

Figure 40. Location of surface-water and water-quality stations in the Spokane River Basin.

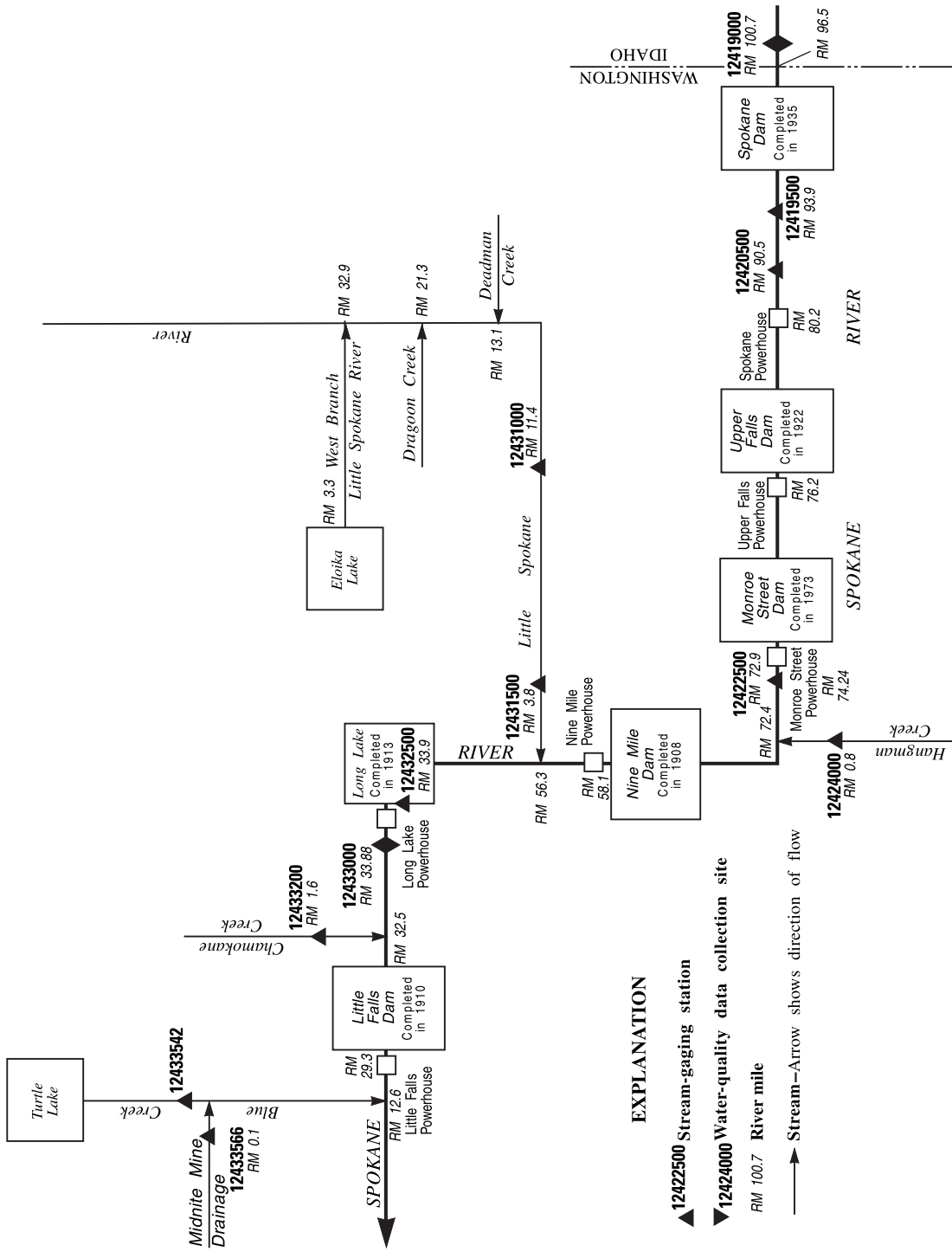


Figure 41. Schematic diagram showing surface-water and water-quality stations in the Spokane River Basin.

SPOKANE RIVER BASIN

12419000 SPOKANE RIVER NEAR POST FALLS, ID

LOCATION.--Lat 47°42'11", long 116°58'37", in SW¹/₄SW¹/₄SW¹/₄ sec.4, T.50 N., R.5 W., Kootenai County, Post Falls quad., Hydrologic Unit 17010305, on right bank, 1 mi downstream from powerplant of Avista Utilities, 1.5 mi southwest of Post Falls, and at mile 100.7.

DRAINAGE AREA.--3,840 mi², approximately, of which about 122 mi² in the vicinity of Hayden Lake is noncontributing to this station.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year (prior to January 1913, monthly discharge only, published in WSP 870 and 1736). Prior to October 1949, published as "at Post Falls."

GAGE.--Water-stage recorder. Datum of gage is 2,050 ft, referred to originally accepted elevation of 2,157.40 ft for the U.S. Geological Survey bench mark in southeast corner of Idaho First National Bank Building (see WSP 882). Gage datum is 2,047.00 ft above NGVD of 1929. Jan. 1, 1913, to Nov. 21, 1920, nonrecording gage, and Nov. 22, 1920, to Sept. 15, 1934, recording gage 0.6 mi upstream. From Sept. 16, 1934, to Nov. 15, 1949, recording gage 0.8 mi upstream. From Nov. 16, 1949, at present site. Datum of all gages prior to Sept. 30, 1964, 50 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by dam at Post Falls and affected by storage in Coeur d'Alene Lake (sta 12415500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,100 ft³/s, when recorder was not operating, Dec. 25, 1933, (determined from unpublished records collected by Washington Water Power Co. for station at Liberty Bridge); minimum, 65 ft³/s July 25, 30, 1973; minimum gage height, 4.68 ft, July 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 17,800 ft³/s Feb. 4; minimum daily, 274 ft³/s Aug. 25, 29.

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	1720	1950	1510	3000	10700	5450	15600	10300	8130	2080	358	280
2	1720	1790	1510	3070	14600	5430	15500	10100	7410	1540	357	281
3	1760	1780	1510	3580	17400	5180	15600	9990	6980	924	329	287
4	1790	1620	1510	3570	17800	5020	15400	9930	6950	827	376	364
5	1790	1510	1510	3590	17500	4930	15100	9680	6840	856	448	362
6	1790	1490	1510	3590	16500	4620	14700	9590	6240	852	472	361
7	2080	1470	1510	4200	15700	4470	13900	9220	5830	852	459	363
8	2260	1470	1510	4450	14800	4460	13200	8930	5810	1040	456	543
9	2260	1460	1770	4450	14000	4440	12500	8700	5540	1110	456	775
10	2260	1460	1960	4230	13100	4270	11500	8580	5760	1100	456	775
11	2250	1460	1970	4020	12200	4520	10900	8480	5970	1110	470	775
12	2250	1460	2090	3870	11300	4520	11800	8140	5960	1220	465	775
13	2240	1460	2160	3350	10400	5050	11900	8000	5690	1340	383	926
14	2240	1490	2160	3210	9330	5200	12200	7970	5270	1390	341	1350
15	2240	1520	2160	3430	8920	6510	12300	7970	3900	1390	343	1510
16	2240	1520	2170	3350	8560	7610	12300	8030	3190	917	342	2260
17	2240	1510	2470	3370	8070	8880	12100	8040	3180	859	341	2680
18	2230	1520	2730	3390	7660	10200	12000	8040	3520	727	321	2990
19	2230	1520	2710	3190	7450	10600	12000	7990	3790	671	308	2780
20	2230	1510	2730	3110	7120	10800	11800	7720	3800	683	308	1770
21	2230	1510	2730	3070	6960	10900	11000	6780	3480	693	301	1530
22	2220	1510	2680	3000	6930	11200	10900	5610	3270	639	279	1380
23	2270	1510	2340	2970	6910	12700	11000	5610	2730	603	275	1100
24	2280	1510	2120	3090	6870	14900	11000	5550	2440	595	276	1100
25	2290	1520	2120	3160	6760	16600	11200	5540	2440	574	274	1100
26	2290	1520	2120	3240	6260	17200	11300	5610	2310	563	276	1100
27	2290	1520	2120	4300	6100	17500	11300	5630	2230	563	276	1100
28	2280	1520	2110	5030	5820	17500	11200	5650	2230	451	275	1090
29	2230	1510	2470	6280	---	17200	11100	5670	2220	333	274	1090
30	2200	1520	2730	7120	---	16600	10800	5870	2220	303	280	1090
31	2190	---	2830	8040	---	15900	---	7590	---	307	280	---
TOTAL	66590	46120	65530	121320	295720	290360	373200	240510	135330	27112	10855	33887
MEAN	2148	1537	2114	3914	10560	9366	12440	7758	4511	875	350	1130
MAX	2290	1950	2830	8040	17800	17500	15600	10300	8130	2080	472	2990
MIN	1720	1460	1510	2970	5820	4270	10800	5540	2220	303	274	280
AC-FT	132100	91480	130000	240600	586600	575900	740200	477100	268400	53780	21530	67210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2003, BY WATER YEAR (WY)

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	1749	2863	4864	5191	6288	8198	14390	17430	9643	2094	931	1180																																																																															
MAX	5460	13130	23660	24930	23280	25440	26050	34930	26710	10720	2133	1849																																																																															
(WY)	1928	1928	1934	1934	1996	1972	1943	1997	1974	1916	1917	1985																																																																															
MIN	782	627	784	903	1025	1751	3558	5141	1584	851	185	188																																																																															
(WY)	1964	1936	1936	2001	1929	1929	1977	1992	1926	1994	1958	1949																																																																															

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1913 - 2003
ANNUAL TOTAL	2756514	1706534	
ANNUAL MEAN	7552	4675	6206
HIGHEST ANNUAL MEAN			11600
LOWEST ANNUAL MEAN			2143
HIGHEST DAILY MEAN	30500	Apr 17	17800
LOWEST DAILY MEAN	569	Aug 29	274
ANNUAL SEVEN-DAY MINIMUM	642	Aug 24	275
ANNUAL RUNOFF (AC-FT)	5468000	3385000	4496000
10 PERCENT EXCEEDS	20800	11800	17100
50 PERCENT EXCEEDS	3540	2680	2990
90 PERCENT EXCEEDS	1100	456	900

SPOKANE RIVER BASIN

12419000 SPOKANE RIVER NEAR POST FALLS, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-1981, July 1989 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May to September 1998, May to September 1999, May to September 2000, November 2001 to October 2002, June to September 2003 (discontinued).

SPECIFIC CONDUCTANCE: February 1999 to September 2001 (discontinued).

INSTRUMENTATION.--Water-quality data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 27.2 °C July 30, 2003; minimum, 1.4 °C Feb. 17, 18, 2001.

SPECIFIC CONDUCTANCE: Maximum recorded daily mean, 57 microsiemens/cm Aug. 30 to Sept. 4, 2000; minimum recorded daily mean, 42 microsiemens/cm May 6-8, June 14-15, 2000.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 27.2 °C July 30; minimum, 16.8 °C Sept. 21-22.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, uS/cm 25 degC (00095)	pH, water, unfltrd field, std units (00400)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Turbidity, wat unfltrd lab, Hach 2100AN NTU (99872)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	Fecal coliform, M-FC 0.7u MF col/100 mL (31625)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
NOV 07...	1230	1470	47	7.3	8.5	7.4	--	--	--	--	17	4.5	1.4
FEB 10...	0920	13300	48	6.6	-2.0	3.8	--	--	--	--	20	5.2	1.6
MAY 14...	0955	7960	47	7.2	15.0	11.0	--	--	--	--	18	4.8	1.5
JUN 02...	1200	6960	46	7.3	15.9	19.0	--	--	--	--	19	5.18	1.52
JUL 01...	1025	2010	48	7.0	22.0	21.3	25	7.0	85	S13	19	5.23	1.52
AUG 19...	1130	311	60	7.4	26.5	24.0	3	7.4	95	S15	22	5.97	1.74
SEP 03...	1230	288	68	7.3	28.0	22.8	<1	7.8	98	45	23	6.28	1.85

Date	Sodium, water, fltrd, mg/L (00930)	Potassium, water, fltrd, mg/L (00935)	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Ammonia, water, fltrd, mg/L as N (00608)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Phosphorus, water, fltrd, mg/L (00666)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Cadmium, water, fltrd, ug/L (01025)
NOV 07...	--	--	--	--	--	--	E.010	.1	.082	.004	--	.008	.176
FEB 10...	--	--	--	--	--	--	<.015	E.06	.054	.004	--	.007	.232
MAY 14...	--	--	--	--	--	--	<.015	.1	E.019	E.003	--	.009	.213
JUN 02...	--	--	--	--	--	--	<.015	.1	E.015	<.004	--	.006	.183
JUL 01...	--	--	--	--	--	--	<.015	.1	.044	E.002	--	.007	.146
AUG 19...	--	--	--	--	--	--	<.015	.1	.230	.004	--	.010	.054
SEP 03...	2.99	.90	2.28	4.19	<.17	7.6	<.015	.1	.304	--	<.007	.011	--

SPOKANE RIVER BASIN
12419000 SPOKANE RIVER NEAR POST FALLS, ID--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Cadmium water, unfltrd ug/L (01027)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
NOV 07...	.194	E7	E14.5	.20	.64	1.41	2.63	48.4	51.7	--	--
FEB 10...	.214	E8	33.6	1.34	1.03	.61	5.20	70.9	71.5	--	--
MAY 14...	.296	20	74.3	.66	2.35	1.65	4.75	55.8	61.9	--	--
JUN 02...	.255	19.3	64.8	.65	2.40	2.01	6.63	43.3	53.0	--	--
JUL 01...	.211	E7.5	43	.17	1.64	1.24	6.72	34.3	40.3	1	5.4
AUG 19...	.094	E5.1	15	.16	1.30	1.86	5.37	23.3	26.1	1	.84
SEP 03...	--	--	--	--	--	--	--	--	--	1	.78

< Less than
E Estimated value
M Presence verified, not quantified
S Most probable value

Temperature, water, degrees Celsius
YEAR JUNE 2003 TO MAY 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	21.9	21.2	21.5	27.0	24.9	25.8	23.6	21.4	22.4
2	---	---	---	22.0	21.0	21.5	26.5	24.9	25.6	23.6	21.4	22.4
3	---	---	---	22.2	20.9	21.5	25.4	24.8	25.1	23.6	21.7	22.6
4	---	---	---	22.4	20.7	21.4	26.0	24.4	25.1	23.6	21.9	22.7
5	---	---	---	22.2	21.0	21.5	25.4	24.4	24.9	23.4	21.9	22.5
6	---	---	---	22.5	21.0	21.6	26.0	24.2	24.9	23.4	21.7	22.5
7	---	---	---	22.5	21.2	21.8	25.6	23.9	24.6	23.0	22.0	22.5
8	---	---	---	22.4	21.5	21.9	25.6	23.7	24.6	22.2	21.4	21.7
9	---	---	---	22.5	21.2	21.7	26.0	24.1	24.9	21.7	21.0	21.4
10	---	---	---	22.9	21.4	22.1	26.0	23.9	24.8	21.2	20.7	21.0
11	---	---	---	23.4	22.2	22.7	25.8	23.9	24.7	20.7	20.2	20.5
12	---	---	---	23.6	22.4	22.9	25.4	23.7	24.5	20.2	19.4	19.9
13	---	---	---	23.4	22.5	22.8	25.6	23.6	24.4	19.9	18.8	19.2
14	---	---	---	23.2	22.0	22.6	25.6	23.4	24.4	18.9	18.3	18.6
15	---	---	---	23.7	22.4	22.9	25.1	23.7	24.4	18.6	18.1	18.4
16	---	---	---	24.1	22.7	23.2	24.9	23.7	24.2	18.3	18.0	18.1
17	---	---	---	24.1	22.7	23.2	25.1	23.0	24.0	18.0	17.6	17.8
18	---	---	---	24.6	22.7	23.5	25.4	23.2	24.2	17.6	17.0	17.2
19	21.4	20.7	21.0	25.1	23.2	24.0	25.4	23.2	24.2	17.3	17.0	17.1
20	21.4	20.2	21.0	25.3	23.7	24.3	24.9	23.0	23.9	17.8	17.0	17.3
21	20.2	18.8	19.4	25.8	23.9	24.7	24.9	22.9	23.8	17.8	16.8	17.3
22	18.8	18.1	18.4	26.1	24.2	25.0	23.9	23.2	23.5	17.8	16.8	17.2
23	18.3	17.8	18.0	26.3	24.6	25.3	24.4	22.7	23.4	17.8	17.0	17.3
24	18.4	17.8	18.1	26.3	24.6	25.3	24.2	22.2	23.2	17.8	17.0	17.4
25	19.2	18.1	18.7	26.5	24.6	25.3	24.4	22.0	23.2	18.1	17.3	17.7
26	19.7	19.1	19.4	26.7	24.8	25.5	24.6	22.5	23.4	18.3	17.5	17.8
27	20.4	19.6	19.9	26.8	24.8	25.6	23.7	22.2	23.0	18.3	17.5	17.9
28	21.0	20.1	20.5	27.0	24.9	25.8	24.1	21.7	22.8	18.3	17.5	18.0
29	21.5	20.5	21.1	26.8	24.6	25.7	23.6	21.9	22.7	18.1	17.5	17.9
30	21.7	21.0	21.4	27.2	24.9	26.0	23.7	21.5	22.6	18.1	17.3	17.7
31	---	---	---	27.0	24.6	25.8	23.6	21.4	22.4	---	---	---
MONTH	---	---	---	27.2	20.7	23.5	27.0	21.4	24.1	23.6	16.8	19.4

12419500 SPOKANE RIVER ABOVE LIBERTY BRIDGE, NEAR OTIS ORCHARDS, WA

LOCATION.--Lat 47°40'56", long 117°05'05", in NW ¼ sec.11, T.25 N., R.45 E., Spokane County, Hydrologic Unit 17010305, on left bank 1.2 mi upstream from Liberty Bridge, 1.8 mi southeast of Otis Orchards, 3.3 mi northeast of Greenacres, and at mile 93.9.

DRAINAGE AREA.--3,880 mi², approximately.

PERIOD OF RECORD.--January 1929 to December 1936, March 1937, August 1937 to August 1941, October 1941 to October 1942, February to May 1943, August 1943 to November 1946, February to July 1947, September 1947 to February 1948; May to November 1948, March to November 1949, and April to September 1950 (monthly discharge only); October 1950 to September 1983, April 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,000 ft above NGVD of 1929, (levels by Avista Corporation).

REMARKS.--No estimated daily discharges. Records good. Flow partly regulated by dam at Post Falls, Idaho, 8.2 mi upstream and affected by storage in Coeur d'Alene Lake. Chemical analysis July 1959 to September 1971, April to September 1999. Water temperature December 1963 to September 1965.

AVERAGE DISCHARGE.--51 years (water years 1930-36, 1938-40, 1942, 1944-46, 1951-83, 2000-03), 6,063 ft³/s, 4,393,000 acre- ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,100 ft³/s Dec. 25, 1933, gage height, 22.24 ft; minimum daily discharge, 38 ft³/s July 20, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 18,600 ft³/s Feb. 3, gage height, 16.44 ft, minimum discharge, 154 ft³/s Sept. 3, 4, gage height 7.68 ft.

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	1,450	1,770	1,310	2,750	9,880	5,180	15,100	9,760	7,590	1,870	205	157
2	1,450	1,560	1,310	2,780	13,900	5,170	15,000	9,510	6,940	1,410	204	156
3	1,480	1,560	1,310	3,300	16,900	4,960	15,000	9,400	6,490	818	197	154
4	1,520	1,430	1,310	3,300	17,500	4,790	14,900	9,350	6,470	670	210	173
5	1,530	1,310	1,310	3,310	17,200	4,700	14,600	9,100	6,370	693	272	180
6	1,530	1,300	1,310	3,320	16,100	4,420	14,200	8,980	5,900	688	315	179
7	1,770	1,280	1,310	3,810	15,200	4,260	13,400	8,660	5,490	688	302	180
8	1,990	1,280	1,310	4,120	14,400	4,250	12,700	8,350	5,480	825	299	284
9	1,990	1,270	1,510	4,140	13,500	4,240	12,000	8,130	5,240	909	299	541
10	1,990	1,270	1,730	3,980	12,600	4,090	11,000	8,000	5,400	905	300	547
11	1,980	1,270	1,730	3,760	11,700	4,270	10,300	7,920	5,620	906	312	551
12	1,990	1,270	1,830	3,620	10,800	4,320	11,300	7,620	5,610	985	320	554
13	1,980	1,270	1,930	3,170	9,970	4,750	11,400	7,460	5,380	1,090	257	616
14	1,980	1,290	1,930	2,960	8,850	4,940	11,700	7,430	5,000	1,140	199	1,000
15	1,980	1,300	1,930	3,170	8,400	6,030	11,800	7,430	3,760	1,140	196	1,110
16	1,980	1,310	1,950	3,140	8,050	7,040	11,700	7,470	2,960	783	192	1,800
17	1,980	1,310	2,180	3,120	7,580	8,240	11,600	7,490	2,950	702	189	2,220
18	1,980	1,310	2,480	3,160	7,180	9,600	11,500	7,490	3,240	585	181	2,570
19	1,980	1,320	2,460	2,960	6,980	10,000	11,400	7,440	3,540	523	168	2,450
20	1,980	1,300	2,470	2,890	6,690	10,300	11,200	7,200	3,540	525	167	1,500
21	1,980	1,300	2,490	2,840	6,520	10,400	10,500	6,450	3,270	527	166	1,220
22	1,960	1,300	2,440	2,790	6,470	10,700	10,400	5,300	3,030	495	165	1,140
23	2,010	1,300	2,160	2,750	6,460	12,000	10,500	5,290	2,560	456	164	870
24	2,030	1,300	1,900	2,850	6,430	14,300	10,500	5,250	2,210	454	163	875
25	2,040	1,310	1,900	2,920	6,340	16,100	10,600	5,230	2,200	439	162	871
26	2,040	1,310	1,900	2,990	5,930	16,800	10,800	5,290	2,090	425	161	864
27	2,040	1,310	1,900	3,960	5,750	17,200	10,800	5,310	1,990	418	160	862
28	2,040	1,310	1,880	4,640	5,530	17,100	10,700	5,320	1,990	349	159	858
29	1,990	1,310	2,190	5,760	---	16,800	10,500	5,340	1,990	203	158	858
30	1,960	1,310	2,490	6,520	---	16,200	10,300	5,500	1,980	193	158	858
31	1,970	---	2,570	7,360	---	15,500	---	6,980	---	177	157	---
TOTAL	58,570	40,040	58,430	112,140	282,810	278,650	357,400	225,450	126,280	21,991	6,557	26,198
MEAN	1,889	1,335	1,885	3,617	10,100	8,989	11,910	7,273	4,209	709	212	873
MAX	2,040	1,770	2,570	7,360	17,500	17,200	15,100	9,760	7,590	1,870	320	2,570
MIN	1,450	1,270	1,310	2,750	5,530	4,090	10,300	5,230	1,980	177	157	154
AC-FT	116,200	79,420	115,900	222,400	561,000	552,700	708,900	447,200	250,500	43,620	13,010	51,960
CFSM	0.49	0.34	0.49	0.93	2.60	2.32	3.07	1.87	1.08	0.18	0.05	0.23
IN.	0.56	0.38	0.56	1.08	2.71	2.67	3.43	2.16	1.21	0.21	0.06	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2003, BY WATER YEAR (WY)

MEAN	1,633	2,641	4,669	5,243	6,201	7,545	14,050	17,560	9,640	1,881	791	1,052
MAX	3,281	7,913	23,660	24,980	16,050	24,440	25,150	28,700	25,710	6,043	1,464	1,731
(WY)	(1969)	(1960)	(1934)	(1934)	(1961)	(1972)	(1943)	(1932)	(1974)	(1950)	(1948)	(1971)
MIN	748	597	726	834	1,010	1,673	3,605	5,441	2,067	709	149	127
(WY)	(1964)	(1936)	(1936)	(2001)	(2001)	(1929)	(1977)	(1944)	(1931)	(2003)	(2001)	(1949)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1929 - 2003	
ANNUAL TOTAL	2,630,298		1,594,516			
ANNUAL MEAN	7,206		4,369		6,070	
HIGHEST ANNUAL MEAN					11,260	
LOWEST ANNUAL MEAN					2,077	
HIGHEST DAILY MEAN	30,600	Apr 18	17,500	Feb 4	49,800	Dec 25, 1933
LOWEST DAILY MEAN	427	Aug 29	154	Sep 3	0.00	Jun 28, 1933
ANNUAL SEVEN-DAY MINIMUM	485	Aug 25	157	Aug 28	71	Aug 21, 2001
ANNUAL RUNOFF (AC-FT)	5,217,000		3,163,000		4,398,000	
ANNUAL RUNOFF (CFSM)	1.86		1.13		1.56	
ANNUAL RUNOFF (INCHES)	25.22		15.29		21.26	
10 PERCENT EXCEEDS	20,200		11,200		17,000	
50 PERCENT EXCEEDS	3,370		2,440		3,000	
90 PERCENT EXCEEDS	865		299		776	

12420500 SPOKANE RIVER AT GREENACRES, WA

LOCATION.--Lat 47°40'39", long 117°09'04", in SW ¼ of NW ¼ sec.8, T.25 N., R.45 E., Spokane County, Hydrologic Unit 17010305, on left bank 600 ft upstream from Barker Road Bridge, 0.5 mi north of Greenacres, and at mile 90.5.

DRAINAGE AREA.--4,150 mi², approximately

PERIOD OF RECORD.--March 1948 to July 1952, August 1999 to current year.

REVISED RECORDS.--None

GAGE.--Water-stage recorder. Elevation of gage is 1,980 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and discharges below 600 ft³/s, which are poor. Flow partly regulated by dam at Post Falls, Idaho, 11.6 mi upstream and affected by storage in Coeur d'Alene Lake.

AVERAGE DISCHARGE.--7 years (water years 1949-51, 2000-03) 6,216 ft³/s, 4,503,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, probably occurred May 30, 1948, during period of no gage-height record (comparison with other stations on this stream indicates a discharge of about 40,000 ft³/s); minimum discharge, 22 ft³/s August 21, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 18,600 ft³/s, Feb. 3, gage height 10.77 ft; minimum discharge, 42 ft³/s, Aug. 26, 27, gage height 2.74 ft.

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	1,330	1,710	1,270	2,710	10,100	5,400	15,500	10,300	8,000	1,820	e80	46
2	1,330	1,490	1,270	2,730	14,000	5,370	15,500	10,000	7,330	1,380	e75	46
3	1,370	1,490	1,270	3,250	17,000	5,160	15,500	9,910	6,830	757	e70	45
4	1,420	1,370	1,270	3,260	17,600	4,980	15,400	9,860	6,800	575	e80	69
5	1,420	1,230	1,270	3,270	17,400	4,880	15,100	9,600	6,700	604	e160	83
6	1,420	1,220	1,270	3,290	16,400	4,590	14,600	9,480	6,180	595	e185	83
7	1,660	1,200	1,270	3,760	15,600	4,410	13,900	9,170	5,690	590	e180	85
8	1,880	1,210	1,270	4,090	14,800	4,410	13,200	8,840	5,680	716	e170	152
9	1,890	1,200	1,450	4,130	13,900	4,390	12,500	8,620	5,430	818	e170	443
10	1,900	1,200	1,690	4,000	13,000	4,240	11,600	8,480	5,570	815	e175	454
11	1,880	1,190	1,690	3,760	12,200	4,410	10,800	8,390	5,820	816	e185	458
12	1,880	1,200	1,790	3,620	11,300	4,490	11,800	8,080	5,800	883	e190	465
13	1,880	1,190	1,880	3,180	10,400	4,920	11,800	7,900	5,570	999	e140	503
14	1,880	1,220	1,890	2,940	9,350	5,140	12,100	7,860	5,170	1,060	94	932
15	1,880	1,240	1,890	3,160	8,900	6,300	12,200	7,870	3,880	1,050	94	1,030
16	1,880	1,250	1,910	3,140	8,520	7,440	12,200	7,910	2,990	e650	91	1,720
17	1,880	1,250	2,120	3,120	8,040	8,680	12,100	7,940	2,970	e575	89	2,140
18	1,880	1,250	2,420	3,160	7,620	10,000	12,000	7,950	3,240	e475	83	2,500
19	1,880	1,260	2,410	2,950	7,400	10,500	11,900	7,890	3,570	e400	67	2,420
20	1,880	1,250	2,420	2,880	7,060	10,700	11,700	7,630	3,580	e410	66	1,510
21	1,880	1,250	2,450	2,830	6,890	10,900	11,000	6,830	3,310	e420	65	1,210
22	1,860	1,250	2,390	2,790	6,830	11,100	10,900	5,510	3,050	e375	58	1,140
23	1,930	1,250	2,140	2,740	6,830	12,400	10,900	5,500	2,580	e335	49	849
24	1,950	1,250	1,870	2,840	6,800	14,700	11,000	5,460	2,190	e330	48	850
25	1,960	1,260	1,870	2,920	6,690	16,400	11,100	5,420	2,160	e320	47	843
26	1,970	1,260	1,870	2,980	6,230	17,200	11,200	5,490	2,050	e300	45	834
27	1,970	1,260	1,870	3,940	6,030	17,500	11,300	5,510	1,960	e285	45	829
28	1,970	1,260	1,850	4,660	5,790	17,500	11,100	5,520	1,960	e225	45	826
29	1,930	1,270	2,140	5,840	---	17,200	11,000	5,540	1,940	e75	45	828
30	1,890	1,270	2,460	6,680	---	16,600	10,700	5,700	1,940	e70	46	828
31	1,900	---	2,530	7,590	---	15,900	---	7,270	---	e60	46	---
TOTAL	55,630	38,200	57,160	112,210	292,680	287,810	371,600	237,430	129,940	18,783	2,983	24,221
MEAN	1,795	1,273	1,844	3,620	10,450	9,284	12,390	7,659	4,331	606	96.2	807
MAX	1,970	1,710	2,530	7,590	17,600	17,500	15,500	10,300	8,000	1,820	190	2,500
MIN	1,330	1,190	1,270	2,710	5,790	4,240	10,700	5,420	1,940	60	45	45
AC-FT	110,300	75,770	113,400	222,600	580,500	570,900	737,100	470,900	257,700	37,260	5,920	48,040
CFSM	0.43	0.31	0.44	0.87	2.52	2.24	2.98	1.85	1.04	0.15	0.02	0.19
IN.	0.50	0.34	0.51	1.01	2.62	2.58	3.33	2.13	1.16	0.17	0.03	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2003, BY WATER YEAR (WY)

MEAN	1,810	2,541	4,397	4,230	6,619	8,191	15,980	19,430	10,800	2,085	537	688
MAX	2,788	4,435	9,128	7,735	15,440	16,490	20,030	29,510	22,900	6,216	1,391	1,185
(WY)	(1952)	(1951)	(1951)	(1951)	(1951)	(1950)	(2000)	(1948)	(1948)	(1950)	(1948)	(1999)
MIN	865	1,273	1,591	945	1,118	2,075	4,593	7,659	3,124	606	96.2	132
(WY)	(1950)	(2003)	(2001)	(2001)	(2001)	(2001)	(2001)	(2003)	(2001)	(2003)	(2003)	(1949)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1948 - 2003

ANNUAL TOTAL	2,657,305	1,628,647		
ANNUAL MEAN	7,280	4,462		
HIGHEST ANNUAL MEAN			6,216	
LOWEST ANNUAL MEAN			9,028	1950
HIGHEST DAILY MEAN	31,100	Apr 17	17,600	Feb 4
LOWEST DAILY MEAN	287	Aug 29	45	Aug 26
ANNUAL SEVEN-DAY MINIMUM	344	Aug 25	45	Aug 26
ANNUAL RUNOFF (AC-FT)	5,271,000		3,230,000	4,503,000
ANNUAL RUNOFF (CFSM)	1.75		1.08	1.50
ANNUAL RUNOFF (INCHES)	23.82		14.60	20.35
10 PERCENT EXCEEDS	20,600		11,700	17,600
50 PERCENT EXCEEDS	3,440		2,390	3,000
90 PERCENT EXCEEDS	727		170	368

e Estimated

12422500 SPOKANE RIVER AT SPOKANE, WA

LOCATION.--Lat 47°39'34", long 117°26'53", in SW ¼ SW ¼ sec.13, T.25 N., R.42 E., Spokane County, Hydrologic Unit 17010305, on right bank at Cochran Street in Spokane, 0.5 mi upstream from Hangman Creek, and at mile 72.9.

DRAINAGE AREA.--4,290 mi², approximately, of which about 122 mi² in the vicinity of Hayden Lake is noncontributing to this station.

PERIOD OF RECORD.--April 1891 to current year.

REVISED RECORDS.--WSP 532: 1891-1904. WSP 1246: Drainage area. WSP 1286: 1907-09.

GAGE.--Water-stage recorder. Elevation of gage is 1,697 ft above NGVD of 1929 (river-profile survey). Prior to July 1, 1921, water-stage recorders and nonrecording gages at several sites within 4 mi of present site at various datums.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by powerplants of Avista Corp. at Post Falls, Idaho, 28.8 mi upstream and at Spokane, 1.3 mi upstream, and by Coeur d'Alene Lake, Idaho. Rathdrum Prairie Canal diverts water upstream from station for irrigation. In 1946, approximately 22,600 acres, of which about 15,000 acres utilized surface water, were under irrigation upstream from Spokane. Since 1966 irrigation has been from many wells in the valley near the river with only about 3,000 acres irrigated from the river. Chemical analyses October 1972 to September 1973. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--112 years (water years 1892-2003), 6,724 ft³/s, 4,871,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,000 ft³/s, estimated, May 31, 1894 (see WSP 532); minimum, 49.7 ft³/s Aug. 26, 1991, due to regulation for construction at Post Street Dam, but may have been lower during periods of missing record in 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,700 ft³/s Feb. 03, gage height, 24.01 ft; minimum discharge, 267 ft³/s Dec. 12, gage height, 16.39 ft., result of regulation.

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	1,830	2,320	1,840	3,070	8,880	5,820	15,300	10,400	7,970	2,440	643	514
2	1,850	2,120	1,840	3,120	12,500	5,770	15,200	10,100	7,510	2,200	630	493
3	1,840	2,080	1,840	3,450	15,600	5,580	15,300	10,000	7,010	1,670	667	494
4	1,920	2,050	1,840	3,540	16,600	5,410	15,200	9,950	6,980	1,350	639	502
5	1,910	1,870	1,830	3,560	16,600	5,310	14,900	9,760	6,860	1,400	661	518
6	1,930	1,880	1,820	3,600	15,800	5,120	14,600	9,640	6,510	1,370	739	534
7	2,020	1,820	1,830	3,880	15,100	4,900	13,900	9,430	6,000	1,310	700	523
8	2,250	1,880	1,810	4,230	14,300	4,870	13,200	9,090	6,000	1,360	695	550
9	2,290	1,820	1,890	4,290	13,600	4,870	12,600	8,900	5,800	1,470	680	745
10	2,300	1,860	2,170	4,280	12,800	4,730	11,800	8,720	5,770	1,470	678	815
11	2,310	1,820	2,170	4,060	12,000	4,760	10,900	8,610	6,060	1,410	679	840
12	2,310	1,840	2,230	4,000	11,200	4,910	11,800	8,380	6,060	1,420	687	840
13	2,350	1,800	2,320	3,700	10,500	5,120	11,800	8,170	5,860	1,540	682	853
14	2,320	1,830	2,370	3,350	9,530	5,380	12,100	8,110	5,610	1,590	600	1,120
15	2,360	1,850	2,350	3,520	9,060	6,180	12,100	8,060	4,650	1,610	617	1,240
16	2,340	1,850	2,410	3,570	8,680	7,160	12,200	8,090	3,730	1,380	592	1,640
17	2,340	1,840	2,460	3,530	8,260	8,210	12,100	8,120	3,640	1,240	594	2,080
18	2,350	1,840	2,760	3,560	7,860	9,460	12,000	8,130	3,720	1,110	572	2,460
19	2,340	1,880	2,780	3,450	7,640	9,970	11,900	8,110	4,050	1,070	595	2,480
20	2,360	1,830	2,790	3,350	7,330	10,300	11,700	7,860	4,040	1,040	554	1,940
21	2,350	1,850	2,830	3,310	7,150	10,500	11,200	7,380	3,870	1,020	553	1,570
22	2,320	1,840	2,790	3,280	7,060	10,600	11,000	6,050	3,610	986	552	1,560
23	2,410	1,830	2,670	3,220	7,050	11,600	11,000	6,010	3,340	910	549	1,310
24	2,440	1,830	2,400	3,280	7,020	13,800	11,000	5,930	2,880	897	553	1,260
25	2,450	1,830	2,390	3,360	6,900	15,500	11,100	5,840	2,810	865	511	1,260
26	2,450	1,840	2,380	3,390	6,610	16,400	11,100	5,910	2,760	860	522	1,240
27	2,460	1,830	2,400	4,010	6,370	16,900	11,200	5,880	2,570	865	520	1,220
28	2,470	1,850	2,380	4,620	6,200	16,900	11,200	5,890	2,620	818	519	1,240
29	2,460	1,830	2,520	5,580	---	16,800	11,100	5,860	2,570	713	517	1,220
30	2,400	1,840	2,850	6,360	---	16,200	10,900	5,950	2,520	679	516	1,220
31	2,400	---	2,910	7,140	---	15,700	---	7,060	---	644	516	---
TOTAL	70,130	56,450	71,870	120,660	288,200	284,730	371,400	245,390	143,380	38,707	18,732	34,281
MEAN	2,262	1,882	2,318	3,892	10,290	9,185	12,380	7,916	4,779	1,249	604	1,143
MAX	2,470	2,320	2,910	7,140	16,600	16,900	15,300	10,400	7,970	2,440	739	2,480
MIN	1,830	1,800	1,810	3,070	6,200	4,730	10,900	5,840	2,520	644	511	493
AC-FT	139,100	112,000	142,600	239,300	571,600	564,800	736,700	486,700	284,400	76,780	37,150	68,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1891 - 2003, BY WATER YEAR (WY)

MEAN	2,158	3,278	5,150	5,506	6,320	8,323	14,160	17,810	10,990	3,401	1,746	1,735
MAX	5,643	13,050	22,910	25,430	22,060	25,380	25,030	34,390	29,850	11,910	4,744	3,302
(WY)	(1928)	(1928)	(1934)	(1934)	(1996)	(1972)	(1943)	(1997)	(1894)	(1899)	(1899)	(1912)
MIN	1,300	1,151	1,233	1,339	1,489	2,047	3,865	5,214	2,141	1,050	531	932
(WY)	(1893)	(1940)	(1932)	(1931)	(1929)	(1929)	(1977)	(1992)	(1926)	(1994)	(1994)	(1966)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1891 - 2003

ANNUAL TOTAL	2,810,048	1,743,930		
ANNUAL MEAN	7,699	4,778	6,724	
HIGHEST ANNUAL MEAN			12,310	1974
LOWEST ANNUAL MEAN			2,508	1977
HIGHEST DAILY MEAN	30,800	Apr 18	16,900	Mar 27
LOWEST DAILY MEAN	945	Aug 30	493	Sep 2
ANNUAL SEVEN-DAY MINIMUM	993	Aug 27	507	Aug 29
ANNUAL RUNOFF (AC-FT)	5,574,000		3,459,000	4,871,000
10 PERCENT EXCEEDS	20,900		11,700	17,100
50 PERCENT EXCEEDS	4,200		2,760	3,710
90 PERCENT EXCEEDS	1,410		681	1,500

SPOKANE RIVER BASIN

12424000 HANGMAN CREEK AT SPOKANE, WA

LOCATION.--Lat 47°39'10", long 117°26'55", in NW 1/4 sec.24, T.25 N., R.42 E., Spokane County, Hydrologic Unit 17010306, on left bank 0.3 mi downstream from bridge on Interstate 90 in Spokane, and at mile 0.8.

DRAINAGE AREA.--689 mi².

PERIOD OF RECORD.--April 1948 to September 1977; October 1977 to September 1978 (discharges above 20 ft³/s only), October 1978 to current year. Prior to October 1958, published as Latah Creek at Spokane.

REVISED RECORDS.--WSP 1933: Drainage area. WSP 2133: 1965(P).

GAGE.--Water-stage recorder. Datum of gage is 1,717.42 ft above NGVD of 1929 (levels by Corps of Engineers). Prior to Nov. 22, 1948, nonrecording gage at site 0.5 mi upstream at different datum.

REMARKS.--Records fair. No regulation. Some diversions for irrigation upstream from station. Suspended sediment October 1997 to September 2001. U.S Geological Survey satellite telemeter and National Weather Service telemeter at station.

AVERAGE DISCHARGE.--54 years (water years 1949-77, 1979-2003), 234 ft³/s, 4.61 in/yr, 169,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s Jan. 1, 1997 (measured), gage height, 14.31 ft (from outside high-water mark); minimum discharge, 0.74 ft³/s Sept. 5, 14, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 1	0500	2,930	6.13	Mar 23	0200	*3,170	*6.30

Minimum discharge, 3.1 ft³/s, Sept. 6, gage height, 1.07 ft.

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	10	e13	21	90	2,380	172	377	172	58	11	4.2	3.8
2	11	e13	21	112	1,480	160	355	181	57	10	3.9	4.0
3	12	e13	20	139	789	159	369	173	74	9.4	6.1	3.9
4	13	e13	20	225	927	160	330	147	61	9.6	5.7	4.2
5	13	15	19	263	610	164	292	137	51	9.1	5.1	3.8
6	13	16	19	186	454	160	261	155	46	8.1	5.4	3.7
7	13	18	18	170	351	154	237	171	42	7.8	5.8	4.2
8	12	28	18	126	296	145	218	152	37	8.6	5.5	8.8
9	13	29	18	99	261	149	200	151	34	13	5.6	7.1
10	13	32	19	80	244	203	188	131	33	11	5.0	7.9
11	12	27	19	65	220	362	181	116	32	11	5.2	8.8
12	13	27	21	71	197	290	173	109	30	10	5.5	8.6
13	14	26	23	62	184	256	174	108	28	10	5.0	8.2
14	14	26	31	63	176	244	180	109	27	9.5	4.5	8.5
15	13	26	31	74	174	279	166	109	26	9.3	4.4	8.2
16	15	28	39	103	193	1,260	148	98	23	8.7	4.4	8.7
17	15	27	39	107	468	1,210	141	90	22	8.0	4.5	9.1
18	15	26	44	91	460	668	155	84	21	7.9	4.6	9.5
19	14	26	54	79	367	480	191	81	21	7.9	4.8	10
20	16	26	59	70	351	385	176	79	19	7.1	4.3	11
21	15	26	45	66	369	335	152	79	19	6.6	4.4	8.7
22	15	26	36	67	497	904	138	84	19	6.4	4.7	8.9
23	14	27	33	78	669	2,530	128	78	18	6.3	4.6	9.6
24	15	24	29	452	378	1,170	123	73	17	6.0	4.4	8.6
25	15	23	26	412	256	718	125	69	16	5.3	5.0	7.1
26	14	22	28	412	227	855	132	66	15	4.9	5.5	6.7
27	e14	22	32	867	209	1,490	137	62	14	4.6	5.4	7.8
28	e13	20	34	545	188	823	136	60	13	4.7	4.7	6.8
29	e13	20	40	342	---	601	138	59	13	4.3	4.5	6.8
30	e12	21	54	442	---	488	130	62	12	4.8	4.3	7.1
31	e12	---	65	1,200	---	419	---	59	---	4.9	4.2	---
TOTAL	416	686	975	7,158	13,375	17,393	5,851	3,304	898	245.8	151.2	220.1
MEAN	13.4	22.9	31.5	231	478	561	195	107	29.9	7.93	4.88	7.34
MAX	16	32	65	1,200	2,380	2,530	377	181	74	13	6.1	11
MIN	10	13	18	62	174	145	123	59	12	4.3	3.9	3.7
AC-FT	825	1,360	1,930	14,200	26,530	34,500	11,610	6,550	1,780	488	300	437
CFSM	0.02	0.03	0.05	0.34	0.69	0.81	0.28	0.15	0.04	0.01	0.01	0.01
IN.	0.02	0.04	0.05	0.39	0.72	0.94	0.32	0.18	0.05	0.01	0.01	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2003, BY WATER YEAR (WY)

MEAN	18.1	44.7	200	468	733	741	348	193	75.7	22.6	13.5	13.6
MAX	48.5	216	1,251	2,097	1,776	1,914	928	1,925	434	77.7	47.3	46.2
(WY)	(1998)	(1997)	(1956)	(1997)	(1996)	(1969)	(1969)	(1948)	(1990)	(1948)	(1997)	(1997)
MIN	2.30	10.4	10.9	24.0	39.5	44.1	27.0	15.1	6.21	2.43	1.29	1.01
(WY)	(1993)	(1988)	(1993)	(1979)	(1994)	(1977)	(1977)	(1992)	(1992)	(1973)	(1992)	(1992)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1948 - 2003

ANNUAL TOTAL	77,735.1	50,673.1	
ANNUAL MEAN	213	139	234
HIGHEST ANNUAL MEAN			629
LOWEST ANNUAL MEAN			27.3
HIGHEST DAILY MEAN	3,830	2,530	18,000
LOWEST DAILY MEAN	6.4	3.7	0.81
ANNUAL SEVEN-DAY MINIMUM	6.9	3.9	0.92
ANNUAL RUNOFF (AC-FT)	154,200	100,500	169,200
ANNUAL RUNOFF (CFSM)	0.31	0.20	0.34
ANNUAL RUNOFF (INCHES)	4.20	2.74	4.61
10 PERCENT EXCEEDS	522	368	580
50 PERCENT EXCEEDS	38	28	43
90 PERCENT EXCEEDS	9.2	5.4	8.9

e Estimated

12431500 LITTLE SPOKANE RIVER NEAR DARTFORD, WA

LOCATION.--Lat 47°46'52", long 117°29'43", in NW 1/4 sec.3, T.26 N., R.42 E., Spokane County, Hydrologic Unit 17010308, on right bank on downstream side of county bridge, 4 mi west of Dartford, 1.5 mi north of Spokane city limits, and at mile 3.9.

DRAINAGE AREA.--698 mi².

PERIOD OF RECORD.--April 1948 to March 1952, October 1997 to current year.

REVISED RECORDS.--WSP 1216: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,550 ft above NGVD of 1929, from topographic map. Prior to October 1997, in center of stream on downstream side of highway bridge, at unknown datum.

REMARKS.--No estimated daily discharges. Records good. No regulation. Many small diversions for irrigation and domestic use upstream from station.

AVERAGE DISCHARGE.--9 years (water years 1949-51, 1998-2003), 589 ft³/s, 11.47 in/yr, 427,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,260 ft³/s Apr. 15, 2000, gage height, 10.01 ft, minimum discharge, 315 ft³/s Aug. 16, 17, 2001, gage height, 4.72 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 22-23, 1997, reached a discharge of 4,380 ft³/s based on comparison with records for Little Spokane River at Dartford (12431000), stage not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 23	2200	*1,210	*8.77	No other peak greater than base discharge.			

Minimum discharge, 328 ft³/s, part of each day July 28, 29, 30, Aug. 1, 2.

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	356	366	399	535	966	596	950	661	553	381	331	333
2	358	368	399	533	1,020	594	947	658	514	379	330	331
3	358	369	398	575	924	591	986	659	495	378	332	332
4	361	371	398	629	868	587	983	645	482	375	338	332
5	360	371	398	634	824	582	938	645	470	374	339	332
6	359	373	399	638	775	577	904	648	462	371	339	332
7	359	376	398	600	738	574	868	635	453	370	338	332
8	359	395	396	567	719	563	837	624	449	366	336	345
9	358	426	395	544	702	559	813	612	443	365	334	359
10	359	437	396	514	683	568	793	597	438	362	338	360
11	360	441	400	504	661	584	775	586	439	361	336	357
12	359	435	406	512	642	584	769	578	436	359	336	353
13	361	435	416	531	632	605	764	594	433	357	336	350
14	361	434	444	543	627	676	753	596	432	356	335	349
15	362	430	505	558	620	689	761	573	429	355	335	349
16	364	426	521	549	631	783	782	559	423	352	336	348
17	364	421	590	530	713	961	769	551	418	349	339	352
18	363	418	591	517	717	904	810	550	415	347	340	352
19	363	427	547	510	670	859	838	546	413	343	338	352
20	364	435	525	503	656	845	780	538	408	340	336	351
21	366	430	507	498	673	851	751	532	418	344	336	350
22	364	425	495	498	675	899	734	529	423	343	338	349
23	364	421	486	510	658	1,100	723	525	419	341	340	350
24	365	418	478	525	619	1,160	713	514	412	339	339	351
25	364	411	468	529	598	1,090	720	517	405	336	337	351
26	364	407	462	579	604	1,080	727	521	399	334	335	350
27	364	404	474	767	611	1,110	708	506	395	333	332	348
28	366	402	489	885	608	1,110	689	495	391	332	333	348
29	370	400	496	809	---	1,050	672	487	389	330	333	347
30	370	400	484	779	---	1,010	661	498	386	330	333	347
31	364	---	509	837	---	978	---	550	---	332	332	---
TOTAL	11,229	12,272	14,269	18,242	19,834	24,719	23,918	17,729	13,042	10,934	10,410	10,392
MEAN	362	409	460	588	708	797	797	572	435	353	336	346
MAX	370	441	591	885	1,020	1,160	986	661	553	381	340	360
MIN	356	366	395	498	598	559	661	487	386	330	330	331
AC-FT	22,270	24,340	28,300	36,180	39,340	49,030	47,440	35,170	25,870	21,690	20,650	20,610
CFSM	0.52	0.59	0.66	0.84	1.01	1.14	1.14	0.82	0.62	0.51	0.48	0.50
IN.	0.60	0.65	0.76	0.97	1.06	1.32	1.27	0.94	0.70	0.58	0.55	0.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2003, BY WATER YEAR (WY)

MEAN	434	468	526	564	701	977	1,005	777	571	437	389	388
MAX	525	555	622	707	912	1,301	1,211	1,381	945	573	436	421
(WY)	(1998)	(1998)	(1999)	(1999)	(1999)	(1999)	(2000)	(1948)	(1948)	(1948)	(1948)	(1999)
MIN	362	409	435	433	443	513	532	491	399	342	323	327
(WY)	(2003)	(2003)	(1950)	(1950)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1948 - 2003	
ANNUAL TOTAL	203,500		186,990			
ANNUAL MEAN	558		512		589	
HIGHEST ANNUAL MEAN					686	
LOWEST ANNUAL MEAN					432	
HIGHEST DAILY MEAN	1,440	Apr 15	1,160	Mar 24	2,130	Mar 1, 1999
LOWEST DAILY MEAN	339	Aug 16	330	Jul 29	318	Aug 17, 2001
ANNUAL SEVEN-DAY MINIMUM	340	Aug 15	331	Jul 28	319	Aug 15, 2001
ANNUAL RUNOFF (AC-FT)	403,600		370,900		427,000	
ANNUAL RUNOFF (CFSM)	0.80		0.73		0.84	
ANNUAL RUNOFF (INCHES)	10.85		9.97		11.47	
10 PERCENT EXCEEDS	918		782		974	
50 PERCENT EXCEEDS	472		436		484	
90 PERCENT EXCEEDS	347		338		379	

12432500 LONG LAKE AT LONG LAKE, WA

LOCATION.--Lat 47°50'12", long 117°50'20", in NW ¼ SW ¼ sec.13, T.27 N., R.39 E., Lincoln County, Hydrologic Unit 17010307, at left end of spillway at Long Lake Dam on Spokane River, 12.0 mi north of Reardan, and at mile 33.9.

DRAINAGE AREA.--6,020 mi², approximately, of which about 122 mi² in the vicinity of Hayden Lake is noncontributing to this station.

PERIOD OF RECORD.--October 1913 to current year. Prior to October 1950 monthend contents only, published in WSP 1316. October 1950 to September 1977 monthend stage and contents only.

REVISED RECORDS.--WSP 1736: Monthend contents for 1916-33 corrected. WSP 1933: Drainage area. WDR WA-01-1: Calendar year change in contents for 1998-99 corrected.

GAGE.--Water-stage recorder with remote indicator in powerhouse. Datum of gage is NGVD of 1929 (levels by Avista Corporation).

REMARKS.--Reservoir is formed by concrete dam, completed in 1913 and raised in 1950. Capacity, 104,200 acre-ft between elevations 1,512 ft and 1,536 ft, normal limits of operation. Contents at elevation 1,512 ft by capacity table used prior to October 1915, 148,600 acre-ft. Records given herein represent usable contents. Water used for power. About 25,000 acres irrigated upstream from station, largely from wells in the Spokane Valley. Flow regulated by Coeur d'Alene Lake and powerplants along Spokane River.

COOPERATION.--Lake elevations and capacity table furnished by Avista Corporation. Records not reviewed.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 107,600 acre-ft Jan. 16, 1974, elevation, 1,536.67 ft; minimum contents, since filling reservoir in 1920, 214 acre-ft Feb. 16, 1985, elevation, 1,512.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 104,100 acre-ft Sept. 11, elevation, 1,535.97 ft; minimum contents, 74,740 acre-ft Jan. 30, elevation, 1,529.95 ft.

CAPACITY TABLE
(Based on data furnished by Avista Corporation)

Gage height (feet)	Contents (acre-feet)	Gage height (feet)	Contents (acre-feet)	Gage height (feet)	Contents (acre-feet)
1,512	0	1,526	56,330	1,534	94,240
1,513	3,570	1,528	65,460	1,535	99,190
1,517	18,640	1,531	79,740	1,536	104,200
1,520	30,550	1,532	84,540	1,537	109,300
1,522	38,880	1,533	89,360		

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,535.40	1,535.29	1,535.58	1,535.25	1,531.20	1,535.69	1,534.48	1,535.48	1,535.68	1,535.18	1,535.53	1,535.66
2	1,535.45	1,535.55	1,535.16	1,534.96	1,531.50	1,535.53	1,534.45	1,535.48	1,535.65	1,535.35	1,535.58	1,535.59
3	1,535.50	1,535.62	1,535.30	1,534.80	1,532.49	1,535.35	1,534.91	1,535.45	1,535.68	1,535.15	1,535.73	1,535.59
4	1,535.24	1,535.50	1,535.20	1,534.70	1,533.99	1,535.15	1,535.25	1,535.47	1,535.70	1,535.18	1,535.64	1,535.55
5	1,535.65	1,535.48	1,535.17	1,534.65	1,535.16	1,534.84	1,535.25	1,535.49	1,535.73	1,535.16	1,535.51	1,535.55
6	1,535.52	1,535.42	1,535.10	1,534.35	1,535.29	1,534.50	1,535.28	1,535.60	1,535.77	1,535.21	1,535.64	1,535.84
7	1,535.50	1,535.36	1,535.25	1,534.11	1,535.40	1,534.09	1,535.50	1,535.56	1,535.61	1,535.20	1,535.55	1,535.66
8	1,535.40	1,535.43	1,535.61	1,533.70	1,535.30	1,533.60	1,535.50	1,535.47	1,535.48	1,535.55	1,535.45	1,535.56
9	1,535.27	1,535.52	1,535.32	1,533.57	1,535.33	1,533.23	1,535.49	1,535.54	1,535.38	1,535.50	1,535.56	1,535.61
10	1,534.97	1,535.51	1,535.18	1,533.35	1,535.49	1,532.77	1,535.49	1,535.70	1,535.18	1,535.50	1,535.48	1,535.71
11	1,534.88	1,535.44	1,535.13	1,534.18	1,535.48	1,532.46	1,535.46	1,535.70	1,535.13	1,535.52	1,535.54	1,535.69
12	1,535.30	1,535.10	1,535.48	1,534.80	1,535.55	1,532.22	1,535.38	1,535.65	1,535.08	1,535.47	1,535.65	1,535.67
13	1,535.27	1,535.22	1,535.40	1,534.68	1,535.48	1,531.88	1,535.47	1,535.68	1,535.21	1,535.65	1,535.64	1,535.59
14	1,535.25	1,535.20	1,535.10	1,534.22	1,535.58	1,532.00	1,535.50	1,535.66	1,535.56	1,535.51	1,535.52	1,535.56
15	1,535.29	1,535.06	1,535.40	1,533.75	1,535.51	1,531.95	1,535.50	1,535.70	1,535.50	1,535.56	1,535.51	1,535.51
16	1,535.31	1,535.42	1,535.58	1,533.46	1,535.65	1,532.10	1,535.50	1,535.75	1,535.32	1,535.37	1,535.55	1,535.42
17	1,535.42	1,535.62	1,535.34	1,533.44	1,535.70	1,533.43	1,535.41	1,535.69	1,535.28	1,535.42	1,535.66	1,535.46
18	1,534.94	1,535.35	1,535.10	1,533.69	1,535.65	1,534.85	1,535.50	1,535.70	1,535.27	1,535.49	1,535.60	1,535.34
19	1,535.60	1,535.35	1,534.91	1,533.66	1,535.68	1,535.55	1,535.50	1,535.78	1,535.40	1,535.51	1,535.50	1,535.20
20	1,535.57	1,535.30	1,534.64	1,533.25	1,535.68	1,535.59	1,535.49	1,535.66	1,535.22	1,535.55	1,535.50	1,535.45
21	1,535.51	1,535.20	1,534.85	1,532.70	1,535.70	1,535.56	1,535.43	1,535.80	1,535.35	1,535.34	1,535.53	1,535.48
22	1,535.41	1,535.30	1,535.39	1,531.91	1,535.78	1,535.70	1,535.54	1,535.68	1,535.35	1,535.46	1,535.65	1,535.40
23	1,535.60	1,535.38	1,535.07	1,531.40	1,535.71	1,535.56	1,535.49	1,535.56	1,535.40	1,535.48	1,535.72	1,535.38
24	1,535.58	1,535.55	1,534.86	1,530.88	1,535.60	1,535.50	1,535.50	1,535.45	1,535.32	1,535.54	1,535.60	1,535.42
25	1,535.50	1,535.40	1,535.10	1,530.57	1,535.66	1,535.24	1,535.53	1,535.32	1,535.15	1,535.60	1,535.50	1,535.54
26	1,535.50	1,535.30	1,534.72	1,530.39	1,535.69	1,535.29	1,535.57	1,535.20	1,535.08	1,535.61	1,535.53	1,535.60
27	1,535.48	1,535.20	1,535.25	1,530.31	1,535.70	1,535.02	1,535.57	1,535.14	1,535.10	1,535.62	1,535.51	1,535.60
28	1,535.46	1,535.20	1,535.22	1,530.08	1,535.76	1,534.49	1,535.53	1,535.10	1,535.38	1,535.60	1,535.50	1,535.57
29	1,535.23	1,535.21	1,535.62	1,530.00	---	1,534.50	1,535.50	1,535.09	1,535.52	1,535.55	1,535.59	1,535.56
30	1,535.27	1,535.28	1,535.30	1,530.13	---	1,534.48	1,535.50	1,535.20	1,535.55	1,535.57	1,535.79	1,535.52
31	1,535.35	---	1,535.12	1,530.75	---	1,534.50	---	1,535.33	---	1,535.72	1,535.70	---
MAX	1,535.65	1,535.62	1,535.62	1,535.25	1,535.78	1,535.70	1,535.57	1,535.80	1,535.77	1,535.72	1,535.79	1,535.84
MIN	1,534.88	1,535.06	1,534.64	1,530.00	1,531.20	1,531.88	1,534.45	1,535.09	1,535.08	1,535.15	1,535.45	1,535.20
†	101,000	100,600	99,800	78,550	103,000	96,720	101,700	100,900	102,000	102,800	102,700	101,800
‡	-500	-400	-800	-21,250	+24,450	-6,280	+4,980	-800	+1,100	+800	-100	-900
CAL YR	2002	MAX 1,535.80	MIN 1,530.25	AC-FT‡ +10,830								
WTR YR	2003	MAX 1,535.84	MIN 1,530.00	AC-FT‡ +300								

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

‡ Change in Contents, in acre-feet.

12433000 SPOKANE RIVER AT LONG LAKE, WA

LOCATION.--Lat 47°50'12", long 117°50'25", in NW ¼ SW ¼ sec.13, T.27 N., R.39 E., Lincoln County, Hydrologic Unit 17010307, on left bank at Long Lake powerhouse, 1.4 mi upstream from Chamokane Creek, 12.0 mi north of Reardan, and at mile 33.88.

DRAINAGE AREA.--6,020 mi², approximately, of which about 122 mi² in the vicinity of Hayden Lake is noncontributing to this station.

PERIOD OF RECORD.--April 1939 to current year.

REVISED RECORDS.--WSP 1933: Drainage area. WDR WA-01-1: Calendar year adjusted mean discharge, runoff in inches, and acre-feet for 1998, and adjusted mean discharge, cubic feet per square mile, runoff in inches, and acre-feet for 1999 corrected.

GAGE.--Water-stage recorder. Datum of gage is 1,299.00 ft above NGVD of 1929 (levels by Avista Corporation). Oct. 1, 1978, to Sept. 30, 1981, incorrectly published at datum 1,300 ft.

REMARKS.--Flow regulated by Coeur d'Alene Lake and Long Lake (station 12432500) for powerplants of Avista Corporation. About 25,000 acres irrigated upstream from station, largely from wells in the Spokane Valley. Chemical analyses October 1958 to September 1986, November 1999 to September 2003. Specific conductance records March 1973 to September 1981. Water temperature July 1959 to September 1962, October 1966 to September 1970, March 1973 to September 1981.

COOPERATION.--Discharge records furnished by Avista Corporation; three discharge measurements made by U.S. Geological Survey.

AVERAGE DISCHARGE.--64 years (water years 1940-2003), 7,743 ft³/s, 5,610,000 acre-ft/yr, adjusted for storage in Long Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,700 ft³/s Jan. 19, 1974, gage height, 78.40 ft; maximum recorded gage height, 78.66 ft May 24, 1948; minimum daily discharge, 90 ft³/s Oct. 23, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,300 ft³/s March 27, gage height, 69.80 ft; minimum discharge, 130 ft³/s June 17.

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	2,810	3,040	1,640	3,880	10,700	6,890	17,100	11,700	7,440	4,040	1,640	1,270
2	2,310	2,020	3,590	4,630	14,000	6,850	16,700	11,400	8,230	2,430	1,110	1,280
3	2,500	2,570	2,090	4,970	14,400	6,860	15,400	11,200	7,410	2,820	811	1,100
4	2,940	3,080	2,800	4,670	14,000	6,860	15,600	11,100	7,340	1,980	1,540	1,290
5	1,380	2,510	2,740	4,690	14,600	6,840	16,400	10,900	7,210	2,040	1,480	1,070
6	2,840	2,590	2,580	5,210	16,600	6,840	16,300	10,300	7,050	1,940	1,100	437
7	2,480	2,780	1,830	5,280	15,900	6,820	14,700	10,900	6,850	2,720	1,610	1,670
8	3,300	2,590	1,580	6,140	15,700	6,820	14,800	10,200	6,850	1,230	1,530	1,710
9	3,290	2,310	3,340	5,240	14,800	6,820	14,100	9,700	6,640	2,210	938	1,220
10	3,420	2,590	2,970	5,590	13,700	6,820	13,000	9,280	6,640	1,990	1,560	1,080
11	3,140	2,750	2,940	2,620	13,200	6,770	11,900	9,660	6,630	1,770	1,010	1,450
12	1,790	3,360	2,090	3,210	12,200	6,720	13,100	9,740	6,670	1,910	1,110	1,500
13	2,940	2,290	3,090	4,500	11,700	6,750	12,500	8,890	5,800	1,340	1,370	1,660
14	3,080	2,530	3,860	5,250	10,200	6,300	12,800	9,120	5,380	1,890	1,280	1,720
15	2,940	2,840	2,460	5,420	10,400	6,710	13,000	8,810	5,510	1,880	1,450	1,910
16	2,810	1,640	3,020	5,190	9,440	8,210	13,600	8,810	4,600	2,300	920	2,390
17	2,690	2,050	3,670	4,320	9,300	6,750	13,900	9,120	3,990	1,500	1,040	2,450
18	4,050	3,200	4,200	3,800	9,730	6,800	13,300	8,880	4,170	1,680	1,300	3,070
19	1,270	2,440	3,990	4,320	8,730	9,160	13,500	8,780	4,510	1,420	1,510	3,340
20	2,930	2,700	4,180	5,060	8,690	11,500	13,400	9,090	4,910	1,500	1,160	2,040
21	3,140	2,810	3,090	5,320	7,980	12,100	12,800	7,360	4,250	2,090	980	1,970
22	3,260	2,370	2,230	6,590	8,260	12,100	11,700	7,300	4,180	1,220	893	2,280
23	2,440	2,250	4,090	6,180	8,830	15,400	12,000	6,840	4,000	1,470	848	1,890
24	3,000	2,070	3,790	5,840	8,460	16,400	12,000	6,740	3,630	1,200	1,520	1,740
25	3,130	2,960	2,440	5,320	7,650	17,900	12,000	6,770	3,740	1,270	1,460	1,620
26	3,110	2,740	3,980	5,320	7,610	18,300	12,000	6,840	3,590	1,350	975	1,590
27	3,000	2,880	1,980	5,860	7,100	20,400	12,200	6,680	3,140	1,330	1,200	1,720
28	3,180	2,290	3,200	6,690	6,900	20,800	12,300	6,570	2,590	1,440	1,100	1,890
29	3,410	2,530	2,120	6,710	---	18,500	12,000	6,460	2,670	1,480	934	1,830
30	2,870	2,370	4,560	6,720	---	18,400	11,900	6,340	2,910	1,200	628	1,850
31	2,780	---	4,180	7,260	---	17,100	---	6,800	---	845	1,250	---
TOTAL	88,230	77,150	94,320	161,800	310,780	331,490	406,000	272,280	158,530	55,485	37,257	52,037
MEAN	2,846	2,572	3,043	5,219	11,100	10,690	13,530	8,783	5,284	1,790	1,202	1,735
MAX	4,050	3,360	4,560	7,260	16,600	20,800	17,100	11,700	8,230	4,040	1,640	3,340
MIN	1,270	1,640	1,580	2,620	6,900	6,300	11,700	6,340	2,590	845	628	437
AC-FT	175,000	153,000	187,100	320,900	616,400	657,500	805,300	540,100	314,400	110,100	73,900	103,200
MEAN†	2,837	2,565	3,029	4,871	11,540	10,590	13,620	8,769	5,304	1,803	1,200	1,720
CFSM†	0.47	0.43	0.50	0.81	1.92	1.76	2.26	1.46	0.88	0.30	0.20	0.29
IN.†	0.54	0.48	0.58	0.93	2.00	2.03	2.52	1.68	0.98	0.35	0.23	0.32
AC-FT†	174,500	152,600	186,300	299,600	640,800	651,200	810,300	539,300	315,500	110,900	73,800	102,300

CAL YR 2002 TOTAL 3,148,729 MEAN 8,627 MAX 31,500 MIN 389 AC-FT 6,246,000 MEAN† 8,641 CFSM† 1.44 IN.† 19.49 AC-FT† 6,257,000
WTR YR 2003 TOTAL 2,045,359 MEAN 5,604 MAX 20,800 MIN 437 AC-FT 4,057,000 MEAN† 5,603 CFSM† 0.93 IN.† 12.64 AC-FT† 4,057,000

† Adjusted for change in contents in Long Lake.

SPOKANE RIVER BASIN

12433000 SPOKANE RIVER AT LONG LAKE, WA

LOCATION.--Lat 47°50'12", long 117°50'25", NW 1/4 SW 1/4 sec.13, T.27 N., R.39 E., Lincoln County, Washington, Long Lake quad., Hydrologic Unit 17010307, on left bank at Long Lake powerhouse, 1.4 mi upstream from Chamokane Creek, 12 mi north of Reardan, and at mile 33.88.

DRAINAGE AREA.--6,020 mi , approximately.

WATER-QUALITY RECORDS

PERIOD OF RECORDS.-- October 1959 to September 1986, October 1998 to April 2000, November 2001 to current year (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, unfiltered water, uS/cm 25 degC (00095)	pH, unfiltered field, std units (00400)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, unfiltered water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Ammonia, water, fltrd, mg/L as N (00608)	Ammonia + org-N, water, unfiltered, mg/L as N (00625)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Phosphorus, water, fltrd, mg/L (00666)
NOV													
26...	1115	3230	193	8.0	3.1	7.2	87	21	8.4	.029	.1	.895	.026
FEB													
05...	0900	13700	138	7.8	3.3	5.6	55	13	5.1	.015	.2	1.00	.042
MAR													
31...	1000	16800	76	7.7	13.7	6.3	30	7.7	2.6	<.015	.3	.471	.020
JUN													
04...	1300	7200	115	8.4	24.1	15.4	--	--	--	E.012	.2	.335	E.002
JUL													
21...	1350	4640	157	8.0	25.5	19.5	70	17.3	6.46	.018	.2	.634	.007
AUG													
28...	1450	3200	231	8.1	25.1	19.6	110	24.9	10.5	<.015	.1	.986	.010
SEP													
10...	1310	3240	242	8.1	23.1	18.7	110	25.7	10.9	<.015	.2	1.04	.012

Date	Phosphorus, water, unfiltered, mg/L (00665)	Cadmium, water, fltrd, ug/L (01025)	Cadmium, water, unfiltered, ug/L (01027)	Iron, water, unfiltered, recoverable, ug/L (01045)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfiltered, recoverable, ug/L (01051)	Manganese, water, unfiltered, recoverable, ug/L (01055)	Manganese, water, fltrd, ug/L (01056)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfiltered, recoverable, ug/L (01092)
NOV											
26...	.031	E.019	E.025	23.5	<10	<.08	.28	10.4	1.08	5.9	8.5
FEB											
05...	.063	.047	.097	262	12	E.05	.77	14.1	6.45	24.1	34.0
MAR											
31...	.041	.103	.144	<16	17	.15	1.69	12.4	1.78	37.5	51.5
JUN											
04...	.013	.069	.092	42	<8.0	.13	.63	8.25	.95	16.3	27.1
JUL											
21...	.010	E.022	E.026	18	E6.0	<.08	.16	6.47	2.77	8.5	9.2
AUG											
28...	.013	E.019	E.018	<6	<8	E.04	.13	7.97	.68	4.6	2.8
SEP											
10...	.018	<.037	<.035	13	<8	<.08	.19	13.8	.55	3.8	2.3

< Less than
E Estimated value

12433200 CHAMOKANE CREEK BELOW FALLS, NEAR LONG LAKE, WA

LOCATION.--Lat 47°51'42", long 117°51'28", in SE ¼ SW ¼ sec.2, T.27 N., R.39 E., Stevens County, Hydrologic Unit 17010307, Spokane Indian Reservation, on right bank 800 ft downstream from Chamokane Falls, 1.4 mi upstream from mouth, 1.8 mi north of town of Long Lake, and at mile 1.6.

DRAINAGE AREA.--179 mi².

PERIOD OF RECORD.--February 1971 to September 1978, April 1984 to September 1987 (seasonal records), October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,420 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. No known regulation. Diversions upstream for irrigation, domestic use, and fish hatchery. Pumpage from ground-water wells can cause small fluctuations in discharge. Water temperature records April 1984 to September 1987 (seasonal records); October 1987 to September 1989. U. S. Geological Survey Satellite telemeter at site.

AVERAGE DISCHARGE.--23 years (water years 1972-78, 1988-2003), 64.9 ft³/s, 4.93 in/yr, 47,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft³/s Apr. 25, 1975, gage height, 5.06 ft, from rating curve extended above 500 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 5.37 ft Mar. 20, 1997; minimum discharge, 9.4 ft³/s Dec. 30, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 992 ft³/s March 16, gage height, 4.14 ft; minimum discharge, 22 ft³/s Aug. 31.

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	31	e29	29	34	374	72	177	83	46	31	29	25
2	31	e29	29	36	321	70	182	81	44	30	29	25
3	31	e29	29	41	248	67	188	80	42	30	31	25
4	31	e30	29	51	199	64	175	77	40	30	29	25
5	31	e31	29	102	163	63	162	76	38	30	28	25
6	31	32	29	110	e130	62	152	75	37	30	29	25
7	31	32	29	87	113	61	144	72	36	31	30	25
8	31	41	29	71	109	58	134	69	35	30	29	30
9	31	34	28	59	91	58	126	65	35	30	29	29
10	31	42	28	40	84	58	115	62	35	30	29	28
11	31	35	28	42	75	60	110	71	34	31	28	28
12	31	35	29	53	72	66	111	92	34	29	27	27
13	32	34	31	52	66	201	107	76	34	31	26	27
14	32	34	43	56	69	376	108	68	34	32	26	27
15	31	32	34	56	64	404	141	63	33	32	26	27
16	31	31	52	57	89	683	129	59	33	32	27	28
17	31	30	88	49	221	722	125	56	32	30	28	28
18	31	30	67	50	198	468	130	56	32	31	27	28
19	31	32	45	44	167	352	122	55	32	31	27	28
20	31	31	37	43	155	294	115	53	32	30	27	27
21	31	30	32	41	156	264	109	52	33	29	26	27
22	31	30	30	40	148	345	105	52	33	29	27	27
23	31	30	28	44	129	521	102	51	32	28	27	27
24	31	30	28	44	95	405	98	49	33	29	26	27
25	31	29	28	45	85	318	101	47	32	29	26	27
26	32	29	28	62	84	275	101	47	32	29	26	27
27	32	29	30	263	84	258	96	45	31	28	25	27
28	31	29	29	270	77	220	92	44	30	28	25	27
29	31	29	29	200	---	214	88	43	31	28	25	27
30	e30	29	30	167	---	202	85	45	31	28	26	27
31	e30	---	42	212	---	193	---	48	---	28	25	---
TOTAL	963	947	1,076	2,521	3,866	7,474	3,730	1,912	1,036	924	845	807
MEAN	31.1	31.6	34.7	81.3	138	241	124	61.7	34.5	29.8	27.3	26.9
MAX	32	42	88	270	374	722	188	92	46	32	31	30
MIN	30	29	28	34	64	58	85	43	30	28	25	25
AC-FT	1,910	1,880	2,130	5,000	7,670	14,820	7,400	3,790	2,050	1,830	1,680	1,600
CFSM	0.17	0.18	0.19	0.45	0.77	1.35	0.69	0.34	0.19	0.17	0.15	0.15
IN.	0.20	0.20	0.22	0.52	0.80	1.55	0.78	0.40	0.22	0.19	0.18	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2003, BY WATER YEAR (WY)

MEAN	28.5	29.9	45.0	61.5	80.7	178	163	67.4	39.6	29.7	27.0	27.1
MAX	41.5	47.5	236	239	232	626	564	257	115	59.5	47.2	43.0
(WY)	(1998)	(1974)	(1974)	(1997)	(1995)	(1997)	(1975)	(1975)	(1997)	(1997)	(1997)	(1997)
MIN	18.9	19.1	17.1	17.4	21.2	29.9	22.6	19.6	19.4	18.2	18.4	18.1
(WY)	(1993)	(1993)	(1993)	(1993)	(1994)	(1977)	(1992)	(1992)	(1994)	(1994)	(1994)	(1990)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1971 - 2003

ANNUAL TOTAL	28,886	26,101	
ANNUAL MEAN	79.1	71.5	
HIGHEST ANNUAL MEAN			64.9
LOWEST ANNUAL MEAN			170
HIGHEST DAILY MEAN	689	Jan 9	722
LOWEST DAILY MEAN	24	Jun 17	25
ANNUAL SEVEN-DAY MINIMUM	25	Jul 22	25
ANNUAL RUNOFF (AC-FT)	57,300		51,770
ANNUAL RUNOFF (CFSM)	0.44		0.40
ANNUAL RUNOFF (INCHES)	6.00		5.42
10 PERCENT EXCEEDS	205		162
50 PERCENT EXCEEDS	32		33
90 PERCENT EXCEEDS	28		27

e Estimated

12433542 BLUE CREEK ABOVE MIDNITE MINE DRAINAGE, NEAR WELLPINIT, WA

LOCATION.--Lat 47°55'28", long 118°05'18", in NW ¼ SE ¼ sec.13, T.28 N., R.37 E., Stevens County, Hydrologic Unit 17010307, Spokane Indian Reservation, on right bank, 2.4 mi downstream from Turtle Lake, and 5.4 mi northwest of Wellpinit.

DRAINAGE AREA.--6.0 mi².

PERIOD OF RECORD.--June 1984 to October 1998, January 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,070 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. No regulation or diversion upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--17 years (water years 1985-98, 2001-2003), 1.27 ft³/s, 2.87 in/yr, 917 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65 ft³/s Mar. 22, 1997, gage height, 3.22 ft, minimum discharge, 0.01 ft³/s Aug. 12, 13, 1992, gage height, 0.86 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 13 ft³/s Mar. 22, gage height 1.86 ft; minimum discharge 0.07 ft³/s Oct. 7.

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	0.10	e0.18	0.28	0.39	2.2	3.5	7.5	e3.6	e2.2	0.59	0.25	0.15
2	0.10	e0.19	0.23	0.47	2.1	3.5	7.7	e3.6	e2.2	0.56	0.26	0.15
3	0.11	e0.20	0.21	0.66	2.1	3.5	7.3	e3.5	e2.1	0.55	0.27	0.15
4	0.11	e0.20	0.19	0.63	2.0	3.4	6.9	e3.4	e2.0	0.54	0.27	0.13
5	0.09	e0.21	0.19	0.59	2.0	3.3	6.5	e3.3	e1.8	0.53	0.26	0.13
6	0.10	e0.23	0.19	0.52	1.9	3.2	6.3	e3.3	e1.7	0.53	0.25	0.13
7	0.10	e0.25	0.18	0.50	2.0	3.2	5.9	e3.1	e1.7	0.52	0.24	0.14
8	0.11	e0.27	0.17	e0.40	2.2	3.1	5.7	e3.0	e1.6	0.51	0.22	0.25
9	0.11	0.31	e0.16	e0.35	2.3	3.2	5.5	e2.8	e1.5	0.50	0.22	0.22
10	0.12	0.37	0.19	e0.30	2.4	3.2	5.2	e2.6	e1.6	0.46	0.21	0.18
11	0.11	0.24	0.19	e0.40	2.5	3.1	5.3	e2.7	e1.5	0.44	0.20	0.17
12	0.13	0.33	0.22	0.59	2.6	3.2	5.1	e2.9	e1.2	0.42	0.20	0.15
13	0.14	0.23	0.26	0.56	2.7	3.4	5.1	e2.8	e1.2	0.42	0.20	0.15
14	0.14	0.23	0.41	0.64	2.7	3.9	5.3	e2.7	e1.0	0.41	0.20	0.15
15	0.14	0.17	0.25	0.62	2.7	6.7	5.4	e2.6	e0.95	0.40	0.19	0.15
16	0.14	0.18	0.43	0.61	3.5	9.4	5.1	e2.6	e0.92	0.39	0.19	0.16
17	0.14	0.17	0.25	0.63	3.5	8.9	5.0	e2.5	e0.90	0.39	0.17	0.17
18	0.15	0.17	0.22	0.66	3.5	9.4	4.7	e2.5	0.84	0.38	0.16	0.17
19	0.15	0.20	0.23	0.66	3.5	10	4.9	e2.5	0.83	0.35	0.16	0.16
20	0.15	0.17	0.22	0.66	3.5	11	4.8	e2.4	0.81	0.33	0.16	0.15
21	0.16	0.16	0.22	0.71	3.6	11	4.9	e2.4	0.77	0.32	0.15	0.16
22	0.17	0.17	0.21	0.71	3.7	12	4.8	e2.4	0.76	0.32	0.17	0.16
23	0.17	0.17	0.24	0.72	3.7	11	4.8	e2.3	0.75	0.31	0.17	0.16
24	0.17	0.18	0.25	0.74	3.6	11	5.2	e2.3	0.74	0.31	0.16	0.16
25	0.19	0.19	0.24	0.78	3.7	10	5.3	e2.2	0.73	0.31	0.15	0.16
26	0.22	0.20	0.26	1.1	3.6	10	4.9	e2.2	0.69	0.30	0.15	0.17
27	0.22	0.22	0.30	1.2	3.7	9.5	4.0	e2.1	0.68	0.29	0.15	0.16
28	0.21	0.26	0.29	1.2	3.7	8.9	3.9	e2.0	0.66	0.29	0.15	0.18
29	e0.20	0.27	0.30	1.3	---	8.5	3.9	e2.0	0.64	0.26	0.15	0.16
30	e0.19	0.28	0.33	1.4	---	8.2	3.8	e2.2	0.62	0.25	0.15	0.17
31	e0.18	---	0.50	2.2	---	7.9	---	e2.4	---	0.25	0.15	---
TOTAL	4.52	6.60	7.81	22.90	81.2	210.1	160.7	82.9	35.59	12.43	5.98	4.85
MEAN	0.15	0.22	0.25	0.74	2.90	6.78	5.36	2.67	1.19	0.40	0.19	0.16
MAX	0.22	0.37	0.50	2.2	3.7	12	7.7	3.6	2.2	0.59	0.27	0.25
MIN	0.09	0.16	0.16	0.30	1.9	3.1	3.8	2.0	0.62	0.25	0.15	0.13
AC-FT	9.0	13	15	45	161	417	319	164	71	25	12	9.6
CFSM	0.02	0.04	0.04	0.12	0.48	1.13	0.89	0.45	0.20	0.07	0.03	0.03
IN.	0.03	0.04	0.05	0.14	0.50	1.30	1.00	0.51	0.22	0.08	0.04	0.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2003, BY WATER YEAR (WY)

	1984	1985	1997	1997	1997	1997	1997	1997	1997	1984	1984	2001
MEAN	0.16	0.20	0.22	0.76	1.78	5.63	4.09	1.48	0.78	0.37	0.19	0.14
MAX	0.25	0.37	0.47	5.61	12.4	25.7	14.1	3.40	1.85	0.76	0.36	0.24
(WY)	(1998)	(1985)	(1997)	(1997)	(1997)	(1997)	(1997)	(1996)	(1997)	(1997)	(1984)	(1984)
MIN	0.065	0.10	0.13	0.094	0.16	0.34	0.34	0.30	0.17	0.10	0.067	0.054
(WY)	(2002)	(2002)	(2001)	(2001)	(1990)	(1990)	(1990)	(1992)	(1992)	(1994)	(2001)	(2001)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1984 - 2003

ANNUAL TOTAL	585.70	635.58	
ANNUAL MEAN	1.60	1.74	
HIGHEST ANNUAL MEAN			1.27
LOWEST ANNUAL MEAN			0.19
HIGHEST DAILY MEAN	15	12	60
LOWEST DAILY MEAN	0.07	0.09	0.04
ANNUAL SEVEN-DAY MINIMUM	0.08	0.10	0.04
ANNUAL RUNOFF (AC-FT)	1,160	1,260	917
ANNUAL RUNOFF (CFSM)	0.27	0.29	0.21
ANNUAL RUNOFF (INCHES)	3.63	3.94	2.87
10 PERCENT EXCEEDS	4.1	4.9	3.3
50 PERCENT EXCEEDS	0.50	0.50	0.25
90 PERCENT EXCEEDS	0.13	0.15	0.12

e Estimated

12433556 MIDNITE MINE DRAINAGE NEAR WELLPINIT, WA

LOCATION.--Lat 47°55'27", long 118°05'20", in NW ¼ SE ¼ sec.13, T.28 N., R.37 E., Stevens County, Hydrologic Unit 17010307, Spokane Indian Reservation, on right bank, 2.4 mi downstream from Turtle Lake, and 0.1 mi upstream from confluence with Blue Creek, and 5.4 mi northwest of Wellpinit.

DRAINAGE AREA.--1.3 mi².

PERIOD OF RECORD.--June 1984 to October 1998, January 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,070 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. Three ponds upstream from gage exist for mine surface-water retention; June 1987, three diversions from the upstream channels were added to retain and treat contaminated water for mixing and later release. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--17 years (water years 1985-98, 2001-03), 0.39 ft³/s, 286 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5.9 ft³/s Mar. 19, 1997, gage height, 1.78 ft; no flow during part of water years 1986 to 1992 and 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1.7 ft³/s Apr. 24, gage height 1.35 ft; minimum discharge, .02 ft³/s Sept. 27.

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	0.40	e0.08	0.08	0.12	0.33	0.19	0.30	1.4	0.36	0.70	0.75	0.10
2	0.54	e0.08	0.08	0.17	0.28	0.19	0.32	1.2	0.46	0.97	0.41	0.19
3	0.58	e0.09	0.08	0.21	0.25	0.19	0.32	0.70	0.91	1.1	0.20	0.49
4	0.48	e0.09	0.08	0.20	0.22	0.17	0.33	0.42	1.2	0.88	0.27	0.74
5	0.24	e0.10	0.08	0.18	0.22	0.18	0.33	0.54	1.3	0.48	0.62	0.65
6	0.08	e0.10	0.08	0.15	0.20	0.18	0.31	1.0	1.1	0.23	0.89	0.32
7	0.15	0.11	0.08	0.13	0.19	0.18	0.30	1.4	0.60	0.34	0.91	0.14
8	0.40	0.18	0.08	0.13	0.19	0.18	0.30	1.5	0.31	0.74	0.78	0.27
9	0.53	0.09	0.08	0.12	0.19	0.19	0.31	1.2	0.43	1.0	0.43	0.57
10	0.56	0.12	0.08	0.12	0.17	0.19	0.33	0.71	0.89	1.1	0.20	0.85
11	0.42	0.08	0.08	0.11	0.17	0.17	0.35	0.39	1.3	0.82	0.26	0.82
12	0.19	0.13	0.10	0.15	0.17	0.20	0.33	0.54	1.3	0.45	0.64	0.39
13	0.07	0.10	0.12	0.13	0.17	0.22	0.33	1.0	1.0	0.21	0.86	0.18
14	0.06	0.10	0.21	0.15	0.17	0.27	0.54	1.4	0.57	0.31	0.89	0.09
15	0.05	0.08	0.12	0.13	0.18	0.54	1.1	1.4	0.31	0.69	0.74	0.09
16	0.05	0.08	0.20	0.13	0.26	0.68	1.4	1.2	0.40	0.97	0.39	0.15
17	0.05	0.08	0.11	0.13	0.22	0.49	1.5	0.68	0.82	1.0	0.18	0.35
18	0.05	0.08	0.10	0.12	0.21	0.42	1.2	0.42	1.1	0.85	0.23	0.56
19	0.05	0.09	0.09	0.11	0.21	0.39	0.69	0.52	1.2	0.44	0.56	0.49
20	0.05	0.08	0.08	0.11	0.21	0.37	0.40	1.0	1.0	0.19	0.81	0.25
21	0.05	0.08	0.08	0.11	0.19	0.36	0.54	1.3	0.55	0.29	0.91	0.10
22	0.05	0.08	0.08	0.12	0.19	0.36	1.0	1.4	0.30	0.68	0.80	0.06
23	0.05	0.08	0.08	0.13	0.19	0.33	1.3	1.2	0.39	0.97	0.42	0.06
24	0.06	0.08	0.08	0.13	0.19	0.33	1.5	0.69	0.79	1.0	0.20	0.06
25	0.06	0.08	0.10	0.14	0.21	0.32	1.3	0.40	1.1	0.86	0.23	0.05
26	0.06	0.08	0.10	0.22	0.22	0.32	0.68	0.34	1.1	0.44	0.55	0.05
27	0.07	0.07	0.11	0.22	0.22	0.30	0.40	0.47	0.92	0.19	0.83	0.04
28	0.07	0.08	0.11	0.20	0.21	0.31	0.51	0.92	0.50	0.26	0.88	0.04
29	0.08	0.08	0.10	0.20	---	0.33	0.99	1.3	0.26	0.63	0.73	0.04
30	e0.07	0.08	0.10	0.22	---	0.31	1.3	1.2	0.36	0.88	0.37	0.05
31	e0.07	---	0.13	0.34	---	0.30	---	0.67	---	0.89	0.17	---
TOTAL	5.69	2.73	3.08	4.83	5.83	9.16	20.51	28.51	22.83	20.56	17.11	8.24
MEAN	0.18	0.091	0.099	0.16	0.21	0.30	0.68	0.92	0.76	0.66	0.55	0.27
MAX	0.58	0.18	0.21	0.34	0.33	0.68	1.5	1.5	1.3	1.1	0.91	0.85
MIN	0.05	0.07	0.08	0.11	0.17	0.17	0.30	0.34	0.26	0.19	0.17	0.04
AC-FT	11	5.4	6.1	9.6	12	18	41	57	45	41	34	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2003, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	0.42	0.36	0.17	0.18	0.24	0.55	0.56	0.57	0.51	0.43	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
MAX	1.27	1.11	0.51	0.73	0.65	1.69	1.31	1.29	1.12	1.05	1.06	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
(WY)	(1997)	(1996)	(1996)	(1997)	(1997)	(1997)	(1995)	(1995)	(1996)	(1996)	(1996)	(1997)	(1997)	(1997)	(1997)	(1997)	(1997)	(1997)	(1997)	(1997)
MIN	0.051	0.076	0.068	0.075	0.088	0.13	0.098	0.064	0.046	0.026	0.008	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019
(WY)	(1992)	(1991)	(1993)	(1989)	(1993)	(1992)	(1992)	(1992)	(1992)	(1992)	(1988)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1984 - 2003	
ANNUAL TOTAL	113.93		149.08			
ANNUAL MEAN	0.31		0.41		0.39	
HIGHEST ANNUAL MEAN					1.00 1997	
LOWEST ANNUAL MEAN					0.076 1992	
HIGHEST DAILY MEAN	0.92	Apr 17	1.5	Apr 17	5.3	Mar 20, 1997
LOWEST DAILY MEAN	0.05	Oct 15	0.04	Sep 27	0.00	Jun 22, 1986
ANNUAL SEVEN-DAY MINIMUM	0.05	Oct 15	0.05	Sep 24	0.00	Aug 8, 1990
ANNUAL RUNOFF (AC-FT)	226		296		286	
10 PERCENT EXCEEDS	0.68		1.0		1.1	
50 PERCENT EXCEEDS	0.25		0.26		0.18	
90 PERCENT EXCEEDS	0.08		0.08		0.05	

e Estimated

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