330	659
15	914	933	1,000	713	1,240	1,100	1,220	794	1,010	270	329	616
16	872	951	1,760	738	916	1,320	1,190	795	1,050	273	325	580
17	1,050	940	e1,570	848	1,240	1,430	1,190	797	985	260	323	532
18	942	1,100	e1,410	893	2,060	1,300	1,180	798	830	259	325	530
19	961	1,310	1,240	811	2,240	1,380	1,180	773	528	331	325	532
20	975	1,310	1,060	733	1,970	1,300	1,110	738	485	382	397	533
21	1,000	1,170	940	678	1,620	1,310	1,120	692	464	384	536	501
22	1,000	1,090	939	684	1,500	1,300	1,150	641	462	370	585	466
23	1,000	1,100	997	700	1,490	1,210	1,190	645	464	368	424	501
24	1,000	1,100	1,030	818	1,490	1,420	1,190	650	460	368	430	578
25	1,010	1,110	1,020	875	1,500	1,500	1,170	662	456	361	728	363
26	1,000	1,100	917	873	1,360	898	1,110	706	454	285	952	350
27	1,000	1,100	846	854	1,280	1,610	1,090	752	466	277	960	428
28	1,040	1,100	1,350	847	1,270	1,860	1,090	740	453	282	678	425
29	1,030	1,120	1,290	846	1,290	2,030	1,110	734	453	282	487	420
30	989	1,120	706	781	---	1,630	1,110	723	361	262	613	342
31	967	---	637	740	---	1,540	---	533	---	250	642	---
TOTAL	28,959	31,367	35,025	24,889	34,406	39,823	36,057	26,369	17,840	10,783	13,325	16,358
MEAN	934	1,046	1,130	803	1,186	1,285	1,202	851	595	348	430	545
MAX	1,140	1,310	1,760	1,370	2,240	2,030	1,520	1,220	1,050	585	960	659
MIN	682	921	637	476	745	898	993	533	361	239	245	342
AC-FT	57,440	62,220	69,470	49,370	68,240	78,990	71,520	52,300	35,390	21,390	26,430	32,450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 2004, BY WATER YEAR (WY)

MEAN	1,360	1,601	1,847	1,991	2,166	2,555	2,280	1,749	1,090	789	908	1,135
MAX	3,055	4,673	5,732	7,702	7,564	8,197	6,594	5,258	3,713	2,748	1,898	2,214
(WY)	(1957)	(1985)	(1984)	(1965)	(1965)	(1972)	(1956)	(1956)	(1906)	(1906)	(1958)	(1943)
MIN	564	290	391	542	254	215	166	109	97.6	114	146	246
(WY)	(1982)	(1935)	(1935)	(1935)	(1992)	(1992)	(1931)	(1931)	(1931)	(1931)	(1992)	(1992)

KLAMATH RIVER BASIN

11509500 KLAMATH RIVER AT KENO, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1905 - 2004	
ANNUAL TOTAL	373,056		315,201		1,620	
ANNUAL MEAN	1,022		861		3,582	
HIGHEST ANNUAL MEAN					1956	
LOWEST ANNUAL MEAN					1992	
HIGHEST DAILY MEAN	3,410	Mar 28	2,240	Feb 19	9,780	Mar 5, 1972
LOWEST DAILY MEAN	277	Jun 16	239	Jul 1	60	May 19, 1934
ANNUAL SEVEN-DAY MINIMUM	296	Jun 16	252	Jul 30	78	Jun 4, 1931
ANNUAL RUNOFF (AC-FT)	740,000		625,200		1,173,000	
10 PERCENT EXCEEDS	1,960		1,300		3,150	
50 PERCENT EXCEEDS	897		888		1,230	
90 PERCENT EXCEEDS	491		362		417	

e Estimated



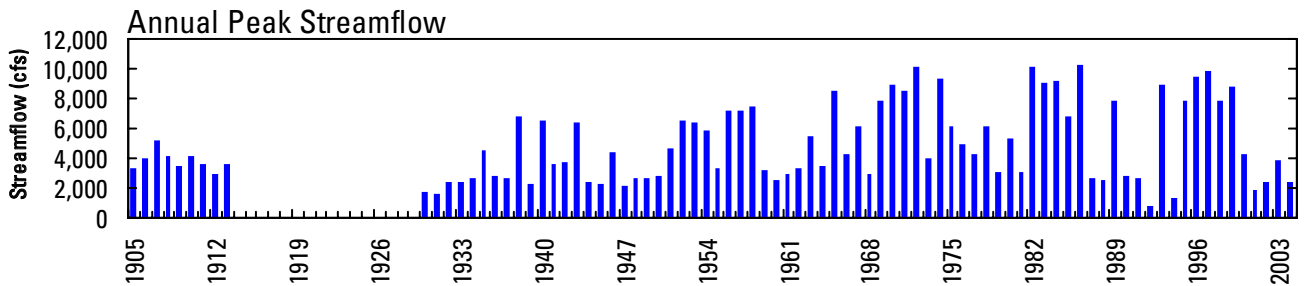
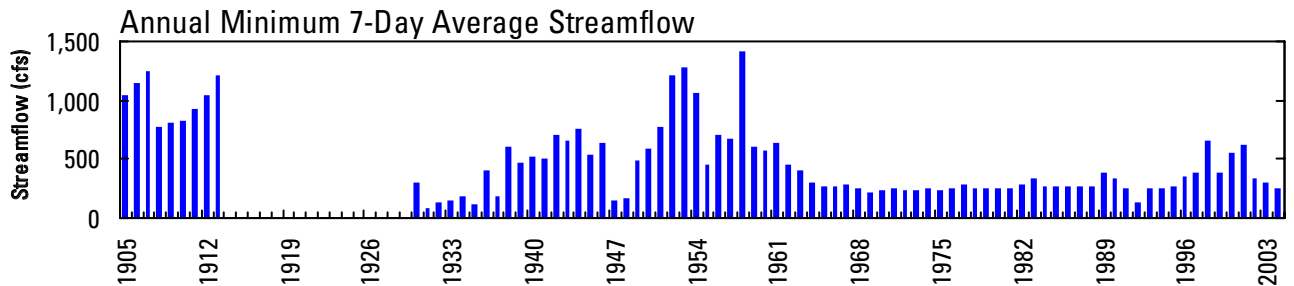
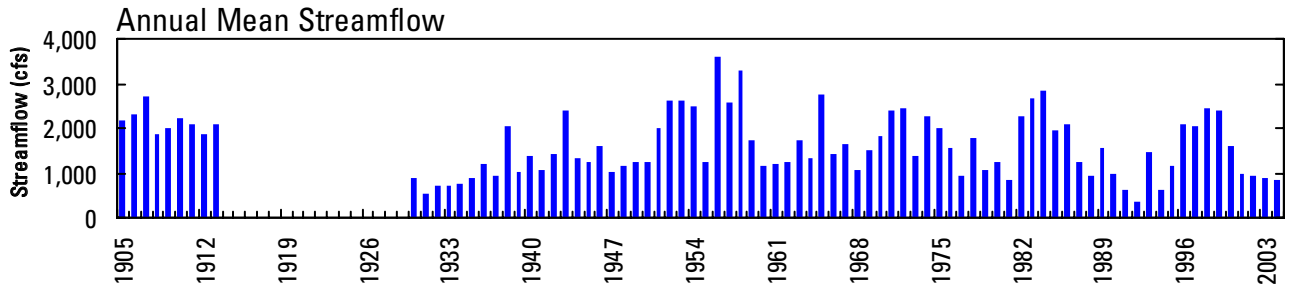
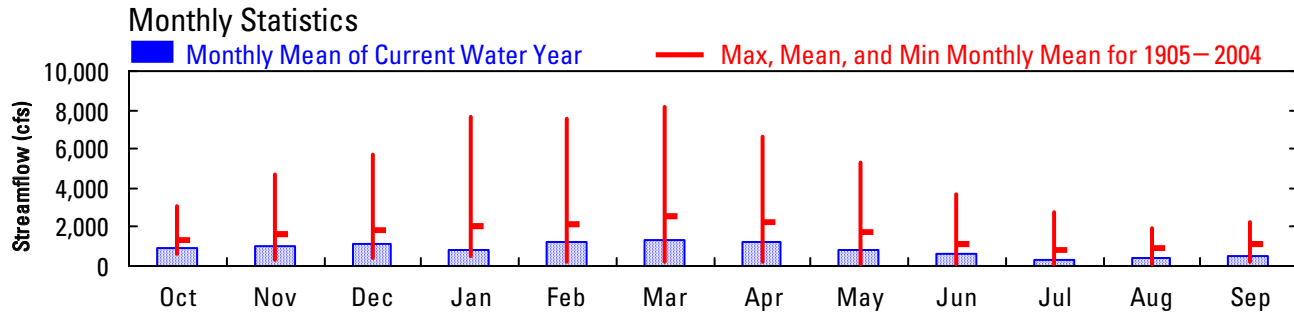
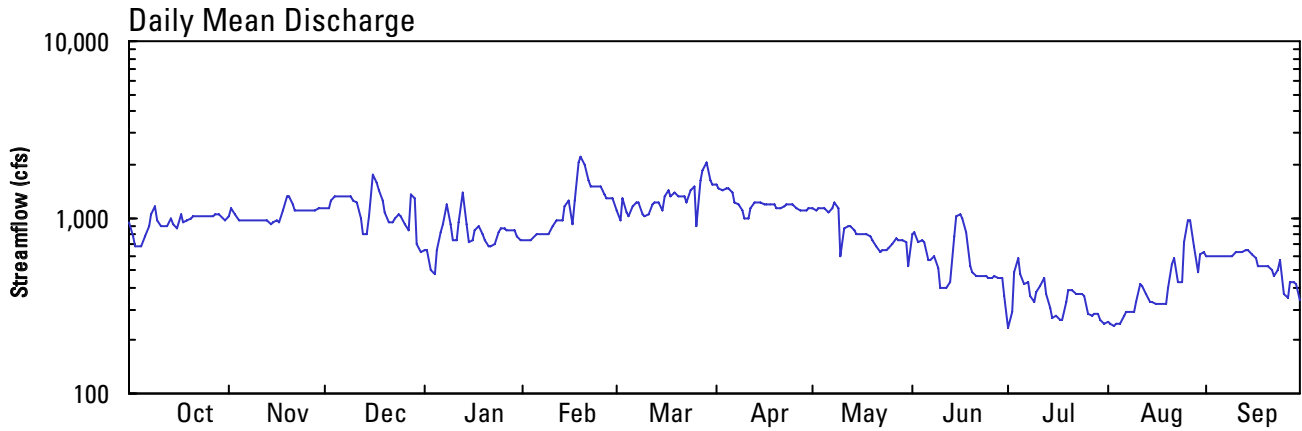
2004 Water Year
KLAMATH RIVER BASIN

11509500 KLAMATH RIVER AT KENO, OR

Latitude: 42°08'00"
Klamath County

Longitude: 121°57'40"
Datum: 3,961.00 feet

Hydrologic Unit Code: 18010206
Drainage Area: 3,920 square miles



11510700 KLAMATH RIVER BELOW JOHN C. BOYLE POWERPLANT, NEAR KENO, OR

LOCATION.--Lat 42°05'05", long 122°04'20", in SE ¼ SE ¼ sec.14, T.40 S., R.6 E., Klamath County, Hydrologic Unit 18010206, on right bank 0.7 mi downstream from John C. Boyle powerplant, 8 mi downstream from Spencer Creek, and 8.5 mi southwest of Keno, and at mile 219.7.

DRAINAGE AREA.--4,080 mi², approximately (not including Lost River or Lower Klamath Lake basins).

PERIOD OF RECORD.--January 1959 to current year. Prior to Oct. 1, 1961, published as "below Big Bend powerplant."

REVISED RECORDS.--WDR OR-87-1: 1967.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 3,274.82 ft above NGVD of 1929 (levels by Pacific Power & Light Co.).

REMARKS.--Records good. Flow regulated by Upper Klamath Lake (station 11507001). Large diurnal fluctuation caused by Keno and John C. Boyle powerplants. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--45 years (water years 1960-2004), 1,785 ft³/s, 1,293,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s Feb. 21, 1996, gage height, 9.50 ft; minimum discharge, 273 ft³/s Sept. 25, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,570 ft³/s Feb. 18, gage height, 6.20 ft; minimum discharge, 273 ft³/s Sept. 25.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,060	e827	1,850	932	940	1,290	1,690	1,210	1,130	566	549	718
2	1,140	e807	1,110	1,010	948	1,080	1,920	1,300	949	607	353	758
3	1,020	e811	1,590	653	1,060	1,950	1,640	1,300	878	587	324	854
4	1,000	e783	1,560	706	1,000	861	1,430	1,340	834	598	333	768
5	1,010	e779	1,560	816	976	1,630	1,840	1,440	884	602	462	751
6	950	e1,100	1,540	1,200	1,090	1,280	1,670	1,190	982	581	615	852
7	765	e1,010	1,580	1,220	1,030	1,560	1,560	1,510	847	605	597	871
8	1,240	e958	1,640	1,290	1,090	1,570	1,440	1,590	761	635	537	892
9	1,500	e957	1,790	1,190	1,130	1,190	1,390	1,590	744	611	544	847
10	e866	e1,050	1,120	833	1,150	1,200	1,230	906	622	614	546	894
11	e883	1,230	1,620	972	1,100	1,420	1,230	1,110	686	600	500	860
12	965	1,310	1,350	1,430	1,310	1,360	1,570	1,040	663	608	527	854
13	1,100	1,200	1,020	1,670	1,380	1,410	1,510	1,090	668	652	585	873
14	1,440	1,190	1,030	902	1,190	1,400	1,540	1,180	1,040	334	541	771
15	944	1,210	1,020	992	1,460	1,260	1,650	1,060	e1,200	598	599	651
16	e900	1,240	2,420	1,170	1,180	1,680	1,500	1,140	e1,250	603	562	797
17	e905	1,250	1,420	1,020	1,430	1,870	1,400	926	e1,190	503	581	797
18	e941	1,390	1,460	1,120	2,360	1,490	1,410	936	1,010	498	555	767
19	e867	1,370	1,570	1,010	2,930	1,580	1,430	1,060	623	641	556	819
20	1,250	1,620	1,250	998	2,000	1,440	1,440	1,010	859	532	570	867
21	1,250	1,390	1,290	886	1,770	1,580	1,480	1,000	725	337	579	835
22	1,220	1,270	1,300	898	1,760	1,740	1,500	795	674	605	579	640
23	1,220	1,250	1,030	1,060	1,760	1,440	1,450	897	722	627	673	675
24	1,390	1,420	1,090	1,000	1,760	1,970	1,190	819	683	594	803	680
25	1,280	1,350	1,380	1,090	1,760	1,830	1,500	937	676	509	984	e698
26	1,300	1,200	1,220	1,110	1,650	1,170	1,470	932	673	444	1,010	e693
27	1,210	1,480	1,210	1,100	1,570	1,940	1,310	942	676	630	1,200	e688
28	1,280	1,480	1,740	1,090	1,570	2,190	1,580	936	672	513	1,010	e652
29	1,360	1,120	1,390	1,120	1,570	2,250	1,390	968	843	537	887	570
30	848	1,390	992	1,060	---	1,990	1,390	885	513	523	914	597
31	e892	---	926	1,060	---	1,870	---	928	---	620	771	---
TOTAL	33,996	35,442	43,068	32,608	41,924	48,491	44,750	33,967	24,677	17,514	19,846	22,989
MEAN	1,097	1,181	1,389	1,052	1,446	1,564	1,492	1,096	823	565	640	766
MAX	1,500	1,620	2,420	1,670	2,930	2,250	1,920	1,590	1,250	652	1,200	894
MIN	765	779	926	653	940	861	1,190	795	513	334	324	570
AC-FT	67,430	70,300	85,430	64,680	83,160	96,180	88,760	67,370	48,950	34,740	39,360	45,600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2004, BY WATER YEAR (WY)

MEAN	1,493	1,830	2,236	2,415	2,520	2,965	2,476	1,795	994	689	886	1,165
MAX	3,157	4,506	5,733	7,905	7,780	8,755	5,645	5,156	2,995	1,339	1,102	1,876
(WY)	(1985)	(1985)	(1984)	(1965)	(1965)	(1972)	(1974)	(1998)	(1998)	(1982)	(1998)	(1965)
MIN	786	735	792	771	489	450	537	418	391	349	349	457
(WY)	(1982)	(1992)	(1995)	(1993)	(1992)	(1992)	(1994)	(1992)	(1992)	(1992)	(1992)	(1992)

11510700 KLAMATH RIVER BELOW JOHN C. BOYLE POWERPLANT, NEAR KENO, OR—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1960 - 2004	
ANNUAL TOTAL	462,195		399,272			
ANNUAL MEAN	1,266		1,091		1,785	
HIGHEST ANNUAL MEAN					3,024	1984
LOWEST ANNUAL MEAN					564	1992
HIGHEST DAILY MEAN	3,850	Mar 28	2,930	Feb 19	10,800	Mar 5, 1972
LOWEST DAILY MEAN	441	Mar 4	324	Aug 3	302	Aug 30, 1995
ANNUAL SEVEN-DAY MINIMUM	521	Jun 16	452	Jul 30	338	Aug 30, 1992
ANNUAL RUNOFF (AC-FT)	916,800		792,000		1,293,000	
10 PERCENT EXCEEDS	2,480		1,590		3,350	
50 PERCENT EXCEEDS	1,050		1,040		1,290	
90 PERCENT EXCEEDS	704		597		620	

e Estimated



2004 Water Year
KLAMATH RIVER BASIN

11510700 KLAMATH RIVER BLW JOHN C BOYLE POWERPLANT, NR KENO, OR

Latitude: 42°05'05"

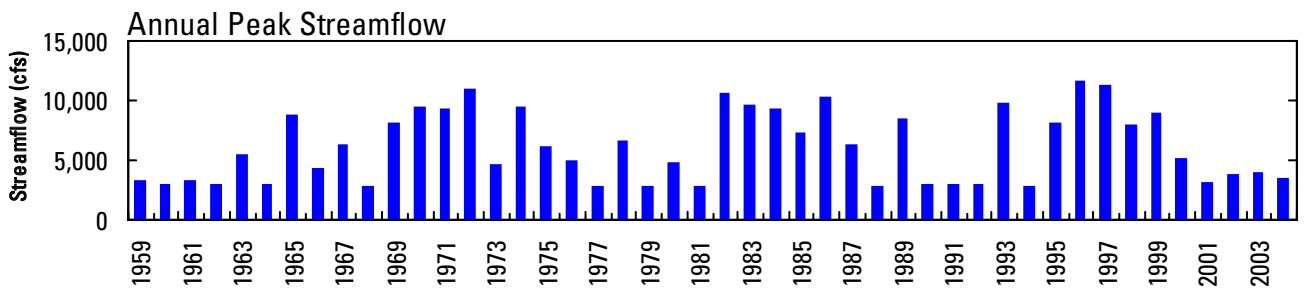
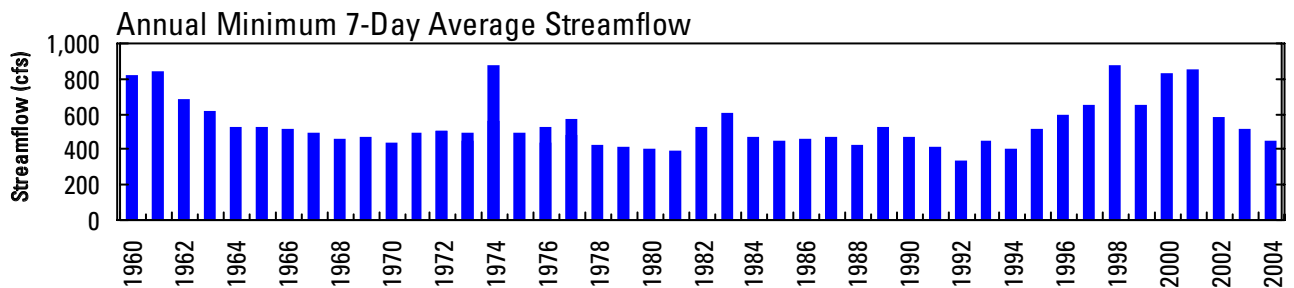
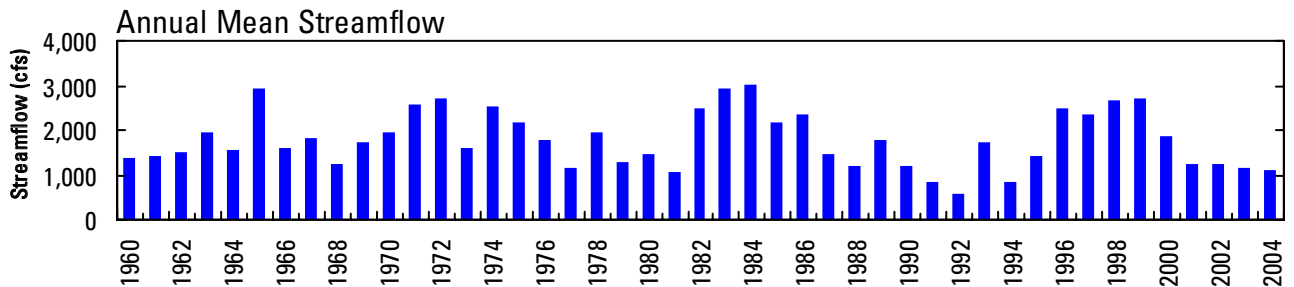
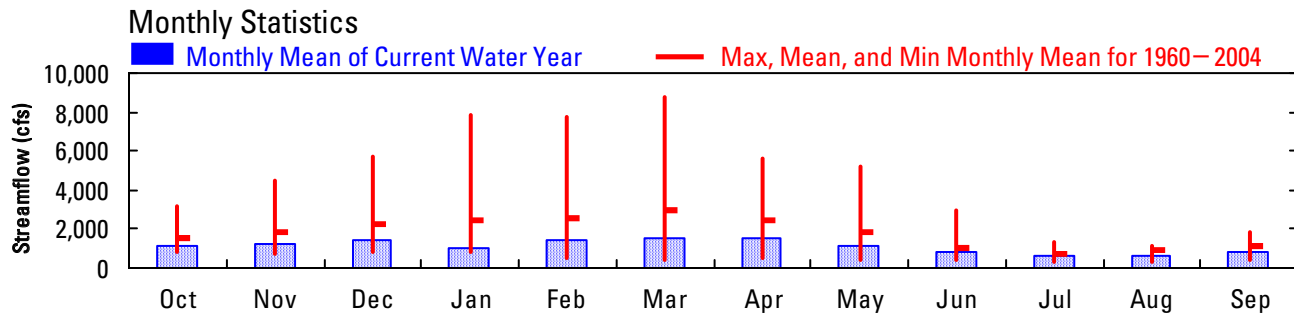
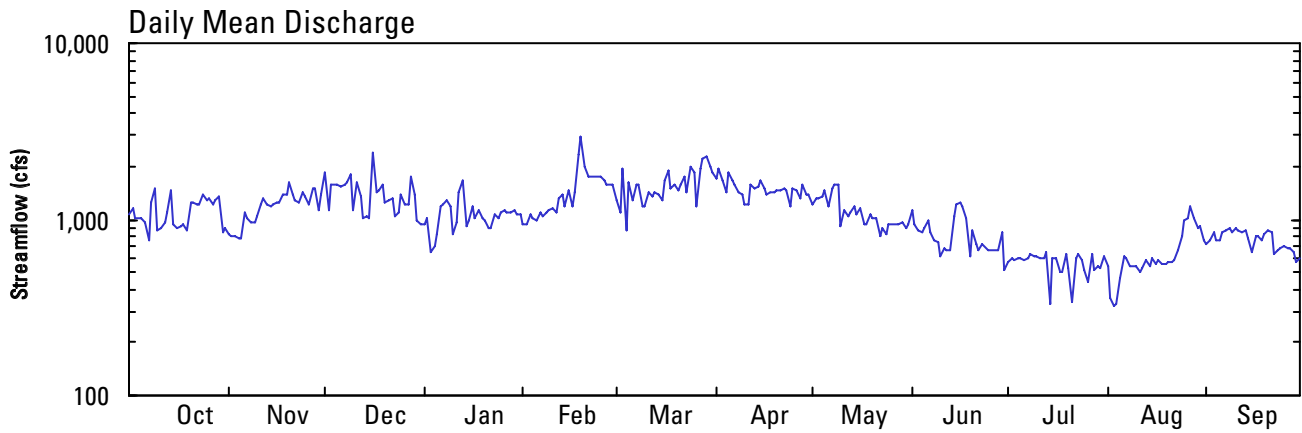
Longitude: 122°04'20"

Hydrologic Unit Code: 18010206

Klamath County

Datum: 3,274.82 feet

Drainage Area: 4,080 square miles



11512000 FALL CREEK AT COPCO, CA

LOCATION.--Lat 41°58'32", long 122°21'50", in NE ¼ sec.36, T.48 N., R.5 W., Siskiyou County Hydrologic Unit 18010206, 1,500 ft upstream from mouth 0.8 mi south of Fall Creek Power Plant and Copco Post Office.

DRAINAGE AREA.--14.8 mi².

PERIOD OF RECORD.--October 1928 to September 1959. May 2003 to September 2004.

GAGE.--Water-stage recorder. Datum of gage is 2,363.77 ft above NGVD 1929. Prior to Dec. 16, 1937, staff gage 1,000 ft downstream at different datum. Dec. 16, 1937 to Aug. 23, 1949, staff gage at present site and datum.

REMARKS.--No estimated daily discharges. Records fair. Flow affected by Pacific Power (Irongate Lake), diversion to city of Yreka Water Department, 1,000 ft upstream and other small diversions for irrigation.

AVERAGE DISCHARGE.--32 years (1929-59, 2004), 39.1 ft³/s, 28,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 875 ft³/s Dec. 22, 1955, gage height, 4.35 ft, from rating curve extended above 90 ft³/s, on basis of slope-area measurements at gage height 2.42 and 4.05 ft; minimum discharge, 3.6 ft³/s Sept. 13, 1953; minimum daily discharge, 24 ft³/s many days June to September 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 157 ft³/s, gage height, 3.76 ft; minimum discharge, 14 ft³/s Dec. 9.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	46	33	30	28	29
2	---	---	---	---	---	---	---	45	32	31	30	29
3	---	---	---	---	---	---	---	46	31	30	31	30
4	---	---	---	---	---	---	---	44	31	31	31	31
5	---	---	---	---	---	---	---	45	31	31	31	31
6	---	---	---	---	---	---	---	43	30	28	31	31
7	---	---	---	---	---	---	---	42	31	29	31	30
8	---	---	---	---	---	---	---	42	31	30	30	31
9	---	---	---	---	---	---	---	41	30	29	30	32
10	---	---	---	---	---	---	---	41	30	29	30	32
11	---	---	---	---	---	---	---	41	31	29	31	31
12	---	---	---	---	---	---	---	40	30	28	30	31
13	---	---	---	---	---	---	---	39	30	29	30	31
14	---	---	---	---	---	---	---	39	31	28	30	31
15	---	---	---	---	---	---	---	38	30	29	30	32
16	---	---	---	---	---	---	---	37	30	28	30	33
17	---	---	---	---	---	---	---	37	31	29	31	33
18	---	---	---	---	---	---	---	36	32	28	29	32
19	---	---	---	---	---	---	---	36	32	29	30	33
20	---	---	---	---	---	---	---	35	31	29	28	31
21	---	---	---	---	---	---	---	34	31	29	30	31
22	---	---	---	---	---	---	---	35	30	27	30	32
23	---	---	---	---	---	---	---	34	30	29	29	32
24	---	---	---	---	---	---	---	33	29	31	28	34
25	---	---	---	---	---	---	---	34	30	32	29	33
26	---	---	---	---	---	---	---	32	29	31	29	35
27	---	---	---	---	---	---	---	33	30	30	29	35
28	---	---	---	---	---	---	---	33	30	29	29	35
29	---	---	---	---	---	---	---	33	30	29	30	35
30	---	---	---	---	---	---	---	33	29	28	30	36
31	---	---	---	---	---	---	---	32	---	28	30	---
TOTAL	---	---	---	---	---	---	---	1,179	916	907	925	962
MEAN	---	---	---	---	---	---	---	38.0	30.5	29.3	29.8	32.1
MAX	---	---	---	---	---	---	---	46	33	32	31	36
MIN	---	---	---	---	---	---	---	32	29	27	28	29
AC-FT	---	---	---	---	---	---	---	2,340	1,820	1,800	1,830	1,910
CFSM	---	---	---	---	---	---	---	2.57	2.06	1.98	2.02	2.17
IN.	---	---	---	---	---	---	---	2.96	2.30	2.28	2.33	2.42

KLAMATH RIVER BASIN

11512000 FALL CREEK AT COPCO, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	53	51	50	39	96	56	43	35	30	24	24
2	35	52	50	47	39	84	56	43	36	28	25	25
3	36	53	49	45	37	80	55	42	36	26	26	25
4	36	52	49	44	37	79	54	42	35	26	25	25
5	35	52	50	44	36	79	54	42	36	27	26	25
6	35	51	53	43	37	78	54	44	36	26	25	25
7	35	50	51	44	38	75	52	41	35	26	25	24
8	36	51	48	48	37	75	52	38	36	24	25	25
9	37	50	49	57	36	74	52	36	36	26	25	24
10	36	50	51	54	35	74	51	39	34	26	23	25
11	37	49	49	49	32	73	51	40	34	27	21	25
12	37	50	51	48	32	72	50	40	33	25	21	26
13	38	51	51	48	32	71	46	42	32	25	22	27
14	37	50	54	47	32	70	46	40	33	25	23	27
15	38	50	49	49	33	69	48	40	33	25	23	27
16	37	50	48	49	39	68	48	40	31	25	23	26
17	38	49	46	45	142	67	48	41	30	24	24	26
18	39	49	46	43	102	67	47	42	29	24	23	28
19	40	49	45	43	85	66	47	39	29	24	24	27
20	40	51	45	43	80	65	47	38	29	24	23	28
21	41	52	44	41	77	64	47	41	29	23	22	28
22	44	52	43	40	74	64	46	39	29	23	23	27
23	46	53	43	39	73	62	45	37	30	23	25	27
24	46	53	43	40	71	62	44	37	30	25	24	26
25	48	52	43	39	82	62	44	37	28	26	24	28
26	50	51	42	39	83	62	43	37	26	24	22	29
27	49	52	42	39	79	61	42	39	27	23	23	29
28	50	51	41	41	78	60	43	39	27	23	23	30
29	53	52	43	42	77	59	42	37	28	24	23	32
30	53	52	42	43	---	58	43	37	30	24	23	33
31	53	---	43	40	---	57	---	37	---	24	23	---
TOTAL	1,271	1,532	1,454	1,383	1,674	2,153	1,453	1,229	952	775	731	803
MEAN	41.0	51.1	46.9	44.6	57.7	69.5	48.4	39.6	31.7	25.0	23.6	26.8
MAX	53	53	54	57	142	96	56	44	36	30	26	33
MIN	35	49	41	39	32	57	42	36	26	23	21	24
AC-FT	2,520	3,040	2,880	2,740	3,320	4,270	2,880	2,440	1,890	1,540	1,450	1,590
CFSM	2.77	3.45	3.17	3.01	3.90	4.69	3.27	2.68	2.14	1.69	1.59	1.81
IN.	3.19	3.85	3.65	3.48	4.21	5.41	3.65	3.09	2.39	1.95	1.84	2.02
WTR YR	2004	TOTAL 15410	MEAN 42.1	MAX 142	MIN 21	AC-FT 30570	CFSM 2.84	IN. 38.73				

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA

LOCATION.—Lat 41°55'41", long 122°26'35", in SE 1/4 NE 1/4 sec.17, T.47 N., R.5 W., Siskiyou County, Hydrologic Unit 18010206, on left bank, 0.1 mi downstream from Bogus Creek, 0.6 mi downstream from Iron Gate Dam, and 5.9 mi northeast of Hornbrook.

DRAINAGE AREA.—4,630 mi², approximately (not including Lost River, Butte Creek, or Lower Klamath Lake Basins).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1960 to current year.

GAGE.—Water-stage recorder. Datum of gage is 2,162.44 ft above NGVD of 1929 (levels by PacifiCorp, formerly Pacific Power & Light Co.).

REMARKS.—Records excellent. Flow regulated by Upper Klamath Lake, capacity, 523,700 acre-ft; Iron Gate Reservoir (station 11516510), other smaller reservoirs and diversions upstream from station. See schematic diagram of Klamath River and Trinity River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 29,400 ft³/s, Dec. 22, 1964, gage height, 13.63 ft, from rating curve extended above 15,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 389 ft³/s, Aug. 25–28, 1992.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1370	1370	1650	1350	1310	2340	2060	1610	1160	740	618	908
2	1370	1370	1650	1440	1310	2270	2030	1600	1160	713	615	908
3	1370	1370	1630	1720	1310	2190	2010	1600	1160	716	616	908
4	1370	1370	1630	1690	1310	2130	2010	1600	1150	711	615	909
5	1370	1350	1640	1570	1310	2140	2000	1610	1150	710	617	913
6	1360	1360	1650	1470	1310	2080	2010	1570	1150	710	616	913
7	1360	1360	1650	1400	1310	2050	2020	1550	1030	707	615	913
8	1360	1350	1640	1320	1310	2080	1990	1420	1010	707	615	913
9	1370	1360	1630	1350	1310	2120	1820	1300	1010	710	615	913
10	1370	1350	1630	1320	1310	2070	1780	1260	1010	712	615	912
11	1370	1360	1630	1310	1310	2070	1780	1260	1010	717	615	911
12	1370	1350	1640	1300	1320	2060	1780	1260	1010	719	615	913
13	1360	1360	1640	1310	1320	2060	1790	1260	1010	714	617	910
14	1360	1360	1660	1310	1320	2030	1790	1260	1010	712	620	913
15	1360	1360	1640	1310	1310	2040	1790	1260	1020	711	623	913
16	1360	1350	1640	1360	1330	2150	1770	1180	915	660	678	917
17	1370	1360	1640	1480	2220	2230	1760	1160	820	621	710	921
18	1360	1360	1640	1520	4110	2230	1760	1180	810	624	710	919
19	1360	1360	1630	1380	3540	2230	1760	1170	808	629	710	919
20	1360	1360	1530	1320	3170	2220	1770	1170	807	633	710	915
21	1370	1360	1380	1310	3020	2240	1720	1160	802	622	712	913
22	1370	1360	1320	1300	2850	2230	1710	1150	805	614	717	913
23	1360	1360	1310	1310	2630	2230	1710	1150	808	616	713	913
24	1370	1360	1310	1310	2370	2220	1710	1150	802	615	896	913
25	1370	1360	1310	1310	2320	2220	1710	1150	807	619	1080	913
26	1370	1360	1310	1310	2260	2210	1670	1150	805	627	1320	912
27	1370	1360	1310	1310	2050	2220	1670	1160	805	623	1320	912
28	1370	1360	1320	1310	2050	2210	1670	1160	803	629	1210	911
29	1370	1360	1320	1310	2070	2220	1660	1150	805	625	1040	909
30	1370	1480	1320	1310	---	2220	1670	1150	815	627	929	908
31	1370	---	1320	1310	---	2220	---	1150	---	623	911	---
TOTAL	42360	40910	47220	42630	55670	67230	54380	39960	28267	20716	23613	27378
MEAN	1366	1364	1523	1375	1920	2169	1813	1289	942	668	762	913
MAX	1370	1480	1660	1720	4110	2340	2060	1610	1160	740	1320	921
MIN	1360	1350	1310	1300	1310	2030	1660	1150	802	614	615	908
AC-FT	84020	81140	93660	84560	110400	133400	107900	79260	56070	41090	46840	54300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2004, BY WATER YEAR (WY)

MEAN	1605	2026	2598	2888	3040	3540	2958	2127	1153	795	971	1272
MAX	3353	5254	6735	9553	9150	10780	6922	5559	3289	1429	1208	2052
(WY)	1985	1985	1984	1997	1965	1972	1971	1998	1998	1982	1965	1965
MIN	852	873	889	888	525	511	572	512	506	428	398	538
(WY)	1982	1992	1992	1992	1992	1992	1994	1992	1992	1992	1992	1992

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1961 - 2004

ANNUAL TOTAL	542851	490334	
ANNUAL MEAN	1487	1340	2076
HIGHEST ANNUAL MEAN			3657
LOWEST ANNUAL MEAN			641
HIGHEST DAILY MEAN	4180	Mar 28	4110
LOWEST DAILY MEAN	723	Jul 16	614
ANNUAL SEVEN-DAY MINIMUM	730	Jul 16	615
MAXIMUM PEAK FLOW			4380
MAXIMUM PEAK STAGE			6.12
ANNUAL RUNOFF (AC-FT)	1077000	972600	1504000
10 PERCENT EXCEEDS	2650	2070	4010
50 PERCENT EXCEEDS	1360	1320	1390
90 PERCENT EXCEEDS	873	710	734

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1962–80, 2000–04.

PRECIPITATION: Water years 1999–2001.

CHEMICAL DATA: Water years 1962–81, June 2002 to September 2004 (seasonal only) (discontinued).

DISSOLVED OXYGEN: Water years 1999–2001, June 2002 to November 2003 (seasonal only) (discontinued).

pH: Water years 1999–2001, June 2002 to November 2003 (seasonal only) (discontinued).

SPECIFIC CONDUCTANCE: Water years 1999–2001, June 2002 to November 2003 (seasonal only) (discontinued).

AIR TEMPERATURE: Water years 1999–2001.

WATER TEMPERATURE: Water years 1962–80, 1999–2001, June 2002 to November 2003 (seasonal only) (discontinued).

PERIOD OF DAILY RECORD.—

PRECIPITATION: December 1999 to September 2001.

DISSOLVED OXYGEN: December 1999 to September 2001, June 2002 to November 2003 (seasonal only) (discontinued).

pH: December 1999 to September 2001, June 2002 to November 2003 (seasonal only) (discontinued).

SPECIFIC CONDUCTANCE: December 1999 to September 2001, June 2002 to November 2003 (seasonal only) (discontinued).

AIR TEMPERATURE: December 1999 to September 2001.

WATER TEMPERATURE: October 1962 to June 1980, December 1999 to September 2001, June 2002 to November 2003 (seasonal only) (discontinued).

INSTRUMENTATION.—Water-quality monitor since December 1999. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved Oxygen records rated excellent except for Nov. 21–24, which is rated good, Nov. 25–30, which is rated fair, and Oct. 1 to Nov. 13, which is rated poor. pH, specific conductance, and water temperature records rated excellent. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

PRECIPITATION: Maximum daily rainfall, 0.26 inches, Jan. 10, 2000; no rainfall for many days each year.

DISSOLVED OXYGEN: Maximum recorded, 15.3 mg/L, Sept. 18, 2003; minimum recorded, 3.0 mg/L, July 23, 2001.

pH: Maximum recorded, 9.3 standard units, Aug. 20, 2001; minimum recorded, 6.4 standard units, Dec. 7, 8, 2001.

SPECIFIC CONDUCTANCE: Maximum recorded, 219 microsiemens, June 16, 17, 2000; minimum recorded, 115 microsiemens, July 31, 2003.

AIR TEMPERATURE: Maximum recorded, 109°F, May 22, 2001; minimum recorded, 13°F, Dec. 30, 2000, Jan. 17, 2001.

WATER TEMPERATURE: Maximum recorded, 23.5°C, Aug. 3, 4, 1977, Aug. 10, 1978; minimum recorded, 0.5°C, many days in 1972.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 9.9 mg/L, Oct. 24; minimum recorded, 5.2 mg/L, Oct. 4.

pH: Maximum recorded, 8.8 standard units, Oct. 2; minimum recorded, 7.3 standard units, Oct. 18, 19, 28 and Nov. 8.

SPECIFIC CONDUCTANCE: Maximum recorded, 177 microsiemens, Oct. 18; minimum recorded, 152 microsiemens, Nov. 20.

WATER TEMPERATURE: Maximum recorded, 18.1°C, Oct. 2; minimum recorded, 7.5°C, Nov. 28, 29.

OXYGEN DISSOLVED, MG/L
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.4	6.9	8.0	7.1	---	---	---	---	---	---	---	---
2	8.7	7.3	8.2	7.1	---	---	---	---	---	---	---	---
3	7.5	6.0	7.8	7.3	---	---	---	---	---	---	---	---
4	6.3	5.2	7.9	7.3	---	---	---	---	---	---	---	---
5	7.3	5.4	7.9	7.2	---	---	---	---	---	---	---	---
6	7.4	5.3	7.7	7.2	---	---	---	---	---	---	---	---
7	6.4	5.8	8.6	6.8	---	---	---	---	---	---	---	---
8	6.8	5.8	8.1	6.6	---	---	---	---	---	---	---	---
9	6.8	6.0	7.7	6.8	---	---	---	---	---	---	---	---
10	6.4	6.0	7.9	7.2	---	---	---	---	---	---	---	---
11	6.9	5.6	8.5	6.9	---	---	---	---	---	---	---	---
12	6.2	5.8	9.1	7.3	---	---	---	---	---	---	---	---
13	6.6	6.0	7.8	6.7	---	---	---	---	---	---	---	---
14	6.9	6.2	7.3	6.6	---	---	---	---	---	---	---	---
15	7.1	6.6	7.4	6.9	---	---	---	---	---	---	---	---
16	7.0	6.7	7.3	7.0	---	---	---	---	---	---	---	---
17	7.3	6.8	7.6	6.9	---	---	---	---	---	---	---	---
18	7.8	6.8	7.6	7.2	---	---	---	---	---	---	---	---
19	7.6	7.2	7.8	6.8	---	---	---	---	---	---	---	---
20	7.8	7.5	7.9	7.3	---	---	---	---	---	---	---	---
21	7.8	7.6	8.2	7.6	---	---	---	---	---	---	---	---
22	8.6	6.8	8.1	7.8	---	---	---	---	---	---	---	---
23	---	---	8.3	8.0	---	---	---	---	---	---	---	---
24	9.9	7.6	8.7	8.0	---	---	---	---	---	---	---	---
25	9.2	7.9	8.6	7.0	---	---	---	---	---	---	---	---
26	8.1	7.3	8.8	8.3	---	---	---	---	---	---	---	---
27	7.8	7.0	9.0	8.5	---	---	---	---	---	---	---	---
28	7.7	7.0	9.2	8.6	---	---	---	---	---	---	---	---
29	8.1	7.3	9.3	8.9	---	---	---	---	---	---	---	---
30	8.2	7.2	9.8	9.1	---	---	---	---	---	---	---	---
31	8.1	7.4	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	9.8	6.6	---	---	---	---	---	---	---	---

