



Figure 29. Location of surface-water 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.

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 (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PERIOD OF RECORD.--Maximum discharge, 50,100 ft³/s, when recorder was not operating, Dec. 25, 1933, (determined from unpublished records collected by Washington Water Power Co. for station at Liberty Bridge); minimum, 65 ft³/s, July 25, 30, 1973; minimum gage height, 4.68 ft, July 20,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 discharge, 15,700 ft³/s, May 23, gage height, 15.76 ft; minimum daily discharge, 374 ft³/s, Aug. 12.

DAY	DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004											
	DAILY MEAN VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	2500	2040	2370	4030	6050	11700	10600	13000	3640	736	1240
2	1100	2240	2680	2360	4310	6140	11900	10600	12700	3860	644	1110
3	1100	2180	2990	2310	4600	6160	12000	10500	12000	3510	585	893
4	1090	2180	3480	2230	4630	6180	12000	10700	11700	2820	580	758
5	1090	2170	3810	2120	4600	6170	11900	11000	11000	2230	579	756
6	1090	2170	3810	1990	4380	6060	12300	11300	10600	1750	583	755
7	1090	2170	3810	1880	4280	5880	12800	11400	10000	1830	579	702
8	1090	2170	3820	1880	4270	5780	13300	11400	8710	1690	575	643
9	1100	2160	3670	1880	4170	5710	13700	11400	8170	1360	577	643
10	1100	2160	3570	1870	4060	5800	13900	11000	7410	1130	581	643
11	1100	2140	3980	1870	3800	6100	14000	9110	7010	1130	478	642
12	1100	2140	4150	1810	3790	6330	13900	8130	7500	1120	374	641
13	1100	2130	4080	1770	3640	6660	13900	7740	7070	944	440	643
14	1100	2130	4070	1770	3490	7040	14000	7180	6020	897	571	641
15	1100	2120	4050	1780	3400	7190	14400	6760	5860	1060	576	1250
16	1250	2130	4050	1770	3290	7380	14700	6640	5590	1560	575	2410
17	1300	2100	4120	1770	3190	7610	14700	6140	4880	1820	579	3310
18	1200	2100	3890	1770	3380	7760	14600	5800	4200	1820	576	3750
19	1200	2130	3740	1780	3800	8120	14200	5790	3870	1810	573	2970
20	1190	2140	3700	1770	4320	8600	13800	5790	4050	1810	574	1800
21	1240	2150	3670	1860	4560	8910	13200	6010	4220	1810	575	1980
22	1270	2160	3270	1860	4800	9350	12700	8410	4250	1390	577	2140
23	1930	2160	3080	1840	5020	9420	12200	13100	4080	1010	677	2150
24	2680	2010	3000	1840	5090	9930	11700	13800	3810	1120	906	2150
25	3390	1800	2920	1850	5210	10300	11100	13500	3710	1120	1660	2170
26	3840	1830	2810	2130	5270	10700	10300	13500	3700	1120	3450	2290
27	3780	1830	2770	2120	5370	11000	10300	14100	3660	991	3570	2390
28	4030	1820	2740	2080	5800	11300	10500	14500	3420	838	2340	2370
29	3930	1820	2630	2200	5820	11400	10900	14400	3160	751	2400	2380
30	3890	1820	2550	2640	---	11400	10700	14500	3170	743	1830	2330
31	3760	---	2450	3500	---	11400	---	13500	---	736	1440	---
TOTAL	56320	62760	105400	62670	126370	247830	381300	318300	198520	49420	30760	48550
MEAN	1817	2092	3400	2022	4358	7995	12710	10270	6617	1594	992	1618
MAX	4030	2500	4150	3500	5820	11400	14700	14500	13000	3860	3570	3750
MIN	1090	1800	2040	1770	3190	5710	10300	5790	3160	736	374	641
AC-FT	111700	124500	209100	124300	250700	491600	756300	631300	393800	98020	61010	96300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2004, 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	2004
MEAN	1750	2855	4847	5156	6266	8195	14370	17360	9610	2089	931	1185																																																																																
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 2003	CALENDAR YEAR	FOR 2004	WATER YEAR	WATER YEARS 1913 - 2004
ANNUAL TOTAL	1752774		1688200		
ANNUAL MEAN	4802		4613		6189
HIGHEST ANNUAL MEAN					11600
LOWEST ANNUAL MEAN					2143
HIGHEST DAILY MEAN	17800	Feb 4	14700	Apr 16	49800
LOWEST DAILY MEAN	274	Aug 25	374	Aug 12	67
ANNUAL SEVEN-DAY MINIMUM	275	Aug 23	513	Aug 11	108
ANNUAL RUNOFF (AC-FT)	3477000		3349000		4484000
10 PERCENT EXCEEDS	11800		11700		17000
50 PERCENT EXCEEDS	3350		3180		2990
90 PERCENT EXCEEDS	456		757		900

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

LOCATION.--Lat 47°40'56", long 117°05'05", in NW¼, 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.--Records good, except for estimated daily discharges, which are fair. 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.-- 52 years (water years 1930-36, 1938-40, 1942, 1944-46, 1951-83, 2000-04), 6,029 ft³/s, 4,368,000 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, 15,200 ft³/s, May 23, gage height, 15.58 ft; minimum discharge, 204 ft³/s, Aug. 12, 13, gage height, 7.91 ft.

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	858	2,280	1,750	2,170	3,790	e5,780	e11,300	10,100	12,600	3,320	558	1,030
2	863	1,980	2,380	2,160	4,070	e5,870	e11,400	10,100	12,300	3,560	481	876
3	866	1,920	2,730	2,110	4,350	e5,900	11,600	10,000	11,600	3,270	397	724
4	865	1,920	3,150	2,020	4,400	e5,910	11,600	10,200	11,200	2,630	389	577
5	866	1,920	3,530	e1,910	4,400	e5,900	11,500	10,500	10,500	2,080	386	571
6	865	1,920	3,530	e1,890	4,210	e5,800	11,900	10,800	10,100	1,480	391	570
7	866	1,920	3,530	e1,840	4,090	e5,630	12,500	10,900	9,500	1,560	392	536
8	867	1,920	3,540	e1,630	4,080	e5,530	12,900	10,900	8,190	1,440	381	468
9	867	1,920	3,430	e1,610	4,010	e5,440	13,400	10,900	7,560	1,170	379	469
10	867	1,910	3,330	e1,610	3,880	e5,510	13,600	10,600	6,960	907	388	471
11	867	1,900	3,680	1,620	3,580	e5,780	13,700	8,690	6,430	897	334	472
12	873	1,890	3,890	1,580	3,440	e5,990	13,600	7,540	6,920	886	208	469
13	874	1,870	3,820	1,540	e3,370	e6,300	13,600	7,210	6,600	757	229	469
14	874	1,870	3,810	1,540	e3,200	e6,650	13,700	6,680	5,600	668	376	469
15	876	1,870	3,800	1,540	e3,150	e6,810	14,100	6,270	5,430	783	384	909
16	979	1,880	3,800	1,540	e3,050	e6,990	14,400	6,150	5,220	1,210	383	2,030
17	1,060	1,860	3,880	1,540	e2,970	e7,220	14,500	5,750	4,600	1,510	386	2,960
18	966	1,850	3,680	1,540	e3,140	e7,370	14,300	5,400	3,950	1,520	386	3,420
19	966	1,890	3,520	1,540	e3,490	e7,680	13,900	5,390	3,610	1,510	386	2,810
20	962	1,900	3,480	1,540	e4,110	e8,150	13,400	5,390	3,760	1,510	385	1,550
21	992	1,920	3,450	1,610	e4,360	e8,470	12,800	5,570	3,910	1,520	386	1,700
22	1,020	1,920	3,100	1,630	e4,600	e8,880	12,300	7,640	3,950	1,230	392	1,880
23	1,530	1,920	2,870	1,610	e4,820	e8,970	11,800	12,500	3,800	748	458	1,890
24	2,300	1,800	2,810	1,610	e4,890	e9,460	11,300	13,500	3,560	867	640	1,880
25	3,000	1,540	2,730	1,620	e5,010	e9,800	10,700	13,100	3,440	866	1,240	1,910
26	3,500	1,580	2,630	1,870	e5,060	e10,200	9,810	13,100	3,420	866	2,910	2,010
27	3,440	1,570	2,570	1,900	e5,180	e10,600	9,820	13,700	3,390	778	3,340	2,120
28	3,720	1,570	2,550	1,860	e5,540	e10,900	9,990	14,100	3,180	651	2,050	2,100
29	3,630	1,580	2,450	1,950	e5,580	e11,000	10,400	14,100	2,920	570	2,110	2,110
30	3,600	1,570	2,350	2,370	---	e11,000	10,200	14,200	2,910	567	1,640	2,070
31	3,540	---	2,260	3,220	---	e11,000	---	13,200	---	565	1,180	---
TOTAL	48,219	55,360	98,030	55,720	119,820	236,490	370,020	304,180	187,110	41,896	23,945	41,520
MEAN	1,555	1,845	3,162	1,797	4,132	7,629	12,330	9,812	6,237	1,351	772	1,384
MAX	3,720	2,280	3,890	3,220	5,580	11,000	14,500	14,200	12,600	3,560	3,340	3,420
MIN	858	1,540	1,750	1,540	2,970	5,440	9,810	5,390	2,910	565	208	468
AC-FT	95,640	109,800	194,400	110,500	237,700	469,100	733,900	603,300	371,100	83,100	47,490	82,350
CFSM	0.40	0.48	0.82	0.46	1.06	1.97	3.18	2.53	1.61	0.35	0.20	0.36
IN.	0.46	0.53	0.94	0.53	1.15	2.27	3.55	2.92	1.79	0.40	0.23	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	1,632	2,628	4,642	5,180	6,164	7,546	14,020	17,430	9,582	1,872	790	1,058
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)

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

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	1,639,085		1,582,310			
ANNUAL MEAN	4,491		4,323		6,037	
HIGHEST ANNUAL MEAN					11,260	1974
LOWEST ANNUAL MEAN					2,077	1977
HIGHEST DAILY MEAN	17,500	Feb 4	14,500	Apr 17	49,800	Dec 25, 1933
LOWEST DAILY MEAN	154	Sep 3	208	Aug 12	0.00	Jun 28, 1933
ANNUAL SEVEN-DAY MINIMUM	157	Aug 28	328	Aug 8	71	Aug 21, 2001
ANNUAL RUNOFF (AC-FT)	3,251,000		3,139,000		4,373,000	
ANNUAL RUNOFF (CFSM)	1.16		1.11		1.56	
ANNUAL RUNOFF (INCHES)	15.71		15.17		21.14	
10 PERCENT EXCEEDS	11,200		11,200		16,800	
50 PERCENT EXCEEDS	3,120		2,920		3,000	
90 PERCENT EXCEEDS	299		575		776	

e Estimated

12420500 SPOKANE RIVER AT GREENACRES, WA

LOCATION.--Lat 47°40'39", long 117°09'04", in SW $\frac{1}{4}$ NW $\frac{1}{4}$, 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, September 1999 to current year. March 1948 to July 1952 at site 1.1 mi downstream; records not equivalent due to loss to ground water between sites.

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

REMARKS.--No estimated daily discharges. Records good, except discharges below 100 ft³/s, which are fair. Flow partly regulated by dam at Post Falls, Idaho, 11.6 mi upstream and affected by storage in Coeur d'Alene Lake.

AVERAGE DISCHARGE.--8 years (water years 1949-51, 2000-04) 5,989 ft³/s, 4,338,000 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, Aug. 21, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,500 ft³/s, May 23, gage height, 10.03 ft; minimum discharge, 78 ft³/s, Aug. 13, gage height, 3.01 ft.

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	830	2,300	1,740	2,200	3,860	5,960	11,600	10,500	13,000	3,300	412	948
2	831	1,990	2,360	2,180	4,150	6,050	11,800	10,500	12,600	3,570	358	785
3	833	1,920	2,730	2,140	4,440	6,080	11,900	10,400	12,000	3,280	275	647
4	830	1,920	3,110	2,060	4,510	6,090	11,900	10,600	11,600	2,620	264	475
5	830	1,920	3,510	1,950	4,500	6,080	11,900	10,800	10,900	2,050	256	467
6	826	1,920	3,510	1,930	4,330	5,980	12,200	11,200	10,500	1,410	264	462
7	825	1,930	3,520	1,880	4,190	5,800	12,800	11,300	9,950	1,510	265	435
8	825	1,920	3,530	1,670	4,190	5,700	13,200	11,300	8,670	1,380	253	356
9	831	1,920	3,430	1,650	4,120	5,610	13,600	11,300	7,990	1,100	250	356
10	832	1,920	3,330	1,650	3,990	5,680	13,900	10,900	7,370	797	258	357
11	836	1,910	3,670	1,660	3,770	5,960	14,000	9,190	6,710	782	223	359
12	843	1,910	3,900	1,600	3,720	6,180	13,900	7,970	7,300	770	85	357
13	848	1,900	3,840	1,550	3,610	6,490	13,900	7,610	6,960	654	89	358
14	841	1,890	3,830	1,550	3,410	6,860	14,000	7,030	5,820	553	239	355
15	845	1,890	3,810	1,560	3,350	7,020	14,300	6,580	5,630	662	250	741
16	942	1,890	3,820	1,560	3,240	7,210	14,700	6,450	5,400	1,060	251	1,870
17	1,040	1,870	3,900	1,560	3,120	7,440	14,800	6,010	4,750	1,400	252	2,830
18	936	1,860	3,730	1,560	3,300	7,600	14,600	5,590	4,060	1,400	254	3,310
19	938	1,910	3,570	1,560	3,680	7,920	14,200	5,580	3,670	1,400	252	2,780
20	941	1,920	3,520	1,560	4,240	8,400	13,800	5,580	3,810	1,400	251	1,470
21	965	1,930	3,490	1,640	4,500	8,730	13,200	5,760	3,980	1,410	253	1,600
22	998	1,940	3,150	1,670	4,740	9,150	12,700	7,770	4,020	1,170	261	1,790
23	1,460	1,940	2,910	1,650	4,970	9,250	12,200	12,700	3,860	620	320	1,800
24	2,250	1,840	2,840	1,650	5,040	9,750	11,700	13,800	3,600	766	501	1,790
25	2,930	1,560	2,750	1,660	5,170	10,100	11,100	13,400	3,470	762	1,050	1,820
26	3,440	1,600	2,650	1,900	5,220	10,500	10,300	13,400	3,450	761	2,710	1,900
27	3,380	1,600	2,590	1,960	5,310	10,900	10,200	14,000	3,410	682	3,290	2,030
28	3,670	1,580	2,560	1,910	5,710	11,200	10,400	14,400	3,200	541	1,940	2,010
29	3,590	1,590	2,480	2,000	5,750	11,300	10,800	14,400	2,920	435	2,010	2,020
30	3,570	1,580	2,370	2,400	---	11,300	10,600	14,500	2,900	426	1,580	1,980
31	3,540	---	2,290	3,250	---	11,300	---	13,500	---	416	1,090	---
TOTAL	47,096	55,770	98,440	56,720	124,130	243,590	380,200	314,020	193,500	39,087	20,006	38,458
MEAN	1,519	1,859	3,175	1,830	4,280	7,858	12,670	10,130	6,450	1,261	645	1,282
MAX	3,670	2,300	3,900	3,250	5,750	11,300	14,800	14,500	13,000	3,570	3,290	3,310
MIN	825	1,560	1,740	1,550	3,120	5,610	10,200	5,580	2,900	416	85	355
AC-FT	93,410	110,600	195,300	112,500	246,200	483,200	754,100	622,900	383,800	77,530	39,680	76,280
CFSM	0.37	0.45	0.77	0.44	1.03	1.89	3.05	2.44	1.55	0.30	0.16	0.31
IN.	0.42	0.50	0.88	0.51	1.11	2.18	3.41	2.81	1.73	0.35	0.18	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	1,778	2,465	4,261	3,963	6,353	8,157	15,650	18,500	10,360	1,993	549	748
MAX	2,788	4,435	9,128	7,735	15,440	16,490	20,030	29,510	22,900	6,216	1,391	1,282
(WY)	(1952)	(1951)	(1951)	(1951)	(1951)	(1950)	(2000)	(1948)	(1948)	(1950)	(1948)	(2004)
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)

SPOKANE RIVER BASIN

12420500 SPOKANE RIVER AT GREENACRES, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	1,678,963		1,611,017		5,989	
ANNUAL MEAN	4,600		4,402		9,028	
HIGHEST ANNUAL MEAN					2,498	
LOWEST ANNUAL MEAN					40,000	
HIGHEST DAILY MEAN	17,600	Feb 4	14,800	Apr 17	40,000	May 30, 1948
LOWEST DAILY MEAN	45	Aug 26	85	Aug 12	45	Aug 26, 2003
ANNUAL SEVEN-DAY MINIMUM	45	Aug 26	198	Aug 11	45	Aug 26, 2003
ANNUAL RUNOFF (AC-FT)	3,330,000		3,195,000		4,338,000	
ANNUAL RUNOFF (CFSM)	1.11		1.06		1.44	
ANNUAL RUNOFF (INCHES)	15.05		14.44		19.61	
10 PERCENT EXCEEDS	11,700		11,600		16,800	
50 PERCENT EXCEEDS	3,120		2,900		2,980	
90 PERCENT EXCEEDS	170		473		392	

12422500 SPOKANE RIVER AT SPOKANE, WA

LOCATION.--Lat 47°39'34", long 117°26'53", in SW¹/₄SW¹/₄, 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.--113 years (water years 1892-2004), 6,706 ft³/s, 4,858,000 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, 15,300 ft³/s, Apr. 19, gage height, 23.48 ft; minimum discharge, 576 ft³/s, Aug. 13, gage height, 16.99 ft, result of regulation.

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	1,220	2,830	2,160	2,740	3,910	5,890	11,100	10,400	12,600	3,640	976	1,500
2	1,230	2,510	2,590	2,710	4,160	6,010	11,400	10,300	12,300	3,900	971	1,330
3	1,220	2,400	2,970	2,700	4,430	6,070	11,500	10,300	11,900	3,760	856	1,250
4	1,240	2,380	3,210	2,630	4,540	6,100	11,500	10,300	11,300	3,260	843	1,070
5	1,220	2,390	3,700	2,550	4,550	6,080	11,500	10,600	10,800	2,800	831	1,060
6	1,240	2,400	3,690	2,440	4,480	6,070	11,700	10,900	10,300	2,160	841	1,040
7	1,240	2,400	3,730	2,300	4,340	5,880	12,200	11,000	9,990	2,210	858	1,010
8	1,240	2,390	3,720	2,310	4,340	5,850	12,600	11,000	8,990	2,110	836	944
9	1,270	2,390	3,700	2,260	4,310	5,730	13,000	11,000	8,210	1,900	815	913
10	1,250	2,390	3,600	2,290	4,200	5,790	13,300	10,800	7,900	1,580	806	914
11	1,270	2,350	3,800	2,240	4,060	6,000	13,400	9,540	6,990	1,540	810	918
12	1,270	2,360	4,080	2,190	3,970	6,180	13,400	8,170	7,530	1,520	682	928
13	1,290	2,360	4,040	2,170	3,940	6,470	13,300	7,950	7,360	1,430	644	909
14	1,290	2,380	4,050	2,140	3,760	6,750	13,400	7,340	6,360	1,260	729	935
15	1,290	2,330	4,030	2,150	3,710	6,930	13,700	6,940	6,100	1,300	747	1,040
16	1,330	2,360	4,030	2,140	3,630	7,100	14,100	6,770	5,920	1,500	768	1,880
17	1,500	2,330	4,100	2,130	3,500	7,280	14,200	6,480	5,420	1,860	754	2,790
18	1,380	2,300	4,040	2,140	3,650	7,440	14,100	6,020	4,800	1,860	734	3,260
19	1,400	2,390	3,930	2,130	3,840	7,700	13,800	5,970	4,360	1,870	751	3,150
20	1,410	2,370	3,840	2,110	4,310	8,130	13,400	5,950	4,400	1,870	732	1,990
21	1,400	2,400	3,830	2,160	4,590	8,460	12,900	6,130	4,500	1,870	738	1,970
22	1,460	2,390	3,650	2,200	4,810	8,820	12,400	7,280	4,530	1,800	748	2,170
23	1,630	2,390	3,360	2,190	5,000	8,950	11,900	11,600	4,400	1,250	797	2,210
24	2,310	2,400	3,360	2,190	5,070	9,360	11,500	13,100	4,150	1,350	937	2,170
25	2,880	2,060	3,240	2,170	5,200	9,720	11,000	12,700	4,000	1,330	1,230	2,210
26	3,420	2,110	3,170	2,330	5,280	10,100	10,300	12,800	3,940	1,320	2,440	2,250
27	3,430	2,120	3,050	2,410	5,330	10,400	10,100	13,200	3,890	1,280	3,400	2,380
28	3,650	2,110	3,060	2,400	5,670	10,700	10,300	13,800	3,770	1,140	2,220	2,380
29	3,690	2,120	3,050	2,400	5,740	10,900	10,600	13,700	3,490	1,050	2,280	2,350
30	3,680	2,090	2,890	2,670	---	10,900	10,500	13,900	3,400	1,010	2,090	2,390
31	3,750	---	2,860	3,280	---	10,900	---	13,200	---	988	1,590	---
TOTAL	57,100	70,200	108,530	72,870	128,320	238,660	368,100	309,140	203,600	57,718	34,454	51,311
MEAN	1,842	2,340	3,501	2,351	4,425	7,699	12,270	9,972	6,787	1,862	1,111	1,710
MAX	3,750	2,830	4,100	3,280	5,740	10,900	14,200	13,900	12,600	3,900	3,400	3,260
MIN	1,220	2,060	2,160	2,110	3,500	5,730	10,100	5,950	3,400	988	644	909
AC-FT	113,300	139,200	215,300	144,500	254,500	473,400	730,100	613,200	403,800	114,500	68,340	101,800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1891 - 2004, BY WATER YEAR (WY)

MEAN	2,155	3,270	5,136	5,478	6,302	8,318	14,150	17,740	10,960	3,388	1,741	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)

SPOKANE RIVER BASIN

12422500 SPOKANE RIVER AT SPOKANE, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1891 - 2004	
ANNUAL TOTAL	1,781,310		1,700,003			
ANNUAL MEAN	4,880		4,645		6,706	
HIGHEST ANNUAL MEAN					12,310	1974
LOWEST ANNUAL MEAN					2,508	1977
HIGHEST DAILY MEAN	16,900	Mar 27	14,200	Apr 17	49,000	May 31, 1894
LOWEST DAILY MEAN	493	Sep 2	644	Aug 13	466	Aug 11, 1973
ANNUAL SEVEN-DAY MINIMUM	507	Aug 29	723	Aug 12	502	Aug 21, 1994
ANNUAL RUNOFF (AC-FT)	3,533,000		3,372,000		4,858,000	
10 PERCENT EXCEEDS	11,700		11,200		17,100	
50 PERCENT EXCEEDS	3,520		3,260		3,700	
90 PERCENT EXCEEDS	681		1,050		1,500	

12424000 HANGMAN CREEK AT SPOKANE, WA

LOCATION.--Lat 47°39'10", long 117°26'55", in NW¹/₄, 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.--55 years (water years 1949-77, 1979-2004), 232 ft³/s, 4.57 in/yr, 167,700 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, 0.72 ft³/s, Aug. 5, 2004, due to regulation from upstream pipeline construction.

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)
Jan 30	2145	*3,810	*7.02	Feb 18	2200	3,720	7.02

Minimum discharge, 0.72 ft³/s, Aug. 5, due to regulation from pipeline construction.

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	6.5	10	23	e16	850	409	144	54	147	36	3.6	6.8
2	5.9	9.7	24	e12	488	339	148	52	141	33	3.8	5.2
3	6.0	9.1	25	e10	355	286	133	52	119	29	3.4	6.8
4	7.3	9.6	26	e8.0	291	249	123	48	105	27	2.6	5.6
5	6.5	9.0	37	e6.0	243	368	113	44	e96	25	2.6	5.5
6	6.3	8.2	37	e7.0	210	348	105	42	e90	27	11	6.2
7	7.1	7.4	36	e8.0	203	383	100	39	e85	24	13	6.1
8	6.7	7.9	34	e10	189	585	96	38	e83	23	13	4.9
9	6.4	8.8	34	e12	180	517	90	38	e75	22	13	4.5
10	7.6	10	37	e14	169	489	85	38	70	20	11	5.7
11	8.2	11	40	e15	156	433	82	36	73	19	8.7	8.0
12	8.4	12	33	e17	141	359	78	36	70	17	7.5	6.8
13	8.8	12	32	e30	126	314	73	38	65	17	7.1	8.0
14	8.9	11	36	51	126	281	72	41	62	18	5.6	8.7
15	10	11	44	67	121	250	73	59	54	15	4.9	9.7
16	10	13	49	66	118	225	83	50	47	14	5.3	11
17	12	13	78	68	138	214	104	46	43	13	4.4	12
18	12	14	60	108	1,840	211	113	42	39	12	3.7	12
19	12	15	44	159	2,980	210	102	42	34	16	3.8	12
20	13	14	36	133	1,420	202	95	64	31	23	3.4	13
21	12	16	35	113	866	185	95	78	29	20	2.7	13
22	12	15	32	110	618	167	96	640	28	13	2.7	13
23	12	11	30	117	505	154	105	2,010	27	15	2.9	12
24	11	12	30	120	469	149	96	881	31	16	7.0	11
25	11	14	32	118	657	148	85	482	27	9.5	7.5	9.3
26	11	13	40	119	703	151	76	326	24	8.7	8.6	9.7
27	10	13	45	121	798	157	69	254	25	7.1	12	9.6
28	10	13	e30	119	709	187	65	223	27	6.2	9.1	10
29	10	19	e24	170	512	204	62	192	37	5.6	8.8	9.3
30	10	20	e20	2,820	---	163	58	169	36	5.7	8.0	10
31	10	---	e18	2,290	---	148	---	166	---	4.6	7.2	---
TOTAL	288.6	361.7	1,101	7,034.0	16,181	8,485	2,819	6,320	1,820	541.4	207.9	265.4
MEAN	9.31	12.1	35.5	227	558	274	94.0	204	60.7	17.5	6.71	8.85
MAX	13	20	78	2,820	2,980	585	148	2,010	147	36	13	13
MIN	5.9	7.4	18	6.0	118	148	58	36	24	4.6	2.6	4.5
AC-FT	572	717	2,180	13,950	32,100	16,830	5,590	12,540	3,610	1,070	412	526
CFSM	0.01	0.02	0.05	0.33	0.81	0.40	0.14	0.30	0.09	0.03	0.01	0.01
IN.	0.02	0.02	0.06	0.38	0.87	0.46	0.15	0.34	0.10	0.03	0.01	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	18.0	44.1	197	463	730	732	343	194	75.4	22.5	13.4	13.5
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)

SPOKANE RIVER BASIN

12424000 HANGMAN CREEK AT SPOKANE, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	50,347.4		45,425.0		232	
ANNUAL MEAN	138		124		629	
HIGHEST ANNUAL MEAN					1997	
LOWEST ANNUAL MEAN					1977	
HIGHEST DAILY MEAN	2,530	Mar 23	2,980	Feb 19	18,000	Jan 1, 1997
LOWEST DAILY MEAN	3.7	Sep 6	2.6	Aug 4	0.81	Sep 5, 1992
ANNUAL SEVEN-DAY MINIMUM	3.9	Aug 31	3.4	Aug 17	0.92	Sep 14, 1992
ANNUAL RUNOFF (AC-FT)	99,860		90,100		167,700	
ANNUAL RUNOFF (CFSM)	0.200		0.180		0.336	
ANNUAL RUNOFF (INCHES)	2.72		2.45		4.57	
10 PERCENT EXCEEDS	368		262		575	
50 PERCENT EXCEEDS	32		32		43	
90 PERCENT EXCEEDS	5.4		6.8		8.8	

e Estimated

12431000 LITTLE SPOKANE RIVER AT DARTFORD, WA

LOCATION.--Lat 47°47'05", long 117°24'12", in NE¹/₄NW¹/₄, sec.5, T.26 N., R.43 E., Spokane County, Hydrologic Unit 17010308, on left bank 50 ft upstream from county bridge, 0.5 mi east of Dartford, 1.7 mi downstream from Deadman Creek, 7.5 mi north of Spokane, and at mile 11.4.

DRAINAGE AREA.--665 mi².

PERIOD OF RECORD.--April 1929 to September 1932, December 1946 to current year.

REVISED RECORDS.--WSP 1216: Drainage area. WSP 1286: 1930, 1932(M), 1947-49(M). WSP 1446: 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 1,585.62 ft above NGVD of 1929 (levels by Washington State Department of Transportation). Prior to 1996 an arbitrary datum of 1,590 ft was used, from topographic map. Prior to Mar. 16, 1951, nonrecording gage and Mar. 16, 1951, to July 5, 1961, water-stage recorder, at site 0.5 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. No regulation. Small diversions for irrigation upstream from station. U.S. Geological Survey satellite telemeter at station. Chemical analyses, July 1960 to September 1970, water temperatures, July 1968 to September 1970.

AVERAGE DISCHARGE.--60 years (water years 1930-32, 1948-2004), 302 ft³/s, 6.16 in/yr, 218,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,110 ft³/s, Mar. 21, 1997, gage height, 8.27 ft; minimum discharge, 62 ft³/s, Aug. 8, 1994.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 940 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 28	1530	*496	*3.46				

Minimum discharge, 72 ft³/s, Aug. 1, gage height, 1.98 ft.

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	106	128	212	173	260	456	409	238	203	135	82	95
2	106	131	201	171	235	432	397	231	194	132	82	93
3	106	134	197	171	231	409	385	223	187	125	83	94
4	107	133	196	129	226	407	378	216	180	120	87	95
5	106	128	210	130	218	426	370	210	180	118	88	94
6	107	127	260	135	212	417	363	207	188	117	93	94
7	109	129	258	154	212	401	355	204	191	119	102	94
8	110	133	230	179	208	418	352	198	189	122	101	93
9	112	133	212	181	204	435	351	196	189	119	97	93
10	112	135	203	187	201	449	344	190	187	115	94	93
11	113	140	196	181	197	441	335	191	186	111	90	99
12	116	141	192	178	188	435	329	186	186	109	87	108
13	120	140	193	179	182	435	323	183	182	106	85	106
14	121	138	198	181	188	433	322	186	177	105	84	109
15	122	140	197	183	193	416	320	183	171	101	84	111
16	131	145	191	190	194	413	324	179	165	97	83	116
17	146	158	181	188	215	419	323	177	160	94	83	116
18	136	165	176	188	291	434	315	177	155	95	83	119
19	135	173	171	188	368	438	312	173	151	107	91	117
20	135	169	173	188	348	426	315	171	147	105	86	114
21	142	169	175	186	339	416	330	186	145	101	83	110
22	142	157	177	183	338	407	315	228	140	98	84	109
23	139	159	178	187	328	405	299	242	137	96	90	108
24	137	160	181	198	324	403	289	219	134	94	93	107
25	138	160	184	198	356	405	277	205	132	92	111	107
26	133	161	187	192	385	411	270	203	133	92	127	106
27	132	161	182	192	436	431	262	239	140	90	122	105
28	132	163	181	193	480	445	260	231	137	89	113	104
29	133	198	174	204	474	425	254	219	134	87	108	104
30	133	228	141	254	---	415	244	212	132	85	110	104
31	129	---	177	289	---	413	---	209	---	83	98	---
TOTAL	3,846	4,536	5,984	5,730	8,031	13,116	9,722	6,312	4,932	3,259	2,904	3,117
MEAN	124	151	193	185	277	423	324	204	164	105	93.7	104
MAX	146	228	260	289	480	456	409	242	203	135	127	119
MIN	106	127	141	129	182	401	244	171	132	83	82	93
AC-FT	7,630	9,000	11,870	11,370	15,930	26,020	19,280	12,520	9,780	6,460	5,760	6,180
CFSM	0.19	0.23	0.29	0.28	0.42	0.64	0.49	0.31	0.25	0.16	0.14	0.16
IN.	0.22	0.25	0.33	0.32	0.45	0.73	0.54	0.35	0.28	0.18	0.16	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2004, BY WATER YEAR (WY)

MEAN	156	190	239	288	410	585	627	416	261	165	132	137
MAX	244	357	824	1,204	1,108	1,629	1,469	1,176	710	331	217	227
(WY)	(1998)	(1984)	(1974)	(1974)	(1961)	(1997)	(1997)	(1948)	(1948)	(1948)	(1997)	(1997)
MIN	87.9	113	114	99.6	143	167	168	132	98.2	80.3	67.8	80.3
(WY)	(1932)	(1930)	(1993)	(1930)	(1993)	(1930)	(1977)	(1930)	(1931)	(1931)	(1931)	(1931)

SPOKANE RIVER BASIN

12431000 LITTLE SPOKANE RIVER AT DARTFORD, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1929 - 2004	
ANNUAL TOTAL	97,400		71,489		302	
ANNUAL MEAN	267		195		626	
HIGHEST ANNUAL MEAN					128	
LOWEST ANNUAL MEAN					1997	
HIGHEST DAILY MEAN	1,010	Mar 23	480	Feb 28	3,710	Mar 21, 1997
LOWEST DAILY MEAN	92	Aug 27	82	Aug 1	63	Jul 24, 1930
ANNUAL SEVEN-DAY MINIMUM	93	Aug 31	84	Jul 29	65	Aug 13, 1931
ANNUAL RUNOFF (AC-FT)	193,200		141,800		218,500	
ANNUAL RUNOFF (CFSM)	0.401		0.294		0.454	
ANNUAL RUNOFF (INCHES)	5.45		4.00		6.16	
10 PERCENT EXCEEDS	549		389		606	
50 PERCENT EXCEEDS	191		177		203	
90 PERCENT EXCEEDS	101		94		121	

12431500 LITTLE SPOKANE RIVER NEAR DARTFORD, WA

LOCATION.--Lat 47°46'52", long 117°29'43", in NW¹/₄, 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.--10 years (water years 1949-51, 1998-2004), 574 ft³/s, 11.17 in/yr, 415,800 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)
Feb. 29	0000	*670	*6.58				

Minimum discharge, 332 ft³/s, part of each day Aug. 1-3.

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	350	376	453	420	516	647	614	486	444	378	333	350
2	350	378	443	417	494	629	604	478	437	378	333	349
3	350	380	437	415	486	613	597	472	430	372	333	349
4	351	379	436	388	483	610	591	468	422	369	337	350
5	351	375	449	377	478	623	584	463	422	365	339	349
6	352	372	485	374	472	622	580	459	426	365	345	348
7	353	374	492	387	471	605	574	456	429	365	353	348
8	354	380	471	405	469	614	572	451	428	367	353	348
9	356	380	454	414	466	628	572	449	427	365	350	348
10	356	381	445	427	463	637	566	446	427	363	346	347
11	358	385	438	425	459	636	559	444	426	360	343	354
12	359	387	435	420	453	630	553	441	422	359	339	362
13	364	385	437	420	446	628	549	438	418	356	338	363
14	365	384	444	421	452	628	547	442	414	354	337	365
15	367	384	441	422	455	620	545	437	408	351	337	368
16	375	389	435	427	457	613	547	433	403	347	336	371
17	387	401	430	426	471	618	551	432	399	344	336	373
18	382	407	425	426	519	627	543	431	393	345	336	374
19	380	416	419	426	583	631	541	426	389	355	341	373
20	380	413	422	425	581	627	542	424	387	354	340	370
21	386	414	422	424	572	620	555	445	384	350	337	368
22	387	403	424	421	572	613	548	478	381	348	337	366
23	385	401	426	425	566	609	533	486	378	345	343	365
24	383	404	428	434	562	608	524	468	375	343	348	365
25	383	404	431	433	578	609	516	454	374	342	360	363
26	380	406	431	428	596	612	508	449	375	341	378	362
27	378	405	428	427	626	626	504	465	380	340	375	362
28	378	406	425	427	655	640	499	475	379	339	368	362
29	379	429	420	441	660	629	496	461	376	337	361	361
30	379	458	393	481	---	617	492	454	376	336	364	360
31	376	---	422	531	---	612	---	449	---	334	353	---
TOTAL	11,434	11,856	13,541	13,134	15,061	19,281	16,506	14,060	12,129	10,967	10,729	10,793
MEAN	369	395	437	424	519	622	550	454	404	354	346	360
MAX	387	458	492	531	660	647	614	486	444	378	378	374
MIN	350	372	393	374	446	605	492	424	374	334	333	347
AC-FT	22,680	23,520	26,860	26,050	29,870	38,240	32,740	27,890	24,060	21,750	21,280	21,410
CFSM	0.53	0.57	0.63	0.61	0.74	0.89	0.79	0.65	0.58	0.51	0.50	0.52
IN.	0.61	0.63	0.72	0.70	0.80	1.03	0.88	0.75	0.65	0.58	0.57	0.58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	428	461	518	551	684	945	964	748	556	429	385	386
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	395	435	424	443	513	532	454	399	342	323	327
(WY)	(2003)	(2004)	(1950)	(2004)	(2001)	(2001)	(2001)	(2004)	(2001)	(2001)	(2001)	(2001)

SPOKANE RIVER BASIN

12431500 LITTLE SPOKANE RIVER NEAR DARTFORD, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL TOTAL	186,051		159,491			
ANNUAL MEAN	510		436		574	
HIGHEST ANNUAL MEAN					686	
LOWEST ANNUAL MEAN					432	
HIGHEST DAILY MEAN	1,160	Mar 24	660	Feb 29	2,130	Mar 1, 1999
LOWEST DAILY MEAN	330	Jul 29	333	Aug 1	318	Aug 17, 2001
ANNUAL SEVEN-DAY MINIMUM	331	Jul 28	335	Jul 29	319	Aug 15, 2001
ANNUAL RUNOFF (AC-FT)	369,000		316,400		415,800	
ANNUAL RUNOFF (CFSM)	0.730		0.624		0.822	
ANNUAL RUNOFF (INCHES)	9.92		8.50		11.17	
10 PERCENT EXCEEDS	782		599		942	
50 PERCENT EXCEEDS	431		420		472	
90 PERCENT EXCEEDS	338		348		365	

12432500 LONG LAKE AT LONG LAKE, WA

LOCATION.--Lat 47°50'12", long 117°50'20", in NW¼SW¼, 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. 27, elevation, 1,535.97 ft; minimum contents, 39,880 acre-ft, Jan. 29, elevation, 1,522.23 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 2003 TO SEPTEMBER 2004
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,535.58	1,535.41	1,535.07	1,533.80	1,523.32	1,525.65	1,535.50	1,535.42	1,535.42	1,535.01	1,535.28	1,535.57
2	1,535.55	1,535.45	1,535.30	1,533.65	1,523.70	1,525.78	1,535.48	1,535.45	1,535.40	1,535.20	1,535.43	1,535.40
3	1,535.35	1,535.61	1,535.35	1,533.30	1,523.62	1,525.96	1,535.42	1,535.45	1,535.43	1,535.48	1,535.35	1,535.28
4	1,535.58	1,535.30	1,535.35	1,532.76	1,523.72	1,526.10	1,535.40	1,535.40	1,535.50	1,535.22	1,535.30	1,535.55
5	1,535.63	1,535.50	1,535.32	1,531.87	1,523.86	1,526.18	1,535.48	1,535.50	1,535.50	1,535.18	1,535.31	1,535.66
6	1,535.53	1,535.55	1,535.30	1,531.56	1,524.12	1,526.44	1,535.50	1,535.58	1,535.50	1,535.19	1,535.48	1,535.62
7	1,535.58	1,535.46	1,535.34	1,531.02	1,524.30	1,526.48	1,535.40	1,535.54	1,535.42	1,535.22	1,535.57	1,535.55
8	1,535.54	1,535.58	1,535.33	1,530.60	1,524.53	1,526.64	1,535.48	1,535.50	1,535.58	1,535.15	1,535.71	1,535.57
9	1,535.40	1,535.45	1,535.22	1,529.98	1,524.22	1,526.72	1,535.54	1,535.52	1,535.70	1,535.48	1,535.55	1,535.56
10	1,535.51	1,535.40	1,535.27	1,529.66	1,524.13	1,526.80	1,535.46	1,535.50	1,535.77	1,535.52	1,535.57	1,535.49
11	1,535.64	1,535.28	1,535.20	1,529.20	1,523.70	1,526.90	1,535.41	1,535.52	1,535.60	1,535.45	1,535.60	1,535.62
12	1,535.68	1,535.38	1,535.25	1,528.74	1,523.10	1,527.03	1,535.41	1,535.84	1,535.76	1,535.38	1,535.63	1,535.70
13	1,535.68	1,535.30	1,535.26	1,528.00	1,522.60	1,527.30	1,535.41	1,535.67	1,535.70	1,535.36	1,535.70	1,535.52
14	1,535.58	1,535.37	1,535.34	1,527.20	1,522.96	1,527.62	1,535.40	1,535.65	1,535.70	1,535.30	1,535.80	1,535.56
15	1,535.38	1,535.53	1,535.21	1,526.56	1,523.25	1,528.08	1,535.37	1,535.60	1,535.63	1,535.40	1,535.62	1,535.42
16	1,535.26	1,535.51	1,535.05	1,525.99	1,523.06	1,528.55	1,535.38	1,535.68	1,535.50	1,535.37	1,535.60	1,535.29
17	1,535.19	1,535.17	1,535.30	1,525.45	1,522.70	1,529.03	1,535.35	1,535.70	1,535.18	1,535.55	1,535.65	1,535.17
18	1,535.50	1,535.38	1,535.27	1,524.85	1,523.19	1,529.55	1,535.30	1,535.65	1,535.08	1,535.64	1,535.67	1,535.27
19	1,535.69	1,535.35	1,535.20	1,524.17	1,524.30	1,530.13	1,535.32	1,535.57	1,535.25	1,535.40	1,535.67	1,535.52
20	1,535.68	1,535.44	1,535.20	1,523.50	1,524.50	1,530.81	1,535.30	1,535.39	1,535.22	1,535.52	1,535.46	1,535.43
21	1,535.49	1,535.47	1,535.42	1,522.80	1,525.11	1,531.68	1,535.37	1,535.31	1,535.15	1,535.52	1,535.58	1,535.50
22	1,535.46	1,535.25	1,535.30	1,522.52	1,524.87	1,532.57	1,535.42	1,535.42	1,535.08	1,535.61	1,535.71	1,535.48
23	1,535.32	1,535.33	1,535.15	1,523.07	1,524.64	1,533.50	1,535.58	1,534.92	1,535.25	1,535.53	1,535.61	1,535.49
24	1,534.70	1,535.37	1,535.12	1,523.90	1,524.85	1,534.60	1,535.52	1,535.28	1,535.35	1,535.50	1,535.56	1,535.35
25	1,535.48	1,535.31	1,535.30	1,524.48	1,524.77	1,535.40	1,535.41	1,535.55	1,535.44	1,535.55	1,535.58	1,535.36
26	1,535.50	1,535.25	1,535.36	1,524.00	1,524.82	1,535.39	1,535.47	1,535.45	1,535.45	1,535.66	1,535.58	1,535.61
27	1,535.47	1,535.40	1,535.38	1,523.48	1,525.02	1,535.40	1,535.45	1,535.40	1,535.15	1,535.68	1,535.63	1,535.61
28	1,535.49	1,535.49	1,535.49	1,522.89	1,525.25	1,535.45	1,535.46	1,535.30	1,535.25	1,535.62	1,535.24	1,535.38
29	1,535.45	1,535.38	1,535.14	1,522.23	1,525.48	1,535.45	1,535.56	1,535.25	1,535.30	1,535.42	1,535.54	1,535.18
30	1,535.40	1,535.50	1,534.67	1,523.00	---	1,535.39	1,535.50	1,535.25	1,535.06	1,535.50	1,535.54	1,535.45
31	1,535.48	---	1,534.14	1,523.02	---	1,535.53	---	1,535.34	---	1,535.54	1,535.56	---
MAX	1,535.69	1,535.61	1,535.49	1,533.80	1,525.48	1,535.53	1,535.58	1,535.84	1,535.77	1,535.68	1,535.80	1,535.70
MIN	1,534.70	1,535.17	1,534.14	1,522.23	1,522.60	1,525.65	1,535.30	1,534.92	1,535.06	1,535.01	1,535.24	1,535.17
†	101,600	101,700	94,930	43,330	54,060	101,900	101,700	100,900	99,500	101,900	102,000	101,500
‡	-200	+100	-6,770	-51,600	+10,730	+47,840	-200	-800	-1,400	+2,400	+100	-500
CAL YR	2003	MAX	1,535.84	MIN	1,530.00	AC-FT‡	-4,870					
WTR YR	2004	MAX	1,535.84	MIN	1,522.23	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 NW¹/₄SW¹/₄, 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; two discharge measurements made by U.S. Geological Survey.

AVERAGE DISCHARGE.--65 years (water years 1940-2004), 7,706 ft³/s, 5,583,000 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 and Sept. 13, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,400 ft³/s, May 23, gage height, 1,369.80 ft; minimum discharge, 90 ft³/s, Sept. 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	1,700	3,500	3,960	4,350	4,960	6,490	12,000	11,600	13,700	4,290	2,130	2,040
2	1,870	2,910	2,680	3,900	4,400	6,550	12,400	11,200	13,500	3,890	1,320	2,320
3	2,300	2,550	3,260	4,020	5,000	6,550	12,800	11,200	13,400	3,720	1,510	2,120
4	1,220	3,610	3,610	4,580	4,780	6,550	12,500	11,200	12,400	4,340	1,560	903
5	1,680	2,410	4,650	5,230	4,870	6,550	12,300	10,900	12,500	4,020	1,430	1,370
6	2,130	2,740	4,290	4,160	4,780	6,550	12,400	11,200	11,300	2,890	1,070	1,650
7	1,740	3,170	4,200	4,210	4,550	6,550	13,700	11,700	11,200	2,720	1,260	1,760
8	1,820	2,690	4,140	3,980	4,560	6,550	13,500	11,500	9,800	2,960	1,020	1,460
9	2,180	3,240	4,750	4,580	5,490	6,550	13,800	11,500	8,170	1,470	1,720	1,620
10	1,550	3,130	3,930	3,800	5,060	6,550	14,700	11,500	8,760	1,380	1,360	1,690
11	1,530	3,180	4,280	4,170	5,470	6,550	14,700	10,500	7,760	1,840	1,330	1,260
12	1,690	2,630	4,760	4,160	5,660	6,580	14,500	7,650	7,760	2,080	1,290	1,370
13	1,910	3,160	4,470	4,380	5,480	6,580	14,600	9,390	7,910	1,930	1,040	1,880
14	2,190	2,650	4,400	4,710	3,820	6,600	14,400	8,040	7,070	1,990	1,030	1,390
15	2,420	2,610	4,800	4,560	3,860	6,630	15,000	7,590	6,840	1,560	1,780	2,020
16	2,270	2,950	5,080	4,520	4,890	6,640	15,100	7,020	6,840	1,990	1,390	2,610
17	2,300	3,800	4,060	4,100	4,930	6,660	15,400	6,890	6,750	1,860	1,170	3,600
18	1,200	2,340	4,710	4,360	5,000	6,650	15,400	6,760	5,630	2,120	1,280	3,420
19	1,570	3,090	4,640	4,590	5,020	6,650	15,000	6,730	4,490	2,960	1,370	2,940
20	2,080	2,860	4,270	4,480	5,940	6,720	14,700	6,890	4,850	1,990	1,850	2,750
21	2,500	2,860	3,820	4,370	4,970	6,740	14,100	6,890	5,180	2,390	1,060	2,120
22	2,090	3,480	4,500	3,720	6,400	6,720	13,700	7,440	5,200	2,060	1,060	2,900
23	2,550	2,600	4,420	2,300	6,300	6,790	12,900	15,100	4,660	1,980	1,650	2,770
24	4,280	3,230	4,000	1,500	5,780	6,820	13,000	13,900	4,380	2,140	1,770	3,260
25	1,420	2,950	3,310	1,820	6,400	7,830	12,600	13,100	4,250	1,580	1,800	2,690
26	3,700	2,760	3,650	4,140	6,400	10,500	11,600	14,400	4,650	1,540	2,670	2,430
27	3,960	2,250	3,550	4,300	6,400	11,000	11,000	14,400	5,100	1,670	3,680	3,060
28	3,900	2,560	3,360	4,440	6,400	11,200	11,600	15,200	4,210	1,860	3,640	3,260
29	4,150	3,120	4,460	4,440	6,400	11,600	11,200	15,000	3,970	2,080	2,040	2,740
30	4,160	2,410	4,650	4,560	---	11,800	11,800	14,900	4,390	1,360	2,810	2,080
31	4,110	---	4,930	6,110	---	11,400	---	14,200	---	1,380	1,910	---
TOTAL	74,170	87,440	129,590	128,540	153,970	234,100	402,400	335,490	226,620	72,040	52,000	67,483
MEAN	2,393	2,915	4,180	4,146	5,309	7,552	13,410	10,820	7,554	2,324	1,677	2,249
MAX	4,280	3,800	5,080	6,110	6,400	11,800	15,400	15,200	13,700	4,340	3,680	3,600
MIN	1,200	2,250	2,680	1,500	3,820	6,490	11,000	6,730	3,970	1,360	1,020	903
AC-FT	147,100	173,400	257,000	255,000	305,400	464,300	798,200	665,400	449,500	142,900	103,100	133,900
MEAN†	2,389	2,917	4,068	3,307	5,494	8,327	13,410	10,810	7,533	2,363	1,678	2,242
CFSM†	0.40	0.48	0.68	0.55	0.91	1.38	2.23	1.80	1.25	0.39	0.28	0.37
IN. †	0.46	0.54	0.78	0.63	0.98	1.60	2.49	2.07	1.40	0.45	0.32	0.42
AC-FT†	146,900	173,500	250,200	203,400	316,100	512,100	798,000	664,600	448,100	145,300	103,200	133,400

CAL YR 2003 TOTAL 2,076,859 MEAN 5,690 MAX 20,800 MIN 437 AC-FT 4,119,000 MEAN† 5,681 CFSM† 0.94 IN.† 12.81 AC-FT† 4,114,000

WTR YR 2004 TOTAL 1,963,843 MEAN 5,366 MAX 15,400 MIN 903 AC-FT 3,895,000 MEAN† 5,365 CFSM† 0.89 IN.† 12.13 AC-FT† 3,893,000

† Adjusted for change in contents in Long Lake.

12433200 CHAMOKANE CREEK BELOW FALLS, NEAR LONG LAKE, WA

LOCATION.--Lat 47°51'42", long 117°51'28", in SE $\frac{1}{4}$ SW $\frac{1}{4}$, 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.--24 years (water years 1972-78, 1988-2004), 63.6 ft³/s, 4.83 in/yr, 46,110 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, 115 ft³/s, Mar. 19, gage height, 1.84 ft; minimum discharge, 22 ft³/s, part or all of many days July 5 to Aug. 2, but may have been less during period Dec. 29 to Jan. 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	27	35	35	e32	31	67	60	30	28	29	24	26
2	28	36	34	e31	31	66	55	30	29	27	24	27
3	27	35	35	e31	30	62	52	29	29	26	25	27
4	26	35	34	e30	30	61	49	29	29	26	25	27
5	26	34	40	e30	30	57	47	29	31	27	27	27
6	27	34	40	e31	30	50	46	29	31	25	29	27
7	27	34	37	e31	30	53	44	29	30	24	31	27
8	27	34	35	e30	30	50	42	29	30	24	28	27
9	27	34	34	e30	30	64	40	29	30	24	26	27
10	27	35	33	e30	30	89	39	29	30	25	26	27
11	28	35	33	e31	30	95	38	29	29	25	25	30
12	37	34	34	e31	30	91	36	29	28	26	25	29
13	34	34	35	e31	29	97	35	30	29	25	25	29
14	34	34	34	30	29	87	35	29	28	25	25	29
15	35	35	33	30	30	84	36	29	28	25	25	29
16	38	37	33	30	30	79	38	29	27	23	25	29
17	36	36	33	30	34	80	38	28	27	23	25	29
18	35	36	32	30	37	88	39	28	27	24	25	28
19	35	35	32	30	34	104	38	28	27	25	26	28
20	36	35	32	30	33	91	42	28	27	24	26	27
21	37	35	32	31	33	75	43	28	27	24	26	27
22	36	33	32	31	34	68	44	32	27	24	27	27
23	35	34	32	32	35	66	41	29	e27	23	28	27
24	35	34	33	32	36	68	38	28	e27	23	29	27
25	36	35	32	31	38	69	36	28	e27	24	31	27
26	35	34	32	30	42	70	35	29	e30	25	29	26
27	36	34	32	30	53	87	33	28	e28	25	29	26
28	36	35	32	30	61	86	33	28	e27	26	28	26
29	35	39	e31	31	68	75	32	29	27	26	26	26
30	35	35	e31	33	---	67	31	29	29	24	26	26
31	35	---	e31	32	---	63	---	29	---	24	26	---
TOTAL	1,008	1,045	1,038	952	1,018	2,309	1,215	896	850	770	822	821
MEAN	32.5	34.8	33.5	30.7	35.1	74.5	40.5	28.9	28.3	24.8	26.5	27.4
MAX	38	39	40	33	68	104	60	32	31	29	31	30
MIN	26	33	31	30	29	50	31	28	27	23	24	26
AC-FT	2,000	2,070	2,060	1,890	2,020	4,580	2,410	1,780	1,690	1,530	1,630	1,630
CFSM	0.18	0.19	0.19	0.17	0.20	0.42	0.23	0.16	0.16	0.14	0.15	0.15
IN.	0.21	0.22	0.22	0.20	0.21	0.48	0.25	0.19	0.18	0.16	0.17	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2004, BY WATER YEAR (WY)

MEAN	28.6	30.1	44.6	60.2	78.8	174	159	66.1	39.2	29.5	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)

SPOKANE RIVER BASIN

12433200 CHAMOKANE CREEK BELOW FALLS, NEAR LONG LAKE, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1971 - 2004	
ANNUAL TOTAL	26,206		12,744			
ANNUAL MEAN	71.8		34.8		63.6	
HIGHEST ANNUAL MEAN					170	1997
LOWEST ANNUAL MEAN					25.8	1994
HIGHEST DAILY MEAN	722	Mar 17	104	Mar 19	1,750	Mar 20, 1997
LOWEST DAILY MEAN	25	Aug 27	23	Jul 16	15	Dec 26, 1977
ANNUAL SEVEN-DAY MINIMUM	25	Aug 31	24	Jul 16	16	Jan 2, 1993
ANNUAL RUNOFF (AC-FT)	51,980		25,280		46,110	
ANNUAL RUNOFF (CFSM)	0.401		0.195		0.356	
ANNUAL RUNOFF (INCHES)	5.45		2.65		4.83	
10 PERCENT EXCEEDS	162		50		131	
50 PERCENT EXCEEDS	35		30		31	
90 PERCENT EXCEEDS	27		26		20	

e Estimated

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

LOCATION.--Lat 47°55'28", long 118°05'18", in NW $\frac{1}{4}$ SE $\frac{1}{4}$, 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.--18 years (water years 1985-98, 2001-04), 1.21 ft³/s, 2.74 in/yr, 878 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, 0.87 ft³/s, Apr. 2, gage height, 1.25 ft; minimum discharge, 0.07 ft³/s, Aug. 15, 16, 18-21 and Sept. 1.

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	0.17	0.19	0.18	e0.17	0.23	0.33	0.78	0.80	0.44	0.24	0.12	0.10
2	0.17	0.20	0.18	e0.16	0.22	0.33	0.82	0.80	0.41	0.23	0.12	0.10
3	0.16	0.20	0.19	e0.15	0.21	0.33	0.85	0.77	0.40	0.22	0.13	0.11
4	0.17	0.19	0.17	e0.14	0.21	0.33	0.87	0.78	0.39	0.21	0.14	0.11
5	0.17	e0.19	0.26	e0.14	0.21	0.33	0.83	0.77	0.38	0.22	0.14	0.11
6	0.17	0.19	0.25	e0.15	0.21	0.31	0.71	0.76	0.38	0.21	0.16	0.11
7	0.17	0.19	0.19	e0.15	0.21	0.32	0.71	0.74	0.39	0.21	0.17	0.11
8	0.17	0.21	0.19	e0.15	0.21	0.36	0.68	0.64	0.39	0.21	0.14	0.11
9	0.17	0.21	0.19	e0.15	0.21	0.42	0.66	0.61	0.39	0.21	0.14	0.11
10	0.18	0.20	0.18	e0.15	0.21	0.44	0.66	0.59	0.39	0.20	0.14	0.10
11	0.19	0.21	0.19	e0.15	0.21	0.43	0.66	0.54	0.38	0.19	0.14	0.15
12	0.23	0.19	0.19	e0.15	0.19	0.45	0.66	0.58	0.37	0.19	0.14	0.12
13	0.17	0.19	0.19	e0.15	0.20	0.44	0.70	0.63	0.37	0.19	0.12	0.14
14	0.17	0.19	0.19	e0.15	0.21	0.45	0.72	0.60	0.36	0.17	0.11	0.13
15	0.18	0.21	0.18	e0.16	0.21	0.45	0.71	0.61	0.36	0.16	0.10	0.14
16	0.22	0.24	0.19	e0.16	0.22	0.46	0.71	0.61	0.32	0.17	0.10	0.13
17	0.19	0.22	0.18	e0.16	0.27	0.49	0.73	0.61	0.32	0.16	0.10	0.13
18	0.19	0.24	0.18	e0.17	0.36	0.53	0.76	0.59	0.30	0.18	0.10	0.12
19	0.19	0.22	0.17	e0.16	0.30	0.52	0.73	0.54	0.29	0.18	0.10	0.13
20	0.21	0.19	0.18	e0.16	0.30	0.54	0.76	0.52	0.29	0.16	0.10	0.14
21	0.21	0.19	0.19	e0.16	0.29	0.56	0.76	0.54	0.29	0.16	0.10	0.13
22	0.21	0.19	0.19	e0.16	0.27	0.59	0.74	0.64	0.28	0.15	0.12	0.14
23	0.21	0.19	0.18	e0.17	0.25	0.61	0.75	0.54	0.27	0.15	0.14	0.14
24	0.21	0.19	0.20	e0.17	0.25	0.63	0.72	0.50	0.27	0.15	0.15	0.14
25	0.21	0.19	0.19	e0.18	0.28	0.66	0.77	0.48	0.27	0.15	0.16	0.13
26	0.21	0.17	0.19	e0.19	0.35	0.71	0.77	0.48	0.38	0.14	0.14	0.14
27	0.21	0.17	0.19	e0.20	0.33	0.72	0.77	0.48	0.31	0.14	0.13	0.14
28	0.21	0.17	0.19	e0.21	0.33	0.72	0.78	0.48	0.27	0.14	0.12	0.14
29	0.21	0.22	0.17	e0.22	0.33	0.76	0.77	0.48	0.28	0.14	0.12	0.14
30	0.21	0.18	e0.17	0.26	---	0.73	0.78	0.48	0.26	0.13	0.12	0.14
31	0.19	---	e0.17	0.23	---	0.71	---	0.45	---	0.12	0.11	---
TOTAL	5.93	5.93	5.85	5.23	7.28	15.66	22.32	18.64	10.20	5.48	3.92	3.78
MEAN	0.19	0.20	0.19	0.17	0.25	0.51	0.74	0.60	0.34	0.18	0.13	0.13
MAX	0.23	0.24	0.26	0.26	0.36	0.76	0.87	0.80	0.44	0.24	0.17	0.15
MIN	0.16	0.17	0.17	0.14	0.19	0.31	0.66	0.45	0.26	0.12	0.10	0.10
AC-FT	12	12	12	10	14	31	44	37	20	11	7.8	7.5
CFSM	0.03	0.03	0.03	0.03	0.04	0.08	0.12	0.10	0.06	0.03	0.02	0.02
IN.	0.04	0.04	0.04	0.03	0.05	0.10	0.14	0.12	0.06	0.03	0.02	0.02

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

MEAN	0.16	0.20	0.22	0.72	1.70	5.36	3.92	1.43	0.75	0.36	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)	(1995)	(1997)	(1997)	(1996)	(1997)	(1997)	(1984)	(1984)
MIN	0.07	0.10	0.13	0.09	0.16	0.34	0.34	0.30	0.17	0.10	0.07	0.05
(WY)	(2002)	(2002)	(2001)	(2001)	(1990)	(1990)	(1990)	(1992)	(1992)	(1994)	(2001)	(2001)

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

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1984 - 2004	
ANNUAL TOTAL	634.36		110.22			
ANNUAL MEAN	1.74		0.30		1.21	
HIGHEST ANNUAL MEAN					4.69 1997	
LOWEST ANNUAL MEAN					0.19 1994	
HIGHEST DAILY MEAN	12	Mar 22	0.87	Apr 4	60	Mar 21, 1997
LOWEST DAILY MEAN	0.13	Sep 4	0.10	Aug 15	0.04	Sep 16, 2001
ANNUAL SEVEN-DAY MINIMUM	0.14	Sep 1	0.10	Aug 15	0.04	Sep 16, 2001
ANNUAL RUNOFF (AC-FT)	1,260		219		878	
ANNUAL RUNOFF (CFSM)	0.290		0.050		0.202	
ANNUAL RUNOFF (INCHES)	3.93		0.68		2.74	
10 PERCENT EXCEEDS	4.9		0.71		3.0	
50 PERCENT EXCEEDS	0.50		0.21		0.25	
90 PERCENT EXCEEDS	0.17		0.13		0.12	

e Estimated

12433556 MIDNITE MINE DRAINAGE NEAR WELLPINIT, WA

LOCATION.--Lat 47°55'27", long 118°05'20", in NW¼SE¼, 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.--18 years (water years 1985-98, 2001-04), 0.38 ft³/s, 279 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, 2001, and 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.2 ft³/s, May 13, June 26, gage height, 1.34 ft; minimum discharge, no flow Sept. 7.

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	0.04	0.11	0.05	e0.06	e0.12	0.13	0.07	0.38	0.19	0.77	0.06	0.22
2	0.04	0.13	0.05	e0.06	e0.11	0.11	0.07	0.10	0.50	0.58	0.12	0.06
3	0.04	0.12	0.05	e0.05	e0.10	0.10	0.07	0.19	0.70	0.28	0.38	0.05
4	0.04	e0.11	0.05	e0.04	e0.10	0.10	0.08	0.55	0.67	0.11	0.58	0.04
5	0.04	e0.11	0.09	e0.04	e0.09	0.08	0.08	0.79	0.36	0.07	0.67	0.03
6	0.04	e0.11	0.07	e0.06	e0.10	0.08	0.08	0.86	0.11	0.16	0.59	0.03
7	0.05	e0.11	e0.06	e0.07	e0.10	0.08	0.07	0.75	0.19	0.37	0.28	0.02
8	0.05	e0.13	e0.06	e0.07	e0.10	0.09	0.07	0.39	0.47	0.53	0.10	0.03
9	0.05	e0.12	e0.06	e0.07	e0.10	0.10	0.07	0.12	0.71	0.51	0.15	0.03
10	0.05	e0.12	0.05	e0.07	e0.10	0.09	0.07	0.21	0.81	0.26	0.37	0.03
11	0.08	e0.12	0.05	e0.07	e0.09	0.08	0.07	0.58	0.69	0.09	0.59	0.06
12	0.10	e0.10	0.05	e0.07	e0.08	0.08	0.19	0.83	0.36	0.14	0.58	0.04
13	0.06	e0.10	0.05	e0.07	e0.09	0.07	0.58	0.94	0.14	0.34	0.51	0.05
14	0.05	e0.10	0.06	e0.07	e0.10	0.07	0.90	0.79	0.18	0.48	0.25	0.05
15	0.07	0.11	0.05	e0.08	e0.10	0.07	1.0	0.41	0.43	0.53	0.07	0.05
16	0.11	0.13	0.05	e0.08	e0.11	0.07	0.90	0.15	0.63	0.46	0.13	0.04
17	0.09	0.10	0.06	e0.08	e0.15	0.07	0.35	0.21	0.74	0.25	0.35	0.05
18	0.08	0.10	0.06	e0.09	e0.20	0.07	0.08	0.49	0.66	0.10	0.55	0.04
19	0.09	0.08	0.06	e0.08	e0.17	0.08	0.20	0.65	0.35	0.15	0.61	0.04
20	0.10	0.06	0.06	e0.08	e0.17	0.07	0.69	0.73	0.12	0.33	0.51	0.04
21	0.10	0.05	0.06	e0.08	e0.15	0.07	0.97	0.72	0.17	0.47	0.26	0.03
22	0.08	0.05	0.06	e0.08	e0.14	0.07	1.0	0.48	0.46	0.54	0.10	0.03
23	0.08	0.05	0.06	e0.09	e0.13	0.07	0.86	0.14	0.67	0.47	0.16	0.03
24	0.10	0.05	0.07	e0.09	e0.13	0.07	0.40	0.21	0.77	0.24	0.49	0.03
25	0.10	0.04	0.07	e0.08	e0.15	0.07	0.11	0.48	0.69	0.07	0.71	0.03
26	0.11	0.04	0.07	e0.08	e0.19	0.08	0.21	0.65	0.47	0.13	0.64	0.03
27	0.11	0.04	e0.06	e0.08	e0.17	0.08	0.58	0.75	0.14	0.32	0.53	0.04
28	0.11	0.04	e0.07	e0.08	0.15	0.07	0.80	0.69	0.19	0.46	0.29	0.04
29	0.11	0.06	e0.06	e0.10	0.14	0.07	0.91	0.39	0.55	0.53	0.11	0.04
30	0.11	0.05	e0.06	e0.13	---	0.07	0.78	0.13	0.75	0.47	0.15	0.04
31	0.11	---	e0.06	e0.12	---	0.07	---	0.09	---	0.24	0.32	---
TOTAL	2.39	2.64	1.84	2.37	3.63	2.48	12.31	14.85	13.87	10.45	11.21	1.34
MEAN	0.08	0.09	0.06	0.08	0.13	0.08	0.41	0.48	0.46	0.34	0.36	0.04
MAX	0.11	0.13	0.09	0.13	0.20	0.13	1.0	0.94	0.81	0.77	0.71	0.22
MIN	0.04	0.04	0.05	0.04	0.08	0.07	0.07	0.09	0.11	0.07	0.06	0.02
AC-FT	4.7	5.2	3.6	4.7	7.2	4.9	24	29	28	21	22	2.7

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

MEAN	0.40	0.35	0.16	0.18	0.24	0.53	0.55	0.57	0.51	0.43	0.40	0.38
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
(WY)	(1997)	(1996)	(1996)	(1997)	(1997)	(1997)	(1995)	(1995)	(1996)	(1996)	(1996)	(1997)
MIN	0.05	0.08	0.06	0.08	0.09	0.08	0.10	0.06	0.05	0.03	0.01	0.02
(WY)	(1992)	(1991)	(2004)	(1989)	(1993)	(2004)	(1992)	(1992)	(1992)	(1988)	(1992)	(2001)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1984 - 2004

ANNUAL TOTAL	144.45	79.38	
ANNUAL MEAN	0.40	0.22	0.38
HIGHEST ANNUAL MEAN			1.00 1997
LOWEST ANNUAL MEAN			0.08 1992
HIGHEST DAILY MEAN	1.5 Apr 17	1.0 Apr 15	5.3 Mar 20, 1997
LOWEST DAILY MEAN	0.04 Sep 27	0.02 Sep 7	0.00 Jun 22, 1986
ANNUAL SEVEN-DAY MINIMUM	0.04 Sep 27	0.03 Sep 4	0.00 Aug 8, 1990
ANNUAL RUNOFF (AC-FT)	287	157	279
10 PERCENT EXCEEDS	1.0	0.64	1.0
50 PERCENT EXCEEDS	0.22	0.10	0.17
90 PERCENT EXCEEDS	0.06	0.05	0.05

e Estimated

DIVERSION AT GRAND COULEE DAM

12435500 FEEDER CANAL AT GRAND COULEE, WA

LOCATION.--Lat 47°57'05", long 118°59'40", on line between secs.1 and 2, T.28 N., R.30 E., Grant County, Hydrologic Unit 17020001, on left bank at Grand Coulee, 0.2 mi downstream from headworks structure, and 0.5 mi southwest of Grand Coulee Dam.

PERIOD OF RECORD.--May 1952 to current year.

GAGE.--Daily discharge determined from flow through pumps or reverse flow through generators. Datum of gage is 1,500.00 ft above NGVD of 1929 (Bureau of Reclamation datum), adjustment of 1937. May 1, 1952, to Jan. 10, 1978, at datum 50.00 ft higher. Jan. 11, 1978, to Feb. 22, 1981, nonrecording gage at datum 1,500.00 ft lower. May 1, 1952, to Oct. 13, 1960, auxiliary gage 0.6 mi downstream from base gage at same datum.

REMARKS.--Since 1951, water has been pumped (lift about 280 ft) from Franklin D. Roosevelt Lake into the two-mile long Feeder Canal, which empties into Banks Lake. From Banks Lake, it is distributed through a system of canals to the Columbia Basin Project for irrigation. Between May 1951, and December 1974, six pumps were used. Since December 1974, six pump generators, which can also generate power during peak demand periods by returning water from Banks Lake, via the Feeder Canal, to Franklin D. Roosevelt Lake have been added; two in December 1974 and one each in April, June, and November 1983 and April 1984. Discharge is computed from relations between pump operation and head.

COOPERATION.--Discharge records furnished by Bureau of Reclamation; three discharge measurements made by U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 20,300 ft³/s May 29, 2004; minimum daily discharge, -8,100 ft³/s Jan. 5, 2004, reverse flow from Banks Lake.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 20,300 ft³/s May 29; minimum daily discharge, -8,100 ft³/s Jan. 5, reverse flow from Banks 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	3,530	0.00	0.00	11,300	0.00	0.00	-2,070	7,300	3,580	9,630	14,400	5,170
2	3,570	0.00	0.00	2,810	0.00	0.00	471	12,900	3,150	7,410	3,700	4,650
3	3,660	0.00	0.00	0.00	0.00	0.00	3,350	5,690	3,090	16,300	8.1	5,650
4	2,910	0.00	0.00	0.00	0.00	0.00	14,900	2,930	3,750	16,400	0.00	16,400
5	11,500	0.00	0.00	-8,100	0.00	0.00	3,950	8,900	15,700	16,600	0.00	17,400
6	3,570	0.00	0.00	-2,320	0.00	0.00	10,300	4,010	15,700	3,670	1,070	17,300
7	3,610	79	0.00	0.00	0.00	0.00	3,890	9,520	4,840	3,140	16,100	4,620
8	3,690	0.00	0.00	0.00	0.00	46	7,490	16,700	12,000	3,560	16,100	3,000
9	3,790	0.00	0.00	0.00	0.00	0.00	1,270	16,700	5,250	4,970	4,280	2,970
10	3,620	0.00	-229	0.00	0.00	0.00	13,500	878	5,270	16,700	1,240	3,230
11	3,660	0.00	0.00	0.00	0.00	379	16,600	2,500	5,000	16,700	1,230	4,440
12	11,500	0.00	0.00	0.00	0.00	458	4,970	3,020	16,000	5,010	1,240	14,000
13	3,740	0.00	0.00	0.00	0.00	4,940	3,110	2,920	16,100	3,710	2,310	4,040
14	3,690	-250	-1,820	0.00	0.00	6,130	-1,800	3,920	5,270	3,770	15,900	3,010
15	3,720	0.00	-517	0.00	0.00	2,380	14,800	18,400	4,790	3,780	15,900	3,470
16	3,750	0.00	25	0.00	0.00	0.00	5,020	18,400	3,150	4,560	4,330	3,550
17	3,710	0.00	0.00	421	0.00	0.00	16,700	4,950	3,180	16,400	1,840	6,700
18	3,770	0.00	-408	1,860	0.00	0.00	14,800	3,150	3,760	16,400	1,850	4,660
19	11,500	0.00	-383	5,260	0.00	0.00	3,060	2,480	18,100	4,980	1,830	14,500
20	2,880	0.00	0.00	0.00	0.00	0.00	2,500	6,020	17,700	3,760	2,380	4,550
21	0.00	-471	0.00	567	13	4,350	-5,320	6,340	4,850	3,930	12,400	4,520
22	0.00	-4,300	0.00	263	0.00	2,170	3,140	2,270	3,430	3,700	12,400	5,380
23	0.00	0.00	0.00	-5,420	8.1	0.00	8,170	13,700	3,490	4,180	3,970	4,190
24	0.00	-192	695	-5,750	0.00	16	16,600	9,270	3,600	16,500	3,590	3,780
25	625	-125	926	0.00	92	14	16,600	2,320	3,920	16,500	3,160	4,900
26	7,950	-33	0.00	0.00	-7,410	528	-2,240	688	14,700	4,810	1,250	14,400
27	2,890	0.00	0.00	0.00	3,400	6,670	4,270	3,480	12,800	2,550	658	4,390
28	8.1	0.00	0.00	0.00	2,860	3,370	6,180	5,440	4,190	3,150	7,300	3,490
29	0.00	0.00	0.00	0.00	0.00	815	15,600	20,300	4,760	4,310	7,300	3,430
30	0.00	0.00	0.00	0.00	---	0.00	11,600	19,200	5,380	3,060	2,920	3,490
31	0.00	---	827	0.00	---	0.00	---	5,640	---	14,500	763	---
TOTAL	106,843.10	-5,292.00	-884.00	891.00	-1,036.90	32,266.00	211,411	239,936	226,500	254,640	161,419.10	195,280
MEAN	3,447	-176	-28.5	28.7	-35.8	1,041	7,047	7,740	7,550	8,214	5,207	6,509
MAX	11,500	79	926	11,300	3,400	6,670	16,700	20,300	18,100	16,700	16,100	17,400
MIN	0.00	-4,300	-1,820	-8,100	-7,410	0.00	-5,320	688	3,090	2,550	0.00	2,970
AC-FT	211,900	-10,500	-1,750	1,770	-2,060	64,000	419,300	475,900	449,300	505,100	320,200	387,300
CAL YR	2003	TOTAL	1,385,609.20	MEAN	3,796	MAX	16,200	MIN	-7,040	AC-FT	2,748,000	
WTR YR	2004	TOTAL	1,421,973.30	MEAN	3,885	MAX	20,300	MIN	-8,100	AC-FT	2,820,000	

12436000 FRANKLIN D. ROOSEVELT LAKE AT GRAND COULEE DAM, WA

LOCATION.--Lat 47°57'20", long 118°59'02", near center of sec.1, T.28 N., R.30 E., Grant County, Hydrologic Unit 17020001, in block 12 of Grand Coulee Dam on Columbia River, and at mile 596.6.

DRAINAGE AREA.--74,700 mi², approximately.

PERIOD OF RECORD.--April 1938 to current year. Prior to October 1943, published as Columbia River Reservoir at Grand Coulee Dam.

REVISED RECORDS.--WSP 1286: 1942, 1945(M). WSP 1316: 1942 (May monthend contents). WSP 1933: Drainage area. WDR WA-73-1: 1965, 1967. WDR WA-75-1: 1974 monthend contents.

GAGE.--U.S. Geological Survey water-stage recorder. Datum of gage is NGVD of 1929, adjustment of 1937 (Bureau of Reclamation datum), or 1.425 ft above NGVD of 1929 (levels by Bureau of Reclamation). Prior to Apr. 24, 1942, nonrecording gage at site 2,000 ft upstream at same datum.

REMARKS.--Reservoir is formed by concrete dam; construction of dam began in 1934; completed in 1941; storage began early in construction period. Capacity, 5,022,000 acre-ft between elevations 1,208 ft, proposed lower limit of operation, and 1,288 ft, top of gates. Capacity increased to 5,185,000 acre-ft by use of 2-ft flashboards installed after high-water period each year beginning August 1961. Storage below 1,208 ft, 4,209,000 acre-ft. Figures given herein represent total contents. Water is used for power generation and irrigation. Flow is regulated by nine major reservoirs and numerous smaller reservoirs and powerplants. Diversion by Feeder Canal (station 12435500) for irrigation of about 600,000 acres in the United States plus additional diversions in Canada for irrigation of about 66,500 acres. Maximum and minimum midnight contents were published as EXTREMES FOR CURRENT YEAR for 1997 to 2001.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents 9,586,000 acre-ft, July 17, 1942, June 3, 1945, elevation, 1,290.3 ft; maximum elevation, 1,290.36 ft, Aug. 6, 1976; minimum contents observed, 16,200 acre-ft, Aug. 29, 1938, elevation, 956.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 9,382,000 acre-ft, Oct. 27, elevation, 1,289.84 ft; minimum contents, 7,041,000 acre-ft, Mar. 5, elevation, 1,258.20.

CAPACITY TABLE

(Prepared by U.S. Geological Survey from data furnished by Bureau of Reclamation, dated Oct. 24, 1975)

Elevation (feet)	contents (acre-feet)	Elevation (feet)	Contents (acre-feet)
1,210.0	4,301,000	1,270.0	7,864,000
1,230.0	5,309,000	1,291.0	9,477,000
1,250.0	6,502,000		

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	1,284.77	1,286.92	1,286.53	1,284.50	1,272.67	1,261.16	1,265.04	1,269.39	1,280.69	1,287.17	1,283.66	1,278.41
2	1,285.27	1,287.89	1,286.29	1,283.96	1,272.13	1,260.61	1,265.34	1,269.63	1,281.09	1,287.64	1,283.69	1,278.85
3	1,285.74	1,287.82	1,285.85	1,283.59	1,271.52	1,259.57	1,265.53	1,269.59	1,280.83	1,288.29	1,283.38	1,279.59
4	1,286.76	1,287.42	1,285.78	1,282.77	1,271.21	1,258.65	1,266.33	1,270.26	1,280.97	1,288.94	1,283.15	1,280.07
5	1,287.52	1,286.76	1,285.53	1,281.62	1,270.02	1,258.51	1,266.42	1,271.09	1,281.74	1,289.40	1,283.40	1,280.31
6	1,287.35	1,286.48	1,285.88	1,280.01	1,269.07	1,258.72	1,266.55	1,272.16	1,282.78	1,288.91	1,283.63	1,280.40
7	1,287.64	1,286.33	1,286.98	1,279.27	1,268.94	1,259.58	1,267.01	1,272.15	1,284.00	1,288.59	1,283.83	1,280.24
8	1,287.98	1,286.84	1,286.63	1,278.50	1,269.29	1,259.31	1,267.60	1,272.71	1,284.81	1,288.24	1,283.52	1,280.05
9	1,287.40	1,287.68	1,286.22	1,277.54	1,268.39	1,258.88	1,268.14	1,273.25	1,285.53	1,288.44	1,282.90	1,279.98
10	1,287.68	1,287.73	1,286.00	1,276.97	1,267.33	1,258.69	1,268.64	1,273.27	1,285.43	1,288.43	1,282.24	1,280.31
11	1,287.84	1,287.70	1,286.02	1,276.78	1,266.57	1,258.69	1,269.72	1,273.62	1,285.65	1,288.18	1,281.61	1,280.34
12	1,287.92	1,287.37	1,285.99	1,275.75	1,265.62	1,258.71	1,270.35	1,274.04	1,285.76	1,287.67	1,281.07	1,280.94
13	1,287.68	1,286.92	1,285.96	1,274.78	1,264.31	1,259.27	1,270.65	1,273.92	1,285.93	1,287.38	1,280.65	1,281.34
14	1,287.50	1,286.55	1,286.41	1,273.97	1,264.44	1,259.86	1,271.57	1,273.43	1,285.63	1,287.19	1,280.28	1,281.99
15	1,287.49	1,286.28	1,286.17	1,273.38	1,264.87	1,259.77	1,271.88	1,272.88	1,285.98	1,287.38	1,279.98	1,282.49
16	1,287.62	1,286.96	1,286.04	1,272.99	1,263.77	1,260.00	1,271.78	1,272.96	1,286.45	1,287.32	1,279.63	1,283.04
17	1,287.78	1,286.35	1,286.43	1,272.66	1,263.27	1,259.52	1,271.75	1,272.99	1,286.58	1,287.28	1,279.14	1,283.50
18	1,288.33	1,286.03	1,286.57	1,272.77	1,263.01	1,259.23	1,272.21	1,272.47	1,286.51	1,287.12	1,278.85	1,284.30
19	1,288.84	1,285.47	1,286.61	1,272.09	1,262.95	1,259.32	1,271.42	1,272.65	1,286.22	1,287.10	1,278.74	1,285.39
20	1,288.82	1,285.04	1,287.09	1,272.14	1,262.90	1,259.72	1,271.01	1,273.06	1,285.86	1,287.35	1,278.49	1,286.05
21	1,288.77	1,284.44	1,288.18	1,271.67	1,263.23	1,260.35	1,271.15	1,273.17	1,285.20	1,287.52	1,278.59	1,286.30
22	1,288.81	1,284.27	1,287.89	1,270.89	1,263.94	1,260.56	1,270.93	1,274.24	1,285.04	1,287.40	1,279.37	1,286.21
23	1,288.87	1,284.38	1,287.33	1,271.13	1,263.67	1,260.56	1,270.58	1,275.11	1,285.83	1,287.36	1,279.63	1,286.02
24	1,288.84	1,283.66	1,286.94	1,271.10	1,263.58	1,260.54	1,270.13	1,275.71	1,286.60	1,287.13	1,279.94	1,286.42
25	1,289.24	1,283.34	1,288.34	1,271.31	1,262.65	1,260.58	1,270.14	1,276.18	1,286.69	1,287.37	1,279.93	1,286.91
26	1,289.69	1,283.19	1,288.08	1,270.96	1,261.77	1,260.90	1,269.43	1,276.27	1,286.64	1,287.17	1,279.89	1,287.60
27	1,289.35	1,284.30	1,287.72	1,270.92	1,261.39	1,261.64	1,268.71	1,276.72	1,287.42	1,286.85	1,279.96	1,287.43
28	1,288.94	1,285.48	1,287.62	1,270.87	1,261.14	1,262.91	1,268.97	1,277.84	1,287.01	1,286.29	1,280.11	1,287.31
29	1,288.84	1,286.31	1,286.49	1,271.00	1,261.39	1,263.25	1,268.98	1,278.30	1,286.66	1,285.42	1,280.13	1,287.26
30	1,288.07	1,286.92	1,285.62	1,271.22	---	1,263.62	1,269.01	1,278.68	1,286.38	1,284.79	1,279.29	1,286.76
31	1,287.06	---	1,284.82	1,271.58	---	1,264.60	---	1,279.92	---	1,283.81	1,278.05	---
MAX	1,289.69	1,287.89	1,288.34	1,284.50	1,272.67	1,264.60	1,272.21	1,279.92	1,287.42	1,289.40	1,283.83	1,287.60
MIN	1,284.77	1,283.19	1,284.82	1,270.87	1,261.14	1,258.51	1,265.04	1,269.39	1,280.69	1,283.81	1,278.05	1,278.41
†	9,156,000	9,144,000	8,977,000	7,978,000	7,258,000	7,481,000	7,793,000	8,598,000	9,101,000	8,898,000	8,456,000	9,131,000
‡	+200,000	-12,000	-167,000	-999,000	-720,000	+223,000	+312,000	+805,000	+503,000	-203,000	-442,000	+675,000
CAL YR	2003	MAX	1,289.69	MIN	1,265.30	‡	-100,000					
WTR YR	2004	MAX	1,289.69	MIN	1,258.51	‡	+175,000					

† Total contents, in acre-feet, at end of month.

‡ Change in contents, in acre-feet.