



Figure 33. Location of surface-water stations in the Crab Creek and Esquatzel Coulee Basins and on the Columbia River from Priest Rapids Dam to Kennewick.

12464770 CRAB CREEK AT ROCKY FORD ROAD, NEAR RITZVILLE, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1993 - 2004	
ANNUAL TOTAL	9,925.9		8,928.8			
ANNUAL MEAN	27.2		24.4		47.6	
HIGHEST ANNUAL MEAN					88.2	1999
LOWEST ANNUAL MEAN					13.7	1994
HIGHEST DAILY MEAN	67	Apr 17	238	Feb 18	2,160	Jan 19, 1998
LOWEST DAILY MEAN	8.9	Aug 28	7.0	Sep 28	3.4	Sep 25, 1994
ANNUAL SEVEN-DAY MINIMUM	9.3	Aug 25	7.4	Sep 24	3.4	Sep 24, 1994
ANNUAL RUNOFF (AC-FT)	19,690		17,710		34,520	
ANNUAL RUNOFF (CFSM)	0.071		0.064		0.124	
ANNUAL RUNOFF (INCHES)	0.96		0.86		1.69	
10 PERCENT EXCEEDS	54		51		103	
50 PERCENT EXCEEDS	18		19		23	
90 PERCENT EXCEEDS	10		10		10	

e Estimated

12464770 CRAB CREEK AT ROCKY FORD ROAD, NEAR RITZVILLE, WA—Continued
(National Water-Quality Assessment station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1992 to September 1995, June 1997 to September 2004 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1993 to September 1994, February 2002 to September 2004 (discontinued).

WATER TEMPERATURE: October 1993 to September 1995, July 1997 to September 2004 (discontinued).

INSTRUMENTATION.-- Water-quality monitor.

REMARKS.--Temperature records excellent, except Feb. 23 to Mar. 2, June 30 to July 8, and July 27 to Aug. 8, which are good. Specific conductance records excellent, except June 17 to July 6, Sept. 18-30, which are good, and Oct. 1-6, Dec. 19, Aug. 21 to Sept. 7, and Sept. 10-17, which are fair. In June 1997, station became a Central Columbia Plateau National Water-Quality Assessment Program (NAWQA) surface-water quality trend site. Prior to 2001, published as Crab Creek at Marcellus Road, near Ritzville.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 398 microsiemens, June 21, 2004, but may have been higher during periods of missing record; minimum recorded, 118 microsiemens, Feb. 18, 2004.

WATER TEMPERATURE: Maximum recorded, 20.5°C (rounded), July 24, 25, 1994, May 24, 1999; minimum, 0.0 (rounded), Jan. 9, 10, 1995.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum observed, 398 microsiemens, June 21, but may have been higher during periods of missing record; minimum recorded, 118 microsiemens, Feb. 18.

WATER TEMPERATURE: Maximum observed, 18.8°C, June 25; minimum recorded, 1.3°C, Feb. 18.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	382	---	---	382	375	379	383	379	380	374	364	371
2	381	---	---	382	375	379	384	381	382	375	364	368
3	381	---	---	382	376	380	385	381	383	376	372	374
4	380	---	---	382	376	379	383	379	381	376	372	374
5	383	---	---	381	376	379	382	379	380	374	371	372
6	381	---	---	382	376	379	383	380	382	373	365	370
7	375	365	371	383	376	380	383	380	381	370	364	368
8	380	370	376	383	376	381	382	381	382	375	365	371
9	381	373	378	383	377	381	382	378	381	376	371	374
10	379	371	376	384	379	382	382	378	380	377	372	375
11	381	367	377	384	378	382	382	378	381	378	373	376
12	382	375	379	383	378	381	382	378	380	378	373	376
13	382	374	379	383	378	381	381	375	378	378	372	376
14	382	376	380	383	377	380	381	376	377	379	372	377
15	382	377	380	384	381	382	381	378	380	---	---	---
16	383	380	382	385	382	384	381	379	380	---	---	---
17	384	377	381	385	381	384	381	378	380	---	---	---
18	383	377	381	386	381	384	380	377	379	---	---	---
19	383	376	381	386	383	384	379	---	---	---	---	---
20	384	378	380	384	373	377	379	376	378	---	---	---
21	385	378	382	379	376	378	379	376	378	---	---	---
22	383	375	380	381	376	378	379	375	377	---	---	---
23	381	372	377	382	377	380	379	375	377	---	---	---
24	381	372	377	382	379	381	379	375	378	---	---	---
25	381	376	379	382	378	381	378	374	377	380	374	378
26	382	376	379	383	380	382	378	375	377	380	374	378
27	382	375	380	383	378	381	378	374	376	380	374	378
28	384	378	381	384	381	383	377	372	375	381	374	378
29	384	372	380	384	380	382	377	373	376	380	369	378
30	382	376	380	384	380	382	377	369	372	369	238	276
31	381	377	379	---	---	---	374	367	371	358	272	333
MONTH	385	---	---	386	373	381	385	---	---	---	---	---

12464770 CRAB CREEK AT ROCKY FORD ROAD, NEAR RITZVILLE, WA—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	373	358	363	378	373	375	---	---	---	339	321	331
2	378	373	374	378	376	377	---	---	---	340	320	331
3	380	376	378	378	373	376	---	---	---	340	320	331
4	379	374	377	378	373	376	---	---	---	341	321	332
5	379	377	378	377	374	375	---	---	---	338	317	329
6	380	375	377	376	373	375	---	---	---	339	317	329
7	380	377	378	377	372	375	---	---	---	339	316	329
8	380	374	377	378	372	375	382	363	374	348	327	338
9	378	373	375	378	373	376	379	357	370	369	342	353
10	375	369	372	378	372	376	374	352	365	380	346	368
11	374	370	372	378	372	376	371	350	362	382	367	375
12	373	367	370	---	---	---	368	346	358	383	359	373
13	374	368	371	---	---	---	365	343	355	383	359	373
14	374	368	371	---	---	---	360	339	351	---	---	---
15	373	366	370	---	---	---	359	340	351	---	---	---
16	373	365	369	---	---	---	356	337	347	---	---	---
17	378	133	326	---	---	---	354	335	345	---	---	---
18	215	118	158	---	---	---	349	333	342	---	---	---
19	324	206	279	---	---	---	348	328	340	---	---	---
20	356	324	345	---	---	---	347	326	337	---	---	---
21	363	355	360	---	---	---	345	324	336	---	---	---
22	371	355	365	---	---	---	341	319	332	---	---	---
23	377	362	370	---	---	---	341	321	332	---	---	---
24	377	362	371	---	---	---	338	317	329	---	---	---
25	375	369	373	---	---	---	338	318	329	---	---	---
26	378	372	374	---	---	---	338	316	328	---	---	---
27	378	371	375	---	---	---	335	313	325	---	---	---
28	374	370	372	---	---	---	336	322	328	---	---	---
29	375	371	373	---	---	---	340	321	332	---	---	---
30	---	---	---	---	---	---	340	322	332	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	380	118	359	---	---	---	---	---	---	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	388	376	382	383	363	377	382	---	---
2	---	---	---	385	368	377	384	369	378	381	---	---
3	384	357	371	383	370	377	385	370	379	376	---	---
4	384	358	372	381	370	376	383	369	377	378	---	---
5	386	369	378	380	369	375	384	371	379	373	---	---
6	386	364	376	378	356	371	383	373	379	382	---	---
7	386	366	376	377	363	371	382	370	377	384	---	---
8	388	373	382	379	363	373	384	369	378	382	360	376
9	387	379	384	380	365	374	385	369	378	386	365	380
10	390	378	385	381	367	375	385	369	379	386	---	---
11	390	373	382	381	367	376	385	368	378	389	---	---
12	390	372	382	382	368	376	386	368	378	391	---	---
13	390	373	383	383	368	377	385	368	378	387	---	---
14	391	375	384	384	368	377	385	368	378	388	---	---
15	392	375	385	384	363	377	386	369	379	391	---	---
16	393	373	384	384	368	377	385	363	377	389	---	---
17	392	375	384	384	369	377	386	369	378	391	---	---
18	393	377	386	384	373	380	385	367	377	392	381	386
19	396	377	388	384	370	378	385	367	377	386	373	382
20	397	377	389	384	369	378	385	367	377	387	378	383
21	398	380	390	384	370	378	385	---	---	387	366	379
22	397	379	390	383	369	378	386	---	---	385	369	380
23	397	379	389	384	369	378	384	---	---	384	369	379
24	396	377	388	385	369	378	384	---	---	382	374	377
25	395	377	387	384	370	378	383	---	---	383	375	379
26	393	376	386	384	369	378	384	---	---	383	374	379
27	392	375	385	383	367	376	385	---	---	389	379	383
28	390	373	383	382	368	377	383	---	---	390	381	386
29	389	372	382	383	369	377	384	---	---	390	382	386
30	389	372	381	383	370	378	385	---	---	387	378	383
31	---	---	---	383	363	376	383	---	---	---	---	---
MONTH	---	---	---	388	356	377	386	---	---	392	---	---

12464770 CRAB CREEK AT ROCKY FORD ROAD, NEAR RITZVILLE, WA—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.6	10.2	11.9	7.3	5.5	6.4	7.8	6.7	7.4	6.9	4.5	5.8
2	13.3	9.4	11.4	7.6	6.5	7.0	8.8	7.7	8.3	7.3	5.1	6.3
3	13.5	9.6	11.6	8.1	6.1	7.0	8.9	6.8	8.2	7.0	5.6	6.5
4	13.4	9.3	11.4	7.7	5.5	6.5	7.5	5.9	6.6	5.6	2.6	4.5
5	13.3	10.0	11.6	6.9	3.9	5.4	8.7	7.5	8.3	3.2	2.0	2.5
6	13.5	10.0	11.8	7.0	4.0	5.6	8.8	7.4	8.3	3.5	2.1	2.6
7	12.7	11.0	11.9	7.7	5.0	6.5	8.0	6.6	7.4	5.4	3.5	4.6
8	12.4	9.6	11.0	8.9	7.2	7.8	8.3	7.4	7.9	7.4	5.2	6.5
9	11.9	8.8	10.3	8.8	6.8	7.9	7.8	6.7	7.1	8.8	7.4	8.1
10	11.3	7.8	9.6	8.6	7.6	8.2	7.3	6.3	6.8	9.1	7.6	8.2
11	10.6	8.8	9.8	9.5	7.7	8.4	8.1	7.3	7.7	8.5	7.3	7.8
12	10.9	9.1	9.9	8.6	6.2	7.4	8.3	7.4	7.9	8.7	7.5	7.9
13	12.0	9.1	10.4	8.5	6.3	7.2	8.3	7.5	7.9	8.8	7.4	7.9
14	11.7	9.5	10.5	8.0	5.6	6.9	8.1	7.0	7.6	9.3	7.6	8.4
15	10.2	8.8	9.5	8.6	7.4	8.1	7.8	6.5	7.3	8.6	8.0	8.3
16	10.5	9.5	9.9	8.6	7.7	8.2	8.0	7.3	7.7	8.9	8.2	8.5
17	13.5	10.2	11.5	8.4	7.1	7.9	8.2	6.9	7.4	9.1	8.1	8.5
18	12.6	9.2	10.9	10.2	8.4	9.3	7.4	6.4	6.8	8.4	7.8	8.2
19	12.8	10.0	11.3	9.6	7.2	8.7	7.5	6.2	6.8	9.3	8.3	8.8
20	12.5	11.2	11.7	7.8	6.5	7.0	8.1	7.1	7.6	9.8	8.8	9.2
21	14.4	11.5	12.8	7.1	4.6	6.1	8.6	8.0	8.3	9.4	8.6	8.9
22	13.4	10.7	12.1	5.7	3.2	4.6	8.8	7.4	8.2	9.1	8.5	8.7
23	12.1	9.7	10.8	7.6	5.6	6.7	8.0	6.9	7.5	8.8	7.6	8.4
24	10.5	7.8	9.2	7.9	5.9	7.1	9.2	8.0	8.5	9.3	7.7	8.5
25	10.3	7.2	8.8	7.7	5.9	6.7	8.4	7.5	8.0	8.4	6.9	7.7
26	10.6	7.8	9.2	7.8	6.0	6.7	8.3	7.5	8.0	8.9	7.6	8.0
27	11.4	8.9	10.0	7.7	5.5	6.7	7.8	7.1	7.5	9.7	7.6	8.6
28	12.2	9.5	10.6	8.4	7.4	8.0	8.3	6.7	7.5	9.2	8.5	8.9
29	10.0	7.4	8.7	10.0	8.3	9.0	6.7	5.1	6.1	10.3	8.9	9.5
30	7.7	5.4	6.6	8.3	6.7	7.4	6.1	4.5	5.4	9.2	4.8	5.9
31	7.0	4.5	5.6	---	---	---	7.2	5.9	6.6	7.5	4.7	6.2
MONTH	14.4	4.5	10.4	10.2	3.2	7.2	9.2	4.5	7.5	10.3	2.0	7.4
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.8	6.7	7.7	9.9	6.1	7.8	---	---	---	15.7	9.5	12.8
2	7.5	6.1	6.8	9.2	6.4	7.6	---	---	---	16.0	10.3	13.2
3	8.2	6.7	7.5	6.8	5.6	6.2	---	---	---	15.7	9.9	13.0
4	8.6	7.2	8.0	8.3	5.9	6.9	---	---	---	15.3	9.9	12.7
5	8.0	6.6	7.2	7.2	5.4	6.1	---	---	---	13.2	9.8	11.6
6	7.8	6.6	7.2	8.3	4.4	6.3	---	---	---	13.6	8.7	11.3
7	8.5	7.4	7.9	9.6	6.4	8.0	14.0	---	---	14.7	9.2	12.3
8	9.2	7.4	8.1	12.1	7.2	9.5	13.5	9.0	11.3	15.1	10.4	12.6
9	9.1	6.9	8.0	11.0	7.8	9.3	13.8	8.5	11.1	14.8	9.0	12.1
10	8.8	6.5	7.6	11.1	6.8	8.8	14.0	8.2	11.1	12.4	9.2	10.7
11	8.6	6.1	7.3	10.8	6.6	8.6	14.4	8.4	11.4	12.1	9.8	10.9
12	8.4	6.0	7.1	---	7.1	---	14.3	8.6	11.6	13.8	9.6	11.8
13	7.8	5.7	6.9	---	---	---	13.4	9.4	11.6	13.5	8.8	11.4
14	8.1	6.7	7.4	---	---	---	13.1	9.4	11.2	15.4	9.5	12.5
15	8.8	7.4	7.9	---	---	---	11.0	9.1	9.9	13.1	9.6	11.5
16	8.1	6.7	7.5	---	---	---	12.5	8.1	10.3	12.2	10.4	11.4
17	8.0	1.9	6.9	---	---	---	11.5	8.4	10.0	14.8	10.7	12.5
18	4.8	1.3	2.9	---	---	---	11.0	7.5	9.3	15.3	10.6	13.0
19	6.1	3.3	4.8	---	---	---	12.8	7.2	10.0	15.8	11.3	13.7
20	7.9	5.0	6.3	---	---	---	13.2	8.8	10.9	14.5	11.5	13.3
21	8.1	5.2	6.5	---	---	---	12.3	8.3	10.2	14.7	10.9	12.8
22	8.7	5.1	6.8	---	---	---	14.5	8.0	11.1	13.1	11.0	11.9
23	9.4	5.9	7.6	---	---	---	12.1	8.8	10.4	12.9	10.1	11.5
24	8.4	6.7	7.6	---	---	---	13.7	7.6	10.6	13.4	9.2	11.5
25	7.7	6.0	7.0	---	---	---	14.7	8.1	11.4	14.4	9.4	12.3
26	9.0	6.5	7.7	---	---	---	15.8	9.0	12.5	14.3	10.9	12.6
27	9.6	6.7	8.0	---	---	---	13.4	9.8	11.5	14.1	10.9	12.6
28	8.6	6.3	7.5	---	---	---	13.4	8.4	11.0	13.9	10.8	12.4
29	9.3	6.8	7.9	---	---	---	14.8	8.2	11.6	14.8	9.9	12.4
30	---	---	---	---	---	---	15.5	8.8	12.3	14.8	10.7	12.7
31	---	---	---	---	---	---	---	---	---	14.6	10.3	12.5
MONTH	9.6	1.3	7.2	---	---	---	---	---	---	16.0	8.7	12.2

12464770 CRAB CREEK AT ROCKY FORD ROAD, NEAR RITZVILLE, WA—Continued

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.4	10.1	12.8	18.4	13.1	15.6	17.5	12.8	15.3	14.5	12.3	13.3
2	16.2	10.7	13.5	18.0	13.0	15.4	17.0	12.9	15.2	13.8	10.5	12.1
3	16.5	11.6	14.1	18.0	13.4	15.5	16.0	13.3	14.6	13.6	10.1	12.0
4	17.5	12.0	14.8	17.0	12.5	14.8	16.7	12.2	14.5	14.6	10.4	12.6
5	15.4	12.4	13.5	17.8	12.5	15.1	15.8	13.3	14.5	14.2	10.5	12.5
6	15.0	10.8	12.9	16.0	12.8	14.4	14.4	12.3	13.3	14.0	9.9	12.2
7	15.1	10.6	12.8	16.0	12.2	14.0	15.8	11.6	13.7	14.8	10.4	12.6
8	13.2	11.2	12.0	16.4	11.1	13.7	16.3	11.6	14.1	14.8	10.1	12.6
9	11.5	10.2	10.9	16.9	11.3	14.1	16.9	12.3	14.7	13.6	11.2	12.5
10	12.6	11.0	11.7	16.6	11.9	14.3	17.0	12.4	14.9	14.1	9.7	12.0
11	13.1	10.4	11.7	16.9	11.7	14.3	17.1	12.7	15.1	14.3	11.8	13.1
12	14.8	10.3	12.6	17.4	11.4	14.4	17.1	12.6	15.0	13.0	11.2	12.2
13	15.4	11.8	13.6	18.1	12.8	15.3	17.1	12.5	15.0	11.8	9.5	10.7
14	15.3	10.9	13.0	18.4	13.1	15.8	16.9	12.6	15.0	14.0	10.2	12.0
15	16.0	10.4	13.1	18.2	13.0	15.6	16.8	13.8	15.4	13.0	11.0	12.0
16	16.6	11.0	13.8	18.1	12.8	15.5	16.9	13.0	15.1	12.6	10.4	11.6
17	17.0	11.8	14.3	17.4	12.9	15.2	16.0	13.3	14.7	12.6	10.6	11.6
18	16.7	11.9	14.2	15.8	13.6	14.7	16.9	12.8	14.9	12.6	10.4	11.4
19	16.1	12.0	14.1	16.9	12.9	14.9	16.9	13.3	15.2	12.0	9.0	10.6
20	17.3	11.8	14.5	17.4	13.0	15.2	16.5	12.8	14.9	12.4	9.0	10.9
21	17.8	12.7	15.2	16.9	12.2	14.8	15.9	12.8	14.6	13.0	8.7	10.9
22	17.8	13.0	15.4	17.6	12.5	15.1	15.0	13.2	13.9	12.4	9.6	11.1
23	18.2	13.1	15.6	18.1	13.2	15.7	15.3	12.0	13.7	14.4	10.9	12.4
24	18.5	13.5	15.9	18.3	13.5	16.0	14.1	12.2	13.2	14.2	9.6	12.0
25	18.8	13.5	16.0	17.9	13.3	15.8	14.7	12.0	13.3	14.3	9.8	12.1
26	16.7	13.9	15.3	17.0	12.9	15.1	15.6	11.8	13.7	14.4	9.6	12.1
27	18.0	13.2	15.4	16.6	12.7	14.8	15.4	11.5	13.6	14.8	10.5	12.6
28	17.7	13.0	15.1	17.1	12.2	14.8	15.4	11.2	13.4	14.5	10.1	12.3
29	18.1	13.4	15.7	17.2	12.7	15.1	15.9	11.5	13.8	14.0	10.1	12.1
30	17.3	14.1	15.4	15.9	13.1	14.6	15.8	11.6	13.8	13.6	10.2	11.9
31	---	---	---	17.2	12.3	14.8	15.6	11.4	13.6	---	---	---
MONTH	18.8	10.1	14.0	18.4	11.1	15.0	17.5	11.2	14.4	14.8	8.7	12.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	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)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	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)
OCT 06...	1250	10	716	11.7	117	8.3	387	22.8	12.2	150	180	1	13.2
DEC 09...	1350	14	720	12.0	106	8.0	377	3.3	7.5	146	177	.0	13.9
FEB 02...	1250	30	714	12.2	107	8.3	375	2.0	6.9	145	175	1	13.9
MAR 02...	1040	68	720	11.7	102	8.3	373	8.0	7.1	150	181	1	13.0
APR 07...	1030	43	720	12.3	115	8.5	379	12.2	10.0	--	--	--	--
MAY 11...	1010	29	711	10.1	96	8.3	379	13.3	10.1	152	182	3	13.3
JUN 02...	1030	23	720	14.7	145	8.7	377	27.2	12.0	153	181	3	13.5
JUL 06...	1310	21	721	14.8	156	8.7	379	26.1	15.1	150	175	4	13.8
AUG 02...	1320	15	714	12.7	136	8.5	377	28.8	15.4	140	166	2	13.2
SEP 08...	0940	8.6	716	9.6	92	8.1	384	22.9	10.7	153	185	1	13.4

12464770 CRAB CREEK AT ROCKY FORD ROAD, NEAR RITZVILLE, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Propy- zamide, water, fltrd 0.7u GF (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF (82679)	Propar- gite, water, fltrd 0.7u GF (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd 0.7u GF (82665)	Terbu- fos, water, fltrd 0.7u GF (82675)	Thio- bencarb water fltrd 0.7u GF (82681)	Tri- allate, water, fltrd 0.7u GF (82678)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
OCT 06...	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	4	.11
DEC 09...	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	.005	E.006	5	.19
FEB 02...	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	E.006	4	.32
MAR 02...	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.010	E.005	14	2.6
APR 07...	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	--	--
MAY 11...	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	3	.23
JUN 02...	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	4	.25
JUL 06...	--	--	--	--	--	--	--	--	--	--	--	2	.11
AUG 02...	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	2	.08
SEP 08...	--	--	--	--	--	--	--	--	--	--	--	7	.16

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Biomass peri- phyton, ashfree drymass g/m2 (49954)	Peri- phyton biomass ash weight, g/m2 (00572)	Peri- phyton biomass dry weight, g/m2 (00573)	Pheo- phytin a, peri- phyton, mg/m2 (62359)	Chloro- phyll a peri- phyton, chromo- fluoro, mg/m2 (70957)
AUG 09...	1320	48.6	770	822.4	81	92.9

12464774 SOUTH FORK CRAB CREEK NEAR MOUTH, NEAR RITZVILLE, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 47°18'04", long 118°22'09", in SE $\frac{1}{4}$ NW $\frac{1}{4}$, sec.23, T.21 N., R.35 E., Lincoln County, Hydrologic Unit 17020013, at confluence with Crab Creek, 13 mi north of Ritzville.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--June to September 2003 (discontinued).

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

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 degrees NTU (63675)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incm. titr., field, mg/L (00453)	Carbonate, wat flt incm. titr., field, mg/L (00452)
JUN 30...	1420	--	--	719	2.2	22	7.3	466	23.6	13.0	--	--	--
SEP 02...	1230	1.1	.3	721	4.3	43	7.5	470	31.8	12.6	184	224	.0

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

Date	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Phytoplankton, ug/L (62360)
JUN 30...	.26	<.04	2.49	.032	--	.06	.080	2.7	--	--	--	--	--
SEP 02...	.32	<.04	2.17	.009	.03	.05	.07	2.5	.2	<.1	.2	2.8	1.1

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

Date	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
JUN 30...	--	--	--
SEP 02...	1.1	6	.02

12464800 COAL CREEK AT MOHLER, WA

LOCATION.--Lat 47°24'25", long 118°19'04", in SE $\frac{1}{4}$ SE $\frac{1}{4}$, sec.7, T.22 N., R.36 E., Lincoln County, Hydrologic Unit 17020013, 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 mi².

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.--13 years (water years 1964-74, 2003-04), 4.08 ft³/s, 2,950 acre-ft yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 698 ft³/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 ft³/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 144 ft³/s, Feb. 18, gage height, 2.31 ft; minimum daily discharge, 0.13 ft³/s, Oct. 9.

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	e0.17	e0.23	e0.60	e0.52	7.1	13	e4.5	e4.0	e1.8	0.50	0.27	0.30
2	e0.16	e0.23	e0.68	e0.60	6.4	12	e4.5	e3.5	e1.8	0.46	0.28	0.30
3	e0.16	e0.23	e0.64	e0.46	6.4	12	e4.4	e3.0	e1.7	0.42	0.31	0.32
4	e0.16	e0.24	e0.60	e0.43	5.9	13	e4.0	e2.5	e1.6	0.38	0.33	0.34
5	e0.15	e0.24	e0.80	e0.40	5.4	12	e4.0	e2.2	e1.6	0.38	0.36	0.34
6	e0.15	e0.24	e0.76	e0.50	6.0	10	e3.8	e2.2	e1.6	0.41	0.38	0.34
7	e0.15	e0.24	e0.66	e0.72	6.0	11	e3.8	e2.2	e1.5	0.43	0.38	0.34
8	e0.14	e0.23	e0.66	e1.6	5.6	e10	e3.6	e2.2	e1.6	0.42	0.36	0.34
9	e0.13	e0.23	e0.62	e1.4	5.7	e10	e3.6	e2.0	e2.0	0.45	0.35	0.34
10	e0.14	e0.23	e0.60	e1.4	5.6	e9.2	e3.5	e1.8	e2.0	0.41	0.29	0.33
11	e0.16	e0.30	e0.60	e1.3	5.7	e9.0	e3.5	e2.2	e1.7	0.39	0.28	0.33
12	e0.16	e0.30	e0.64	e1.3	5.9	e8.6	e3.4	e1.6	e1.3	0.37	0.27	0.34
13	e0.16	e0.27	e0.80	e1.3	6.4	e8.0	e3.4	e1.6	e1.0	0.36	0.24	0.35
14	e0.17	e0.27	e1.0	e1.3	6.0	e7.4	e3.6	e1.8	e0.94	0.35	0.23	0.38
15	e0.22	e0.34	e0.68	e1.4	5.9	e6.1	e4.0	e1.8	e0.90	0.34	0.22	0.38
16	e0.28	e0.40	e0.54	e1.4	6.1	e6.0	e4.5	e2.0	e0.90	0.35	0.23	0.38
17	e0.27	e0.45	e0.54	e1.6	22	e6.0	e4.5	e2.2	e0.88	0.37	0.27	0.38
18	e0.25	e0.48	e0.50	e1.6	109	e5.6	e4.2	e2.0	e0.84	0.39	0.32	0.38
19	e0.24	e0.52	e0.50	e1.6	29	e5.1	e4.0	e2.0	e0.80	0.37	0.31	0.38
20	e0.24	e0.60	e0.58	e1.7	19	e5.0	e4.8	e2.4	e0.80	0.33	0.31	0.35
21	e0.24	e0.70	e0.62	e1.8	17	e5.0	e5.0	e2.6	e0.75	0.34	0.30	0.34
22	e0.23	e0.50	e0.80	e2.0	16	e4.8	e4.8	e2.8	e0.74	0.30	0.29	0.34
23	e0.22	e0.50	2.2	e2.3	15	e4.6	e4.8	e2.8	e0.70	0.29	0.35	0.34
24	e0.24	e0.56	3.0	e2.4	14	e4.6	e4.7	e2.6	e0.65	0.27	0.36	0.34
25	e0.27	e0.56	0.81	e2.2	15	e4.6	e4.6	e2.5	e0.60	0.29	0.42	0.34
26	e0.26	e0.60	0.57	e2.2	17	e6.0	e4.5	e2.5	e0.50	0.28	0.39	0.33
27	e0.23	e0.54	e0.54	e3.0	16	e5.8	e4.3	e2.4	e0.52	0.27	0.36	0.34
28	e0.23	e0.56	e0.50	5.2	14	e5.6	e4.2	e2.2	e0.56	0.26	0.34	0.34
29	e0.23	e0.66	e0.48	14	14	e5.2	e4.2	e2.0	e0.54	0.29	0.33	e0.33
30	e0.23	e0.60	e0.46	30	---	e5.0	e4.0	e2.0	e0.50	0.29	0.34	e0.33
31	e0.23	---	e0.60	e9.0	---	e4.7	---	e2.0	---	0.27	0.34	---
TOTAL	6.27	12.05	23.58	96.63	413.1	234.9	124.7	71.6	33.32	11.03	9.81	10.31
MEAN	0.20	0.40	0.76	3.12	14.2	7.58	4.16	2.31	1.11	0.36	0.32	0.34
MAX	0.28	0.70	3.0	30	109	13	5.0	4.0	2.0	0.50	0.42	0.38
MIN	0.13	0.23	0.46	0.40	5.4	4.6	3.4	1.6	0.50	0.26	0.22	0.30
AC-FT	12	24	47	192	819	466	247	142	66	22	19	20
CFSM	0.00	0.01	0.01	0.05	0.22	0.12	0.06	0.04	0.02	0.01	0.00	0.01
IN.	0.00	0.01	0.01	0.06	0.24	0.14	0.07	0.04	0.02	0.01	0.01	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2004, BY WATER YEAR (WY)

MEAN	0.11	0.23	2.23	12.5	11.6	15.2	4.78	1.68	0.53	0.15	0.05	0.07
MAX	0.30	0.45	16.1	46.3	42.0	102	14.8	3.71	1.11	0.36	0.32	0.34
(WY)	(2003)	(1966)	(1974)	(1971)	(1970)	(1969)	(1969)	(1969)	(2004)	(2004)	(2004)	(2004)
MIN	0.00	0.03	0.19	0.00	1.16	3.45	1.15	0.42	0.08	0.00	0.00	0.00
(WY)	(1964)	(1964)	(1964)	(1969)	(1964)	(1973)	(1973)	(1973)	(1963)	(1963)	(1963)	(1963)

CRAB CREEK BASIN

12464800 COAL CREEK AT MOHLER, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1963 - 2004	
ANNUAL TOTAL	1,034.71		1,047.30		4.08	
ANNUAL MEAN	2.83		2.86		10.9	
HIGHEST ANNUAL MEAN					0.93	
LOWEST ANNUAL MEAN					1969	
HIGHEST DAILY MEAN	13	Feb 1	109	Feb 18	419	Mar 18, 1969
LOWEST DAILY MEAN	0.13	Oct 9	0.13	Oct 9	0.00	Jun 19, 1963
ANNUAL SEVEN-DAY MINIMUM	0.15	Oct 4	0.15	Oct 4	0.00	Jun 19, 1963
ANNUAL RUNOFF (AC-FT)	2,050		2,080		2,950	
ANNUAL RUNOFF (CFSM)	0.044		0.044		0.063	
ANNUAL RUNOFF (INCHES)	0.59		0.60		0.86	
10 PERCENT EXCEEDS	8.0		6.0		8.0	
50 PERCENT EXCEEDS	0.60		0.65		0.40	
90 PERCENT EXCEEDS	0.20		0.24		0.00	

e Estimated

12465000 CRAB CREEK AT IRBY, WA

LOCATION.--Lat 47°21'38", long 118°50'56", in NW¹/₄NW¹/₄, 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 mi².

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, 2002, gage on right bank at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. 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.--62 years (water years 1943-2004), 64.7 ft³/s, 46,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,370 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 19	0145	*380	2.78	Feb 19	----	---	(a) *3.06

Minimum discharge, 0.64 ft³/s, Jan. 5, 6, but may have been less during period of ice effect Jan. 6-11.

(a) From outside high-water mark.

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	e3.0	2.7	2.0	1.7	5.9	46	55	24	19	14	6.6	3.8
2	e3.0	2.5	2.0	1.9	4.3	45	54	22	19	13	7.0	3.9
3	e3.0	2.3	1.8	1.7	3.8	47	54	20	18	13	6.6	4.0
4	3.0	2.5	1.7	1.4	3.3	50	51	19	18	13	6.7	3.5
5	2.8	2.3	1.9	1.0	3.0	50	49	18	18	13	7.1	3.2
6	2.8	2.2	1.9	e1.2	3.1	50	48	17	18	12	7.7	3.2
7	2.8	2.1	1.7	e1.5	3.3	52	48	17	18	11	7.4	3.7
8	2.7	2.2	1.6	e2.1	e3.1	52	46	18	18	11	7.3	3.9
9	2.4	2.1	1.5	e1.8	e3.2	51	46	17	19	11	7.1	3.8
10	2.6	2.0	1.5	e1.8	3.4	52	45	17	19	11	6.9	3.4
11	e3.1	2.3	1.5	e1.7	3.7	53	44	18	19	11	6.4	2.8
12	e3.1	2.2	1.6	1.7	3.9	54	43	18	18	11	5.7	2.8
13	e3.1	2.0	1.8	1.6	4.1	55	42	17	17	10	4.9	2.6
14	e3.2	1.9	2.1	1.5	4.4	56	41	17	17	10	4.9	2.4
15	3.6	1.9	1.8	1.6	4.5	56	40	17	17	10	5.3	2.4
16	3.9	1.9	1.7	1.6	5.0	58	39	18	16	10	5.5	2.6
17	3.6	1.9	1.6	1.5	5.5	58	38	18	16	9.9	5.0	2.9
18	3.5	1.7	1.6	1.5	168	58	38	17	16	10	4.8	3.3
19	3.3	1.9	1.6	1.5	166	57	37	17	16	9.8	4.7	3.4
20	3.3	2.1	1.9	1.4	70	60	36	18	16	9.7	4.4	3.4
21	3.2	2.3	2.0	1.5	53	59	36	19	15	9.1	4.2	3.2
22	3.1	1.8	1.9	1.4	50	58	36	19	15	9.1	4.1	3.2
23	2.8	1.9	1.8	1.5	48	57	36	19	15	8.6	4.2	3.2
24	3.1	1.9	1.9	1.5	46	56	36	18	16	8.4	4.1	3.1
25	3.2	1.9	1.9	1.4	46	55	34	18	16	8.3	4.8	3.0
26	3.0	1.9	1.8	1.3	46	57	33	18	15	8.4	4.5	3.0
27	2.9	1.8	1.7	1.4	45	56	30	19	15	8.2	4.1	3.0
28	2.8	1.9	1.8	1.5	45	56	28	19	15	7.1	4.3	3.0
29	3.1	2.2	1.7	2.0	45	55	26	19	15	7.5	3.9	2.8
30	2.8	2.0	1.4	2.1	---	55	25	19	15	7.4	3.7	3.0
31	2.8	---	1.7	10	---	55	---	19	---	7.1	3.8	---
TOTAL	94.6	62.3	54.4	57.3	895.5	1,679	1,214	570	504	312.6	167.7	95.5
MEAN	3.05	2.08	1.75	1.85	30.9	54.2	40.5	18.4	16.8	10.1	5.41	3.18
MAX	3.9	2.7	2.1	10	168	60	55	24	19	14	7.7	4.0
MIN	2.4	1.7	1.4	1.0	3.0	45	25	17	15	7.1	3.7	2.4
AC-FT	188	124	108	114	1,780	3,330	2,410	1,130	1,000	620	333	189

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

MEAN	7.57	7.84	18.1	105	220	200	102	49.1	35.1	19.9	12.6	8.75
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)

CRAB CREEK BASIN

12465000 CRAB CREEK AT IRBY, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	6,413.6		5,706.9			
ANNUAL MEAN	17.6		15.6		64.7	
HIGHEST ANNUAL MEAN					299	1956
LOWEST ANNUAL MEAN					2.73	1992
HIGHEST DAILY MEAN	59	Apr 18	168	Feb 18	7,470	Feb 27, 1957
LOWEST DAILY MEAN	1.4	Dec 30	1.0	Jan 5	0.00	Jan 3, 1969
ANNUAL SEVEN-DAY MINIMUM	1.6	Dec 7	1.4	Jan 20	0.00	Jan 15, 1969
ANNUAL RUNOFF (AC-FT)	12,720		11,320		46,860	
10 PERCENT EXCEEDS	51		50		144	
50 PERCENT EXCEEDS	9.0		5.0		17	
90 PERCENT EXCEEDS	1.9		1.7		2.6	

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 feet downstream from Corbett Draw, 3.5 mi south of Almira, and at mile 22.9.

DRAINAGE AREA.--327 mi².

PERIOD OF RECORD.--March 1969 to June 1971, 1972 to 1979 (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 discharges, which are poor. No regulation. Suspended sediment data are available from Washington Water Science Center office.

AVERAGE DISCHARGE.--6 years (water years 1970, 1992-94, 2003-04), 7.93 ft³/s, 5,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft³/s, Jan. 16, 1973, gage height, 7.68 ft; minimum discharge, no flow July 23-30 and Aug. 5-12, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4.3 ft³/s, May 28, but may have been higher during periods of missing record, gage height, 3.64 ft; minimum discharge, no flow, on part of all of each day July 23-30 and Aug. 5-12.

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	0.99	0.99	1.2	1.4	e1.4	e1.5	e2.7	1.2	3.9	0.67	2.3	1.4
2	0.99	1.1	1.2	1.4	e1.4	e1.4	e2.7	1.2	4.0	0.27	2.5	1.4
3	0.99	1.1	1.1	e1.3	e1.4	e1.5	e2.6	1.0	4.0	0.22	2.6	1.4
4	0.99	1.1	1.1	e1.2	e1.3	e1.6	e2.6	0.93	3.9	0.40	2.6	1.3
5	1.1	1.1	1.2	e1.0	e1.3	e1.8	e2.5	1.1	3.9	0.42	1.8	1.2
6	1.2	1.1	1.1	e1.0	e1.3	e1.8	e2.5	1.1	4.2	0.13	0.00	1.2
7	1.3	1.1	1.1	e1.1	e1.3	e2.0	e2.4	1.1	4.0	0.37	0.00	1.1
8	1.3	1.1	1.1	e1.2	e1.3	e2.0	e2.4	0.98	4.0	0.05	0.00	0.92
9	1.3	1.1	1.1	e1.3	e1.3	e2.0	e2.3	1.0	3.4	0.19	0.00	0.80
10	1.3	1.1	1.1	e1.3	e1.4	e2.0	e2.3	1.2	1.9	0.31	0.00	1.1
11	1.3	1.1	1.1	e1.3	e1.4	e2.1	e2.2	1.2	2.4	1.9	0.02	1.3
12	1.3	1.1	1.1	e1.3	e1.4	e2.2	e2.2	1.3	0.56	0.52	0.50	1.2
13	1.3	1.1	1.1	e1.3	e1.4	e2.2	e2.0	1.1	1.1	0.25	0.12	1.2
14	1.2	1.1	1.0	e1.4	e1.4	e2.3	1.3	1.1	0.57	0.12	0.21	1.3
15	1.1	1.1	0.99	1.7	e1.5	e2.4	1.3	0.94	0.59	0.12	0.24	1.1
16	1.2	1.2	0.99	1.6	e1.5	e2.6	1.4	1.0	0.49	0.11	0.10	0.93
17	1.2	1.1	1.1	1.6	e1.5	e2.6	1.5	1.3	0.48	0.10	0.17	0.88
18	1.1	1.1	1.1	1.6	e1.6	e2.8	1.5	0.89	0.54	0.13	0.37	0.88
19	1.1	1.1	1.1	1.6	e1.6	e3.0	1.4	0.83	0.72	0.13	1.3	0.88
20	1.1	1.1	1.1	1.5	e1.8	e3.4	1.5	0.80	0.72	0.08	1.2	0.84
21	1.1	1.1	1.1	1.5	e1.8	e3.2	1.5	1.0	0.75	0.13	1.2	0.77
22	0.99	1.1	1.1	1.5	e1.7	e3.0	1.5	0.90	0.73	0.23	1.6	0.83
23	1.0	1.1	1.2	1.5	e1.7	e3.0	1.5	0.98	0.39	0.41	1.6	0.82
24	0.99	1.1	1.3	1.5	e1.6	e2.9	1.5	0.93	0.04	0.07	1.6	0.71
25	0.99	1.1	1.3	1.5	e1.6	e2.9	1.4	1.1	0.17	0.38	1.7	0.64
26	0.99	1.1	1.3	1.5	e1.5	e2.8	1.3	1.4	0.16	0.38	1.7	0.68
27	0.99	1.2	1.4	1.5	e1.5	e2.8	1.4	1.4	0.32	0.00	1.5	0.74
28	0.99	1.3	1.4	1.4	e1.5	e2.8	1.6	2.6	0.29	0.00	1.4	0.70
29	1.1	1.3	1.4	1.4	e1.5	e2.8	1.3	4.1	0.34	0.00	1.5	0.56
30	1.0	1.2	1.3	1.4	---	e2.7	1.3	4.1	0.46	0.48	1.5	0.59
31	0.99	---	1.4	1.4	---	e2.7	---	4.0	---	1.9	1.4	---
TOTAL	34.49	33.59	36.18	43.2	42.9	74.8	55.6	43.78	49.02	10.47	32.73	29.37
MEAN	1.11	1.12	1.17	1.39	1.48	2.41	1.85	1.41	1.63	0.34	1.06	0.98
MAX	1.3	1.3	1.4	1.7	1.8	3.4	2.7	4.1	4.2	1.9	2.6	1.4
MIN	0.99	0.99	0.99	1.0	1.3	1.4	1.3	0.80	0.04	0.00	0.00	0.56
AC-FT	68	67	72	86	85	148	110	87	97	21	65	58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

MEAN	1.33	1.88	2.66	13.8	28.3	55.1	23.0	8.63	4.32	10.0	1.84	0.94
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	0.71	0.24	0.30	0.34	0.34	0.30
(WY)	(1993)	(1993)	(1993)	(1993)	(1993)	(1992)	(1992)	(1992)	(1992)	(2004)	(1992)	(1992)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1969 - 2004

ANNUAL TOTAL	1,463.44	486.13	
ANNUAL MEAN	4.01	1.33	7.93
HIGHEST ANNUAL MEAN			26.8
LOWEST ANNUAL MEAN			0.57
HIGHEST DAILY MEAN	12	Apr 17	4.2
LOWEST DAILY MEAN	0.65	Aug 20	0.00
ANNUAL SEVEN-DAY MINIMUM	0.98	Sep 23	0.07
ANNUAL RUNOFF (AC-FT)	2,900	964	5,750
10 PERCENT EXCEEDS	9.4	2.5	10
50 PERCENT EXCEEDS	2.1	1.2	1.3
90 PERCENT EXCEEDS	1.1	0.33	0.34

e Estimated

12467000 CRAB CREEK NEAR MOSES LAKE, WA

LOCATION.--Lat 47°11'22", long 119°15'53", in NW $\frac{1}{4}$ NE $\frac{1}{4}$, 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 mi², of which 219 mi² 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 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.--53 years (water years 1952-2004), 68.4 ft³/s, 49,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/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 ft³/s, Aug. 24, 25, gage height, 2.99 ft; maximum gage height, 3.02 ft May 23; minimum discharge, 4.2 ft³/s, Mar. 20, 21.

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	45	31	20	e13	14	9.9	8.3	16	25	31	40	49
2	46	32	21	e12	13	9.1	8.4	17	25	32	41	47
3	46	31	20	e11	13	9.1	8.6	17	25	32	41	46
4	49	29	19	e10	13	9.9	8.6	18	25	33	41	47
5	49	28	20	e11	12	9.5	12	19	25	33	45	48
6	49	27	19	e12	12	8.8	10	20	25	34	45	46
7	49	27	19	e14	12	8.5	12	21	25	34	46	47
8	48	27	19	15	12	8.6	14	21	25	35	44	47
9	47	26	18	15	12	8.6	14	21	26	35	44	48
10	47	25	18	15	12	8.6	14	21	30	36	44	48
11	46	25	18	15	11	8.7	14	22	28	36	45	49
12	48	25	18	15	11	8.5	14	22	26	36	43	48
13	46	24	20	15	11	8.1	14	22	26	37	43	48
14	46	24	20	15	11	8.7	12	22	26	36	43	48
15	46	24	18	15	11	9.8	12	22	26	36	43	47
16	47	25	17	14	12	7.9	12	23	27	36	44	47
17	46	25	17	15	14	6.5	13	24	27	37	44	48
18	44	24	17	15	14	5.6	13	25	27	37	45	47
19	44	23	16	15	13	4.8	13	24	27	38	44	47
20	45	23	17	15	12	4.4	14	24	28	38	43	46
21	44	23	17	16	11	5.0	14	24	28	39	44	39
22	43	21	18	16	11	6.7	13	26	28	39	47	42
23	39	20	17	15	11	5.7	13	30	28	39	49	43
24	35	20	17	16	11	5.0	14	27	29	40	55	43
25	34	21	17	15	11	4.8	14	26	29	40	58	49
26	34	22	16	14	12	5.6	14	26	29	40	52	44
27	34	20	16	14	11	5.3	15	26	29	40	51	43
28	34	20	16	14	10	5.1	16	25	30	40	49	41
29	32	21	e14	16	9.9	5.5	16	27	31	40	48	40
30	30	20	14	17	---	6.6	17	26	31	40	46	40
31	30	---	14	15	---	7.5	---	25	---	40	48	---
TOTAL	1,322	733	547	445	342.9	226.4	386.9	709	816	1,139	1,415	1,372
MEAN	42.6	24.4	17.6	14.4	11.8	7.30	12.9	22.9	27.2	36.7	45.6	45.7
MAX	49	32	21	17	14	9.9	17	30	31	40	58	49
MIN	30	20	14	10	9.9	4.4	8.3	16	25	31	40	39
AC-FT	2,620	1,450	1,080	883	680	449	767	1,410	1,620	2,260	2,810	2,720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2004, BY WATER YEAR (WY)

MEAN	58.7	35.8	23.1	59.2	120	155	82.0	49.1	46.9	57.4	67.3	69.8
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 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1952 - 2004	
ANNUAL TOTAL	9,859.8		9,454.2			
ANNUAL MEAN	27.0		25.8		68.4	
HIGHEST ANNUAL MEAN					183	1956
LOWEST ANNUAL MEAN					25.8	2002
HIGHEST DAILY MEAN	55	Aug 23	58	Aug 25	6,960	Mar 1, 1957
LOWEST DAILY MEAN	6.1	Apr 5	4.4	Mar 20	0.00	Dec 21, 1951
ANNUAL SEVEN-DAY MINIMUM	6.4	Mar 30	5.2	Mar 19	0.00	Dec 21, 1951
ANNUAL RUNOFF (AC-FT)	19,560		18,750		49,550	
10 PERCENT EXCEEDS	49		46		115	
50 PERCENT EXCEEDS	25		24		41	
90 PERCENT EXCEEDS	9.1		10		13	

e Estimated

12469500 LENORE LAKE NEAR SOAP LAKE, WA

LOCATION.--Lat 47°30'52", long 119°30'06", in SE $\frac{1}{4}$ SW $\frac{1}{4}$, 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 mi², of which 281 mi² 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, 1,078.10 ft, Mar. 26; minimum elevation, 1,074.38 ft, Sept. 30.

ELEVATION ABOVE NGVD 1929, FEET, USBR DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,074.53	1,074.52	1,074.77	1,075.50	1,076.34	1,077.35	1,077.92	1,077.19	1,076.36	1,075.73	1,074.95	1,074.62
2	1,074.53	1,074.51	1,074.80	1,075.53	1,076.38	1,077.37	1,077.89	1,077.17	1,076.36	1,075.72	1,074.93	1,074.58
3	1,074.53	1,074.50	1,074.82	1,075.56	1,076.41	1,077.41	1,077.88	1,077.13	1,076.36	1,075.69	1,074.91	1,074.57
4	1,074.53	1,074.50	1,074.83	1,075.57	1,076.43	1,077.45	1,077.86	1,077.10	1,076.38	1,075.67	1,074.87	1,074.56
5	1,074.54	1,074.51	1,074.86	1,075.58	1,076.47	1,077.49	1,077.84	1,077.05	1,076.39	1,075.66	1,074.85	1,074.53
6	1,074.54	1,074.51	1,074.88	1,075.60	1,076.50	1,077.53	1,077.83	1,077.01	1,076.38	1,075.65	1,074.85	1,074.53
7	1,074.54	1,074.51	1,074.90	1,075.64	1,076.54	1,077.54	1,077.81	1,076.98	1,076.37	1,075.61	1,074.87	1,074.52
8	1,074.54	1,074.52	1,074.92	1,075.68	1,076.56	1,077.57	1,077.78	1,076.95	1,076.36	1,075.58	1,074.85	1,074.53
9	1,074.53	1,074.52	1,074.94	1,075.71	1,076.59	1,077.60	1,077.75	1,076.91	1,076.36	1,075.55	1,074.82	1,074.52
10	1,074.52	1,074.54	1,074.95	1,075.73	1,076.62	1,077.62	1,077.73	1,076.87	1,076.36	1,075.53	1,074.81	1,074.51
11	1,074.52	1,074.54	1,074.98	1,075.76	1,076.65	1,077.65	1,077.71	1,076.82	1,076.34	1,075.48	1,074.81	1,074.52
12	1,074.52	1,074.54	1,075.01	1,075.78	1,076.68	1,077.69	1,077.69	1,076.79	1,076.30	1,075.45	1,074.80	1,074.51
13	1,074.51	1,074.55	1,075.04	1,075.80	1,076.72	1,077.70	1,077.68	1,076.76	1,076.26	1,075.42	1,074.80	1,074.50
14	1,074.49	1,074.56	1,075.08	1,075.83	1,076.75	1,077.74	1,077.67	1,076.73	1,076.20	1,075.39	1,074.80	1,074.50
15	1,074.50	1,074.57	1,075.09	1,075.86	1,076.79	1,077.76	1,077.63	1,076.70	1,076.15	1,075.37	1,074.77	1,074.49
16	1,074.51	1,074.59	1,075.11	1,075.89	1,076.82	1,077.79	1,077.60	1,076.68	1,076.12	1,075.36	1,074.77	1,074.50
17	1,074.55	1,074.61	1,075.13	1,075.91	1,076.88	1,077.82	1,077.57	1,076.66	1,076.09	1,075.32	1,074.76	1,074.49
18	1,074.52	1,074.62	1,075.15	1,075.94	1,076.92	1,077.86	1,077.55	1,076.63	1,076.06	1,075.30	1,074.74	1,074.50
19	1,074.53	1,074.67	1,075.17	1,075.98	1,076.95	1,077.88	1,077.53	1,076.60	1,076.03	1,075.29	1,074.73	1,074.49
20	1,074.53	1,074.64	1,075.21	1,076.00	1,076.98	1,077.89	1,077.51	1,076.59	1,076.01	1,075.26	1,074.73	1,074.47
21	1,074.55	1,074.64	1,075.24	1,076.03	1,077.01	1,077.91	1,077.49	1,076.57	1,075.98	1,075.22	1,074.71	1,074.47
22	1,074.55	1,074.66	1,075.26	1,076.05	1,077.05	1,077.94	1,077.47	1,076.54	1,075.95	1,075.18	1,074.69	1,074.47
23	1,074.56	1,074.67	1,075.28	1,076.08	1,077.08	1,077.97	1,077.44	1,076.55	1,075.93	1,075.16	1,074.65	1,074.47
24	1,074.54	1,074.68	1,075.31	1,076.11	1,077.12	1,077.99	1,077.40	1,076.53	1,075.90	1,075.14	1,074.66	1,074.48
25	1,074.53	1,074.69	1,075.35	1,076.14	1,077.16	1,078.01	1,077.37	1,076.51	1,075.87	1,075.13	1,074.67	1,074.48
26	1,074.54	1,074.71	1,075.37	1,076.16	1,077.22	1,078.04	1,077.35	1,076.49	1,075.85	1,075.08	1,074.65	1,074.48
27	1,074.54	1,074.71	1,075.39	1,076.19	1,077.26	1,078.03	1,077.33	1,076.46	1,075.81	1,075.04	1,074.65	1,074.48
28	1,074.55	1,074.73	1,075.41	1,076.22	1,077.29	1,078.01	1,077.26	1,076.43	1,075.78	1,075.02	1,074.64	1,074.49
29	1,074.54	1,074.74	1,075.40	1,076.25	1,077.32	1,077.99	1,077.24	1,076.39	1,075.76	1,075.01	1,074.62	1,074.49
30	1,074.52	1,074.75	1,075.44	1,076.28	---	1,077.97	1,077.22	1,076.38	1,075.74	1,074.98	1,074.63	1,074.43
31	1,074.52	---	1,075.47	1,076.31	---	1,077.96	---	1,076.36	---	1,074.96	1,074.62	---
MEAN	1,074.53	1,074.60	1,075.12	1,075.89	1,076.81	1,077.76	1,077.60	1,076.73	1,076.13	1,075.35	1,074.76	1,074.51
MAX	1,074.56	1,074.75	1,075.47	1,076.31	1,077.32	1,078.04	1,077.92	1,077.19	1,076.39	1,075.73	1,074.95	1,074.62
MIN	1,074.49	1,074.50	1,074.77	1,075.50	1,076.34	1,077.35	1,077.22	1,076.36	1,075.74	1,074.96	1,074.62	1,074.43
CAL YR	2003	MEAN	1,076.08	MAX	1,078.36	MIN	1,074.49					
WTR YR	2004	MEAN	1,075.81	MAX	1,078.04	MIN	1,074.43					

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 mi², of which 281 mi² 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 observed, 1,070.87 ft, Oct. 21, 1939.

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, 1,072.51 ft, Apr. 23; minimum elevation, 1,071.02 ft, Sept. 14, 17, but may have been lower during period of missing record.

ELEVATION ABOVE NGVD 1929, FEET, USBR DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,071.50	---	---	1,071.79	1,072.07	1,072.32	1,072.44	1,072.38	1,072.25	1,072.02	1,071.53	1,071.23
2	1,071.50	---	---	1,071.80	1,072.08	1,072.32	1,072.43	1,072.38	1,072.25	1,072.01	1,071.52	1,071.20
3	1,071.50	---	---	1,071.82	1,072.08	1,072.32	1,072.43	1,072.37	1,072.25	1,071.98	1,071.51	1,071.17
4	1,071.50	---	---	1,071.80	1,072.09	1,072.33	1,072.43	1,072.37	1,072.24	1,071.95	1,071.49	1,071.16
5	1,071.50	---	---	1,071.79	1,072.09	1,072.34	1,072.43	1,072.35	1,072.25	1,071.93	1,071.51	1,071.12
6	1,071.50	---	---	1,071.80	1,072.10	1,072.34	1,072.44	1,072.33	1,072.23	1,071.93	1,071.51	1,071.11
7	1,071.50	---	---	1,071.83	1,072.11	1,072.34	1,072.44	1,072.34	1,072.22	1,071.90	1,071.50	1,071.11
8	1,071.50	---	---	1,071.84	1,072.12	1,072.34	1,072.44	1,072.34	1,072.20	1,071.85	1,071.49	1,071.11
9	1,071.48	---	---	1,071.86	1,072.12	1,072.36	1,072.43	1,072.33	1,072.19	1,071.84	1,071.49	1,071.10
10	1,071.47	---	---	1,071.87	1,072.13	1,072.35	1,072.43	1,072.33	1,072.22	1,071.83	1,071.48	1,071.08
11	1,071.46	---	---	1,071.88	1,072.13	1,072.35	1,072.43	1,072.31	1,072.20	1,071.79	1,071.47	1,071.10
12	1,071.45	---	---	1,071.88	1,072.14	1,072.35	1,072.44	1,072.29	1,072.18	1,071.78	1,071.47	1,071.08
13	1,071.45	---	---	1,071.89	1,072.14	1,072.36	1,072.44	1,072.29	1,072.19	1,071.78	1,071.46	1,071.07
14	1,071.44	---	---	1,071.90	1,072.15	1,072.37	1,072.43	1,072.28	1,072.17	1,071.76	1,071.45	1,071.07
15	1,071.44	---	---	1,071.92	1,072.16	1,072.36	1,072.43	1,072.28	1,072.13	1,071.76	1,071.44	1,071.05
16	1,071.45	---	---	1,071.93	1,072.18	1,072.37	1,072.42	1,072.28	1,072.13	1,071.73	1,071.44	1,071.05
17	1,071.44	---	1,071.66	1,071.94	1,072.20	1,072.37	1,072.42	1,072.30	1,072.12	1,071.73	1,071.42	---
18	1,071.45	---	1,071.66	1,071.95	1,072.22	1,072.37	1,072.42	1,072.31	1,072.11	1,071.73	1,071.41	---
19	1,071.45	---	1,071.66	1,071.96	1,072.22	1,072.37	1,072.42	1,072.29	1,072.09	1,071.73	1,071.40	---
20	1,071.46	---	1,071.69	1,071.97	1,072.23	1,072.37	1,072.43	1,072.29	1,072.09	1,071.72	1,071.39	---
21	1,071.47	---	1,071.70	1,071.98	1,072.24	1,072.37	1,072.43	1,072.30	1,072.08	1,071.69	1,071.36	---
22	1,071.48	---	1,071.71	1,071.99	1,072.25	1,072.38	1,072.43	1,072.30	1,072.08	1,071.68	1,071.33	---
23	1,071.47	---	1,071.72	1,072.00	1,072.25	1,072.39	1,072.43	1,072.31	1,072.08	1,071.66	1,071.31	---
24	1,071.46	---	1,071.74	1,072.01	1,072.26	1,072.39	1,072.42	1,072.31	1,072.07	1,071.65	1,071.30	---
25	1,071.46	---	1,071.75	1,072.01	1,072.27	1,072.40	1,072.41	1,072.31	1,072.07	1,071.65	1,071.31	---
26	1,071.46	---	1,071.75	1,072.02	1,072.30	1,072.43	1,072.41	1,072.31	1,072.06	1,071.61	1,071.29	---
27	1,071.46	---	1,071.76	1,072.03	1,072.30	1,072.45	1,072.43	1,072.31	1,072.06	1,071.59	1,071.28	---
28	---	---	1,071.77	1,072.03	1,072.31	1,072.44	1,072.40	1,072.31	1,072.05	1,071.57	1,071.27	---
29	---	---	1,071.78	1,072.04	1,072.31	1,072.44	1,072.37	1,072.30	1,072.04	1,071.57	1,071.24	---
30	---	---	1,071.76	1,072.05	---	1,072.45	1,072.38	1,072.28	1,072.03	1,071.55	1,071.24	---
31	---	---	1,071.77	1,072.05	---	1,072.44	---	1,072.26	---	1,071.54	1,071.23	---
MEAN	---	---	---	1,071.92	1,072.18	1,072.37	1,072.42	1,072.31	1,072.14	1,071.76	1,071.40	---
MAX	---	---	---	1,072.05	1,072.31	1,072.45	1,072.44	1,072.38	1,072.25	1,072.02	1,071.53	---
MIN	---	---	---	1,071.79	1,072.07	1,072.32	1,072.37	1,072.26	1,072.03	1,071.54	1,071.23	---

12471000 MOSES LAKE AT MOSES LAKE, WA

LOCATION.--Lat 47°06'11", long 119°19'02", in SW $\frac{1}{4}$ SW $\frac{1}{4}$, 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 mi², of which 665 mi² 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, 1,047.04 ft, Aug. 19; minimum elevation, 1,042.12 ft, Mar. 24.

ELEVATION ABOVE NGVD 1929, FEET, USBR DATUM
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,046.88	1,046.59	1,042.89	1,042.46	1,042.34	1,042.27	1,042.80	1,046.74	1,046.73	1,046.78	1,046.79	1,046.76
2	1,046.84	1,046.56	1,042.91	1,042.46	1,042.33	1,042.28	1,042.93	1,046.73	1,046.72	1,046.78	1,046.79	1,046.75
3	1,046.83	1,046.50	1,042.87	1,042.45	1,042.33	1,042.24	1,043.03	1,046.71	1,046.74	1,046.77	1,046.77	1,046.75
4	1,046.82	1,046.57	1,042.82	1,042.43	1,042.32	1,042.26	1,043.12	1,046.68	1,046.75	1,046.77	1,046.77	1,046.75
5	1,046.82	1,046.38	1,042.78	1,042.41	1,042.31	1,042.25	1,043.23	1,046.65	1,046.73	1,046.77	1,046.79	1,046.75
6	1,046.82	1,045.91	1,042.79	1,042.41	1,042.30	1,042.21	1,043.45	1,046.64	1,046.72	1,046.77	1,046.79	1,046.77
7	1,046.80	1,045.49	1,042.79	1,042.41	1,042.30	1,042.20	1,043.83	1,046.64	1,046.77	1,046.77	1,046.79	1,046.80
8	1,046.80	1,045.13	1,042.80	1,042.41	1,042.29	1,042.20	1,044.27	1,046.66	1,046.77	1,046.76	1,046.80	1,046.79
9	1,046.79	1,044.82	1,042.81	1,042.40	1,042.29	1,042.21	1,044.65	1,046.68	1,046.75	1,046.77	1,046.81	1,046.77
10	1,046.78	1,044.54	1,042.82	1,042.40	1,042.28	1,042.19	1,045.04	1,046.71	1,046.79	1,046.77	1,046.82	1,046.76
11	1,046.77	1,044.30	1,042.81	1,042.39	1,042.28	1,042.19	1,045.43	1,046.74	1,046.78	1,046.77	1,046.86	1,046.78
12	1,046.76	1,044.09	1,042.81	1,042.38	1,042.27	1,042.20	1,045.82	1,046.77	1,046.76	1,046.79	1,046.90	1,046.80
13	1,046.76	1,043.90	1,042.83	1,042.37	1,042.27	1,042.20	1,046.16	1,046.81	1,046.77	1,046.80	1,046.94	1,046.77
14	1,046.77	1,043.73	1,042.84	1,042.36	1,042.27	1,042.20	1,046.45	1,046.78	1,046.77	1,046.80	1,046.97	1,046.74
15	1,046.77	1,043.59	1,042.84	1,042.36	1,042.27	1,042.20	1,046.66	1,046.73	1,046.70	1,046.80	1,046.98	1,046.69
16	1,046.76	1,043.46	1,042.83	1,042.36	1,042.28	1,042.20	1,046.64	1,046.70	1,046.63	1,046.81	1,047.00	1,046.68
17	1,046.75	1,043.35	1,042.83	1,042.36	1,042.30	1,042.19	1,046.72	1,046.67	1,046.51	1,046.82	1,047.02	1,046.70
18	1,046.78	1,043.23	1,042.79	1,042.35	1,042.31	1,042.17	1,046.73	1,046.62	1,046.37	1,046.82	1,047.02	1,046.75
19	1,046.78	1,043.15	1,042.74	1,042.35	1,042.31	1,042.17	1,046.73	1,046.64	1,046.41	1,046.79	1,047.02	1,046.75
20	1,046.75	1,043.10	1,042.71	1,042.35	1,042.31	1,042.16	1,046.76	1,046.69	1,046.57	1,046.76	1,047.01	1,046.74
21	1,046.70	1,043.06	1,042.68	1,042.35	1,042.30	1,042.15	1,046.76	1,046.74	1,046.71	1,046.73	1,046.99	1,046.71
22	1,046.60	1,042.98	1,042.65	1,042.35	1,042.29	1,042.15	1,046.76	1,046.79	1,046.78	1,046.72	1,046.99	1,046.70
23	1,046.59	1,042.92	1,042.62	1,042.36	1,042.29	1,042.14	1,046.77	1,046.83	1,046.80	1,046.72	1,046.98	1,046.70
24	1,046.59	1,042.86	1,042.59	1,042.36	1,042.29	1,042.13	1,046.77	1,046.83	1,046.78	1,046.72	1,046.97	1,046.69
25	1,046.63	1,042.81	1,042.57	1,042.36	1,042.28	1,042.19	1,046.78	1,046.81	1,046.76	1,046.73	1,046.90	1,046.69
26	1,046.67	1,042.82	1,042.55	1,042.35	1,042.29	1,042.26	1,046.79	1,046.79	1,046.74	1,046.73	1,046.79	1,046.70
27	1,046.69	1,042.84	1,042.53	1,042.35	1,042.28	1,042.34	1,046.82	1,046.77	1,046.75	1,046.74	1,046.76	1,046.70
28	1,046.70	1,042.85	1,042.51	1,042.34	1,042.27	1,042.43	1,046.82	1,046.76	1,046.75	1,046.74	1,046.74	1,046.69
29	1,046.70	1,042.86	1,042.50	1,042.34	1,042.27	1,042.52	1,046.76	1,046.76	1,046.77	1,046.75	1,046.74	1,046.71
30	1,046.68	1,042.88	1,042.47	1,042.34	---	1,042.61	1,046.74	1,046.76	1,046.78	1,046.75	1,046.74	1,046.78
31	1,046.63	---	1,042.46	1,042.33	---	1,042.69	---	1,046.75	---	1,046.77	1,046.75	---
MEAN	1,046.74	1,044.11	1,042.72	1,042.38	1,042.29	1,042.25	1,045.61	1,046.73	1,046.71	1,046.77	1,046.87	1,046.74
MAX	1,046.88	1,046.59	1,042.91	1,042.46	1,042.34	1,042.69	1,046.82	1,046.83	1,046.80	1,046.82	1,047.02	1,046.80
MIN	1,046.59	1,042.81	1,042.46	1,042.33	1,042.27	1,042.13	1,042.80	1,046.62	1,046.37	1,046.72	1,046.74	1,046.68
WTR YR	2004	MEAN	1,045.00	MAX	1,047.02	MIN	1,042.13					

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

WATER-QUALITY RECORDS

LOCATION.--Lat 47°20'00", long 119°08'57", in NW¹/₄SW¹/₄, sec. 35, T.18 N., R.29 E., Grant County, Hydrologic Unit 17020015, on left bank, 0.6 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 current year.

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 2002 TO SEPTEMBER 2003

Date	Time	Gage height, feet (00065)	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 degrees NTU (63675)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat fltr inc tit mg/L as CaCO3 (39086)	Bicarbonate, wat fltr inc tit, field, mg/L (00453)
JUL 02...	1300	--	--	--	742	10.9	116	8.3	268	21.1	17.2	--	--
AUG 26...	0930	2.78	245	3.1	734	9.4	102	8.2	334	22.2	17.5	129	155
28...	1000	--	--	--	--	--	--	--	--	--	--	--	--
28...	1020	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	Carbonate, wat fltr incrm. titr., field, mg/L (00452)	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00660)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
JUL 02...	--	1.7	.05	1.38	.016	--	.04	.34	3.1	--	--	--	--
AUG 26...	.0	.29	<.04	2.15	E.005	.04	.03	.065	2.4	.4	<.1	.4	2.1
28...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	Biomass periphyton, ashfree drymass g/m2 (49954)	Biomass periphyton, ashfree dry wt, DTH, g/m2 (63766)	Biomass periphyton, ash weight, DTH, g/m2 (63765)	Periphyton biomass ash weight, g/m2 (00572)	Biomass periphyton, dry weight, DTH, g/m2 (63767)	Periphyton biomass dry weight, g/m2 (00573)	Chlorophyll a periphyton, DTH, CF meth mg/m2 (63763)	Pheophytin a periphyton, DTH, CF meth mg/m2 (63764)	Pheophytin a, periphyton, mg/m2 (62359)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Suspended sediment concentration mg/L (80154)
JUL 02...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 26...	--	--	--	--	--	--	--	--	--	2.7	--	2.6	11
28...	42.5	--	--	800	--	844.8	--	--	68	--	134	--	--
28...	--	41.0	1,520	--	1,560	--	15.7	21.3	--	--	--	--	--

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

Date	Suspended sediment discharge, tons/d (80155)
JUL 02...	--
AUG 26...	7.3
28...	--
28...	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	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 unfltrd 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)	Magnesium, water, fltrd, mg/L (00925)
OCT 07...	1440	198	728	12.4	130	8.5	348	23.8	15.4	120	--	30.3	11.8
FEB 04...	1350	58	735	--	--	8.8	573	5.7	8.1	200	--	46.3	19.4
APR 07...	1410	310	736	11.4	108	8.3	203	18.4	11.3	88	7	23.5	7.02
JUN 09...	1310	355	729	12.3	127	8.1	249	19.7	14.9	96	.0	25.8	7.73
JUL 08...	1240	257	735	11.0	120	8.3	295	25.3	17.8	110	1	28.3	9.38

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	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)
OCT 07...	3.13	.8	21.1	26	--	--	--	--	6.70	.4	26.2	27.5	--
FEB 04...	6.18	2	49.6	35	204	--	--	--	15.7	.7	40.5	65.9	387
APR 07...	1.62	.4	9.46	19	--	81	98	.0	3.47	<.2	9.49	15.0	120
JUN 09...	2.26	.6	12.6	22	--	96	116	.0	4.06	.2	14.0	16.9	146
JUL 08...	2.59	.7	16.1	24	--	109	130	.0	5.19	.3	19.1	22.4	176

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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)	2,6-Diethyl-aniline water fltrd, ug/L (82660)	CIAT, water, fltrd, ug/L (04040)
OCT 07...	--	--	213	.18	.020	2.15	.032	.050	2.3	11	6.8	<.006	E.003
FEB 04...	.53	61.2	388	.25	.010	4.66	.046	.067	4.9	16	20.7	<.006	E.009
APR 07...	.17	104	124	.26	.020	.560	.018	.037	.82	7	15.1	<.006	<.006
JUN 09...	.20	143	149	.26	.020	1.01	.030	.052	1.3	7	17.0	<.006	E.005
JUL 08...	.25	127	183	.21	.010	1.70	.024	.050	1.9	10	18.5	<.006	E.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd, 0.7u GF (82686)	Ben-flur-alin, water, fltrd, 0.7u GF (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd, 0.7u GF (82680)	Carbo-furan, water, fltrd, 0.7u GF (82674)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water, fltrd, 0.7u GF (82687)	Cyana-zine, water, fltrd, ug/L (04041)
OCT 07...	<.006	<.004	<.005	104	.009	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
FEB 04...	<.006	<.005	<.005	98.2	.010	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018
APR 07...	<.006	<.005	<.005	97.3	.011	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018
JUN 09...	<.006	<.005	<.005	95.8	.010	E.026	<.010	<.004	<.041	<.020	.006	<.006	<.018
JUL 08...	<.006	<.005	<.005	86.1	.011	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog. wat flt 0.7u GF percent recovry (91063)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfur- alin, water, fltrd 0.7u GF ug/L (82663)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulf- inyl- 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)
OCT 07...	<.003	<.004	<.005	109	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007
FEB 04...	<.003	<.012	<.005	110	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016
APR 07...	.011	<.012	<.005	114	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016
JUN 09...	.006	<.012	<.005	120	<.009	<.02	.120	E.009	<.005	<.029	<.013	<.024	<.016
JUL 08...	.004	<.012	<.005	97.0	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF (82671)	Napropamide, water, fltrd 0.7u GF (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF (82669)	Pendimethalin, water, fltrd 0.7u GF (82683)
OCT 07...	<.003	<.004	<.035	<.027	<.006	E.005	<.006	<.002	<.007	<.003	<.010	<.004	<.022
FEB 04...	<.003	<.004	<.035	<.027	<.015	<.013	E.005	<.003	<.007	<.003	<.010	<.004	<.022
APR 07...	<.003	<.004	<.035	<.027	<.015	<.013	.010	<.003	<.007	<.003	<.010	<.004	<.022
JUN 09...	<.003	<.004	E.013	E.017	<.015	.134	.016	<.003	<.007	<.003	<.010	<.004	.033
JUL 08...	<.003	<.004	<.035	<.027	<.015	.015	<.006	<.003	<.007	<.003	<.010	<.004	.028

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phorate water fltrd 0.7u GF ug/L (82664)	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)	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-fluralin, water, fltrd 0.7u GF ug/L (82661)
OCT 07...	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	E.004
FEB 04...	<.011	<.02	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	.004	<.009
APR 07...	<.011	<.01	<.004	<.025	<.011	<.02	.024	<.02	<.034	<.02	<.010	<.002	<.009
JUN 09...	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	E.004
JUL 08...	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.002	<.009

12472190 LOWER CRAB CREEK NEAR MCMANAMON ROAD, NEAR OTHELLO, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 46°53'45", long 119°18'10", in NE¹/₄NE¹/₄, sec.9, T.16 N., R.28 E., Grant County, Hydrologic Unit 17020015, upstream of McManamon Rd. bridge, west of Othello.

DRAINAGE AREA.--21 mi².

PERIOD OF RECORD.--July 1992, October 1994, July and August 2003 (discontinued).

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

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 degrees NTU (63675)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	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)
JUL 02...	1100	--	--	740	10.4	120	8.7	313	19.2	21.0	--	--	--
AUG 26...	1400	60	1.6	739	10.5	130	8.9	245	31.1	24.3	101	115	4
29...	1400	--	--	--	--	--	--	--	--	--	--	--	--
29...	1420	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)	Biomass periphyton, ashfree dry wt, DTH, g/m2 (63766)
JUL 02...	.24	<.04	<.06	<.008	--	E.01	.010	--	--	--	--	--	--
AUG 26...	.31	<.04	<.06	<.008	.08	<.02	.019	.5	<.1	.5	2.6	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	12.5	--
29...	--	--	--	--	--	--	--	--	--	--	--	--	84.4

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

Date	Biomass periphyton, ash weight, DTH, g/m2 (63765)	Periphyton biomass ash weight, g/m2 (00572)	Biomass periphyton, dry weight, DTH, g/m2 (63767)	Periphyton biomass dry weight, g/m2 (00573)	Chlorophyll a periphyton, DTH, CF meth mg/m2 (63763)	Pheophytin a periphyton, DTH, CF meth mg/m2 (63764)	Pheophytin a, periphyton, mg/m2 (62359)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
JUL 02...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 26...	--	--	--	--	--	--	--	3.0	--	5.5	2	.33
29...	--	440	--	452.2	--	--	26	--	40.2	--	--	--
29...	1,630	--	1,720	--	31.3	35.5	--	--	--	--	--	--

12472380 CRAB CREEK LATERAL ABOVE ROYAL LAKE, NEAR OTHELLO, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 46°52'37", long 119°20'51", in SE¹/₄NE¹/₄, sec.18, T.16 N., R.28 E., Grant County, Hydrologic Unit 17020015, on right bank, 100 ft upstream from drop structure to Royal Lake, and 8 mi northwest of Othello.

DRAINAGE AREA.--32 mi².

PERIOD OF RECORD.--April 1993-96, February 1997, July and August 2003 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: January to September 1996.

INSTRUMENTATION.--Temperature recorder, electronic data logger with 60-minute recording interval (1996).

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 20.0°C, Aug. 30, 1996, but 20.5°C was measured on July 30, 1996, during a period of missing record; minimum, 0.0°C, Jan. 30, 31, Feb. 1-3, 28, 1996.

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

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 degrees NTU (63675)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incm. titr., field, mg/L (00453)	Carbonate, wat flt incm. titr., field, mg/L (00452)
JUL	02...	--	--	740	10.4	111	8.2	338	18.8	17.2	--	--	--
AUG	28...	64	2.6	743	9.9	109	8.3	339	29.2	18.6	131	156	2
	29...	--	--	--	--	--	--	--	--	--	--	--	--
	29...	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)
JUL	02...	.71	.10	2.50	.016	--	.03	.097	3.2	--	--	--	--
AUG	28...	.25	<.04	2.46	E.006	.03	<.02	.028	2.7	.3	<.1	.3	2.2
	29...	--	--	--	--	--	--	--	--	--	--	--	21.1
	29...	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	Biomass periphyton, ashfree dry wt, DTH, g/m2 (63766)	Biomass periphyton, ash weight, DTH, g/m2 (63765)	Periphyton biomass ash weight, g/m2 (00572)	Biomass periphyton, dry weight, DTH, g/m2 (63767)	Periphyton biomass dry weight, g/m2 (00573)	Chlorophyll a periphyton, DTH, CF meth mg/m2 (63763)	Pheophytin a periphyton, DTH, CF meth mg/m2 (63764)	Pheophytin a, periphyton, mg/m2 (62359)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
JUL	02...	--	--	--	--	--	--	--	--	--	--	--	--
AUG	28...	--	--	--	--	--	--	--	.8	--	1.5	10	1.7
	29...	--	--	610	--	627.0	--	43	--	80.2	--	--	--
	29...	26.4	872	--	899	--	21.2	12.0	--	--	--	--	--

12472515 RED ROCK COULEE AT E ROAD SOUTHWEST, NEAR SMYRNA, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 46°52'28", long 119°35'51", in NW $\frac{1}{4}$ SW $\frac{1}{4}$, sec.20, T.16 N., R.26 E., Grant County, Hydrologic Unit 17020015, on upstream side of E Rd. crossing, at mile 2.34, 1.8 mi southeast of Royal City.

DRAINAGE AREA.--14 mi².

PERIOD OF RECORD.--July to August 2003 (discontinued).

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

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 degrees NTU (63675)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	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)
JUL 08...	1640	--	--	745	11.2	133	8.9	377	28.3	22.8	--	--	--
AUG 13...	1520	85	2.4	745	11.7	141	8.8	385	33.8	23.4	142	161	6
27...	1030	--	--	--	--	--	--	--	--	--	--	--	--
27...	1050	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)
JUL 08...	.42	<.04	1.97	.027	--	<.02	.026	2.4	--	--	--	--	--
AUG 13...	.39	<.04	1.61	.023	.13	<.18	.028	2.0	1.1	<.1	1.1	2.9	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	29.7
27...	--	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	Biomass periphyton, ashfree dry wt, DTH, g/m2 (63766)	Biomass periphyton, ash weight, DTH, g/m2 (63765)	Periphyton biomass ash weight, DTH, g/m2 (00572)	Biomass periphyton, dry weight, DTH, g/m2 (63767)	Periphyton biomass dry weight, DTH, g/m2 (00573)	Chlorophyll a periphyton, DTH, CF meth mg/m2 (63763)	Pheophytin a periphyton, DTH, CF meth mg/m2 (63764)	Pheophytin a, periphyton, mg/m2 (62359)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	4.1	--	6.2	7	1.6
27...	--	--	410	--	443.8	--	--	66	--	88.7	--	--	--
27...	126	3,490	--	3,620	--	76.6	44.8	--	--	--	--	--	--

12472520 RED ROCK COULEE NEAR SMYRNA, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 46°51'20", long 119°35'48", in SW $\frac{1}{4}$ SW $\frac{1}{4}$, 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 mi northeast of Smyrna.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--July 2002 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	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)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Noncarb hardness, wat flt field, mg/L as CaCO ₃ (00904)	Noncarb hardness, wat flt lab, mg/L as CaCO ₃ (00905)	Calcium water, fltrd, mg/L (00915)
OCT 07...	0950	85	742	9.3	100	8.4	415	21.1	17.4	160	8	--	35.6
FEB 04...	0910	56	749	12.7	100	8.5	611	2.1	4.6	250	--	29	53.5
APR 07...	0910	56	751	11.1	108	8.7	561	21.6	13.5	230	38	--	46.2
JUN 09...	0810	83	744	12.0	127	8.3	422	12.1	16.7	170	16	--	37.0
JUL 08...	0830	87	746	9.6	100	8.3	374	21.9	16.4	160	20	--	34.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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 fxd end lab, mg/L as CaCO ₃ (29801)	Alkalinity, wat flt inc tit field, mg/L as CaCO ₃ (39086)	Bicarbonate, wat flt incrm. titr., mg/L field, (00453)	Carbonate, wat flt incrm. titr., mg/L field, (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 07...	18.2	2.66	.7	20.8	21	--	155	186	2	9.84	.4	23.2	34.0
FEB 04...	29.1	3.55	1	37.4	24	224	--	--	--	18.9	.6	39.9	62.3
APR 07...	28.9	3.18	1	38.6	26	--	197	229	5	19.3	.5	33.3	59.9
JUN 09...	18.4	2.61	.8	22.8	22	--	154	186	.0	11.3	.4	20.7	36.1
JUL 08...	17.7	2.02	.6	17.8	19	--	140	169	.0	9.52	.3	19.5	31.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—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)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)
OCT 07...	247	.34	57.6	250	.28	.020	1.98	<.003	.021	2.3	E5	1.8	<.006
FEB 04...	404	.56	62.3	410	.28	.010	5.39	.012	.022	5.7	E5	1.5	<.006
APR 07...	366	.50	55.5	366	.31	<.010	4.10	.006	.030	4.4	E5	2.3	<.006
JUN 09...	250	.36	58.9	264	.29	.030	2.15	.014	.032	2.4	<6	1.7	<.006
JUL 08...	227	.31	54.0	230	.36	.050	2.48	.003	.036	2.8	E5	2.1	<.006

12472520 RED ROCK COULEE NEAR SMYRNA, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	alpha- HCH-d6, surrog, wat flt 0.7u GF percent recovery (91065)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)
OCT 07...	E.004	<.006	<.004	<.005	108	.014	<.050	<.010	<.002	<.041	<.020	<.005	<.006
FEB 04...	E.013	<.006	<.005	<.005	98.2	.018	<.050	<.010	<.004	<.041	<.020	<.005	<.006
APR 07...	E.011	<.006	.013	<.005	93.7	.019	<.050	<.010	<.004	<.041	<.020	.027	<.006
JUN 09...	E.011	<.006	<.005	<.005	97.7	.023	E.018	<.010	<.004	<.041	<.020	E.004	<.006
JUL 08...	E.010	<.006	.005	<.005	92.4	.029	<.050	<.010	<.004	<.041	<.020	<.005	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Cyana- zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipron- il, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	Diazi- non-d10 surrog, wat flt 0.7u GF percent recovery (91063)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal- flur- alin, water, fltrd 0.7u GF ug/L (82663)	Etho- prop, water, fltrd 0.7u GF ug/L (82672)	Desulf- inyl- fipron- il amide, wat flt ug/L (62169)	Fipron- il sulfide water, fltrd, ug/L (62167)	Fipron- il sulfone water, fltrd, ug/L (62168)
OCT 07...	<.018	<.003	<.004	<.005	103	<.005	<.02	E.002	<.009	<.005	<.009	<.005	<.005
FEB 04...	<.018	<.003	<.012	<.005	105	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024
APR 07...	<.018	.003	<.012	<.005	110	<.009	<.02	.004	<.009	.009	<.029	<.013	<.024
JUN 09...	<.018	.015	<.012	<.005	118	<.009	<.02	.100	<.009	<.005	<.029	<.013	<.024
JUL 08...	<.018	.009	<.012	E.004	106	<.009	<.02	.018	<.009	<.005	<.029	<.013	<.024

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fipron- il, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	Naprop- amide, water, fltrd 0.7u GF ug/L (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF ug/L (82669)
OCT 07...	<.007	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
FEB 04...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	.007	<.003	<.007	<.003	<.010	<.004
APR 07...	<.016	<.003	<.004	<.035	<.027	<.015	<.013	.006	<.003	<.007	<.003	<.010	<.004
JUN 09...	<.016	<.003	<.004	E.014	.030	<.015	E.011	.008	<.003	<.007	<.003	<.010	<.004
JUL 08...	<.016	<.003	<.004	<.035	<.027	<.015	E.007	.006	<.003	<.007	<.003	<.010	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water, fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)
OCT 07...	<.022	<.011	E.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002
FEB 04...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.008	<.02	<.034	<.02	<.010	<.002
APR 07...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.019	<.02	E.040	<.02	<.010	<.002
JUN 09...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.012	<.02	E.050	<.02	<.010	<.002
JUL 08...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.011	<.02	E.011	<.02	<.010	<.002

12472520 RED ROCK COULEE NEAR SMYRNA, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
OCT 07...	<.009
FEB 04...	<.009
APR 07...	<.009
JUN 09...	<.009
JUL 08...	<.009

12472600 CRAB CREEK NEAR BEVERLY, WA

LOCATION.--Lat 46°49'48", long 119°49'48", in NW $\frac{1}{4}$ SW $\frac{1}{4}$, 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 mi², of which 665 mi² in the vicinity of Soap Lake is noncontributing.

PERIOD OF RECORD.--February 1959 to July 2000, September 2000 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 those below 130 ft³/s, which are poor. 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, 1975-80. Daily water temperatures August 1959 to September 1962, July 1968 to August 1970.

AVERAGE DISCHARGE.--44 years (water years 1960-99, 2001-04), 201 ft³/s, 145,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 936 ft³/s, Mar. 3, 1980, gage height, 6.46 ft; minimum discharge, 10 ft³/s, Jan. 10, 1963, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 332 ft³/s, Aug. 29, gage height, 3.72 ft; minimum discharge, 66 ft³/s, Jan. 5.

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	254	185	141	169	213	190	215	154	208	159	188	297
2	265	185	147	163	215	170	217	153	180	139	188	276
3	259	184	159	168	216	181	218	152	172	139	187	278
4	259	193	156	149	213	181	198	148	163	180	171	279
5	253	204	155	91	207	179	191	137	152	169	189	280
6	254	173	156	175	202	176	198	136	168	184	207	275
7	262	170	153	e170	200	175	200	138	179	199	216	276
8	256	156	157	e160	198	154	215	140	197	189	227	270
9	252	166	154	e150	193	149	210	158	198	175	243	270
10	245	172	157	139	190	158	215	176	194	126	232	264
11	240	169	167	145	190	156	222	196	221	135	210	264
12	262	167	175	170	192	156	221	212	244	152	216	272
13	293	164	183	218	187	166	208	222	257	157	237	283
14	312	162	193	190	186	161	199	235	262	148	215	273
15	285	141	195	187	187	156	192	243	278	147	211	268
16	262	137	194	184	189	191	192	251	257	145	211	292
17	281	142	192	197	199	152	201	257	195	146	197	295
18	274	146	188	219	211	136	211	254	190	147	188	270
19	268	163	181	225	209	134	213	237	166	159	179	265
20	256	157	186	228	202	128	231	220	145	182	159	274
21	250	149	187	221	196	123	247	221	144	226	166	285
22	260	144	183	233	192	121	238	258	154	194	187	291
23	254	143	182	216	186	117	211	268	149	198	212	290
24	251	153	183	187	192	109	194	263	119	168	246	271
25	241	152	183	209	194	115	199	257	118	168	264	267
26	260	137	183	215	204	132	204	228	100	170	295	281
27	236	164	181	265	201	134	182	199	108	181	323	285
28	213	163	176	298	234	134	177	206	147	141	324	285
29	208	161	175	275	203	173	189	200	188	114	327	284
30	200	157	172	241	---	223	159	211	161	154	325	285
31	191	---	170	220	---	225	---	217	---	204	312	---
TOTAL	7,856	4,859	5,364	6,077	5,801	4,855	6,167	6,347	5,414	5,095	7,052	8,345
MEAN	253	162	173	196	200	157	206	205	180	164	227	278
MAX	312	204	195	298	234	225	247	268	278	226	327	297
MIN	191	137	141	91	186	109	159	136	100	114	159	264
AC-FT	15,580	9,640	10,640	12,050	11,510	9,630	12,230	12,590	10,740	10,110	13,990	16,550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004, BY WATER YEAR (WY)

MEAN	263	201	184	181	187	168	195	189	180	179	210	254
MAX	365	310	274	307	358	409	335	297	301	284	303	364
(WY)	(1996)	(1974)	(1974)	(1997)	(1984)	(1980)	(1984)	(1997)	(1997)	(1997)	(1997)	(1997)
MIN	64.4	64.8	58.4	61.9	71.8	55.0	51.6	50.8	48.4	32.5	48.9	66.9
(WY)	(1961)	(1961)	(1961)	(1961)	(1962)	(1960)	(1959)	(1960)	(1959)	(1959)	(1959)	(1961)

12472600 CRAB CREEK NEAR BEVERLY, WA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 2004	
ANNUAL TOTAL	71,490		73,232		201	
ANNUAL MEAN	196		200		293	1997
HIGHEST ANNUAL MEAN					62.2	1961
LOWEST ANNUAL MEAN					848	Mar 3, 1980
HIGHEST DAILY MEAN	326	Apr 17	327	Aug 29	14	Aug 2, 1962
LOWEST DAILY MEAN	25	Jun 20	91	Jan 5	20	Jul 28, 1962
ANNUAL SEVEN-DAY MINIMUM	67	Jun 16	121	Mar 20	145,400	
ANNUAL RUNOFF (AC-FT)	141,800		145,300		300	
10 PERCENT EXCEEDS	279		270		204	
50 PERCENT EXCEEDS	186		192		82	
90 PERCENT EXCEEDS	114		145			

e Estimated

12472600 CRAB CREEK NEAR BEVERLY, WA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-72, 1975-76, 1978, 1980, July 2002 to current year.

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, Washington field office. Unpublished water-quality data for 1981 and 1993-96 are available in the 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 January and February 1995, and several days in January and February 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	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)	Specific conductance, wat unfltrd 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 fltrd field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 06...	1350	256	742	11.1	118	8.5	537	28.1	16.9	180	--	37.4	20.8
FEB 03...	1330	217	746	12.6	101	8.5	818	6.4	4.9	260	--	52.6	32.1
APR 06...	1310	200	748	12.2	122	8.6	660	20.1	14.1	220	--	42.8	27.2
JUN 08...	1250	198	748	8.8	97	8.3	543	23.1	18.9	180	3	37.4	21.8
JUL 07...	1320	200	748	10.3	121	8.2	492	24.9	22.4	180	--	36.6	20.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat fltrd fxd end lab, mg/L as CaCO3 (29801)	Alkalinity, wat fltrd inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltrd incrm. titr., field, mg/L (00453)	Carbonate, wat fltrd 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)
OCT 06...	6.24	1	40.1	32	--	--	--	--	13.2	.5	25.7	47.9	--
FEB 03...	12.1	2	83.5	39	307	--	--	--	28.5	.8	35.0	96.5	536
APR 06...	8.62	2	67.7	39	--	246	290	5	22.3	.6	25.4	69.3	420
JUN 08...	6.89	1	45.9	34	--	182	220	.0	15.7	.5	19.5	54.3	316
JUL 07...	5.97	1	38.2	31	--	184	222	.0	12.8	.5	21.8	47.9	301

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat fltrd 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)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)
OCT 06...	--	--	327	.31	<.010	1.58	.009	.031	1.9	E5	3.0	<.006	E.004
FEB 03...	.72	308	526	.38	<.010	2.45	.049	.099	2.8	27	7.7	<.006	E.014
APR 06...	.59	234	434	.36	.010	1.77	<.003	.028	2.1	10	8.3	<.006	E.011
JUN 08...	.45	178	333	.27	.020	1.22	.018	.040	1.5	8	3.3	<.006	E.010
JUL 07...	.41	165	305	.53	.030	1.66	.011	.036	2.2	E5	2.3	<.006	E.012

12472600 CRAB CREEK NEAR BEVERLY, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	alpha- HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	Cyana- zine, water, fltrd, ug/L (04041)
OCT 06...	<.006	<.004	<.005	104	.014	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018
FEB 03...	<.006	<.005	<.005	99.1	.017	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018
APR 06...	<.006	.017	<.005	96.8	.016	<.050	<.010	<.004	<.041	<.020	.010	<.006	<.018
JUN 08...	<.006	<.005	<.005	94.2	.019	E.019	<.010	<.004	<.041	<.020	E.004	<.006	<.018
JUL 07...	<.006	.008	<.005	93.5	.026	<.050	<.010	<.004	E.009	<.020	<.005	<.006	<.018

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipron- il, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	Diazi- non-d10 surrog, wat flt 0.7u GF percent recovry (91063)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal- flur- alin, water, fltrd 0.7u GF ug/L (82663)	Etho- prop, water, fltrd 0.7u GF ug/L (82672)	Desulf- inyl- fipron- il amide, wat flt ug/L (62169)	Fipron- il sulfide water, fltrd, ug/L (62167)	Fipron- il sulfone water, fltrd, ug/L (62168)	Fipron- il, water, fltrd, ug/L (62166)
OCT 06...	<.003	<.004	<.005	110	<.005	<.02	<.002	<.009	<.005	<.009	<.005	<.005	<.007
FEB 03...	<.003	<.012	<.005	110	<.009	<.02	<.004	<.009	<.005	<.029	<.013	<.024	<.016
APR 06...	<.003	<.012	<.005	115	<.009	<.02	E.003	<.009	<.005	<.029	<.013	<.024	<.016
JUN 08...	.008	<.012	<.005	110	<.009	<.02	.032	<.009	<.005	<.029	<.013	<.024	<.016
JUL 07...	.006	<.012	<.005	111	<.009	<.02	.018	<.009	<.005	<.029	<.013	<.024	<.016

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water, fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	Naprop- amide, water, fltrd 0.7u GF ug/L (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebu- late, water, fltrd 0.7u GF ug/L (82669)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)
OCT 06...	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022
FEB 03...	<.005	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022
APR 06...	<.003	<.004	<.035	<.027	<.015	<.013	<.006	<.003	<.007	<.003	<.010	<.004	<.022
JUN 08...	<.003	<.004	E.013	<.027	<.015	E.010	E.005	<.003	<.007	<.003	<.010	<.004	<.022
JUL 07...	<.003	<.004	<.035	<.027	<.015	E.004	<.006	<.003	<.007	<.003	<.010	<.004	<.022

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phorate water fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water, fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
OCT 06...	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009
FEB 03...	<.011	<.01	<.004	<.025	<.011	<.02	.006	<.02	<.034	<.02	<.010	<.002	<.009
APR 06...	<.011	<.01	<.004	<.025	<.011	<.02	.012	<.02	E.016	<.02	<.010	<.002	<.009
JUN 08...	<.011	<.01	<.004	<.025	<.011	<.02	.010	<.02	E.021	<.02	<.010	<.002	<.009
JUL 07...	<.011	<.01	<.004	<.025	<.011	<.02	.007	<.02	E.021	<.02	<.010	<.002	<.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 mi², 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.--87 years (water years 1918-2004), 118,900 ft³/s, 86,160,000 acre-ft/yr, unadjusted. 45 years (water years 1960-2004), 118,700 ft³/s, 86,020,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 692,600 ft³/s, June 12, 1948, gage height, 59.35 ft, site and datum then in use; minimum discharge, 4,120 ft³/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 ft³/s, Feb. 1-7, 1930, site and datum then in use; minimum daily discharge after completion of Rock Island Dam (1932), 20,000 ft³/s, Jan. 31 to Feb. 10, 1937, site and datum then in use; minimum discharge since completion of Priest Rapids Dam (1959), 16,300 ft³/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 ft³/s, based on a rating extension for a Weather Bureau gage at Wenatchee.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 213,000 ft³/s, June 20, gage height, 412.40 ft; minimum discharge, 38,700 ft³/s, Oct. 19, gage height, 396.77 ft; minimum daily discharge, 48,800 ft³/s, Aug. 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	88,700	112,000	84,100	94,200	87,300	88,600	73,700	102,000	134,000	131,000	80,800	148,000
2	78,600	113,000	90,000	96,900	88,600	86,600	93,400	104,000	108,000	103,000	93,600	74,000
3	68,400	93,400	122,000	108,000	101,000	90,400	83,600	122,000	141,000	102,000	93,900	72,700
4	58,200	92,500	121,000	101,000	98,300	101,000	72,000	133,000	155,000	96,200	86,700	53,500
5	52,400	111,000	114,000	135,000	96,500	102,000	71,500	123,000	127,000	133,000	85,700	55,000
6	76,300	122,000	97,700	136,000	109,000	71,700	71,600	105,000	117,000	117,000	81,600	72,600
7	74,900	115,000	94,800	150,000	100,000	71,100	71,400	120,000	118,000	120,000	48,800	94,000
8	81,600	111,000	87,900	124,000	75,100	70,800	71,000	116,000	110,000	136,000	62,700	95,600
9	84,200	74,100	114,000	119,000	73,600	71,000	71,400	104,000	119,000	126,000	84,700	87,300
10	82,200	91,100	129,000	97,900	96,800	81,400	72,700	138,000	144,000	99,400	108,000	91,400
11	71,600	90,400	129,000	87,300	106,000	82,300	71,700	154,000	167,000	105,000	123,000	77,600
12	59,400	105,000	112,000	93,600	98,500	70,800	73,400	123,000	146,000	131,000	102,000	60,100
13	82,400	107,000	108,000	123,000	116,000	70,500	77,500	125,000	142,000	122,000	100,000	64,700
14	73,700	97,800	120,000	105,000	78,500	70,700	103,000	146,000	165,000	120,000	92,700	59,900
15	93,000	90,500	133,000	97,900	72,600	71,000	101,000	126,000	166,000	118,000	92,600	58,300
16	84,500	83,000	127,000	96,400	78,200	71,500	103,000	134,000	138,000	82,000	95,500	67,600
17	80,900	95,400	127,000	83,500	80,900	72,000	91,600	129,000	138,000	89,600	107,000	73,600
18	64,100	91,800	121,000	75,200	86,200	71,900	97,200	136,000	146,000	85,300	114,000	64,400
19	64,400	97,500	117,000	81,300	82,000	78,400	121,000	141,000	138,000	95,100	116,000	52,100
20	63,100	114,000	115,000	94,600	78,800	71,800	150,000	133,000	137,000	76,800	115,000	62,400
21	66,000	124,000	85,100	90,600	72,600	71,100	131,000	118,000	161,000	95,600	95,900	85,800
22	86,400	122,000	113,000	112,000	72,100	71,500	109,000	122,000	155,000	78,600	61,400	97,200
23	111,000	82,700	130,000	116,000	72,800	71,800	108,000	120,000	124,000	87,600	69,600	109,000
24	109,000	90,600	111,000	85,100	70,900	73,300	109,000	93,800	111,000	79,700	68,900	97,200
25	112,000	102,000	86,700	77,700	71,300	82,700	105,000	134,000	120,000	70,200	96,000	81,700
26	85,300	103,000	81,600	106,000	95,800	82,500	102,000	130,000	128,000	87,800	113,000	71,000
27	90,800	84,200	109,000	110,000	87,500	72,400	113,000	139,000	113,000	107,000	126,000	84,700
28	111,000	72,100	110,000	96,000	72,400	71,700	126,000	136,000	143,000	111,000	92,600	89,800
29	107,000	69,600	126,000	95,200	71,200	71,600	117,000	108,000	171,000	118,000	110,000	84,300
30	95,100	71,300	132,000	88,500	---	71,300	94,100	121,000	158,000	108,000	121,000	90,000
31	98,000	---	123,000	78,800	---	73,300	---	115,000	---	100,000	135,000	---
TOTAL	2,554,200	2,929,000	3,470,900	3,155,700	2,490,500	2,378,700	2,855,800	3,850,800	4,140,000	3,231,900	2,973,700	2,375,500
MEAN	82,390	97,630	112,000	101,800	85,880	76,730	95,190	124,200	138,000	104,300	95,930	79,180
MAX	112,000	124,000	133,000	150,000	116,000	102,000	150,000	154,000	171,000	136,000	135,000	148,000
MIN	52,400	69,600	81,600	75,200	70,900	70,500	71,000	93,800	108,000	70,200	48,800	52,100
AC-FT	5,066,000	5,810,000	6,885,000	6,259,000	4,940,000	4,718,000	5,664,000	7,638,000	8,212,000	6,410,000	5,898,000	4,712,000

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

MEAN	72,270	73,780	78,040	80,570	81,530	82,390	104,200	190,800	264,000	195,800	119,900	82,090
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 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1918 - 2004	
ANNUAL TOTAL	36,819,300		36,406,700			
ANNUAL MEAN	100,900		99,470		118,900	
HIGHEST ANNUAL MEAN					165,600	1997
LOWEST ANNUAL MEAN					78,070	1944
HIGHEST DAILY MEAN	182,000	Jun 13	171,000	Jun 29	690,000	Jun 12, 1948
LOWEST DAILY MEAN	42,600	Sep 14	48,800	Aug 7	20,000	Jan 31, 1937
ANNUAL SEVEN-DAY MINIMUM	56,100	Sep 6	62,600	Sep 14	20,100	Jan 30, 1937
ANNUAL RUNOFF (AC-FT)	73,030,000		72,210,000		86,160,000	
10 PERCENT EXCEEDS	143,000		133,000		228,000	
50 PERCENT EXCEEDS	97,500		96,400		93,900	
90 PERCENT EXCEEDS	70,800		71,200		46,900	

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

WATER-QUALITY RECORDS

LOCATION.--Lat 46°38'24", long 119°43'54", in NW $\frac{1}{4}$ SE $\frac{1}{4}$, 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 mi², 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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 corrcrtd 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)	Specific conductance, wat unfltrd 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 fltrd field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)
FEB 10...	1130	106,000	<2.0	765	13.7	102	8.2	142	7.2	3.2	71	11	19.9
APR 13...	0950	82,200	<2.0	749	13.7	121	8.3	149	19.5	9.2	69	6	19.5
JUL 28...	1200	94,400	<2.0	750	10.2	114	7.8	123	32.3	19.9	58	8	17.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Alkalinity, wat fltrd inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltrd incrm. titr., field, mg/L (00453)	Carbonate, wat fltrd 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 fltrd 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)
FEB 10...	5.07	59	72	.0	1.92	<.2	9.3	80	<10	E.09	.04	.14	<.008
APR 13...	4.81	62	75	.0	1.51	<.2	7.3	88	<10	.11	<.04	.19	<.008
JUL 28...	3.71	50	60	.0	.97	<.2	7.9	70	--	.10	<.04	E.03	<.008

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—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)
FEB 10...	<.02	<.04	--	1.1	<.8	<6	2	572
APR 13...	<.02	<.04	.30	1.1	<.8	<6	2	444
JUL 28...	<.02	<.04	--	1.4	<.8	E5	2	510

12472940 SCBID WAHATIS WASTEWAY NEAR MATTAWA, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 46°44'18", long 119°36'13", in SW¹/₄SW¹/₄, sec.32, T.15 N., R.26 E., Grant County, Hydrologic Unit 17020016, downstream of E Rd. SW bridge, 14 mi east of Mattawa.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--July to August 2003 (discontinued).

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

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 degrees NTU (63675)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incm. titr., field, mg/L (00453)	Carbonate, wat flt incm. titr., field, mg/L (00452)
JUL 08...	1910	--	--	746	8.7	102	9.2	291	23.5	22.2	--	--	--
AUG 27...	1100	24	2.9	746	8.8	103	8.6	317	26.7	22.1	132	155	2
28...	0900	--	--	--	--	--	--	--	--	--	--	--	--
28...	0920	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)
JUL 08...	.75	<.04	.27	E.006	--	<.02	.028	1.0	--	--	--	--	--
AUG 27...	.52	<.04	.45	E.006	.23	<.02	.032	.97	1.5	<.1	1.5	3.0	--
28...	--	--	--	--	--	--	--	--	--	--	--	--	44.2
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	Biomass periphyton, ashfree dry wt, DTH, g/m2 (63766)	Biomass periphyton, ash weight, DTH, g/m2 (63765)	Periphyton biomass ash weight, DTH, g/m2 (00572)	Biomass periphyton, dry weight, DTH, g/m2 (63767)	Periphyton biomass dry weight, DTH, g/m2 (00573)	Chlorophyll a periphyton, DTH, CF meth mg/m2 (63763)	Pheophytin a periphyton, DTH, CF meth mg/m2 (63764)	Pheophytin a, periphyton, mg/m2 (62359)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	2.7	--	8.2	4	.26
28...	--	--	750	--	796.0	--	--	9.6	--	41.2	--	--	--
28...	123	2,070	--	2,190	--	30.0	22.2	--	--	--	--	--	--

12473190 WAHLUKE BRANCH 10 WASTEWAY NEAR WHITE BLUFFS, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 46°40'39", long 119°24'54", in NE $\frac{1}{4}$ NE $\frac{1}{4}$, sec.27, T.14 N., R.27 E., Franklin County, Hydrologic Unit 17020016, downstream of Wahluke Slope Wildlife Refuge entrance road, 2 mi upstream of confluence with Columbia River, 24 mi east of Mattawa.

DRAINAGE AREA.--54 mi².

PERIOD OF RECORD.--July to August 2003 (discontinued).

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

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 degrees NTU (63675)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incm. titr., field, mg/L (00453)	Carbonate, wat flt incm. titr., field, mg/L (00452)
JUL 08...	2010	--	--	745	6.5	77	8.3	557	23.5	22.3	--	--	--
AUG 27...	1030	--	--	--	--	--	--	--	--	--	--	--	--
27...	1050	--	--	--	--	--	--	--	--	--	--	--	--
27...	1500	16	1.3	746	11.1	129	8.5	542	31.9	21.7	218	258	4

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

Date	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass periphyton, ashfree drymass g/m2 (49954)
JUL 08...	.48	<.04	.06	<.008	--	<.02	.017	.55	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--	52.3
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	.50	<.04	.15	<.008	.08	<.02	.035	.65	.6	<.1	.6	4.8	--

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

Date	Biomass periphyton, ashfree dry wt, DTH, g/m2 (63766)	Biomass periphyton, ash weight, DTH, g/m2 (63765)	Periphyton biomass ash weight, DTH, g/m2 (00572)	Biomass periphyton, dry weight, DTH, g/m2 (63767)	Periphyton biomass dry weight, DTH, g/m2 (00573)	Chlorophyll a periphyton, DTH, CF meth mg/m2 (63763)	Pheophytin a periphyton, DTH, CF meth mg/m2 (63764)	Pheophytin a, periphyton, mg/m2 (62359)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a periphyton, chromo-fluoro, mg/m2 (70957)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	480	--	531.2	--	--	170	--	70.1	--	--	--
27...	182	3,580	--	3,760	--	36.8	54.8	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	4.8	--	7.2	2	.09

12473520 COLUMBIA RIVER AT RICHLAND, WA

WATER-QUALITY RECORDS

LOCATION.--Lat 46°18'46", long 119°15'28", in NW¹/₄NW¹/₄, 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 mi², 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 2003 TO SEPTEMBER 2004

Date	Time	Turbidity white light, det ang 90+/-30 corrcrd 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)	Specific conductance, wat unfltrd 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 fltrd field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
FEB 11...	1030	<2.0	769	13.5	100	8.1	142	2.0	3.1	71	9	19.9	5.10
APR 14...	1130	<2.0	750	12.4	116	7.9	150	16.3	11.6	69	6	19.1	5.17
JUL 29...	1150	<2.0	749	9.8	110	7.7	126	34.3	20.2	57	7	16.8	3.76

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltr incrm. titr., field, mg/L (00453)	Carbonate, wat fltr 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 fltr 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)	Orthophosphate, water, fltrd, mg/L as P (00671)
FEB 11...	61	75	.0	1.58	<.2	9.4	79	<10	E.06	<.04	.16	<.008	<.02
APR 14...	62	76	.0	1.50	<.2	9.2	85	<10	E.07	<.04	.20	<.008	<.02
JUL 29...	50	61	.0	.97	<.2	7.9	70	12	.10	<.04	E.04	<.008	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Phosphorus, water, unfltrd mg/L (00665)	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)
FEB 11...	<.04	1.1	<.8	<6	2
APR 14...	<.04	1.4	<.8	<6	3
JUL 29...	<.04	1.5	<.8	E5	2