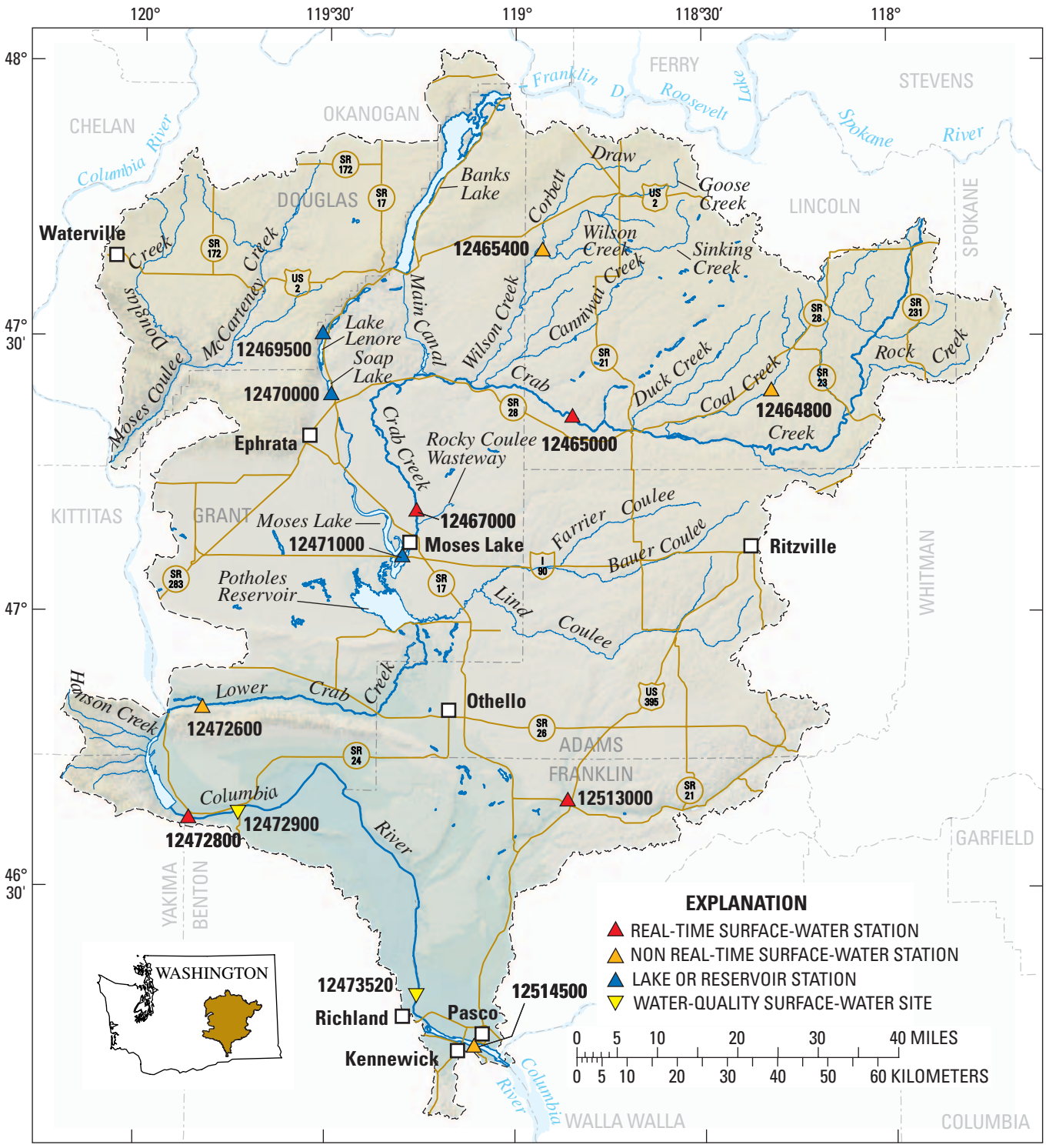

Figure 58. Location of surface-water stations in the Crab Creek and Esquatzel Coulee Basins and on the Columbia River from Priest Rapids Dam to Kennewick.

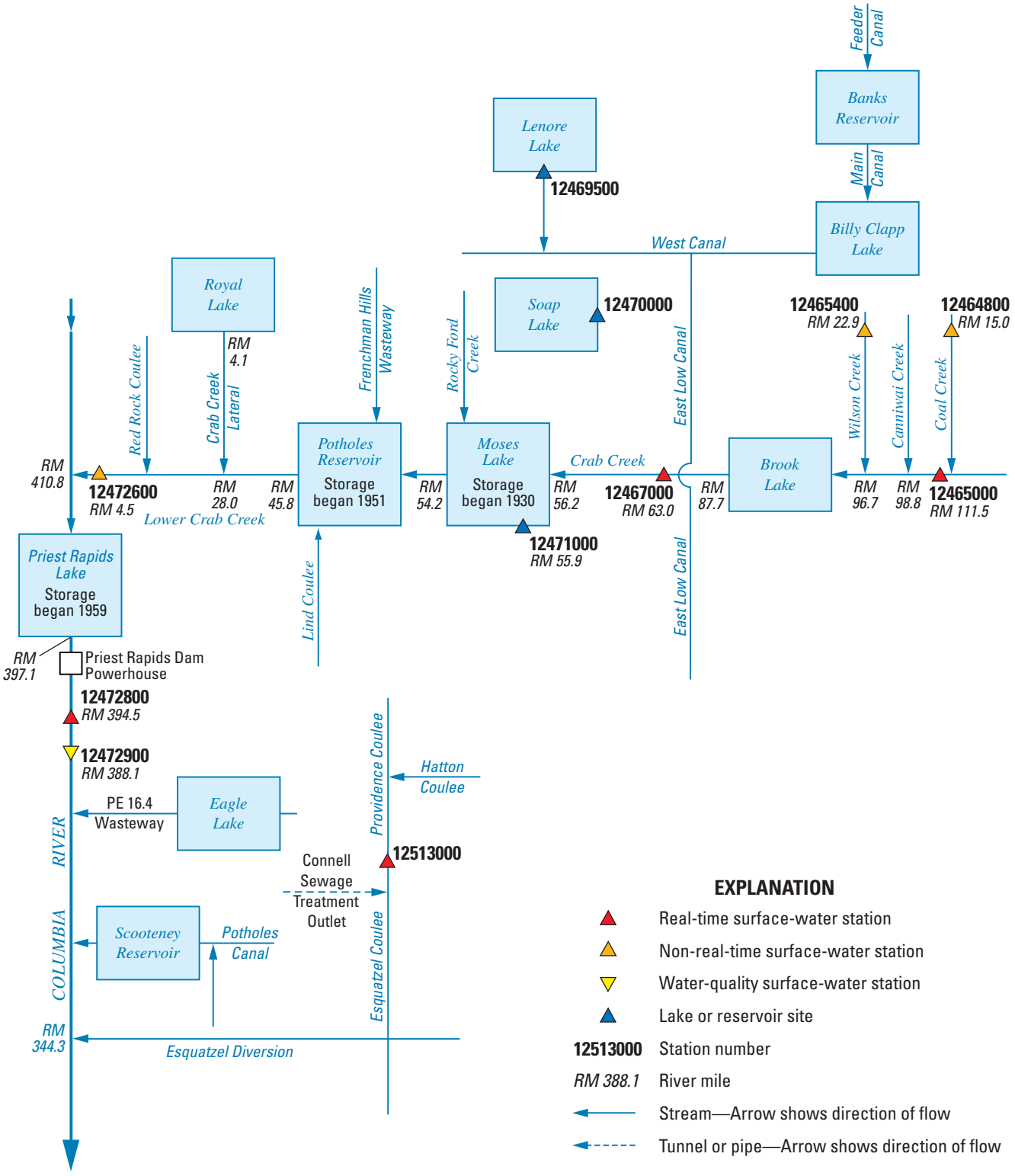

Figure 59. Schematic diagram showing surface-water stations in the Crab Creek and Esquatzel Coulee Basins and on the Columbia River from Priest Rapids Dam to Kennewick.

12464800 COAL CREEK AT MOHLER, WA

LOCATION.--Lat 47°24'25", long 118°19'04", in SE¼SE¼ sec.7, T.22 N., R.36 E., Lincoln County, on left bank 25 ft upstream from bridge on county road, 0.3 mi east of Mohler, and 15 mi upstream from mouth.

DRAINAGE AREA.--64.7 mi^2.

PERIOD OF RECORD.--April 1963 to September 1974, October 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,000 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. No known regulation. Some diversion for irrigation above station.

AVERAGE DISCHARGE.--14 years (water years 1964-74, 2003-05), 3.86 ft^3/s, 2,790 acre-ft yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 698 ft^3/s, Jan. 16, 1971, gage height, 3.28 ft; no flow for long periods most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 3, 1963, reached a stage of 4.42 ft, discharge, 1,060 ft^3/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.0 ft^3/s, Jan. 20, gage height, 1.41 ft; minimum discharge, 0.10 ft^3/s, Aug. 22.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.32	0.38	0.62	0.75	1.6	2.0	3.7	1.5	1.0	0.37	0.17	0.14
2	e0.32	0.41	0.59	0.75	1.6	2.1	3.7	1.5	0.98	0.36	0.17	0.14
3	e0.31	0.40	0.56	0.72	1.6	2.0	3.7	1.3	0.97	0.34	0.18	0.14
4	e0.31	0.40	0.59	0.71	1.7	2.0	3.7	1.3	0.86	0.34	0.16	0.17
5	0.28	0.39	0.61	e0.70	1.6	2.0	3.5	1.3	0.91	0.33	0.18	0.17
6	0.29	0.38	0.62	e0.70	1.7	1.9	3.3	1.2	0.98	0.30	0.18	0.16
7	0.27	0.37	0.66	e0.80	1.7	1.9	3.3	1.2	0.98	0.28	0.18	0.16
8	0.29	0.38	0.84	e0.92	1.7	1.9	3.1	1.2	0.98	0.28	0.17	0.16
9	0.30	0.40	0.74	0.91	1.6	1.8	3.1	1.2	0.88	0.32	0.17	0.16
10	0.30	0.41	0.72	0.84	1.6	1.8	2.9	1.7	0.80	0.31	0.16	0.17
11	0.30	0.42	0.72	0.99	1.6	1.7	2.9	1.7	0.74	0.30	0.15	0.19
12	0.30	0.43	0.71	1.1	1.6	1.7	2.9	1.7	0.75	0.27	0.16	0.19
13	0.30	0.43	0.67	1.0	1.6	1.7	2.9	1.6	0.74	0.26	0.15	0.19
14	0.30	0.43	0.66	1.00	1.6	1.7	2.8	1.4	0.75	0.25	0.14	0.18
15	0.29	0.44	0.66	e0.92	1.6	1.8	2.8	1.4	0.77	0.24	0.15	0.19
16	0.30	0.48	0.68	e1.0	1.6	1.8	2.8	1.4	0.74	0.24	0.14	0.22
17	0.33	0.48	0.70	1.1	1.7	1.7	2.8	1.4	0.73	0.24	0.16	0.23
18	0.34	0.50	0.72	1.0	1.6	1.6	2.8	1.4	0.70	0.23	0.17	0.23
19	0.32	0.53	0.72	1.2	1.6	1.7	2.7	1.3	0.61	0.23	0.16	0.23
20	0.33	0.48	0.72	1.6	1.7	1.7	2.5	1.2	0.58	0.22	0.15	0.22
21	0.31	0.48	0.72	3.9	1.8	1.6	2.4	1.2	0.53	0.21	0.13	0.23
22	0.33	0.48	0.71	2.5	1.8	1.6	2.3	1.3	0.48	0.21	0.13	0.23
23	0.33	0.46	0.73	1.9	1.8	1.6	2.3	1.2	0.45	0.21	0.14	0.21
24	0.33	0.48	0.77	1.5	1.8	1.6	2.3	1.1	0.42	0.19	0.14	0.20
25	0.34	0.48	0.79	1.5	1.8	1.6	2.2	1.1	0.41	0.18	0.15	0.21
26	0.34	0.48	0.73	1.6	1.8	1.9	2.1	1.1	0.40	0.18	0.14	0.21
27	0.34	0.55	0.71	1.6	1.9	2.6	2.0	1.0	0.43	0.17	0.14	0.20
28	0.34	0.58	0.71	1.6	2.0	3.4	1.8	1.0	0.46	0.17	0.14	0.21
29	0.34	0.59	0.71	1.7	---	3.8	1.8	1.0	0.46	0.17	0.13	0.24
30	0.36	0.59	0.72	1.6	---	3.8	1.7	0.91	0.41	0.17	0.14	0.28
31	0.38	---	0.72	1.6	---	3.8	---	0.94	---	0.16	0.14	---
TOTAL	9.84	13.71	21.53	39.71	47.3	63.8	82.8	39.75	20.90	7.73	4.77	5.86
MEAN	0.32	0.46	0.69	1.28	1.69	2.06	2.76	1.28	0.70	0.25	0.15	0.20
MAX	0.38	0.59	0.84	3.9	2.0	3.8	3.7	1.7	1.0	0.37	0.18	0.28
MIN	0.27	0.37	0.56	0.70	1.6	1.6	1.7	0.91	0.40	0.16	0.13	0.14
AC-FT	20	27	43	79	94	127	164	79	41	15	9.5	12
CFSM	0.00	0.01	0.01	0.02	0.03	0.03	0.04	0.02	0.01	0.00	0.00	0.00
IN.	0.01	0.01	0.01	0.02	0.03	0.04	0.05	0.02	0.01	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2005, BY WATER YEAR (WY)

MEAN	0.12	0.24	2.12	11.7	10.9	14.3	4.64	1.65	0.54	0.16	0.06	0.08
MAX	0.32	0.46	16.1	46.3	42.0	102	14.8	3.71	1.11	0.36	0.32	0.34
(WY)	(2005)	(2005)	(1974)	(1971)	(1970)	(1969)	(1969)	(1969)	(2004)	(2004)	(2004)	(2004)
MIN	0.00	0.03	0.19	0.00	1.16	2.06	1.15	0.42	0.08	0.00	0.00	0.00
(WY)	(1964)	(1964)	(1964)	(1969)	(1964)	(2005)	(1973)	(1973)	(1963)	(1963)	(1963)	(1963)

12464800 COAL CREEK AT MOHLER, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1963 - 2005	
ANNUAL TOTAL	1,050.48		357.70			
ANNUAL MEAN	2.87		0.98		3.86	
HIGHEST ANNUAL MEAN					10.9	1969
LOWEST ANNUAL MEAN					0.93	1964
HIGHEST DAILY MEAN	109	Feb 18	3.9	Jan 21	419	Mar 18, 1969
LOWEST DAILY MEAN	0.22	Aug 15	0.13	Aug 21	0.00	Jun 19, 1963
ANNUAL SEVEN-DAY MINIMUM	0.25	Aug 11	0.14	Aug 21	0.00	Jun 19, 1963
ANNUAL RUNOFF (AC-FT)	2,080		709		2,790	
ANNUAL RUNOFF (CFSM)	0.044		0.015		0.060	
ANNUAL RUNOFF (INCHES)	0.60		0.21		0.81	
10 PERCENT EXCEEDS	6.0		2.0		7.7	
50 PERCENT EXCEEDS	0.71		0.71		0.40	
90 PERCENT EXCEEDS	0.31		0.17		0.00	

e Estimated

12465000 CRAB CREEK AT IRBY, WA

LOCATION.--Lat 47°21'38", long 118°50'56", in NW¼NW¼ sec.31, T.22 N., R.32 E., Lincoln County, Hydrologic Unit 17020013, on right bank 8 ft upstream from highway bridge at Irby, 5.4 mi downstream from Lake Creek, 7.5 mi west of Odessa, and at mile 111.5.

DRAINAGE AREA.--1,042 mi^2.

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WSP 1446: 1949-51. WSP 1933: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,386.30 ft above NGVD of 1929. Prior to Sept. 29, 2003, gage on right bank at same datum.

REMARKS.--Records fair except for estimated daily discharges and discharges for Oct. 25-Dec. 5, which are poor. Pumpage from ground-water wells for irrigation has been on the increase upstream from station since 1964. U.S. Geological Survey satellite telemeter at station. Some diversions for irrigation upstream from station. No regulation.

AVERAGE DISCHARGE.--63 years (water years 1943-2005), 63.8 ft^3/s, 46,190 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,370 ft^3/s, Feb. 27, 1957, gage height, 11.94 ft; no flow several days during 1969, 1977, 1978, 1979, 1980, 1989, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 1	2030	(a)	*1.21	Mar 20	1945	*25	1.19

Minimum daily discharge, 0.96 ft^3/s, Nov. 9.

(a) Backwater from debris/beaver dam.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.2	e2.2	2.3	2.7	9.7	15	14	10	e9.8	4.1	1.7
2	2.6	2.3	e2.0	2.4	2.8	9.8	15	14	10	e9.6	4.7	1.6
3	2.8	3.2	e1.6	2.1	2.9	9.9	16	13	10	e9.0	4.3	1.6
4	2.7	2.2	e1.7	2.0	3.1	10	16	13	9.8	e8.4	4.1	1.6
5	2.6	1.9	e1.8	1.8	3.3	10	15	13	10	e8.0	4.0	1.4
6	2.5	1.7	1.9	2.1	3.2	10	16	13	10	7.8	4.0	1.5
7	2.5	1.5	1.9	2.7	3.3	10	16	13	11	7.7	4.0	2.0
8	2.8	1.2	3.0	2.6	3.5	11	16	12	10	8.0	4.1	2.2
9	2.7	0.96	2.1	2.4	3.6	11	16	13	10	7.6	3.2	2.1
10	2.7	1.1	1.8	2.3	3.4	12	16	17	9.6	7.8	2.9	1.5
11	2.7	e1.1	1.6	2.5	3.6	12	15	14	11	7.4	2.8	1.3
12	2.5	e1.1	1.7	2.4	3.9	12	15	12	11	7.0	2.7	1.4
13	2.4	1.1	1.6	2.4	4.2	13	16	12	11	6.8	2.7	1.7
14	2.4	1.2	1.6	2.4	4.6	13	16	12	12	6.6	2.8	1.6
15	2.2	1.4	1.6	1.7	4.8	13	16	12	12	6.6	2.7	1.6
16	2.3	1.8	1.6	e2.7	5.3	13	17	13	11	6.6	2.6	1.9
17	2.7	1.7	1.7	e2.8	5.5	13	18	12	10	6.5	2.6	1.7
18	3.0	2.0	1.7	2.6	6.0	13	17	12	10	5.9	3.5	1.5
19	2.6	2.0	1.6	2.9	6.4	14	17	13	9.6	5.5	4.0	1.4
20	2.2	2.3	1.6	2.9	6.8	16	18	11	9.3	5.3	3.2	1.5
21	1.9	2.0	1.8	2.8	7.2	14	16	12	8.9	5.3	2.7	2.0
22	1.9	2.0	1.8	2.8	7.5	14	15	12	10	5.2	2.5	1.9
23	2.1	e1.9	1.8	3.0	7.8	15	16	11	9.6	5.1	2.3	2.1
24	2.1	e1.6	1.8	2.9	8.3	15	15	11	8.8	4.3	2.4	1.6
25	e1.9	e1.8	1.9	2.7	9.0	15	15	11	8.6	4.2	1.7	1.3
26	e1.8	e1.8	2.2	2.8	9.3	16	14	11	7.6	3.9	1.7	1.4
27	e1.8	e1.8	2.1	2.9	9.5	16	13	10	8.7	3.5	1.7	1.4
28	e1.8	e2.0	2.0	2.9	9.9	15	13	10	e10	3.5	1.6	1.6
29	e1.8	e2.1	2.4	2.5	---	15	13	10	e11	3.8	1.3	1.4
30	1.9	e2.1	2.5	2.6	---	15	13	11	e10	3.6	1.9	1.7
31	2.2	---	2.4	2.6	---	15	---	11	---	3.6	2.2	---
TOTAL	72.9	53.06	59.0	78.5	151.4	400.4	465	378	300.5	193.9	91.0	49.2
MEAN	2.35	1.77	1.90	2.53	5.41	12.9	15.5	12.2	10.0	6.25	2.94	1.64
MAX	3.0	3.2	3.0	3.0	9.9	16	18	17	12	9.8	4.7	2.2
MIN	1.8	0.96	1.6	1.7	2.7	9.7	13	10	7.6	3.5	1.3	1.3
AC-FT	145	105	117	156	300	794	922	750	596	385	180	98

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2005, BY WATER YEAR (WY)

MEAN	7.49	7.74	17.8	104	217	197	101	48.5	34.7	19.7	12.4	8.64
MAX	34.7	47.8	295	1,163	744	1,141	441	189	451	109	61.2	41.9
(WY)	(1949)	(1998)	(1956)	(1956)	(1949)	(1956)	(1969)	(1997)	(1948)	(1948)	(1948)	(1948)
MIN	0.33	0.58	0.27	0.26	0.63	4.26	8.61	5.46	3.06	1.49	0.54	0.27
(WY)	(1993)	(1993)	(1993)	(1993)	(1992)	(1992)	(1992)	(1990)	(1992)	(1990)	(1992)	(1992)

12465000 CRAB CREEK AT IRBY, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1942 - 2005	
ANNUAL TOTAL	5,680.56		2,292.86			
ANNUAL MEAN	15.5		6.28		63.8	
HIGHEST ANNUAL MEAN					299	1956
LOWEST ANNUAL MEAN					2.73	1992
HIGHEST DAILY MEAN	168	Feb 18	18	Apr 17	7,470	Feb 27, 1957
LOWEST DAILY MEAN	0.96	Nov 9	0.96	Nov 9	0.00	Jan 3, 1969
ANNUAL SEVEN-DAY MINIMUM	1.1	Nov 8	1.1	Nov 8	0.00	Jan 15, 1969
ANNUAL RUNOFF (AC-FT)	11,270		4,550		46,190	
10 PERCENT EXCEEDS	50		14		142	
50 PERCENT EXCEEDS	5.0		3.5		16	
90 PERCENT EXCEEDS	1.6		1.6		2.5	

e Estimated

12465400 WILSON CREEK BELOW CORBETT DRAW, NEAR ALMIRA, WA

LOCATION.--Lat 47°39'47", long 118°55'46", in SW¼NW¼ sec.16, T.25 N., R.31 E., Lincoln County, Hydrologic Unit 17020013, on left bank, 65 ft downstream from Corbett Draw, 3.5 mi south of Almira, and at mile 22.9.

DRAINAGE AREA.--327 mi^2.

PERIOD OF RECORD.--March 1969 to June 1971, 1972-79 (annual peaks only), April 1991 to September 1994, October 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,670 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair, except for estimated daily discharge, which are poor. No regulation. Suspended sediment data are available from USGS Washington Water Science Center office.

AVERAGE DISCHARGE.--7 years (water years 1970, 1992-94, 2003-05), 6.87 ft^3/s, 4,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft^3/s, Jan. 16, 1973, gage height, 7.68 ft; minimum discharge, no flow July 23-30, Aug. 5-12, 2004, June 21-24, July 12, 16-24, Aug. 13-15, and 18-26, 2005.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.2 ft^3/s, Oct. 17, gage height, 3.73 ft; minimum discharge, no flow June 21-24, July 12, 16-24, Aug. 13-15, and 18-26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.58	0.71	0.54	0.88	0.71	0.61	0.57	0.55	0.08	0.08	0.14	0.02
2	0.46	0.68	0.51	0.86	0.68	0.63	0.09	0.58	0.07	0.05	0.02	0.03
3	0.52	0.62	0.51	0.79	0.68	0.68	0.09	0.61	0.05	0.02	0.05	0.05
4	0.74	0.59	0.51	e0.74	0.71	0.68	0.08	0.70	0.08	0.01	0.12	0.07
5	0.77	0.72	0.54	e0.68	0.73	0.68	0.07	0.59	0.40	0.06	0.05	0.13
6	0.89	0.80	0.53	e0.70	0.76	0.68	0.14	0.47	0.79	0.07	0.04	0.15
7	0.90	0.88	0.45	e0.74	0.77	0.68	0.10	0.12	0.18	0.06	0.04	0.17
8	0.87	0.88	0.72	e0.70	0.77	0.68	0.14	0.08	0.25	0.01	0.04	0.18
9	0.84	0.88	0.38	e0.64	0.77	0.68	0.12	0.63	0.26	0.07	0.08	0.18
10	0.78	0.88	0.43	e0.60	0.77	0.60	0.12	1.9	0.23	0.25	0.05	0.16
11	0.77	0.83	0.43	e0.64	0.68	0.57	0.18	1.5	0.20	0.09	0.01	0.17
12	0.69	0.68	0.43	e0.70	0.68	0.67	0.45	1.2	0.17	0.00	0.01	0.19
13	0.59	0.68	0.49	e0.68	0.68	0.68	0.13	1.1	0.15	0.26	0.00	0.17
14	0.56	0.68	0.51	e0.65	0.68	0.68	0.21	1.3	0.15	0.47	0.00	0.17
15	0.57	0.68	0.51	e0.58	0.68	0.71	0.16	1.3	0.14	0.01	0.00	0.17
16	0.65	0.68	0.51	e0.68	0.62	0.66	0.24	1.4	0.35	0.00	0.08	0.17
17	1.4	0.68	0.54	e0.80	0.60	0.73	0.18	1.4	0.10	0.00	0.03	0.17
18	2.3	0.68	0.59	e0.86	0.60	0.79	0.16	1.5	0.08	0.00	0.00	0.14
19	1.4	0.68	0.59	e1.0	0.62	0.93	0.18	1.5	0.01	0.00	0.00	0.01
20	1.3	0.68	0.59	e1.2	0.64	1.0	0.15	1.5	0.29	0.00	0.00	0.05
21	1.3	0.68	0.55	e1.3	0.62	0.99	0.18	1.6	0.00	0.00	0.00	0.10
22	1.3	0.68	0.64	1.6	0.59	0.98	0.16	1.7	0.00	0.00	0.00	0.09
23	1.3	0.68	0.59	1.9	0.59	1.0	0.22	1.1	0.00	0.00	0.00	0.01
24	1.1	0.68	0.59	1.3	0.51	1.0	0.24	0.08	0.00	0.00	0.00	0.05
25	1.1	0.72	0.60	1.1	0.52	0.94	0.30	0.05	0.03	0.03	0.00	0.10
26	1.1	0.77	0.70	1.1	0.54	0.88	0.39	0.01	0.07	0.05	0.00	0.08
27	1.1	0.74	0.73	1.00	0.55	0.99	0.47	0.02	0.77	0.07	0.02	0.08
28	1.1	0.59	0.68	0.86	0.59	0.89	0.49	0.01	0.25	0.10	0.01	0.08
29	1.1	0.59	0.75	0.77	---	0.89	0.45	0.04	0.03	0.11	0.02	0.08
30	0.98	0.59	0.77	0.72	---	0.88	0.52	0.29	0.02	0.14	0.02	0.08
31	0.87	---	0.87	0.74	---	0.88	---	0.07	---	0.16	0.02	---
TOTAL	29.93	21.31	17.78	27.51	18.34	24.34	6.98	24.90	5.20	2.17	0.85	3.30
MEAN	0.97	0.71	0.57	0.89	0.66	0.79	0.23	0.80	0.17	0.07	0.03	0.11
MAX	2.3	0.88	0.87	1.9	0.77	1.0	0.57	1.9	0.79	0.47	0.14	0.19
MIN	0.46	0.59	0.38	0.58	0.51	0.57	0.07	0.01	0.00	0.00	0.00	0.01
AC-FT	59	42	35	55	36	48	14	49	10	4.3	1.7	6.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	1.29	1.73	2.40	12.2	24.9	49.1	20.5	7.84	3.91	8.91	1.64	0.85
MAX	2.05	3.62	6.12	39.9	157	254	82.9	24.7	8.98	64.0	4.32	1.82
(WY)	(1994)	(1971)	(1994)	(1970)	(1970)	(1969)	(1969)	(1969)	(1969)	(1993)	(1993)	(1970)
MIN	0.36	0.43	0.32	0.33	0.51	0.62	0.23	0.24	0.17	0.07	0.03	0.11
(WY)	(1993)	(1993)	(1993)	(1993)	(1993)	(1992)	(2005)	(1992)	(2005)	(2005)	(2005)	(2005)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	450.89		182.61			
ANNUAL MEAN	1.23		0.50		6.87	
HIGHEST ANNUAL MEAN					26.8	1970
LOWEST ANNUAL MEAN					0.50	2005
HIGHEST DAILY MEAN	4.2	Jun 6	2.3	Oct 18	1,400	Feb 16, 1970
LOWEST DAILY MEAN	0.00	Jul 27	0.00	Jun 21	0.00	Jul 27, 2004
ANNUAL SEVEN-DAY MINIMUM	0.07	Aug 6	0.00	Jul 16	0.00	Jul 16, 2005
ANNUAL RUNOFF (AC-FT)	894		362		4,980	
10 PERCENT EXCEEDS	2.5		1.0		9.2	
50 PERCENT EXCEEDS	1.1		0.55		1.1	
90 PERCENT EXCEEDS	0.33		0.01		0.26	

e Estimated

12467000 CRAB CREEK NEAR MOSES LAKE, WA

LOCATION.--Lat 47°11'22", long 119°15'53", in NW¼NE¼ sec.35, T.20 N., R.28 E., Grant County, Hydrologic Unit 17020015, on left bank at downstream side of highway bridge, 3.0 mi upstream from Parker Horn, 4.0 mi north of town of Moses Lake, and at mile 63.0.

DRAINAGE AREA.--2,228 mi^2, of which 219 mi^2 in the vicinity of Long Lake Reservoir is noncontributing.

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WSP 1933: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,070.39 ft above NGVD of 1929 (Bureau of Reclamation datum). Prior to July 14, 1956, at site 300 ft upstream at same datum.

REMARKS.--Records good, except for estimated daily discharges, which are fair. Numerous small diversions for irrigation and domestic use upstream from station. Most natural flow from upper basin passes this station underground. No known regulation. Since 1952, return flow from irrigation on Columbia Basin project has increased runoff during summer months. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--54 years (water years 1952-2005), 67.7 ft^3/s, 49,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft^3/s, Feb. 28, 1957, gage height, 6.81 ft; no flow for several months each year prior to 1952 and part of each day Jan. 14, 15, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59 ft^3/s, Sept. 30, gage height, 3.05 ft; minimum discharge, 7.7 ft^3/s, Apr. 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	31	21	18	14	12	8.2	20	29	41	46	51
2	41	31	21	17	14	12	8.2	21	31	42	46	52
3	41	31	21	e15	14	12	8.2	22	32	42	45	52
4	41	30	21	e13	14	12	11	24	32	42	46	52
5	41	29	21	e12	14	12	8.3	25	37	43	46	51
6	41	29	20	e12	13	12	7.9	24	38	42	46	51
7	41	29	21	e13	13	12	8.1	25	36	44	47	50
8	41	28	26	e13	13	12	12	24	37	44	47	50
9	42	28	22	e13	12	11	13	28	37	46	47	51
10	40	28	21	e13	12	11	13	37	37	45	47	51
11	40	28	20	e13	12	11	14	27	38	46	47	51
12	40	27	19	e13	13	10	14	24	37	45	49	51
13	40	27	19	e12	13	9.5	15	24	37	43	49	50
14	40	26	19	e12	12	9.2	15	25	37	43	49	49
15	41	26	19	e12	12	9.4	15	25	37	43	50	49
16	41	25	19	e12	12	9.5	15	26	38	42	51	49
17	46	25	19	e12	11	9.2	15	27	39	43	53	50
18	46	25	18	e13	11	9.4	15	28	38	43	54	50
19	42	24	18	e13	11	9.4	15	28	e39	42	52	50
20	41	24	18	14	12	11	15	28	e40	42	51	50
21	40	24	17	15	12	11	16	29	32	42	50	50
22	39	23	17	15	12	9.5	15	30	35	44	50	51
23	39	23	17	17	12	9.1	15	29	36	44	49	51
24	38	24	17	17	12	8.7	16	28	38	44	50	49
25	38	23	17	18	12	8.6	17	28	42	44	51	49
26	37	22	17	16	12	10	18	28	40	45	50	49
27	34	22	17	17	12	12	18	27	41	44	51	56
28	33	21	16	17	12	11	19	27	44	44	50	52
29	32	21	16	17	---	9.7	18	28	42	45	51	52
30	32	21	17	15	---	9.1	19	28	42	45	52	53
31	31	---	18	15	---	8.3	---	28	---	46	52	---
TOTAL	1,220	775	589	444	348	322.6	416.9	822	1,118	1,350	1,524	1,522
MEAN	39.4	25.8	19.0	14.3	12.4	10.4	13.9	26.5	37.3	43.5	49.2	50.7
MAX	46	31	26	18	14	12	19	37	44	46	54	56
MIN	31	21	16	12	11	8.3	7.9	20	29	41	45	49
AC-FT	2,420	1,540	1,170	881	690	640	827	1,630	2,220	2,680	3,020	3,020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2005, BY WATER YEAR (WY)

MEAN	58.4	35.6	23.0	58.3	118	152	80.8	48.7	46.7	57.1	67.0	69.4
MAX	111	68.9	43.8	779	490	1,012	582	222	163	113	130	136
(WY)	(1975)	(1974)	(1974)	(1959)	(1970)	(1956)	(1969)	(1997)	(1997)	(1974)	(1972)	(1971)
MIN	0.28	0.19	0.13	0.03	4.31	3.60	6.30	13.4	16.7	25.4	35.2	35.6
(WY)	(1952)	(1952)	(1952)	(1952)	(1953)	(1953)	(1964)	(1962)	(1960)	(1959)	(1957)	(1957)

12467000 CRAB CREEK NEAR MOSES LAKE, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1952 - 2005	
ANNUAL TOTAL	9,436.2		10,451.5			
ANNUAL MEAN	25.8		28.6		67.7	
HIGHEST ANNUAL MEAN					183	1956
LOWEST ANNUAL MEAN					25.8	2002
HIGHEST DAILY MEAN	58	Aug 25	56	Sep 27	6,960	Mar 1, 1957
LOWEST DAILY MEAN	4.4	Mar 20	7.9	Apr 6	0.00	Dec 21, 1951
ANNUAL SEVEN-DAY MINIMUM	5.2	Mar 19	8.6	Apr 1	0.00	Dec 21, 1951
ANNUAL RUNOFF (AC-FT)	18,720		20,730		49,010	
10 PERCENT EXCEEDS	45		50		114	
50 PERCENT EXCEEDS	24		27		41	
90 PERCENT EXCEEDS	10		12		13	

e Estimated

12469500 LENORE LAKE NEAR SOAP LAKE, WA

LOCATION.--Lat 47°30'52", long 119°30'06", in SE¼SW¼ sec.1, T.23 N., R.26 E., Grant County, Hydrologic Unit 17020014, on east shore 1,000 ft south of outlet gate on Alkali Lake, and 8.8 mi north of town of Soap Lake.

DRAINAGE AREA.--367 mi^2, of which 281 mi^2 in the vicinity of Banks Lake is noncontributing.

PERIOD OF RECORD.--July 1936, March 1938 to December 1956 (fragmentary), January 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929, adjustment of 1937 (Bureau of Reclamation datum). Prior to Dec. 20, 1956, nonrecording gages 0.90 mi uplake at same datum.

REMARKS.--Some diversion from tributaries for irrigation. During extreme high stages of Soap Lake, water is pumped from Soap Lake into Lenore Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 1,087.73 ft, June 12, 1953; minimum, 1,072.72 ft, Jan. 2, 1959 (affected by wind).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 1,092.2 ft, from well-defined alkali line at gage, date unknown.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,077.40 ft, Mar. 28; minimum elevation, 1,074.13 ft, Sept. 24.

ELEVATION, USBR DATUM
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,074.42	1,074.52	1,074.67	1,075.15	1,075.98	1,076.72	1,077.34	1,076.53	1,076.07	1,075.47	1,074.83	1,074.39
2	1,074.44	1,074.53	1,074.67	1,075.16	1,076.00	1,076.75	1,077.30	1,076.51	1,076.05	1,075.44	1,074.78	1,074.39
3	1,074.44	1,074.52	1,074.68	1,075.19	1,076.03	1,076.78	1,077.27	1,076.48	1,076.03	1,075.40	1,074.76	1,074.37
4	1,074.44	1,074.53	1,074.69	1,075.17	1,076.07	1,076.80	1,077.24	1,076.45	1,075.99	1,075.39	1,074.75	1,074.35
5	1,074.44	1,074.53	1,074.71	1,075.22	1,076.09	1,076.83	1,077.20	1,076.43	1,075.99	1,075.38	1,074.75	1,074.33
6	1,074.46	1,074.54	1,074.71	1,075.24	1,076.12	1,076.86	1,077.17	1,076.41	1,075.99	1,075.36	1,074.73	1,074.33
7	1,074.45	1,074.54	1,074.73	1,075.28	1,076.14	1,076.88	1,077.15	1,076.38	1,075.98	1,075.33	1,074.71	1,074.33
8	1,074.44	1,074.55	1,074.79	1,075.34	1,076.17	1,076.91	1,077.13	1,076.35	1,075.96	1,075.34	1,074.68	1,074.33
9	1,074.47	1,074.56	1,074.80	1,075.37	1,076.20	1,076.94	1,077.08	1,076.36	1,075.94	1,075.34	1,074.67	1,074.31
10	1,074.46	1,074.57	1,074.82	1,075.39	1,076.22	1,076.96	1,077.06	1,076.44	1,075.92	1,075.37	1,074.65	1,074.31
11	1,074.46	1,074.57	1,074.82	1,075.41	1,076.25	1,076.98	1,077.04	1,076.43	1,075.90	1,075.34	1,074.62	1,074.31
12	1,074.46	1,074.57	1,074.80	1,075.43	1,076.28	1,076.98	1,077.02	1,076.41	1,075.87	1,075.31	1,074.61	1,074.31
13	1,074.46	1,074.58	1,074.83	1,075.45	1,076.30	1,076.99	1,077.01	1,076.38	1,075.85	1,075.27	1,074.60	1,074.31
14	1,074.47	1,074.58	1,074.84	1,075.47	1,076.33	1,077.03	1,076.97	1,076.37	1,075.82	1,075.24	1,074.59	1,074.31
15	1,074.47	1,074.59	1,074.85	1,075.49	1,076.36	1,077.05	1,076.94	1,076.36	1,075.80	1,075.21	1,074.59	1,074.31
16	1,074.47	1,074.60	1,074.86	1,075.53	1,076.38	1,077.08	1,076.93	1,076.35	1,075.77	1,075.18	1,074.59	1,074.29
17	1,074.50	1,074.60	1,074.88	1,075.56	1,076.41	1,077.08	1,076.91	1,076.31	1,075.76	1,075.16	1,074.57	1,074.30
18	1,074.54	1,074.62	1,074.89	1,075.59	1,076.43	1,077.10	1,076.86	1,076.28	1,075.74	1,075.15	1,074.56	1,074.29
19	1,074.53	1,074.61	1,074.90	1,075.61	1,076.46	1,077.12	1,076.83	1,076.26	1,075.72	1,075.13	1,074.56	1,074.29
20	1,074.54	1,074.61	1,074.91	1,075.64	1,076.48	1,077.18	1,076.81	1,076.21	1,075.70	1,075.10	1,074.55	1,074.28
21	1,074.54	1,074.62	1,074.93	1,075.66	1,076.51	1,077.18	1,076.79	1,076.18	1,075.69	1,075.07	1,074.55	1,074.25
22	1,074.54	1,074.63	1,074.94	1,075.69	1,076.53	1,077.18	1,076.76	1,076.15	1,075.66	1,075.06	1,074.52	1,074.24
23	1,074.54	1,074.63	1,074.95	1,075.72	1,076.56	1,077.19	1,076.74	1,076.12	1,075.63	1,075.06	1,074.48	1,074.19
24	1,074.53	1,074.66	1,074.97	1,075.75	1,076.59	1,077.21	1,076.72	1,076.09	1,075.62	1,074.99	1,074.47	1,074.17
25	1,074.52	1,074.65	1,074.99	1,075.78	1,076.61	1,077.23	1,076.71	1,076.09	1,075.58	1,074.97	1,074.47	1,074.20
26	1,074.52	1,074.65	1,075.00	1,075.80	1,076.64	1,077.25	1,076.68	1,076.10	1,075.58	1,074.96	1,074.46	1,074.19
27	1,074.52	1,074.65	1,075.02	1,075.83	1,076.67	1,077.29	1,076.63	1,076.11	1,075.56	1,074.95	1,074.45	1,074.19
28	1,074.53	1,074.65	1,075.04	1,075.86	1,076.70	1,077.32	1,076.61	1,076.12	1,075.56	1,074.94	1,074.44	1,074.19
29	1,074.53	1,074.65	1,075.07	1,075.89	---	1,077.33	1,076.58	1,076.12	1,075.54	1,074.91	1,074.42	1,074.20
30	1,074.55	1,074.66	1,075.10	1,075.92	---	1,077.32	1,076.55	1,076.14	1,075.51	1,074.88	1,074.40	1,074.21
31	1,074.52	---	1,075.12	1,075.95	---	1,077.33	---	1,076.11	---	1,074.86	1,074.39	---
MEAN	1,074.49	1,074.59	1,074.87	1,075.53	1,076.34	1,077.06	1,076.93	1,076.29	1,075.79	1,075.18	1,074.59	1,074.28
MAX	1,074.55	1,074.66	1,075.12	1,075.95	1,076.70	1,077.33	1,077.34	1,076.53	1,076.07	1,075.47	1,074.83	1,074.39
MIN	1,074.42	1,074.52	1,074.67	1,075.15	1,075.98	1,076.72	1,076.55	1,076.09	1,075.51	1,074.86	1,074.39	1,074.17

CAL YR 2004 MEAN 1,075.79 MAX 1,078.04 MIN 1,074.42
WTR YR 2005 MEAN 1,075.49 MAX 1,077.34 MIN 1,074.17

12470000 SOAP LAKE NEAR SOAP LAKE, WA

LOCATION.--Lat 47°24'11", long 119°29'11", in NW¼SW¼ sec.18, T.22 N., R.27 E., Grant County, Hydrologic Unit 17020014, on east shore 0.9 mi north of town of Soap Lake.

DRAINAGE AREA.--413 mi^2, of which 281 mi^2 in the vicinity of Banks Lake is noncontributing.

PERIOD OF RECORD.--May to August 1936, March 1938 to February 1957 (fragmentary), March 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929, adjustment of 1937 (Bureau of Reclamation datum). Prior to Feb. 4, 1953, nonrecording gage at site 0.2 mi uplake. Feb. 4, 1953, to June 8, 1954, nonrecording gage at site 1.5 mi uplake and June 9, 1954, to June 21, 1957, water-stage recorder at site 0.2 mi uplake.

REMARKS.--Some diversion from tributaries for irrigation. During extreme high stages of Soap Lake, water is pumped from Soap Lake into Lenore Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 1,079.20 ft, Jan. 28, 1953; minimum elevation, 1,070.45 ft, Sept. 29, 2005.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 1,083.1 ft, from well-defined alkali line at gage, date unknown.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,072.06 ft, May 17; minimum elevation, 1,070.45 ft, Sept. 29.

ELEVATION, USBR DATUM
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1,071.08	1,071.14	---	---	1,071.85	---	1,071.95	1,071.89	1,071.62	1,071.15	1,070.71
2	---	1,071.05	1,071.14	---	1,071.74	1,071.86	---	1,071.94	1,071.87	1,071.58	1,071.12	1,070.71
3	---	1,071.04	1,071.13	---	1,071.75	1,071.87	---	1,071.94	1,071.86	1,071.55	1,071.11	1,070.69
4	---	1,071.05	1,071.15	1,071.54	1,071.75	1,071.87	---	1,071.95	1,071.84	1,071.55	1,071.10	1,070.67
5	---	1,071.05	1,071.17	---	1,071.75	1,071.88	---	1,071.95	1,071.86	1,071.54	1,071.10	1,070.65
6	---	1,071.04	1,071.18	---	1,071.76	1,071.88	---	1,071.95	1,071.88	1,071.53	1,071.08	---
7	---	1,071.05	1,071.19	---	1,071.77	1,071.89	---	1,071.93	1,071.86	1,071.51	1,071.07	---
8	---	1,071.05	1,071.22	---	1,071.77	1,071.90	---	1,071.93	1,071.87	1,071.50	1,071.06	---
9	---	1,071.06	1,071.26	---	1,071.77	1,071.90	---	1,071.96	1,071.86	1,071.50	1,071.04	---
10	---	1,071.06	1,071.26	---	1,071.78	1,071.91	---	1,072.03	1,071.85	1,071.49	1,071.02	1,070.62
11	---	1,071.07	1,071.28	---	1,071.79	1,071.91	---	1,072.04	1,071.82	1,071.49	1,071.01	1,070.66
12	---	1,071.08	1,071.30	---	1,071.79	1,071.90	---	1,072.04	1,071.80	1,071.48	1,070.99	1,070.68
13	---	1,071.07	1,071.28	---	1,071.79	1,071.90	1,071.96	1,072.04	1,071.79	1,071.45	1,070.97	1,070.64
14	---	1,071.08	1,071.28	---	1,071.79	1,071.90	1,071.96	1,072.04	1,071.78	1,071.43	1,070.96	1,070.64
15	1,071.01	1,071.08	1,071.30	---	1,071.80	1,071.89	1,071.95	1,072.04	1,071.76	1,071.42	1,070.96	1,070.60
16	1,071.00	1,071.09	1,071.30	---	1,071.80	1,071.89	1,071.97	1,072.05	1,071.76	1,071.40	1,070.94	1,070.59
17	1,071.03	1,071.10	1,071.31	---	1,071.81	---	1,071.96	1,072.03	1,071.75	1,071.39	1,070.92	1,070.60
18	1,071.06	1,071.12	1,071.32	---	1,071.81	---	1,071.96	1,072.02	1,071.75	1,071.39	1,070.92	1,070.59
19	1,071.08	1,071.11	1,071.32	---	1,071.81	---	1,071.96	1,072.01	1,071.74	1,071.36	1,070.92	1,070.59
20	1,071.10	1,071.10	1,071.32	---	1,071.81	---	1,071.96	1,072.00	1,071.74	1,071.34	1,070.91	1,070.57
21	1,071.10	1,071.11	1,071.34	---	1,071.82	---	1,071.96	1,071.99	1,071.73	1,071.33	1,070.90	1,070.56
22	1,071.08	1,071.12	1,071.34	1,071.73	1,071.82	---	1,071.96	1,072.00	1,071.71	1,071.32	1,070.87	1,070.55
23	1,071.11	1,071.12	1,071.35	1,071.76	1,071.82	---	1,071.96	1,071.98	1,071.70	1,071.32	1,070.82	1,070.53
24	1,071.09	1,071.16	1,071.36	1,071.73	1,071.83	---	1,071.97	1,071.97	1,071.69	1,071.27	1,070.81	1,070.52
25	1,071.07	1,071.14	1,071.35	---	1,071.83	---	1,071.97	1,071.96	1,071.66	1,071.25	1,070.80	1,070.48
26	1,071.12	1,071.12	1,071.38	---	1,071.84	---	1,071.98	1,071.95	1,071.65	1,071.25	1,070.79	1,070.48
27	1,071.07	1,071.14	1,071.38	---	1,071.84	---	1,071.97	1,071.95	1,071.65	1,071.24	1,070.78	1,070.48
28	1,071.08	1,071.14	1,071.39	---	1,071.85	---	1,071.96	1,071.94	1,071.65	1,071.23	1,070.78	1,070.49
29	1,071.08	1,071.13	1,071.40	1,071.76	---	---	1,071.95	1,071.94	1,071.64	1,071.20	1,070.75	1,070.47
30	1,071.08	1,071.13	1,071.41	1,071.73	---	---	1,071.95	1,071.94	1,071.64	1,071.19	1,070.72	1,070.48
31	1,071.06	---	---	---	---	---	---	1,071.91	---	1,071.18	1,070.71	---
MEAN	---	1,071.09	---	---	---	---	---	1,071.98	1,071.77	1,071.40	1,070.94	---
MAX	---	1,071.16	---	---	---	---	---	1,072.05	1,071.89	1,071.62	1,071.15	---
MIN	---	1,071.04	---	---	---	---	---	1,071.91	1,071.64	1,071.18	1,070.71	---

12471000 MOSES LAKE AT MOSES LAKE, WA

LOCATION.--Lat 47°06'11", long 119°19'02", in SW¼SW¼ sec.28, T.19 N., R.28 E., Grant County, Hydrologic Unit 17020015, on east shore 35 ft north of Interstate 90, 1.7 mi upstream from outlet, at town of Moses Lake, and at mile 55.9.

DRAINAGE AREA.--3,080 mi^2, of which 665 mi^2 is noncontributing.

PERIOD OF RECORD.--June 1909 to September 1914 and November 1936 to September 1945 (fragmentary), October 1945 to current year. Published as "at Neppel" 1912-14.

REVISED RECORDS.--WSP 1933: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929, adjustment of 1937 (Bureau of Reclamation datum). Prior to Apr. 3, 1910, nonrecording gage at site 0.6 mi northeast at different datum. Apr. 3, 1910, to Sept. 30, 1914, and Nov. 19, 1936, to Nov. 24, 1944, nonrecording gages at site 2.8 mi northeast at Parker Horn at various datums. Oct. 30, 1945, to Mar. 12, 1955, water-stage recorder at site near west shore on downstream side of bridge on U.S. Highway 10 at present datum.

REMARKS.--Elevation controlled between 1,041 ft and 1,047 ft by two outlet structures at south end of lake. Many small diversions for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,048.29 ft, Mar. 10, 1950; minimum observed, 1,038.17 ft, Aug. 27, 1910.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,047.05 ft, Sept. 2, 3; minimum elevation, 1,042.34 ft, Dec. 28, 29.

ELEVATION, USBR DATUM
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,046.79	1,046.67	1,042.61	1,042.37	1,043.25	1,044.04	1,043.84	1,046.67	1,046.71	1,046.70	1,046.79	1,046.98
2	1,046.82	1,046.38	1,042.59	1,042.39	1,043.28	1,044.07	1,044.05	1,046.68	1,046.70	1,046.69	1,046.78	1,047.04
3	1,046.80	1,046.06	1,042.57	1,042.38	1,043.31	1,044.09	1,044.27	1,046.68	1,046.69	1,046.69	1,046.78	1,047.03
4	1,046.76	1,045.76	1,042.55	1,042.37	1,043.35	1,044.12	1,044.55	1,046.71	1,046.68	1,046.70	1,046.78	1,047.00
5	1,046.75	1,045.50	1,042.53	1,042.37	1,043.38	1,044.14	1,044.83	1,046.74	1,046.71	1,046.71	1,046.77	1,047.00
6	1,046.75	1,045.27	1,042.52	1,042.38	1,043.40	1,044.17	1,045.14	1,046.73	1,046.73	1,046.71	1,046.76	1,047.00
7	1,046.76	1,045.06	1,042.53	1,042.40	1,043.43	1,044.20	1,045.48	1,046.73	1,046.72	1,046.71	1,046.76	1,046.96
8	1,046.78	1,044.88	1,042.52	1,042.44	1,043.46	1,044.22	1,045.83	1,046.78	1,046.72	1,046.71	1,046.76	1,046.92
9	1,046.80	1,044.71	1,042.52	1,042.46	1,043.50	1,044.24	1,046.15	1,046.85	1,046.72	1,046.73	1,046.75	1,046.89
10	1,046.81	1,044.53	1,042.51	1,042.49	1,043.53	1,044.27	1,046.40	1,046.90	1,046.72	1,046.74	1,046.73	1,046.86
11	1,046.82	1,044.27	1,042.51	1,042.51	1,043.56	1,044.29	1,046.64	1,046.91	1,046.72	1,046.76	1,046.72	1,046.86
12	1,046.82	1,044.05	1,042.51	1,042.55	1,043.59	1,044.30	1,046.65	1,046.89	1,046.70	1,046.76	1,046.73	1,046.85
13	1,046.81	1,043.85	1,042.47	1,042.58	1,043.62	1,044.26	1,046.70	1,046.88	1,046.70	1,046.77	1,046.76	1,046.80
14	1,046.79	1,043.69	1,042.45	1,042.60	1,043.64	1,044.20	1,046.73	1,046.86	1,046.71	1,046.77	1,046.79	1,046.79
15	1,046.79	1,043.55	1,042.46	1,042.62	1,043.67	1,044.19	1,046.77	1,046.87	1,046.72	1,046.78	1,046.80	1,046.79
16	1,046.80	1,043.44	1,042.46	1,042.67	1,043.69	1,044.19	1,046.78	1,046.87	1,046.73	1,046.76	1,046.80	1,046.77
17	1,046.83	1,043.34	1,042.46	1,042.71	1,043.72	1,044.18	1,046.78	1,046.79	1,046.74	1,046.75	1,046.78	1,046.74
18	1,046.81	1,043.24	1,042.45	1,042.76	1,043.74	1,044.14	1,046.79	1,046.79	1,046.75	1,046.75	1,046.79	1,046.74
19	1,046.75	1,043.16	1,042.44	1,042.79	1,043.77	1,044.11	1,046.77	1,046.81	1,046.76	1,046.75	1,046.82	1,046.74
20	1,046.73	1,043.08	1,042.42	1,042.82	1,043.80	1,044.09	1,046.75	1,046.71	1,046.77	1,046.74	1,046.84	1,046.73
21	1,046.72	1,043.02	1,042.41	1,042.85	1,043.83	1,044.06	1,046.74	1,046.67	1,046.76	1,046.74	1,046.83	1,046.67
22	1,046.70	1,042.96	1,042.40	1,042.89	1,043.85	1,043.99	1,046.73	1,046.68	1,046.77	1,046.78	1,046.80	1,046.68
23	1,046.72	1,042.91	1,042.39	1,042.93	1,043.88	1,043.87	1,046.71	1,046.66	1,046.80	1,046.78	1,046.75	1,046.72
24	1,046.74	1,042.85	1,042.38	1,042.96	1,043.90	1,043.71	1,046.69	1,046.65	1,046.81	1,046.76	1,046.70	1,046.72
25	1,046.77	1,042.81	1,042.37	1,042.99	1,043.93	1,043.59	1,046.67	1,046.66	1,046.79	1,046.74	1,046.67	1,046.73
26	1,046.76	1,042.78	1,042.36	1,043.03	1,043.96	1,043.49	1,046.67	1,046.67	1,046.76	1,046.70	1,046.65	1,046.77
27	1,046.69	1,042.75	1,042.36	1,043.07	1,043.99	1,043.43	1,046.67	1,046.69	1,046.74	1,046.68	1,046.66	1,046.78
28	1,046.75	1,042.70	1,042.35	1,043.11	1,044.02	1,043.37	1,046.65	1,046.70	1,046.74	1,046.68	1,046.68	1,046.74
29	1,046.80	1,042.66	1,042.35	1,043.14	---	1,043.38	1,046.64	1,046.71	1,046.70	1,046.69	1,046.73	1,046.72
30	1,046.78	1,042.63	1,042.36	1,043.18	---	1,043.51	1,046.65	1,046.71	1,046.69	1,046.73	1,046.77	1,046.72
31	1,046.75	---	1,042.36	1,043.21	---	1,043.65	---	1,046.71	---	1,046.76	1,046.87	---
MEAN	1,046.77	1,043.95	1,042.46	1,042.71	1,043.64	1,043.99	1,046.16	1,046.75	1,046.73	1,046.73	1,046.76	1,046.83
MAX	1,046.83	1,046.67	1,042.61	1,043.21	1,044.02	1,044.30	1,046.79	1,046.91	1,046.81	1,046.78	1,046.87	1,047.04
MIN	1,046.69	1,042.63	1,042.35	1,042.37	1,043.25	1,043.37	1,043.84	1,046.65	1,046.68	1,046.68	1,046.65	1,046.67

CAL YR 2004 MEAN 1,044.97 MAX 1,047.02 MIN 1,042.13
WTR YR 2005 MEAN 1,045.30 MAX 1,047.04 MIN 1,042.35

12471400 LIND COULEE WASTEWAY AT STATE ROUTE 17, NEAR WARDEN, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 47°00'20", long. 119°08'57", in NW¼SW¼ sec. 35, T. 18 N., R. 29 E., Grant County, Hydrologic Unit 17020015, 0.8 mi downstream from state route 17 road crossing, and 5 mi northwest of Warden.

PERIOD OF RECORD.--November 1991 to March 2001, July 2002 to October 2004 (discontinued).

DRAINAGE AREA.--710 mi^2.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1994 to September 1995. July 1997 to June 1998, January 1999 to March 2001.

REMARKS.--Station was a Central Columbia Plateau National Water-Quality Assessment Program (NAWQA) surface-water quality trend site from April 1997 to March 2001.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 24.5°C (rounded), July 24, 1994; minimum recorded, 1.0°C (rounded), Jan. 10, 1995.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Station number	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT 06...	12471400	1410	219	12.8	8.2	340	24.5	16.2	120	30.6	11.8	3.18

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue water, fltrd, tons/d (70302)
OCT 06...	.8	21.2	26	130	157	.0	6.25	.4	25.9	27.0	213	.31	133

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	2,4,5-T surrog, water, fltrd, percent recovry (99958)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)
OCT 06...	225	.17	.020	2.16	.030	.052	2.3	9	6.7	80.5	<.016	E.04	M

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbofuran, wat flt 0.7u GF ug/L (49308)	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Acetochlor, water, fltrd, ug/L (49260)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Alachlor, water, fltrd, ug/L (46342)	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)
OCT 06...	<.006	E.004	<.08	<.032	<.008	<.02	<.006	<.028	<.005	<.02	<.022	<.04	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atrazine, water, fltrd, ug/L (39632)	Azinphos-methyl, water, fltrd 0.7u GF ug/L (82686)	Barban, surrog, Sched. 2060/9060, wat flt pct rcv (90640)	Bendiocarb, water, fltrd, ug/L (50299)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Bentazon, water, fltrd 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Butylate, water, fltrd, ug/L (04028)	Caffeine, water, fltrd, ug/L (50305)
OCT 06...	85.8	.012	<.050	70.7	<.02	<.010	<.022	<.02	E.01	<.02	<.03	<.004	<.018

12471400 LIND COULEE WASTEWAY AT STATE ROUTE 17, NEAR WARDEN, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Caffeine-13C, surrog, wat flt percent recovry (99959)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorambenmethyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiamino-s-triazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)
OCT 06...	E71.9	<.02	<.041	<.016	<.020	<.02	<.032	E.01	<.04	<.005	<.006	<.02	<.018

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)
OCT 06...	<.01	<.03	<.003	<.012	<.005	99.7	<.04	<.03	<.009	<.04	<.01	<.02	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)
OCT 06...	<.004	<.009	<.005	<.02	<.029	<.013	<.024	<.016	<.04	<.02	<.003	<.04	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Imidacloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
OCT 06...	<.020	<.004	<.01	<.035	<.027	<.03	<.01	<.01	<.010	<.020	<.015	.007	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Metsulfuron, water, fltrd, ug/L (61697)	Molinate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chlorophenyl)-N'-methylurea, ug/L (61692)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)
OCT 06...	<.03	<.003	<.04	<.007	<.01	<.04	<.02	<.01	<.03	<.003	<.010	<.004	<.022

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometruron, water, fltrd, ug/L (50337)
OCT 06...	<.011	<.03	<.01	<.004	<.025	<.011	<.02	<.030	<.01	<.008	<.02	<.005	<.038

12471400 LIND COULEE WASTEWAY AT STATE ROUTE 17, NEAR WARDEN, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbacil, water, fltrd, ug/L (04032)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Triclopyr, water, fltrd 0.7u GF ug/L (49235)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)
OCT								
06...	<.02	<.034	<.016	<.02	<.010	<.006	<.03	<.009

12472520 RED ROCK COULEE NEAR SMYRNA, WA

WATER-QUALITY RECORDS

LOCATION.--Lat. 46°51'20", long. 119°35'48", in SW¼SW¼ sec.20 T.16 N., R.26 E., Grant County, Hydrologic Unit 17020015, on downstream side of county road crossing at mile 0.8, 3 miles northeast of Smyrna.

DRAINAGE AREA.--19 mi^2.

PERIOD OF RECORD.--July 2002 to October 2004 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Station number	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)
OCT 06...	12472520	0930	114	745	9.5	101	8.2	418	16.5	17.1	170	11

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)
OCT 06...	38.4	18.5	2.75	.7	21.4	21	162	196	.0	9.46	.4	26.9	34.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	2,4,5-T surrog, water, fltrd, percent recovry (99958)
OCT 06...	258	.36	82.3	268	.21	.040	2.08	.005	.026	2.3	E5	1.6	83.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbofuran, wat flt 0.7u GF ug/L (49308)	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Acetochlor, water, fltrd, ug/L (49260)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Alachlor, water, fltrd, ug/L (46342)	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)
OCT 06...	<.016	.05	<.02	<.006	E.009	<.08	<.032	<.008	<.02	<.006	<.028	<.005	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Barban, surrog, Sched. 2060/ 9060, wat flt pct rcv (90640)	Bendiocarb, water, fltrd, ug/L (50299)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Bentazon, water, fltrd 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)
OCT 06...	<.022	<.04	<.005	86.7	.018	<.050	85.1	<.02	<.010	<.022	<.02	E.07	<.02

12472520 RED ROCK COULEE NEAR SMYRNA, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Butylate, water, fltrd, ug/L (04028)	Caffeine, water, fltrd, ug/L (50305)	Caffeine-13C, surrog, wat flt percent recovry (99959)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorambenmethyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiaminos-triazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)
OCT 06...	<.03	<.004	<.018	E73.8	<.02	<.041	<.016	<.020	<.02	<.032	E.01	<.04	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)
OCT 06...	<.006	<.02	<.018	<.01	<.03	E.003	<.012	<.005	101	<.04	<.03	<.009	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Diphenamid, water, fltrd, ug/L (04033)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulfinyl fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron water fltrd 0.7u GF ug/L (38811)
OCT 06...	<.01	<.02	<.01	E.003	<.009	<.005	<.02	<.029	<.013	<.024	<.016	<.04	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Fonofos water, fltrd, ug/L (04095)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)
OCT 06...	<.003	<.04	<.04	<.020	<.004	<.01	<.035	<.027	<.03	<.01	<.01	<.010	<.020

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Metsulfuron, water, fltrd, ug/L (61697)	Molinate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chlorophenyl)-N'-methylurea, ug/L (61692)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p'-DDE, water, fltrd, ug/L (34653)
OCT 06...	<.015	<.006	<.006	<.03	<.003	<.04	<.007	<.01	<.04	<.02	<.01	<.03	<.003

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)
OCT 06...	<.010	<.004	<.022	<.011	<.03	<.01	<.004	<.025	<.011	<.02	<.030	<.01	<.008

12472520 RED ROCK COULEE NEAR SMYRNA, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometruron, water, fltrd, ug/L (50337)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbacil, water, fltrd, ug/L (04032)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Triclopyr, water, fltrd 0.7u GF ug/L (49235)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)
OCT											
06...	<.02	.011	<.038	<.02	<.034	<.016	<.02	<.010	<.006	<.03	<.009

12472600 CRAB CREEK NEAR BEVERLY, WA

LOCATION.--Lat 46°49'48", long 119°49'48", in NW¼SW¼ sec.33, T.16 N., R.24 E., Grant County, Hydrologic Unit 17020015, on right bank 4.9 mi east of Beverly, and at mile 4.5.

DRAINAGE AREA.--4,842 mi^2, of which 665 mi^2 in the vicinity of Soap Lake is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1959 to current year.

REVISED RECORDS.--WSP 1933: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 500 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and those below 120 ft^3/s, which are poor. Records for May 5 to June 12 are missing due to vandalism and discharge could not be estimated. Many diversions upstream from station for irrigation. Flow largely regulated by Potholes Reservoir 41.3 mi upstream. A major portion of flow is return flows, including transbasin diversions, from parts of the Columbia Basin project. Chemical analyses water years 1959-72, 1975-76, 1978, 1980, 2002-2005. Daily water temperatures August 1959 to September 1962, July 1968 to August 1970.

AVERAGE DISCHARGE.--44 years (water years 1960-99, 2001-04), 201 ft^3/s, 145,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 936 ft^3/s, Mar. 3, 1980, gage height, 6.46 ft; minimum discharge, 10 ft^3/s, Jan. 10, 1963, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 347 ft^3/s, Oct. 22, gage height, 3.84 ft; minimum discharge recorded, 79 ft^3/s, June 26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	271	227	168	181	260	145	224	123	---	193	105	252
2	265	214	165	182	251	156	222	120	---	156	119	248
3	285	213	145	177	230	156	225	122	---	145	130	247
4	296	205	150	173	213	172	219	116	---	148	138	239
5	314	200	160	e150	204	172	228	---	---	159	152	254
6	315	187	155	e140	205	169	238	---	---	157	150	260
7	297	184	159	e140	199	162	226	---	---	152	151	263
8	295	189	163	e150	195	154	221	---	---	153	152	272
9	305	194	158	164	191	147	229	---	---	163	145	278
10	307	188	159	166	191	146	228	---	---	183	153	255
11	304	187	164	165	194	147	219	---	---	189	154	265
12	298	184	164	167	197	146	236	---	---	164	145	296
13	293	177	164	170	197	148	253	---	140	179	149	294
14	296	174	165	165	189	141	255	---	141	183	179	295
15	297	173	165	158	179	138	250	---	145	151	177	300
16	240	174	159	154	172	138	247	---	152	142	166	288
17	233	172	158	150	166	128	261	---	153	139	185	269
18	269	171	157	155	163	123	266	---	152	141	224	264
19	294	171	154	160	160	116	259	---	157	158	243	265
20	323	154	161	168	159	122	245	---	154	146	243	270
21	340	158	148	175	159	103	234	---	165	120	244	273
22	346	163	152	186	158	96	226	---	159	110	248	276
23	342	166	156	197	156	104	209	---	138	119	233	267
24	338	176	159	203	158	104	196	---	109	131	237	248
25	326	178	161	203	157	106	208	---	94	145	253	223
26	319	176	163	204	154	114	199	---	87	156	231	247
27	319	175	165	205	153	140	180	---	87	142	218	256
28	310	175	166	203	151	177	163	---	123	134	215	255
29	281	166	172	205	---	220	152	---	173	127	221	253
30	255	170	179	200	---	229	130	---	193	104	243	250
31	239	---	181	203	---	232	---	---	---	105	263	---
TOTAL	9,212	5,441	4,995	5,419	5,161	4,551	6,648	---	---	4,594	5,866	7,922
MEAN	297	181	161	175	184	147	222	---	---	148	189	264
MAX	346	227	181	205	260	232	266	---	---	193	263	300
MIN	233	154	145	140	151	96	130	---	---	104	105	223
AC-FT	18,270	10,790	9,910	10,750	10,240	9,030	13,190	---	---	9,110	11,640	15,710

e Estimated

12472600 CRAB CREEK NEAR BEVERLY, WA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-72, 1975-76, 1978, 1980, July 2002 to October 2004 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1959 to September 1962, July 1968 to August 1970, October 1995 to September 1996. Published as 12472500 "near Smyrna", 1959-62.

INSTRUMENTATION.--Temperature recorder from November 1994 to September 1996.

REMARKS.--Unpublished temperature data for portions of the 1994 and 1997 water year are available in the Spokane, WA, Field Office. Unpublished water-quality data for 1981 and 1993-96 are available at the USGS Washington Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum 31.0°C, July 27-28, 1968; minimum 0.0°C, Nov. 15-16, Dec. 31, 1959, several days in January, February and December 1960, several days in January and December 1961, several days in January 1962, several days in December 1968, several days in January and February 1969, several days in Jananuary and February 1995, and several days in January and February 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Station number	Time	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT												
05...	12472600	1310	315	10.6	8.3	543	24.8	15.0	190	39.6	22.0	7.24

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)
OCT													
05...	1	45.4	33	212	256	.0	13.8	.5	26.2	50.6	338	.47	295

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	2,4,5-T surrog, water, fltrd, percent recovry (99958)	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd 0.7u GF ug/L (38746)
OCT													
05...	346	.35	.020	1.54	.016	.044	1.9	9	3.2	84.5	<.016	E.02	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	3-Hydroxy carbofuran, wat flt 0.7u GF ug/L (49308)	3-Ketocarbofuran, water, fltrd, ug/L (50295)	Acetochlor, water, fltrd, ug/L (49260)	Acifluorfen, water, fltrd 0.7u GF ug/L (49315)	Alachlor, water, fltrd, ug/L (46342)	Aldicarb sulfone water, fltrd 0.7u GF ug/L (49313)	Aldicarb sulfoxide, wat flt 0.7u GF ug/L (49314)	Aldicarb, water, fltrd 0.7u GF ug/L (49312)	alpha-HCH, water, fltrd, ug/L (34253)
OCT													
05...	<.006	E.010	<.08	<.032	<.008	<.02	<.006	<.028	<.005	<.02	<.022	<.04	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Barban, surrog, Sched. 2060/ 9060, wat flt pct rcv (90640)	Bendiocarb, water, fltrd, ug/L (50299)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Benomyl water, fltrd, ug/L (50300)	Bensulfuron, water, fltrd, ug/L (61693)	Bentazon, water, fltrd 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd 0.7u GF ug/L (49311)	Butylate, water, fltrd, ug/L (04028)	Caffeine, water, fltrd, ug/L (50305)
OCT													
05...	84.3	.018	<.050	80.9	<.02	<.010	<.022	<.02	E.04	<.02	<.03	<.004	<.018

12472600 CRAB CREEK NEAR BEVERLY, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Caffeine-13C, surrog, wat flt percent recovry (99959)	Carbaryl, water, fltrd 0.7u GF ug/L (49310)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (49309)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorambenmethyl ester, water, fltrd, ug/L (61188)	Chlorimuron, water, fltrd, ug/L (50306)	Chlorodiamino-s-triazine, wat flt ug/L (04039)	Chlorothalonil, water, fltrd 0.7u GF ug/L (49306)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Clopyralid, water, fltrd 0.7u GF ug/L (49305)	Cyanazine, water, fltrd, ug/L (04041)
OCT 05...	80.7	<.02	<.041	<.016	<.020	<.02	<.032	E.01	<.04	<.005	<.006	<.02	<.018

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Cycloate, water, fltrd, ug/L (04031)	Dacthal monoacid, water, fltrd 0.7u GF ug/L (49304)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dicamba water fltrd 0.7u GF ug/L (38442)	Dichlorprop, water, fltrd 0.7u GF ug/L (49302)	Dieldrin, water, fltrd, ug/L (39381)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diphenamid, water, fltrd, ug/L (04033)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Diuron, water, fltrd 0.7u GF ug/L (49300)
OCT 05...	<.01	<.03	<.003	<.012	<.005	100	<.04	<.03	<.009	<.04	<.01	<.02	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenuron water, fltrd 0.7u GF ug/L (49297)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Flumetsulam, water, fltrd, ug/L (61694)	Fluometuron water fltrd 0.7u GF ug/L (38811)	Fonofos water, fltrd, ug/L (04095)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)
OCT 05...	<.004	<.009	<.005	<.02	<.029	<.013	<.024	<.016	<.04	<.02	<.003	<.04	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Imidacloprid water, fltrd, ug/L (61695)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (38478)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	MCPA, water, fltrd 0.7u GF ug/L (38482)	MCPB, water, fltrd 0.7u GF ug/L (38487)	Metalaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd 0.7u GF ug/L (38501)	Methomyl, water, fltrd 0.7u GF ug/L (49296)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
OCT 05...	<.020	<.004	<.01	<.035	<.027	<.03	<.01	<.01	<.010	<.020	<.015	<.006	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Metsulfuron, water, fltrd, ug/L (61697)	Molinate, water, fltrd 0.7u GF ug/L (82671)	N-(4-Chlorophenyl)-N'-methylurea, ug/L (61692)	Napropamide, water, fltrd 0.7u GF ug/L (82684)	Neburon water, fltrd 0.7u GF ug/L (49294)	Nicosulfuron, water, fltrd, ug/L (50364)	Norflurazon, water, fltrd 0.7u GF ug/L (49293)	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)
OCT 05...	<.03	<.003	<.04	<.007	<.01	<.04	<.02	<.01	<.03	<.003	<.010	<.004	<.022

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phorate water fltrd 0.7u GF ug/L (82664)	Picloram, water, fltrd 0.7u GF ug/L (49291)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Propham water fltrd 0.7u GF ug/L (49236)	Propiconazole, water, fltrd, ug/L (50471)	Propoxur, water, fltrd 0.7u GF ug/L (38538)	Siduron water, fltrd, ug/L (38548)	Simazine, water, fltrd, ug/L (04035)	Sulfometruron, water, fltrd, ug/L (50337)
OCT 05...	<.011	<.03	<.01	<.004	<.025	<.011	<.02	<.030	<.01	<.008	<.02	<.010	<.038

12472600 CRAB CREEK NEAR BEVERLY, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tebuthiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbacil, water, fltrd, ug/L (04032)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Triclopyr, water, fltrd 0.7u GF ug/L (49235)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)
OCT								
05...	<.02	<.034	<.016	<.02	<.010	<.006	<.03	<.009

12472800 COLUMBIA RIVER BELOW PRIEST RAPIDS DAM, WA

LOCATION.--Lat 46°37'44", long 119°51'49", in SE¼NW¼ sec.7, T.13 N., R.24 E., Grant County, Hydrologic Unit 17020016, on left bank 2.6 mi downstream from Priest Rapids Dam, 14.7 mi south of Beverly, and at mile 394.5.

DRAINAGE AREA.--96,000 mi^2, approximately.

PERIOD OF RECORD.--January 1917 to current year. January 1917 to September 1930, at site 3.4 mi downstream, published as "at Vernita." October 1930 to July 27, 1959, at site 46.5 mi upstream, published as "at Trinidad."

REVISED RECORDS.--WSP 1933: Drainage area. WDR WA-82-2: 1965(m), 1971(m).

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Oct. 1, 1930, nonrecording gages at site 3.4 mi downstream at datum 388.7 ft above sea level. Oct. 1, 1930, to July 27, 1959, water-stage recorder at site 46.5 mi upstream at datum 499.3 ft above NGVD of 1929 (river-profile survey).

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 600,000 acres upstream from station. Flow regulated by 10 major reservoirs and numerous smaller reservoirs and powerplants. U.S. Geological Survey satellite telemeter at station. Water temperatures March 1980 to April 1993. Temperature records for site "at Vernita Bridge, near Priest Rapids Dam" (station 12472900) for period July 1974 to September 1980 are equivalent.

AVERAGE DISCHARGE.--88 years (water years 1918-2005), 118,800 ft^3/s, 86,060,000 acre-ft/yr, unadjusted. 46 years (water years 1960-2005), 118,500 ft^3/s, 85,830,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 692,600 ft^3/s, June 12, 1948, gage height, 59.35 ft, site and datum then in use; minimum discharge, 4,120 ft^3/s, Feb. 10, 1932, due to construction at Rock Island Dam, site and datum then in use; minimum daily discharge prior to construction of Rock Island Dam (1932), 22,000 ft^3/s, Feb. 1-7, 1930, site and datum then in use; minimum daily discharge after completion of Rock Island Dam (1932), 20,000 ft^3/s, Jan. 31 to Feb. 10, 1937, site and datum then in use; minimum discharge since completion of Priest Rapids Dam (1959), 16,300 ft^3/s, Nov. 7. 1998, due to emergency flow reduction from Priest Rapids Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 7, 1894, reached a discharge of about 740,000 ft^3/s, based on a rating extension for a Weather Bureau gage at Wenatchee.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 224,000 ft^3/s, May 27, July 22, gage height, 413.03 ft; minimum discharge, 37,800 ft^3/s, Oct. 10, gage height, 396.63 ft; minimum daily discharge, 42,700 ft^3/s, Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89,400	83,800	126,000	90,900	109,000	99,100	103,000	105,000	149,000	161,000	133,000	104,000
2	83,800	90,800	112,000	89,300	98,500	113,000	77,800	109,000	118,000	134,000	75,700	73,900
3	63,400	85,800	121,000	122,000	120,000	134,000	74,900	124,000	119,000	129,000	95,500	42,700
4	84,200	97,600	121,000	135,000	129,000	116,000	97,600	133,000	114,000	116,000	126,000	48,700
5	81,900	99,600	105,000	138,000	112,000	99,100	129,000	122,000	109,000	112,000	124,000	53,300
6	97,700	99,300	109,000	139,000	101,000	83,100	102,000	118,000	98,400	91,200	101,000	76,100
7	117,000	69,200	143,000	135,000	120,000	80,200	72,200	115,000	104,000	150,000	120,000	87,800
8	90,800	83,400	118,000	114,000	122,000	88,400	69,300	111,000	134,000	173,000	113,000	93,100
9	73,900	93,700	106,000	108,000	152,000	120,000	68,400	136,000	146,000	119,000	113,000	64,200
10	61,200	82,300	91,800	121,000	119,000	104,000	67,800	149,000	137,000	129,000	124,000	58,200
11	74,200	92,000	80,800	119,000	127,000	93,200	69,100	147,000	116,000	140,000	115,000	47,100
12	80,600	99,900	99,600	125,000	115,000	96,200	67,600	135,000	112,000	156,000	98,100	59,900
13	74,800	107,000	114,000	133,000	88,500	79,100	92,600	146,000	125,000	151,000	98,400	64,300
14	95,300	102,000	103,000	123,000	119,000	80,200	94,000	144,000	106,000	157,000	72,100	65,200
15	86,500	91,100	111,000	107,000	130,000	98,900	85,000	125,000	130,000	159,000	100,000	69,600
16	58,000	99,700	156,000	133,000	130,000	120,000	67,700	128,000	147,000	152,000	123,000	75,400
17	66,700	93,700	149,000	107,000	146,000	121,000	67,300	121,000	146,000	127,000	122,000	76,500
18	78,100	88,900	140,000	99,900	122,000	99,600	69,000	131,000	110,000	144,000	123,000	44,500
19	94,600	102,000	117,000	99,300	100,000	89,000	70,000	137,000	68,900	132,000	114,000	64,000
20	106,000	120,000	131,000	93,000	71,500	103,000	82,400	129,000	141,000	140,000	111,000	82,800
21	113,000	91,400	143,000	93,600	87,300	98,200	109,000	119,000	160,000	142,000	90,200	84,600
22	99,100	106,000	148,000	86,000	106,000	106,000	101,000	120,000	165,000	122,000	110,000	82,000
23	83,300	102,000	142,000	79,300	102,000	112,000	83,200	112,000	161,000	115,000	113,000	79,600
24	62,500	93,200	116,000	84,900	100,000	113,000	78,300	113,000	164,000	104,000	105,000	52,000
25	85,300	74,000	116,000	113,000	97,300	101,000	96,700	137,000	151,000	148,000	91,800	55,300
26	104,000	71,700	88,000	116,000	88,500	78,600	117,000	156,000	149,000	114,000	108,000	78,800
27	97,600	68,200	102,000	98,100	79,900	70,400	123,000	183,000	143,000	153,000	118,000	65,300
28	87,200	82,700	119,000	110,000	82,300	69,800	117,000	131,000	132,000	136,000	84,800	79,100
29	77,500	124,000	129,000	95,600	---	70,000	96,900	95,700	164,000	160,000	106,000	80,900
30	78,100	123,000	121,000	87,700	---	81,100	108,000	96,200	161,000	133,000	91,700	88,600
31	81,500	---	109,000	94,900	---	109,000	---	139,000	---	143,000	98,000	---
TOTAL	2,627,200	2,818,000	3,687,200	3,390,500	3,074,800	3,026,200	2,656,800	3,966,900	3,980,300	4,242,200	3,318,300	2,097,500
MEAN	84,750	93,930	118,900	109,400	109,800	97,620	88,560	128,000	132,700	136,800	107,000	69,920
MAX	117,000	124,000	156,000	139,000	152,000	134,000	129,000	183,000	165,000	173,000	133,000	104,000
MIN	58,000	68,200	80,800	79,300	71,500	69,800	67,300	95,700	68,900	91,200	72,100	42,700
AC-FT	5,211,000	5,590,000	7,314,000	6,725,000	6,099,000	6,002,000	5,270,000	7,868,000	7,895,000	8,414,000	6,582,000	4,160,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2005, BY WATER YEAR (WY)

MEAN	72,410	74,010	78,500	80,890	81,850	82,560	104,100	190,100	262,500	195,100	119,700	81,960
MAX	119,800	121,200	163,800	168,400	195,000	201,800	196,500	348,500	590,700	385,400	192,000	131,700
(WY)	(1928)	(1991)	(1996)	(1996)	(1996)	(1983)	(1934)	(1934)	(1948)	(1950)	(1920)	(1927)
MIN	45,950	32,290	26,840	21,710	20,900	26,500	37,160	61,840	78,810	56,650	66,740	60,050
(WY)	(1932)	(1937)	(1937)	(1937)	(1937)	(1937)	(1944)	(2001)	(1977)	(2001)	(1985)	(1994)

12472800 COLUMBIA RIVER BELOW PRIEST RAPIDS DAM, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1918 - 2005	
ANNUAL TOTAL	36,585,000		38,885,900			
ANNUAL MEAN	99,960		106,500		118,800	
HIGHEST ANNUAL MEAN					165,600	1997
LOWEST ANNUAL MEAN					78,070	1944
HIGHEST DAILY MEAN	171,000	Jun 29	183,000	May 27	690,000	Jun 12, 1948
LOWEST DAILY MEAN	48,800	Aug 7	42,700	Sep 3	20,000	Jan 31, 1937
ANNUAL SEVEN-DAY MINIMUM	62,600	Sep 14	61,200	Sep 9	20,100	Jan 30, 1937
ANNUAL RUNOFF (AC-FT)	72,570,000		77,130,000		86,060,000	
10 PERCENT EXCEEDS	136,000		143,000		227,000	
50 PERCENT EXCEEDS	97,000		106,000		94,100	
90 PERCENT EXCEEDS	71,300		71,600		47,000	

12472900 COLUMBIA RIVER AT VERNITA BRIDGE, NEAR PRIEST RAPIDS DAM, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 46°38'34", long 119°43'54", in NW¼SE¼ sec.6, T.13 N., R.25 E., Grant County, Hydrologic Unit 17020016, at State Highway 24 Vernita Bridge crossing, 9.0 mi downstream from Priest Rapids Dam, and at mile 388.1.

DRAINAGE AREA.--96,000 mi^2, approximately.

PERIOD OF RECORD.--Water years 1962-63, 1972, 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1974 to September 1980.

REMARKS.--October 1971 to September 1972, at site 6.4 mi upstream, published as 12472800 "below Priest Rapids Dam." Prior to October 1971 published as 12472800 "at Vernita Ferry." Discharge determined by routing flows from the gaging station below Priest Rapids Dam (station 12472800) 6.4 mi upstream. National Stream Quality Accounting Network (NASQAN) 1975-2000.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)
NOV													
17...	1120	54,200	<2.0	764	9.9	93	8.1	128	4.2	12.4	63	6	17.9
MAR													
07...	1020	72,100	<2.0	757	13.2	102	7.9	138	11.0	4.4	69	10	20.0
JUN													
13...	1000	119,000	<2.0	753	12.5	123	8.0	126	16.1	14.0	57	6	16.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
NOV													
17...	4.33	56	68	.0	.93	E.1	8.5	78	<10	.11	<.04	.10	<.008
MAR													
07...	4.63	59	72	.0	1.11	E.1	10.3	83	<10	E.08	<.04	.15	<.008
JUN													
13...	3.92	51	61	.0	.93	E.1	7.8	85	<10	.10	<.04	.07	<.008

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, fltrd, mg/L (00681)	Chromium, water, fltrd, ug/L (01030)	Iron, water, fltrd, ug/L (01046)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV								
17...	<.02	<.04	.21	1.0	5.3	E3	1	146
MAR								
07...	<.02	<.04	--	1.1	<.8	15	2	389
JUN								
13...	<.02	<.04	.17	1.7	<.8	7	2	643

12473520 COLUMBIA RIVER AT RICHLAND, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 46°18'46", long 119°15'28", in NW¼NW¼, sec.36, T.10 N., R.28 E., Benton County, Hydrologic Unit 17020016, at city of Richland pumping plant, 4.8 mi upstream from Yakima River, and at mile 340.2.

DRAINAGE AREA.--96,900 mi^2, approximately.

PERIOD OF RECORD.--October 1978 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1974 to March 1993.

REMARKS.--Water temperatures as recorded for the period July 1974 to January 1977 did not represent mean stream temperatures (see previous state reports for correlation between thermal load measurements and recorded temperatures). Temperature probe, relocated January 1977, represents both horizontal and vertical cross section of the river. Unpublished records of stage at site 2.3 mi downstream are available in files of the U.S. Geological Survey and U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 22.0°C, July 21, Aug. 4, 5, 1985; minimum, 0.0°C, Feb. 3, 6-9, 1989.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Baro-metric pres-sure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Noncarb hard-ness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
NOV													
18...	1020	<2.0	760	10.0	92	8.0	128	9.2	11.8	63	7	18.3	4.32
MAR													
08...	1010	<2.0	761	13.6	105	7.7	137	15.6	4.7	69	10	19.9	4.73
JUN													
14...	0840	<2.0	751	11.0	109	7.7	126	16.7	14.2	57	7	16.4	4.00

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar-bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon-ate, wat flt incrm. titr., field, mg/L (00452)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)
NOV													
18...	56	69	.0	.98	E.1	9.2	77	<10	E.09	<.04	.12	<.008	<.02
MAR													
08...	59	72	.0	1.07	E.1	10.2	81	<10	E.08	<.04	.11	<.008	<.02
JUN													
14...	50	61	.0	.93	E.1	7.6	82	<10	.12	<.04	.07	<.008	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)	Organic carbon, water, fltrd, mg/L (00681)	Chrom-ium, water, fltrd, ug/L (01030)	Iron, water, fltrd, ug/L (01046)	Sus-pended sedi-ment concen-tration mg/L (80154)
NOV						
18...	E.02	--	1.1	<.8	<6	2
MAR						
08...	<.04	--	1.1	<.8	E3	2
JUN						
14...	<.04	.19	1.7	1.1	E5	4