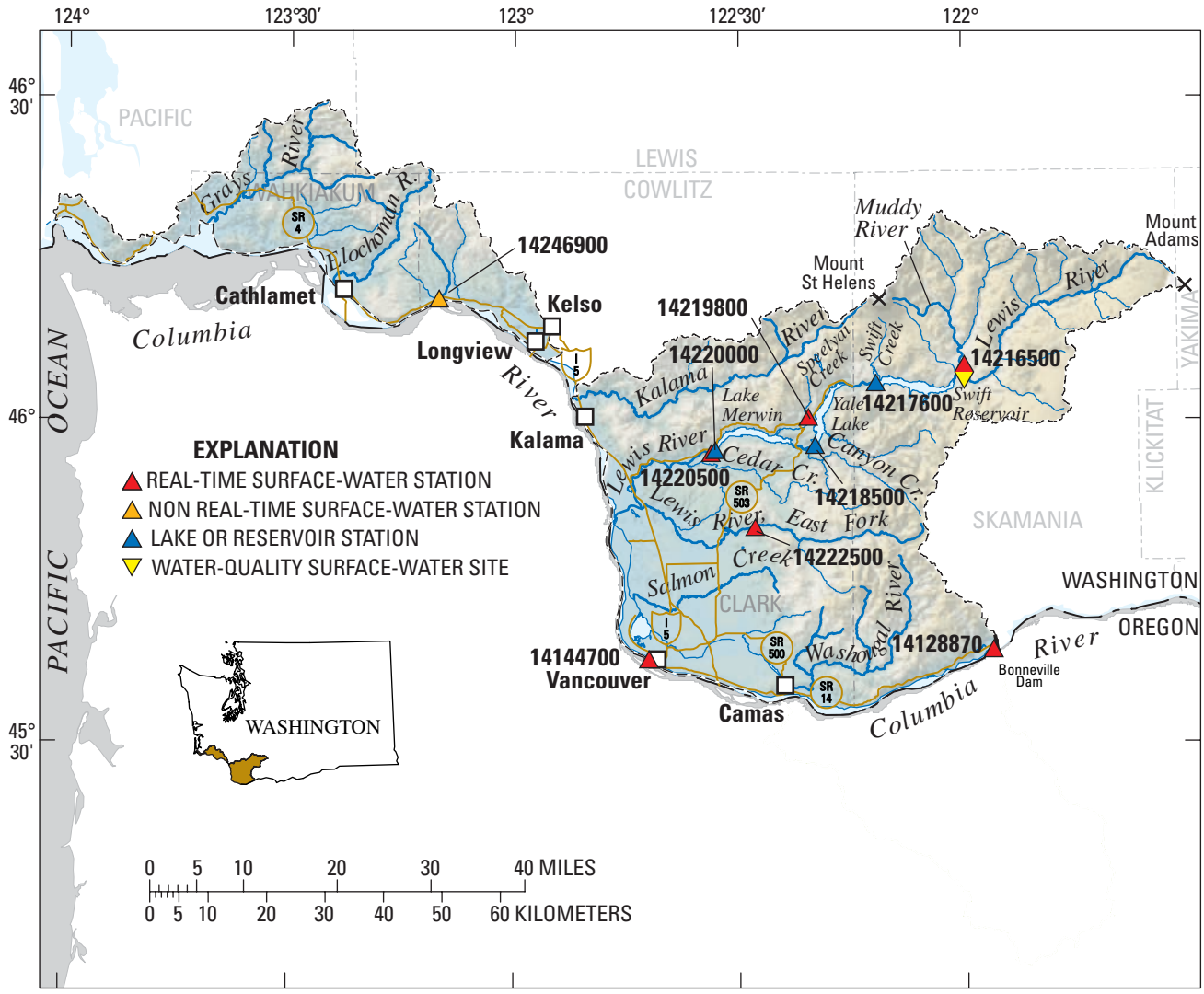

Figure 68. Location of surface-water stations in the Lewis River Basin and on the Columbia River from Bonneville Dam to the Pacific Ocean.

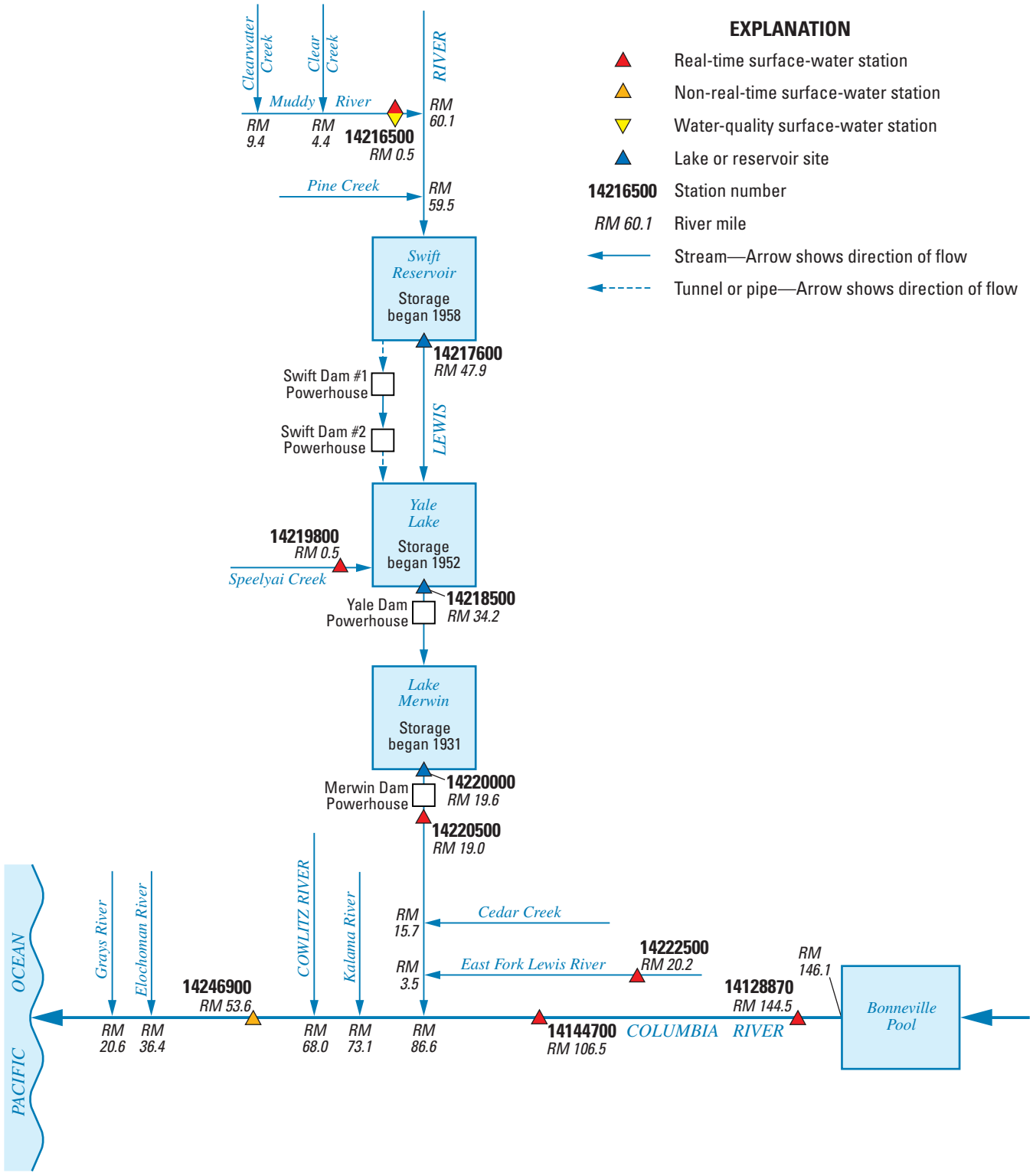

Figure 69. Schematic diagram showing surface-water stations in the Lewis River Basin and on the Columbia River from Bonneville Dam to the Pacific Ocean.

14128870 COLUMBIA RIVER BELOW BONNEVILLE DAM, OR

LOCATION.--Lat 45°38'00", long 121°57'33", in sec.21, T.2 N., R.7 E., Multnomah County, Hydrologic Unit 17080001, on left bank 0.9 mi downstream from Bonneville Dam left bank powerhouse, 50 ft upstream from Tanner Creek, and at mile 144.5.

DRAINAGE AREA.--239,900 mi^2, approximately.

PERIOD OF RECORD.--May 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to August 15, 1990, at a site 0.5 mi upstream at the same datum.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 35.11 ft, Feb. 9, 1996; minimum, 6.06 ft, Sept. 21, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 23.00 ft, May 18; minimum, 6.37 ft, Sept. 11.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.90	8.32	9.65	13.41	10.48	11.47	16.32	11.28	12.96	12.35	11.86	12.11
2	11.41	8.01	8.84	13.47	11.24	11.92	15.24	11.42	13.07	12.49	11.86	12.12
3	11.26	8.71	9.30	12.66	11.43	11.76	15.89	11.41	12.54	17.91	11.99	13.88
4	11.82	8.74	10.68	12.05	11.38	11.72	16.67	11.36	13.22	16.47	12.42	14.39
5	12.24	8.99	10.35	12.89	10.44	11.73	17.00	11.34	13.55	15.82	12.82	14.56
6	11.24	8.70	9.81	12.83	10.47	11.54	17.53	11.27	13.49	16.21	12.99	14.76
7	11.83	10.25	11.08	12.90	10.23	11.02	18.24	11.39	14.00	16.37	12.18	13.84
8	15.52	10.69	12.59	11.26	10.48	10.78	18.56	11.88	14.92	16.52	12.35	14.67
9	15.28	9.83	11.37	11.68	10.52	11.23	19.65	11.89	14.77	16.13	11.83	12.50
10	9.83	8.62	9.16	11.66	11.24	11.42	19.67	11.61	14.57	13.92	11.85	12.97
11	9.34	7.97	8.73	11.66	11.19	11.43	19.94	11.85	15.24	15.18	13.36	14.21
12	10.08	7.88	9.04	11.76	11.17	11.44	18.70	11.86	13.91	14.19	11.95	12.82
13	12.02	7.80	9.60	11.76	11.25	11.45	18.88	11.83	13.97	17.60	11.88	14.30
14	9.89	8.09	8.90	11.76	11.26	11.47	18.86	11.92	14.30	18.34	15.16	16.66
15	13.64	8.54	11.18	11.77	11.30	11.50	18.86	11.96	14.09	16.79	11.94	14.08
16	13.29	7.71	9.48	13.51	11.26	11.81	18.31	11.93	14.54	15.40	11.87	12.65
17	10.45	8.17	8.89	15.23	11.32	12.38	18.72	11.86	16.74	14.99	11.97	13.11
18	11.84	9.03	10.47	15.25	11.32	12.27	18.67	11.96	15.65	13.22	12.59	12.94
19	12.46	9.02	11.01	13.84	11.18	11.53	18.78	12.03	14.05	16.59	12.46	13.90
20	14.43	12.29	13.19	12.00	11.21	11.55	18.47	11.91	14.28	14.66	11.90	13.43
21	14.37	10.79	13.01	13.06	11.41	12.04	18.86	12.17	16.17	14.16	11.92	13.37
22	14.30	10.82	12.65	13.10	11.34	11.93	18.88	11.98	15.72	13.87	12.85	13.39
23	12.76	10.20	12.05	13.50	11.38	12.09	19.01	17.68	18.56	13.42	11.88	12.79
24	11.74	9.69	10.85	15.30	11.20	12.35	18.59	11.96	14.26	14.07	11.97	13.10
25	11.39	10.45	10.93	11.59	11.20	11.35	17.73	11.99	13.75	14.41	11.82	13.15
26	13.12	10.60	11.85	15.32	11.27	12.24	15.92	11.99	13.16	16.29	11.88	14.03
27	12.92	11.78	12.40	13.46	11.31	11.58	16.54	11.94	13.55	16.70	12.83	14.82
28	11.78	10.32	10.87	11.64	11.33	11.47	16.71	11.81	13.48	15.65	13.07	13.89
29	10.93	10.54	10.72	13.17	11.34	11.79	15.12	11.84	12.89	15.13	13.07	13.93
30	10.88	10.50	10.65	16.17	11.29	12.61	14.96	12.10	13.70	13.38	11.84	12.60
31	10.84	10.35	10.56	---	---	---	14.89	12.11	13.76	13.13	11.78	12.51
MONTH	15.52	7.71	10.64	16.17	10.23	11.70	19.94	11.27	14.29	18.34	11.78	13.60

14128870 COLUMBIA RIVER BELOW BONNEVILLE DAM, OR—Continued

GAGE HEIGHT, FEET—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.88	12.01	13.29	11.89	11.52	11.69	16.30	14.69	15.13	15.73	14.16	14.69
2	14.60	12.34	13.60	12.03	11.52	11.68	15.41	13.20	14.57	17.43	14.09	16.11
3	14.25	12.31	13.28	12.73	11.44	12.04	14.42	11.70	13.02	16.96	14.40	15.60
4	15.13	12.32	13.86	13.83	12.49	12.85	13.81	11.70	12.63	16.84	15.12	16.06
5	16.65	13.15	14.70	13.97	11.51	13.16	14.84	11.73	13.54	17.91	13.88	16.27
6	16.11	12.00	14.20	11.84	11.43	11.58	16.30	12.38	15.04	18.29	14.38	16.85
7	16.25	12.29	14.61	11.97	11.48	11.64	15.68	12.70	14.68	17.74	16.58	17.16
8	14.93	12.48	14.09	11.80	11.43	11.62	13.97	11.63	12.32	19.02	17.41	18.14
9	16.00	12.07	14.23	11.78	11.43	11.60	14.31	11.51	12.76	20.37	17.87	18.83
10	15.23	13.08	14.49	15.32	11.45	12.31	12.30	11.50	11.86	20.92	18.34	19.24
11	17.16	13.10	14.71	15.15	11.79	13.43	14.99	11.86	13.83	22.74	18.89	20.33
12	16.21	12.79	14.37	13.06	11.68	12.13	14.61	11.67	13.13	22.67	19.83	21.81
13	14.78	11.93	12.38	14.46	11.65	12.69	14.14	13.05	13.70	20.72	18.38	19.75
14	12.74	11.95	12.27	13.08	11.43	11.82	13.95	12.45	13.12	20.74	18.54	19.57
15	15.46	12.06	13.66	11.99	11.48	11.65	15.13	12.84	13.74	20.92	18.43	19.47
16	14.92	12.49	13.77	13.48	11.48	12.03	14.11	11.53	12.04	20.25	18.07	19.55
17	15.49	11.89	14.12	12.42	11.35	11.66	12.57	11.60	11.94	21.70	17.60	19.58
18	15.18	12.50	13.84	11.93	11.38	11.66	12.31	11.62	11.92	23.00	21.18	21.76
19	14.57	12.32	13.59	13.69	11.50	12.38	14.18	11.71	12.94	22.76	21.02	22.28
20	14.32	11.86	12.63	13.55	11.44	11.96	12.92	11.51	12.01	21.42	20.58	21.11
21	12.19	11.46	11.84	13.26	11.84	12.61	12.31	11.65	11.97	22.99	19.86	21.64
22	12.02	11.51	11.68	13.03	11.68	12.32	15.66	12.14	14.79	22.11	20.54	21.31
23	11.81	11.47	11.64	14.77	11.91	13.05	14.77	12.82	13.77	22.17	19.72	21.23
24	12.33	11.50	11.74	14.09	11.79	12.68	14.76	12.32	13.50	21.97	19.72	20.94
25	11.95	11.59	11.70	13.94	11.40	12.67	13.48	11.76	12.33	21.32	18.08	20.37
26	11.87	11.55	11.65	12.04	11.31	11.63	16.98	13.48	15.41	21.70	17.47	19.79
27	11.99	11.51	11.67	13.19	11.45	11.88	18.20	14.61	16.53	21.76	17.76	19.75
28	12.13	11.47	11.70	16.44	12.20	14.37	18.46	15.59	17.12	21.74	17.70	20.60
29	---	---	---	16.61	11.92	14.94	17.72	14.47	15.45	20.43	17.86	19.11
30	---	---	---	16.10	13.21	14.92	15.70	13.78	15.05	19.94	16.05	17.17
31	---	---	---	17.26	13.34	15.52	---	---	---	16.82	15.36	16.32
MONTH	17.16	11.46	13.19	17.26	11.31	12.52	18.46	11.50	13.66	23.00	13.88	19.11
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.22	16.02	18.04	18.73	15.63	17.35	16.41	14.63	15.41	12.20	10.19	11.15
2	19.85	18.40	19.31	18.76	16.57	17.49	15.54	13.92	14.80	10.45	8.92	9.74
3	19.04	17.27	18.25	16.93	14.91	15.70	14.40	11.60	13.01	10.23	7.82	9.37
4	19.52	15.52	17.67	16.32	12.51	13.92	14.44	11.14	12.23	10.32	7.86	9.18
5	18.46	15.67	16.71	17.61	12.44	14.63	13.79	11.26	12.46	9.84	7.27	8.72
6	17.55	16.05	16.93	17.90	13.08	15.22	13.99	12.87	13.47	9.27	7.25	8.44
7	17.99	14.91	16.16	16.79	12.63	13.74	13.58	12.34	12.74	9.10	7.28	8.11
8	16.75	15.16	15.76	16.91	15.45	16.38	14.59	11.70	13.13	10.95	7.23	8.55
9	19.48	15.47	17.06	17.05	14.84	15.60	14.06	11.68	12.73	11.18	7.91	9.15
10	18.00	16.02	16.81	16.03	14.64	15.10	15.17	11.54	12.50	11.23	7.10	8.66
11	17.54	15.77	16.61	16.41	13.75	15.21	15.29	11.95	13.20	8.52	6.37	7.24
12	17.06	14.37	15.76	16.55	13.00	15.02	15.72	11.69	12.94	9.10	7.18	8.30
13	16.36	14.06	14.99	16.30	14.10	15.01	12.30	11.14	11.64	9.69	7.48	8.59
14	16.32	14.64	15.76	17.62	15.33	16.09	12.37	10.20	11.08	9.86	7.44	8.35
15	16.18	13.61	15.04	18.05	16.34	17.20	12.69	10.21	11.30	8.78	6.96	8.17
16	17.18	14.56	15.62	17.64	15.69	16.62	12.27	10.61	11.20	10.25	7.33	8.98
17	17.71	14.81	16.03	17.33	14.83	16.12	14.68	10.46	12.13	11.43	7.40	8.87
18	16.17	15.24	15.64	16.31	14.25	15.10	14.54	12.90	13.63	11.19	7.71	9.11
19	15.76	12.50	14.13	15.94	13.77	14.85	14.10	12.46	13.13	8.79	7.15	7.94
20	17.63	14.16	16.24	14.62	13.48	14.10	14.07	11.29	12.38	10.63	7.12	8.38
21	17.67	15.17	16.23	16.42	12.39	14.48	12.92	10.54	11.33	12.37	8.35	10.27
22	18.50	14.72	16.69	16.76	15.66	16.21	14.02	10.06	11.73	12.29	8.47	9.45
23	19.72	15.66	18.14	16.29	13.13	14.38	15.39	11.00	12.43	11.29	8.82	9.81
24	19.02	16.41	17.17	16.18	12.38	13.58	14.81	11.34	12.68	9.92	7.76	8.98
25	18.21	16.44	17.62	16.57	12.09	13.96	13.99	10.38	11.23	8.74	6.66	7.47
26	18.33	16.48	17.02	16.80	12.81	15.24	11.17	10.10	10.64	8.64	6.93	7.78
27	17.81	15.81	16.95	16.04	13.49	14.30	12.69	9.87	11.20	10.96	8.59	10.01
28	18.12	16.07	16.79	15.84	12.63	13.92	12.30	10.36	11.15	9.77	6.84	7.73
29	17.19	15.20	16.30	16.43	13.12	14.27	10.89	9.89	10.47	10.82	7.79	9.12
30	18.42	16.38	17.01	16.29	13.80	14.96	14.19	10.33	11.96	11.30	9.27	10.54
31	---	---	---	16.60	13.97	15.47	14.15	10.23	11.16	---	---	---
MONTH	19.85	12.50	16.61	18.76	12.09	15.20	16.41	9.87	12.29	12.37	6.37	8.87
YEAR	23.00	6.37	13.48									

14144700 COLUMBIA RIVER AT VANCOUVER, WA

LOCATION.--Lat 45°37'15", long 122°40'20", in NE¼NW¼ sec.34, T.2 N., R.1 E., Clark County, Hydrologic Unit 17080001, near right bank in control house of Interstate Highway 5 bridge at south edge of Vancouver, 5.0 mi upstream from Willamette River, and at mile 106.5.

DRAINAGE AREA.--241,000 mi^2, approximately.

PERIOD OF RECORD.--October 1963 to June 1970 (discharge), February 1998 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of the gage is Columbia River Datum, add 1.82 ft to correct to NGVD of 1929. Prior to February 1998, datum of gage was NGVD of 1929.

REMARKS.--Considerable regulation by many large reservoirs. Diurnal fluctuations caused by powerplant operations at Bonneville Dam and tides. Gage maintained by National Weather Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 27.60 ft, Dec. 25, 1964, present datum, (backwater from Willamette River).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 7, 1894, reached a stage of 34.4 ft, present datum, from information provided by U.S. Army Corps of Engineers. Flood of June 13, 14, 1948, reached a stage of 31.0 ft, present datum, from National Weather Service records.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 9.72 ft, May 22; minimum, -0.63 ft, Sept. 26.

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4.37	1.50	2.87	4.58	1.97	3.08	4.12	2.39	3.20	4.78	3.09	3.93
2	4.07	0.80	2.16	4.58	2.33	3.50	3.10	1.49	2.28	4.56	2.40	3.40
3	3.89	1.03	2.14	3.78	2.54	3.20	3.28	1.06	2.21	4.49	2.03	3.30
4	3.82	0.66	1.96	3.35	1.97	2.71	4.05	2.39	3.15	4.84	2.91	3.75
5	3.40	0.97	1.96	3.16	1.88	2.60	4.71	2.86	3.54	5.08	2.64	3.72
6	3.06	0.48	1.69	3.13	1.30	2.33	5.27	3.00	3.80	5.82	2.85	4.13
7	2.84	0.57	1.73	3.75	1.60	2.61	5.39	3.05	4.16	6.66	3.36	4.62
8	3.50	0.92	2.36	4.33	1.48	2.77	7.26	3.55	5.26	7.28	3.95	5.29
9	4.06	1.77	2.86	4.75	1.78	3.09	6.74	4.85	5.86	6.86	3.80	5.15
10	3.26	0.67	2.03	5.27	2.20	3.45	7.46	5.04	6.37	6.89	3.18	4.62
11	3.50	0.50	1.99	5.63	2.38	3.70	8.02	6.07	7.35	7.03	3.61	4.97
12	3.79	0.66	2.14	5.90	2.50	3.81	7.94	6.48	7.21	6.39	3.63	4.73
13	4.16	0.89	2.27	6.15	2.59	3.99	7.52	5.82	6.71	6.00	2.80	4.23
14	4.32	0.88	2.35	6.05	2.67	3.97	7.15	5.58	6.53	5.91	4.13	5.01
15	5.27	1.08	2.84	6.27	2.58	4.17	6.45	4.96	5.94	---	---	---
16	5.04	1.83	3.28	5.75	2.74	3.92	6.04	4.56	5.47	4.90	2.56	3.41
17	5.38	1.38	3.09	4.98	2.27	3.55	6.33	5.15	5.61	4.83	1.85	3.24
18	5.71	1.90	3.42	4.46	2.05	3.25	6.31	4.59	5.40	5.87	3.33	4.45
19	6.04	2.34	3.63	4.20	2.10	2.93	5.61	3.39	4.66	5.62	3.99	4.70
20	5.46	3.08	4.12	3.70	1.20	2.38	5.08	3.15	4.05	5.53	3.91	4.76
21	5.40	2.87	3.87	4.05	1.25	2.45	5.12	3.51	4.32	5.48	3.66	4.52
22	4.85	2.29	3.67	4.41	1.45	2.66	5.23	3.80	4.59	5.63	3.60	4.46
23	4.82	2.61	3.81	4.80	1.81	2.96	6.41	3.80	5.25	5.49	3.50	4.26
24	4.77	1.98	3.40	5.53	1.94	3.36	5.82	3.20	4.76	5.77	3.16	4.26
25	5.12	2.17	3.55	5.58	2.28	3.70	5.66	3.05	4.22	5.53	3.42	4.29
26	5.88	2.58	4.03	5.27	2.43	3.55	5.91	3.30	4.42	6.01	3.25	4.43
27	6.05	3.24	4.40	5.32	2.85	3.77	5.67	3.65	4.59	6.10	3.92	4.83
28	5.65	2.73	4.01	4.58	2.24	3.13	5.71	3.51	4.40	5.46	3.96	4.75
29	5.35	2.40	3.58	4.23	1.69	2.74	5.55	3.39	4.31	5.29	3.37	4.33
30	5.45	2.26	3.55	4.27	1.87	2.99	5.66	2.89	4.19	4.82	2.90	3.70
31	4.90	2.24	3.32	---	---	---	5.44	3.57	4.52	4.80	2.20	3.30
MONTH	6.05	0.48	2.97	6.27	1.20	3.21	8.02	1.06	4.78	7.28	1.85	4.28

14144700 COLUMBIA RIVER AT VANCOUVER, WA—Continued

GAGE HEIGHT, FEET—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.49	2.11	3.07	5.35	2.20	3.48	6.76	5.02	5.87	4.83	3.03	4.01
2	4.45	2.19	3.08	5.44	2.30	3.39	5.74	4.15	5.04	4.96	3.67	4.27
3	4.73	2.33	3.19	4.96	2.02	3.06	5.43	3.39	4.54	5.36	3.55	4.43
4	5.46	2.25	3.55	4.88	2.02	3.11	5.11	3.02	4.12	5.76	3.64	4.88
5	5.46	2.82	3.85	4.63	1.91	3.13	5.19	2.99	4.03	5.94	3.98	4.94
6	6.17	3.23	4.39	4.50	1.38	2.78	6.09	3.48	4.86	6.54	4.50	5.43
7	6.38	3.24	4.46	4.86	1.39	2.93	6.56	4.54	5.54	6.88	4.92	5.75
8	6.26	3.31	4.50	4.98	1.56	3.05	5.99	3.55	4.76	7.09	5.11	6.12
9	6.25	3.10	4.40	5.29	1.67	3.30	6.23	3.70	4.70	7.53	5.77	6.57
10	6.07	3.43	4.50	5.17	1.93	3.39	5.66	2.95	4.11	7.80	6.43	7.01
11	6.00	3.53	4.65	5.54	2.56	3.93	6.15	3.09	4.58	8.01	6.87	7.43
12	5.88	3.45	4.65	5.38	2.45	3.74	5.54	3.39	4.40	8.93	7.87	8.46
13	5.48	2.84	3.99	4.95	2.00	3.22	5.56	3.57	4.38	8.90	7.18	7.92
14	4.97	2.14	3.20	5.00	1.91	3.17	4.70	2.78	3.75	7.65	6.50	7.12
15	4.66	1.87	3.15	4.86	1.76	2.91	4.19	2.66	3.39	7.17	6.18	6.82
16	4.18	2.33	3.04	4.58	1.76	2.83	4.38	2.46	3.45	7.11	6.32	6.79
17	4.02	2.28	3.02	4.01	1.35	2.54	3.71	2.43	3.24	6.83	6.00	6.37
18	4.37	2.40	3.28	3.51	1.17	2.24	3.58	2.21	3.05	8.29	6.71	7.89
19	4.64	2.45	3.38	3.52	1.57	2.49	3.75	2.30	3.17	9.23	8.18	8.98
20	4.55	1.99	3.50	4.14	1.85	3.17	4.20	2.34	3.29	9.41	8.59	8.99
21	4.71	1.89	3.10	4.06	1.95	3.17	4.26	2.28	3.18	9.33	8.53	8.91
22	4.75	1.85	3.11	4.47	1.96	3.24	4.88	2.23	3.83	9.72	8.74	9.18
23	4.83	1.88	3.13	4.88	2.04	3.49	5.56	3.26	4.35	9.59	8.54	9.01
24	5.17	1.95	3.39	4.75	2.47	3.65	6.09	3.52	4.54	9.28	8.10	8.66
25	5.00	2.22	3.43	4.68	2.10	3.33	5.91	3.02	4.17	9.03	7.71	8.30
26	4.87	2.11	3.41	5.24	2.22	3.59	6.24	3.14	4.68	7.97	6.86	7.42
27	4.89	2.18	3.41	6.21	2.87	4.88	6.73	4.58	5.41	7.98	6.75	7.38
28	5.18	2.20	3.43	7.26	4.99	6.33	6.75	4.85	5.63	8.08	7.13	7.57
29	---	---	---	7.55	6.14	6.96	6.21	3.94	5.14	8.09	6.00	7.04
30	---	---	---	7.39	5.98	6.72	5.34	3.49	4.40	7.01	4.71	5.99
31	---	---	---	6.60	5.46	6.05	---	---	---	5.82	3.94	4.84
MONTH	6.38	1.85	3.62	7.55	1.17	3.65	6.76	2.21	4.32	9.72	3.03	6.92
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.86	4.51	5.17	6.09	3.98	4.73	5.32	3.04	3.99	4.01	0.81	2.37
2	6.63	5.20	5.99	6.07	4.14	4.98	5.04	2.52	3.69	4.12	0.75	2.33
3	6.99	5.20	6.02	5.79	3.38	4.36	5.00	2.16	3.39	3.84	0.56	2.15
4	6.52	4.48	5.42	5.62	2.82	3.96	4.67	1.44	2.93	3.85	0.67	2.19
5	6.93	4.59	5.57	5.04	2.03	3.51	4.88	1.73	3.14	3.68	0.38	2.01
6	6.24	4.29	5.15	6.00	3.14	4.39	5.02	2.17	3.42	3.75	0.32	1.93
7	6.63	4.29	5.28	5.25	2.27	3.75	4.76	1.99	3.30	3.67	0.33	1.84
8	6.33	4.09	5.04	5.70	3.23	4.42	4.52	1.81	3.14	3.95	0.32	1.78
9	6.02	4.35	5.07	5.66	3.44	4.49	4.55	1.73	3.14	4.13	0.65	1.98
10	6.17	4.48	5.32	5.12	2.89	4.05	4.44	1.30	2.79	3.53	0.66	1.89
11	5.54	4.10	4.86	4.83	2.90	3.93	4.51	1.52	2.79	3.20	0.07	1.24
12	5.16	3.38	4.41	4.82	2.63	3.74	4.52	1.61	2.89	3.55	-0.23	1.28
13	4.34	2.69	3.70	4.77	2.41	3.44	4.40	1.15	2.33	3.75	0.00	1.56
14	4.29	3.03	3.68	4.90	2.70	3.53	4.38	1.17	2.23	3.99	0.33	1.88
15	4.45	2.28	3.34	5.18	3.42	3.94	4.30	0.96	2.28	3.75	0.06	1.86
16	4.63	2.88	3.64	5.51	3.35	4.17	4.80	1.20	2.65	4.01	0.50	2.23
17	5.52	3.64	4.30	5.65	3.37	4.18	4.85	1.22	2.89	4.17	0.53	2.31
18	6.07	3.77	4.67	5.89	3.11	4.17	5.91	2.25	3.86	4.39	1.05	2.61
19	6.20	3.18	4.53	6.21	3.04	4.32	5.96	2.47	3.96	4.06	0.57	2.25
20	6.15	3.19	4.70	6.32	2.96	4.31	5.81	2.27	3.89	4.17	0.52	2.14
21	7.12	4.48	5.52	6.20	2.77	4.21	5.46	2.04	3.66	4.64	0.98	2.40
22	7.00	4.48	5.46	6.97	3.65	5.11	5.19	1.64	3.26	4.16	0.85	2.37
23	7.02	4.92	5.84	6.55	3.28	4.75	5.28	1.69	3.33	4.16	0.81	2.09
24	7.19	4.74	5.89	5.90	2.81	4.23	5.08	1.90	3.39	3.43	0.50	1.62
25	6.66	4.74	5.57	5.33	2.28	3.63	4.50	1.40	2.86	3.13	0.04	1.09
26	6.27	4.23	5.33	5.60	2.68	3.98	4.15	1.23	2.29	2.49	-0.63	0.80
27	5.98	4.12	5.03	5.52	2.53	3.87	4.11	0.84	1.98	2.52	-0.19	1.23
28	6.00	3.85	4.91	5.31	2.19	3.35	4.17	1.04	2.22	2.51	-0.47	1.02
29	5.59	3.39	4.31	5.27	2.23	3.28	3.85	0.76	2.14	2.84	-0.34	1.36
30	5.71	3.72	4.43	5.21	2.66	3.53	3.68	0.70	2.20	3.86	0.92	2.42
31	---	---	---	5.08	2.54	3.67	4.24	1.15	2.50	---	---	---
MONTH	7.19	2.28	4.94	6.97	2.03	4.06	5.96	0.70	2.98	4.64	-0.63	1.87
YEAR	9.72	-0.63	3.97									

14216500 MUDDY RIVER BELOW CLEAR CREEK, NEAR COUGAR, WA

LOCATION.-- Lat 46°04'33", long 121°59'51", in NE¼SE¼ sec.24, T.7 N., R.6 E., Skamania County, Hydrologic Unit 17080002, Gifford Pinchot National Forest, on left bank 3.9 mi downstream from Clear Creek, approximately 14 mi northeast of Cougar, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--135 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1927 to September 1934, October 1954 to December 1973 (destroyed by flood of January 1974), October 1983 to current year. Monthly discharge only for October, December 1933 and January 1934 published in WSP 1318. Published as "near Cougar" 1927-34. Records for August to October 1909, published in WSP 272 and 492, have been found to be unreliable and should not be used.

REVISED RECORDS.--WDR WA-99-1: 1991 (m), 1996-97 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,032.90 ft above NGVD of 1929. August 1927 to September 1934, at same site at different datum; October 1954 to December 1973 at site 3.7 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--48 years (water years 1928-34, 1955-73, 1984-2005), 865 ft^3/s, 87.01 in/yr, 626,700 acre-ft/yr, includes monthly data published in WSP 1318.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s, Feb. 8, 1996, gage height, 33.26 ft from high-water marks, from rating curve extended above 8,000 ft^3/s; minimum, 94 ft^3/s Dec. 5-7, 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood occurred about 0900 hours on May 18, 1980, from a mudflow caused by the eruption of Mount St. Helens.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0430	*4,280	*21.25	Mar 27	1530	4,070	20.76

Minimum discharge, 104 ft^3/s, Sept. 26, 27, 28, 29, gage height, 15.08 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	307	615	469	738	848	381	1,700	816	673	270	178	130
2	296	1,160	448	690	790	343	1,490	791	616	264	176	129
3	286	1,050	435	650	744	327	1,460	741	573	259	173	128
4	277	986	429	622	736	314	1,340	726	538	254	170	126
5	270	931	438	575	705	308	1,240	689	526	247	167	125
6	326	862	437	585	684	304	1,200	656	567	262	165	124
7	279	794	500	599	639	304	1,190	613	500	247	164	122
8	368	731	848	581	603	307	1,150	598	474	281	163	121
9	434	675	907	554	574	309	1,080	678	443	366	161	122
10	360	625	2,270	534	549	312	1,030	688	418	280	160	134
11	319	580	3,790	506	528	318	1,220	621	406	270	158	132
12	300	541	2,840	508	525	324	1,100	587	406	256	156	126
13	287	509	2,240	490	504	324	1,060	563	388	245	155	122
14	279	475	2,090	463	477	322	992	573	373	240	154	120
15	273	480	1,790	440	446	317	984	611	362	235	151	118
16	279	453	1,640	456	427	328	1,930	673	355	230	150	118
17	750	430	1,490	1,140	414	328	1,930	645	436	226	153	117
18	781	524	1,380	3,190	402	309	1,790	939	379	221	153	117
19	1,090	454	1,300	3,270	391	403	1,590	1,140	368	215	149	115
20	969	416	1,210	2,880	379	824	1,420	1,220	340	212	145	114
21	930	398	1,150	2,530	364	751	1,300	1,260	328	209	143	113
22	887	389	1,080	2,190	352	642	1,220	1,400	329	219	142	111
23	828	382	999	1,900	342	597	1,230	1,310	319	212	140	110
24	779	423	936	1,650	332	557	1,210	1,230	306	204	139	109
25	733	636	966	1,450	326	520	1,240	1,130	299	200	137	109
26	715	529	999	1,310	320	993	1,150	1,040	293	196	136	108
27	653	509	880	1,230	313	3,480	1,100	942	303	192	134	107
28	611	485	824	1,130	335	3,390	1,040	860	301	188	133	106
29	573	469	809	1,100	---	2,780	969	791	288	186	135	110
30	655	477	786	995	---	2,140	889	736	278	183	135	164
31	600	---	756	918	---	1,780	---	687	---	180	132	---
TOTAL	16,494	17,988	37,136	35,874	14,049	24,636	38,244	25,954	12,185	7,249	4,707	3,607
MEAN	532	600	1,198	1,157	502	795	1,275	837	406	234	152	120
MAX	1,090	1,160	3,790	3,270	848	3,480	1,930	1,400	673	366	178	164
MIN	270	382	429	440	313	304	889	563	278	180	132	106
AC-FT	32,720	35,680	73,660	71,160	27,870	48,870	75,860	51,480	24,170	14,380	9,340	7,150
CFSM	3.94	4.44	8.87	8.57	3.72	5.89	9.44	6.20	3.01	1.73	1.12	0.89
IN.	4.55	4.96	10.23	9.89	3.87	6.79	10.54	7.15	3.36	2.00	1.30	0.99

14216500 MUDDY RIVER BELOW CLEAR CREEK, NEAR COUGAR, WA—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2005, BY WATER YEAR (WY)												
MEAN	340	1,063	1,234	1,231	1,204	1,190	1,288	1,250	817	362	202	185
MAX	1,567	2,609	2,828	2,308	3,222	2,841	2,318	2,467	2,341	1,163	438	385
(WY)	(1998)	(1984)	(1974)	(1997)	(1996)	(1972)	(1997)	(1956)	(1933)	(1971)	(1933)	(1968)
MIN	107	102	313	365	254	386	620	425	194	143	116	120
(WY)	(1988)	(1930)	(1931)	(1985)	(1929)	(1955)	(1973)	(1934)	(1992)	(1992)	(1992)	(2005)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1928 - 2005	
ANNUAL TOTAL	279,569		238,123			
ANNUAL MEAN	764		652		862	
HIGHEST ANNUAL MEAN					1,297	1956
LOWEST ANNUAL MEAN					465	2001
HIGHEST DAILY MEAN	4,410	Jan 30	3,790	Dec 11	21,000	Feb 8, 1996
LOWEST DAILY MEAN	150	Aug 20	106	Sep 28	94	Dec 5, 1929
ANNUAL SEVEN-DAY MINIMUM	156	Aug 15	108	Sep 23	95	Dec 1, 1929
ANNUAL RUNOFF (AC-FT)	554,500		472,300		624,300	
ANNUAL RUNOFF (CFSM)	5.66		4.83		6.38	
ANNUAL RUNOFF (INCHES)	77.04		65.62		86.72	
10 PERCENT EXCEEDS	1,270		1,280		1,820	
50 PERCENT EXCEEDS	710		475		626	
90 PERCENT EXCEEDS	208		138		155	

14216500 MUDDY RIVER BELOW CLEAR CREEK, NEAR COUGAR, WA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: October 1983 to March 1995, October 1998 to September 2005 (discontinued). Water years 1995 and 1996, daily sediment discharge values for period October to March, monthly sediment discharge values only for the period April to September. Water years 1997 and 1998, annual sediment discharge estimates only (on file at the Cascades Volcano Observatory in Vancouver, WA). Records prior to October 1985 are published in U.S. Geological Survey Open-File Report 85-632; records for 1984-87 are published in U.S. Geological Survey Open-File Report 91-219.

INSTRUMENTATION.--Water-quality monitor May 1990 to September 1991. Automatic pumping sediment sampler August 1983 to September 1996, October 1998 to September 2005 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily, 37,800 mg/L, Oct. 26, 1986; minimum, 1 mg/L, on several days in water years 2001-03, 2005.
SEDIMENT DISCHARGE: Maximum daily, 1,400,000 tons (estimated), Feb. 8, 1996; minimum, 0.34 tons, Oct. 11, 30, 2003.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily, 2,240 mg/L, Dec. 11; minimum daily, 1 mg/L, Dec. 28, 30.
SEDIMENT DISCHARGE: Maximum daily, 23,600 tons, Dec. 11; minimum daily, 0.86 tons, Sept. 27, 28.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
	OCTOBER			NOVEMBER			DECEMBER		
1	307	7	6.0	615	11	20	469	2	2.7
2	296	8	6.1	1,160	900	3,130	448	2	2.8
3	286	6	4.7	1,050	130	371	435	2	2.9
4	277	4	3.3	986	34	91	429	3	3.0
5	270	6	4.0	931	19	49	438	3	3.2
6	326	32	29	862	18	42	437	3	3.4
7	279	10	7.8	794	16	35	500	15	22
8	368	200	272	731	15	29	848	117	274
9	434	156	198	675	13	24	907	127	374
10	360	18	18	625	12	20	2,270	1,610	11,000
11	319	10	9.0	580	11	17	3,790	2,240	23,600
12	300	10	8.4	541	10	15	2,840	506	4,000
13	287	12	9.0	509	9	13	2,240	200	1,220
14	279	11	8.3	475	9	11	2,090	143	816
15	273	10	7.1	480	17	23	1,790	60	294
16	279	12	9.6	453	15	18	1,640	35	155
17	750	1,360	3,480	430	11	12	1,490	22	87
18	781	184	396	524	43	64	1,380	14	54
19	1,090	403	1,210	454	15	19	1,300	10	35
20	969	108	283	416	11	12	1,210	7	24
21	930	63	159	398	9	9.8	1,150	6	19
22	887	52	124	389	8	8.6	1,080	6	17
23	828	23	53	382	8	7.8	999	5	13
24	779	18	38	423	17	19	936	3	7.6
25	733	17	34	636	88	162	966	5	15
26	715	15	30	529	25	37	999	3	7.3
27	653	14	24	509	5	6.4	880	2	4.3
28	611	12	19	485	2	3.0	824	1	3.0
29	573	10	15	469	2	2.5	809	2	3.5
30	655	18	33	477	2	2.6	786	1	2.7
31	600	7	11	---	---	---	756	2	5.0
TOTAL	16,494	---	6,509.3	17,988	---	4,273.7	37,136	---	42,070.4

14216500 MUDDY RIVER BELOW CLEAR CREEK, NEAR COUGAR, WA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
		JANUARY			FEBRUARY			MARCH	
1	738	7	13	848	15	35	381	23	24
2	690	8	15	790	16	35	343	16	14
3	650	6	11	744	18	36	327	14	12
4	622	6	9.6	736	23	46	314	12	10
5	575	5	8.1	705	20	38	308	10	8.5
6	585	5	7.8	684	19	36	304	8	6.9
7	599	5	7.5	639	19	33	304	7	5.5
8	581	4	6.8	603	18	30	307	6	5.0
9	554	4	5.9	574	18	28	309	6	5.1
10	534	4	5.2	549	18	26	312	6	5.2
11	506	3	4.3	528	17	24	318	6	5.4
12	508	3	3.8	525	17	24	324	6	5.6
13	490	3	3.5	504	16	22	324	6	5.7
14	463	2	3.1	477	16	20	322	7	5.7
15	440	2	2.8	446	15	19	317	7	5.7
16	456	3	3.7	427	15	17	328	7	6.0
17	1,140	116	653	414	15	16	328	7	6.0
18	3,190	461	3,970	402	14	15	309	7	5.8
19	3,270	192	1,700	391	14	14	403	29	41
20	2,880	94	737	379	13	14	824	117	264
21	2,530	29	197	364	13	13	751	85	175
22	2,190	25	145	352	12	12	642	47	82
23	1,900	24	121	342	12	11	597	34	55
24	1,650	23	101	332	12	10	557	30	44
25	1,450	22	85	326	11	9.8	520	25	35
26	1,310	21	74	320	11	9.2	993	41	145
27	1,230	20	66	313	10	8.6	3,480	886	8,780
28	1,130	19	57	335	14	13	3,390	766	7,040
29	1,100	18	53	---	---	---	2,780	583	4,410
30	995	17	46	---	---	---	2,140	410	2,380
31	918	16	40	---	---	---	1,780	313	1,510
TOTAL	35,874	---	8,156.1	14,049	---	614.6	24,636	---	25,103.1
		APRIL			MAY			JUNE	
1	1,700	238	1,090	816	27	59	673	8	15
2	1,490	176	711	791	27	57	616	7	12
3	1,460	119	469	741	24	48	573	6	10
4	1,340	92	335	726	19	37	538	6	8.3
5	1,240	78	261	689	17	32	526	12	18
6	1,200	64	207	656	16	28	567	28	43
7	1,190	50	159	613	15	24	500	12	16
8	1,150	38	119	598	14	22	474	10	12
9	1,080	34	99	678	23	41	443	9	11
10	1,030	30	83	688	25	47	418	9	9.9
11	1,220	96	320	621	19	32	406	8	9.2
12	1,100	66	197	587	16	26	406	8	8.7
13	1,060	43	124	563	14	21	388	7	7.8
14	992	31	82	573	15	23	373	7	7.1
15	984	26	70	611	19	31	362	7	6.4
16	1,930	271	1,550	673	24	43	355	8	7.6
17	1,930	244	1,270	645	19	33	436	35	42
18	1,790	170	828	939	78	210	379	17	18
19	1,590	100	431	1,140	57	177	368	19	19
20	1,420	66	255	1,220	82	280	340	16	14
21	1,300	51	177	1,260	105	357	328	14	12
22	1,220	45	148	1,400	46	175	329	13	12
23	1,230	46	152	1,310	20	70	319	12	11
24	1,210	45	147	1,230	16	52	306	12	9.6
25	1,240	45	149	1,130	18	53	299	11	8.8
26	1,150	36	111	1,040	18	51	293	10	8.1
27	1,100	33	97	942	17	42	303	12	9.8
28	1,040	30	84	860	15	34	301	12	9.6
29	969	28	73	791	13	28	288	10	7.7
30	889	27	66	736	11	23	278	9	6.6
31	---	---	---	687	10	18	---	---	---
TOTAL	38,244	---	9,864	25,954	---	2,174	12,185	---	390.2

14216500 MUDDY RIVER BELOW CLEAR CREEK, NEAR COUGAR, WA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
		JULY			AUGUST			SEPTEMBER	
1	270	8	6.1	178	6	2.9	130	3	1.1
2	264	8	5.7	176	6	2.8	129	3	1.0
3	259	8	5.3	173	6	2.8	128	3	1.0
4	254	7	4.9	170	6	2.7	126	3	1.0
5	247	7	4.5	167	6	2.6	125	3	1.0
6	262	6	4.5	165	6	2.5	124	3	1.0
7	247	6	4.0	164	5	2.4	122	3	0.99
8	281	14	13	163	5	2.4	121	3	0.98
9	366	31	33	161	5	2.3	122	3	0.99
10	280	18	14	160	5	2.2	134	3	1.1
11	270	17	12	158	5	2.2	132	3	1.1
12	256	15	10	156	5	2.1	126	3	1.0
13	245	14	9.3	155	5	2.0	122	3	0.99
14	240	13	8.4	154	5	2.0	120	3	0.97
15	235	12	7.5	151	5	1.9	118	3	0.96
16	230	11	6.7	150	5	1.8	118	3	0.95
17	226	10	6.2	153	4	1.8	117	3	0.95
18	221	10	5.8	153	4	1.8	117	3	0.95
19	215	9	5.3	149	4	1.7	115	3	0.93
20	212	9	4.9	145	4	1.6	114	3	0.92
21	209	8	4.6	143	4	1.6	113	3	0.91
22	219	8	4.5	142	4	1.5	111	3	0.90
23	212	7	4.0	140	4	1.5	110	3	0.89
24	204	7	3.8	139	4	1.4	109	3	0.88
25	200	7	3.7	137	4	1.4	109	3	0.88
26	196	7	3.5	136	4	1.3	108	3	0.87
27	192	7	3.4	134	3	1.2	107	3	0.86
28	188	6	3.3	133	3	1.2	106	3	0.86
29	186	6	3.2	135	3	1.2	110	4	1.2
30	183	6	3.1	135	3	1.1	164	31	16
31	180	6	3.0	132	3	1.1	---	---	---
TOTAL	7,249	---	211.2	4,707	---	59.0	3,607	---	44.13
YEAR	238,123	99,469.73							

14217600 SWIFT RESERVOIR AT COUGAR, WA

LOCATION.-- Lat 46°03'38", long 122°11'44", in NE¼SW¼ sec.28, T.7 N., R.5 E., Skamania County, Hydrologic Unit 17080002, at the intake structure near left bank on Swift Dam on Lewis River, 5.0 mi east of Cougar, and at mile 47.9.

DRAINAGE AREA.--481 mi^2.

PERIOD OF RECORD.--September 1958 to current year.

GAGE.--Water-stage recorder and long distance indicator in powerhouse. Datum of gage is NGVD of 1929 (levels by PacifiCorp).

REMARKS.--Reservoir is formed by rock and earthfill dam; storage began Sept. 29, 1958; dam completed in December 1958. Usable capacity, 446,600 acre-ft between elevations 878 ft, lower limit for economic operation, and 1,000.5 ft, maximum operating limit. Dead storage unknown. Figures given herein represent total contents. Water is used by PacifiCorp for power generation.

COOPERATION.--Hourly elevations and capacity table furnished by PacifiCorp. Records reviewed and two inspections made by USGS.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 759,100 acre-ft, Nov. 15, 1973, elevation 1,000.77 ft; minimum contents since reservoir was first filled, 325,100 acre-ft, May 1, 1967, elevation 883.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 758,200 acre-ft, Apr. 22, elevation 1,000.58 ft; minimum contents; 595,600 acre-ft, Dec. 9, elevation 962.70 ft.

MONTH-END ELEVATION AND CONTENTS AT 2400
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30	983.64	682,600	--
October 31	988.61	704,300	+21,700
November 30	973.59	640,000	-64,300
December 31	985.13	689,000	+49,000
Calender Year 2004	--	--	+129,900
January 31	985.42	690,300	+1,300
February 28	975.93	649,800	-40,500
March 31	996.64	740,300	+90,500
April 30	999.33	752,500	+12,200
May 31	999.84	754,800	+2,300
June 30	998.79	750,000	-4,800
July 31	995.51	735,200	-14,800
August 31	981.36	672,800	-62,400
September 30	982.23	676,500	+3,700
Water Year 2005	--	--	-6,100

14218500 YALE RESERVOIR NEAR YALE, WA

LOCATION.-- Lat 45°57'50", long 122°19'53", in SE¼NE¼ sec.32, T.6 N., R.4 E., Clark County, Hydrologic Unit 17080002, at left bank on Yale Dam on Lewis River just upstream from intake, 500 ft upstream from powerhouse, 1.0 mi upstream from Canyon Creek, 3.2 mi southeast of Yale, and at mile 34.2.

DRAINAGE AREA.--596 mi^2.

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

GAGE.--Water-stage recorder and long distance indicator in powerhouse. Datum of gage is NGVD of 1929 (levels by PacifiCorp). Prior to Feb. 1, 1954, nonrecording indicator gage at same site and datum.

REMARKS.--Reservoir is formed by rock and earthfill dam; storage began July 31, 1952; dam completed in 1952. Usable capacity, 189,500 acre-ft between elevations 430 ft, lower limit for economic operation, and 490 ft, top of spillway gates. Dead storage below elevation 417 ft, 178,000 acre-ft. Figures given herein represent total contents. Water is used by PacifiCorp for power generation.

COOPERATION.--Hourly elevations and capacity table furnished by PacifiCorp. Records reviewed and two inspections made by USGS.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 402,500 acre-ft, May 13, 1961, elevation 490.15 ft; minimum contents observed since reservoir was first filled, 227,600 acre-ft, Feb. 22, 1957, elevation 435.65 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 401,500 acre-ft, June 1, elevation 489.92 ft; minimum contents; 305,600 acre-ft, Mar. 31, elevation 462.15.

MONTH-END ELEVATION AND CONTENTS AT 2400
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30	482.26	373,200	--
October 31	486.73	389,500	+16,300
November 30	473.96	344,100	-45,400
December 31	479.04	361,700	+17,600
Calendar Year 2004	--	--	-16,700
January 31	481.81	371,500	+9,800
February 28	477.05	354,700	-16,800
March 31	462.63	307,100	-47,600
April 30	482.97	375,700	+68,600
May 31	489.88	401,300	+25,600
June 30	485.46	384,800	-16,500
July 31	486.38	388,200	+3,400
August 31	485.85	386,300	-1,900
September 30	468.18	324,800	-61,500
Water Year 2005	--	--	-48,400

14219800 SPEELYAI CREEK NEAR COUGAR, WA

LOCATION.--Lat 46°00'17", long 122°20'35", in SW¼NW¼, sec.17, T.6 N., R.4 E., Cowlitz County, Hydrologic Unit 17080002, on right bank 3.8 mi southwest of Cougar, and at mile 0.5.

DRAINAGE AREA.--12.6 mi^2.

PERIOD OF RECORD.--May 1959 to May 1978, October 1978 to current year.

REVISED RECORDS.--WSP 1718: 1959. WDR WA-81-1: 1978-80(P). WDR WA-84-1: 1983.

GAGE.--Water-stage recorder. Elevation of gage is 500 ft above NGVD of 1929, from topographic map. Prior to Nov. 21, 1959, at site 900 ft upstream at different datum; Nov. 22, 1959, to Sept. 30, 1996, at site 1,150 ft upstream at different datum.

REMARKS.--Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--45 years (water years 1960-77, 1979-2005), 102 ft^3/s, 109.58 in/yr, 73,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,600 ft^3/s, probably Nov. 20, 1962 (by slope-area measurement, gage height not determined); maximum gage height, 8.12 ft, Feb. 8, 1996, datum then in use; minimum discharge, no flow part of each day Sept. 6-7, 2003.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 11	0315	1,490	7.73	Mar 27	1600	1,460	7.67
Jan 18	0530	*1,670	*8.04				

Minimum discharge, 0.75 ft^3/s, Sept. 26, 27, 29, gage height, 3.41 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	112	82	68	69	35	202	75	41	15	5.3	1.9
2	24	218	73	64	63	33	173	75	36	14	5.1	1.8
3	22	209	68	59	58	30	185	68	34	13	4.8	1.8
4	21	152	65	55	61	28	191	67	31	13	4.4	1.7
5	19	117	71	51	60	26	163	62	36	12	4.2	1.6
6	35	96	76	50	64	25	140	57	40	17	4.1	1.5
7	22	81	136	50	63	24	136	53	43	12	4.0	1.4
8	36	71	443	47	58	22	131	51	41	19	3.9	1.3
9	78	62	345	44	55	21	113	63	37	30	3.9	1.3
10	71	54	781	41	54	19	99	112	35	22	4.2	1.7
11	57	48	998	39	53	18	128	107	34	21	4.2	2.2
12	47	43	373	40	58	17	120	96	31	19	4.0	1.6
13	40	38	210	37	59	15	115	86	31	17	3.8	1.4
14	36	35	174	36	56	15	107	86	28	16	3.5	1.3
15	32	37	145	35	51	14	111	86	26	14	3.3	1.2
16	38	33	118	36	48	17	302	148	27	13	3.2	1.3
17	133	31	99	356	44	17	260	143	37	12	4.1	1.3
18	298	47	84	1,270	42	14	204	177	30	11	3.9	1.2
19	322	40	75	506	40	25	162	175	27	10	3.3	1.1
20	209	36	68	284	37	43	134	155	25	9.8	3.0	1.1
21	145	34	64	209	35	46	114	144	25	9.2	2.9	0.98
22	128	33	59	158	31	40	99	135	24	10	2.9	0.93
23	113	35	53	125	30	35	95	114	22	9.0	2.9	0.91
24	101	53	49	103	29	31	85	96	20	8.3	2.7	0.86
25	92	198	61	87	28	29	89	80	19	7.8	2.3	0.86
26	87	146	112	76	e26	206	81	70	18	7.3	2.0	0.81
27	78	113	92	71	e25	1,150	80	62	20	6.7	2.0	0.80
28	71	91	78	66	e30	617	86	55	18	6.3	1.9	0.81
29	65	78	73	83	---	519	84	49	17	6.0	3.3	0.82
30	103	77	69	82	---	355	80	45	16	5.8	2.9	10
31	107	---	66	76	---	235	---	42	---	5.5	2.2	---
TOTAL	2,657	2,418	5,260	4,304	1,327	3,721	4,069	2,834	869	391.7	108.2	47.48
MEAN	85.7	80.6	170	139	47.4	120	136	91.4	29.0	12.6	3.49	1.58
MAX	322	218	998	1,270	69	1,150	302	177	43	30	5.3	10
MIN	19	31	49	35	25	14	80	42	16	5.5	1.9	0.80
AC-FT	5,270	4,800	10,430	8,540	2,630	7,380	8,070	5,620	1,720	777	215	94
CFSM	6.80	6.40	13.5	11.0	3.76	9.53	10.8	7.26	2.30	1.00	0.28	0.13
IN.	7.84	7.14	15.53	12.71	3.92	10.99	12.01	8.37	2.57	1.16	0.32	0.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2005, BY WATER YEAR (WY)

MEAN	50.2	168	203	197	178	150	125	77.2	40.0	15.2	9.15	14.3
MAX	174	371	393	350	374	357	238	151	106	71.2	49.0	61.6
(WY)	(1998)	(1996)	(1976)	(1974)	(1972)	(1972)	(1993)	(1960)	(1981)	(1983)	(1968)	(2004)
MIN	1.34	6.79	39.9	37.1	47.4	25.9	50.0	20.0	6.93	3.25	0.71	1.49
(WY)	(1988)	(1994)	(1977)	(1977)	(2005)	(1992)	(1998)	(1994)	(1992)	(2003)	(2003)	(2003)

14219800 SPEELYAI CREEK NEAR COUGAR, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1960 - 2005	
ANNUAL TOTAL	33,782.7		28,006.38			
ANNUAL MEAN	92.3		76.7		102	
HIGHEST ANNUAL MEAN					155	1974
LOWEST ANNUAL MEAN					45.1	2001
HIGHEST DAILY MEAN	1,620	Jan 29	1,270	Jan 18	2,410	Feb 8, 1996
LOWEST DAILY MEAN	1.6	Aug 20	0.80	Sep 27	0.01	Sep 6, 2003
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 14	0.84	Sep 23	0.09	Aug 31, 2003
ANNUAL RUNOFF (AC-FT)	67,010		55,550		73,620	
ANNUAL RUNOFF (CFSM)	7.33		6.09		8.06	
ANNUAL RUNOFF (INCHES)	99.74		82.69		109.58	
10 PERCENT EXCEEDS	181		156		239	
50 PERCENT EXCEEDS	65		41		55	
90 PERCENT EXCEEDS	7.3		2.9		4.6	

e Estimated

14220000 LAKE MERWIN NEAR ARIEL, WA

LOCATION.-- Lat 45°57'23", long 122°33'13", in SW¼SW¼ sec.34, T.6 N., R.2 E., Clark County, Hydrologic Unit 17080002, on left bank on Merwin Dam on Lewis River at Ariel, and at mile 19.6.

DRAINAGE AREA.--730 mi^2.

PERIOD OF RECORD.--March 1931 to current year.

GAGE.--Water-stage recorder and long distance indicator in powerhouse. Datum of gage is NGVD of 1929 (levels by PacifiCorp).

REMARKS.--Reservoir is formed by combination gravity-concrete-arch dam; some storage began March 1931; completed May 13, 1931. Usable capacity, 245,600 acre-ft between elevations 165 ft, lower limit of regulation set by Federal Energy Regulatory Commission, and 235 ft, top of spillway gates. Additional storage of 18,200 acre-ft is provided by flashboards to elevation 239.6 ft. Unused storage below elevation 165 ft, 159,000 acre-ft. Figures given herein represent total contents. Water is used by PacifiCorp for power generation.

COOPERATION.--Hourly elevations and capacity table furnished by PacifiCorp. Records reviewed and two inspections made by USGS.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents during the period 1931-52 not determined; maximum since 1953, 424,000 acre-ft, Jan. 24, 1959, elevation, 239.86 ft; minimum contents observed since reservoir was first filled, 164,200 acre-ft, Dec. 5, 1936, elevation 166.7 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 422,300 acre-ft, Sept. 15, elevation, 239.48 ft; minimum contents, 319,200 acre-ft, Oct. 27, elevation 212.35 ft.

MONTH-END ELEVATION AND CONTENTS AT 2400
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30	236.00	408,500	--
October 31	214.53	327,200	-81,300
November 30	231.36	390,500	+63,300
December 31	236.06	408,800	+18,300
Calender Year 2004	--	--	-7,800
January 31	236.42	410,200	+1,400
February 28	237.38	414,000	+3,800
March 31	235.92	408,200	-5,800
April 30	238.51	418,500	+10,300
May 31	238.89	420,000	+1,500
June 30	239.03	420,500	+500
July 31	234.37	402,100	-18,400
August 31	237.19	413,200	+11,100
September 30	239.17	421,100	+7,900
Water Year 2005	--	--	+12,600

14220500 LEWIS RIVER AT ARIEL, WA

LOCATION.--Lat 45°57'07", long 122°33'46", in NW¼NE¼, sec.4, T.5 N., R.2 E., Cowlitz County, Hydrologic Unit 17080002, on right bank 0.4 mi southeast of Ariel, 0.5 mi downstream from Merwin Dam and powerplant, 3.3 mi upstream from Cedar Creek, and at mile 19.0.

DRAINAGE AREA.--731 mi^2.

PERIOD OF RECORD.--July to October 1909, November 1909 (gage heights only), July to October 1922, July 1923 to current year. Published as "near Ariel" water years 1922-29. Prior to October 1952, discharge measurements made at site 0.5 mi downstream; low discharges not equivalent due to local inflow.

REVISED RECORDS.--WSP 884: 1938. WSP 984: 1936-37, 1940-42. WSP 1318: 1924-30(M).

GAGE.--Water-stage recorder. Datum of gage is 44.0 ft above NGVD of 1929 (levels by Pacificorp). July to November 1909, nonrecording gage at site 4 mi upstream at different datum. July 27 to Oct. 29, 1922, and July 31, 1923, to Apr. 20, 1930, nonrecording gages at site 0.5 mi downstream at datums 3.90 ft and 0.90 ft higher respectively, than present datum.

REMARKS.--No estimated daily discharges. Records good. No diversion upstream from station. Flow regulated by Swift and Yale Reservoirs, and Lake Merwin (stations 14217600, 14218500, 14220000). Chemical analyses July 1959 to June 1960, April 1979 to September 1986. Additional data from April to August 1980 are published in U.S. Geological Survey Open-File Report 81-1007. Water temperatures October 1950 to September 1963.

AVERAGE DISCHARGE.--82 years (water years 1924-2005), 4,786 ft^3/s, 88.91 in/yr, 3,467,000 acre-ft/yr, adjusted for storage in Lake Merwin Reservoir since March 1931, Yale Reservoir since August 1952, and Swift Reservoir since October 1958.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 129,000 ft^3/s, Dec. 22, 1933, gage height, 35.0 ft, from floodmarks, from rating curve extended above 56,000 ft^3/s on basis of computation of peak flow over dam; no flow at times June 30, July 1-3, 6-9, 1931 (caused by regulation during construction of Merwin Dam); minimum daily discharge, 1 ft^3/s, July 6, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,500 ft^3/s, Jan. 17, gage height, 9.30 ft; minimum discharge, 1,430 ft^3/s, Nov. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,080	4,240	2,750	2,840	5,420	5,270	8,930	3,560	3,130	1,990	2,050	1,520
2	2,100	4,480	5,440	2,850	5,420	3,340	6,820	3,420	3,440	1,990	2,050	1,520
3	2,110	4,740	5,440	2,840	4,870	3,000	6,030	3,420	3,060	1,990	2,040	1,510
4	2,060	4,750	5,470	2,840	2,850	2,960	6,020	3,440	2,810	1,850	2,050	1,520
5	1,950	4,740	5,470	3,530	2,850	2,970	5,350	2,900	2,800	1,530	2,050	1,510
6	1,960	4,720	5,450	5,430	2,870	2,870	5,410	2,830	2,800	1,530	2,050	1,630
7	1,950	4,720	5,470	5,550	2,840	2,730	5,380	2,220	2,800	1,530	2,050	1,810
8	1,970	4,710	5,500	5,540	2,840	2,650	5,550	2,110	2,800	1,590	2,040	1,630
9	1,980	4,390	5,450	5,540	2,830	2,540	5,710	3,350	2,800	1,620	2,040	1,630
10	1,960	2,660	5,530	4,560	2,830	2,360	4,580	5,470	2,800	1,630	2,040	1,640
11	1,950	4,740	10,200	2,700	2,830	2,360	4,540	4,540	2,810	1,620	2,050	1,620
12	1,950	4,760	10,600	2,700	2,830	2,360	4,520	2,950	2,270	1,620	2,050	1,630
13	1,950	4,730	7,870	2,700	2,830	2,370	4,370	3,250	2,530	1,620	2,050	1,620
14	1,950	4,720	5,140	2,710	2,750	2,150	4,040	3,780	2,830	1,620	2,060	1,610
15	2,030	5,170	2,920	2,700	2,690	2,020	4,040	3,820	2,820	1,780	2,060	1,610
16	2,810	4,650	4,540	4,150	2,710	2,020	5,790	3,990	2,820	2,020	1,760	1,600
17	2,850	2,860	5,030	9,140	2,700	2,020	9,470	5,110	2,820	2,020	1,530	1,590
18	2,850	5,470	6,090	13,700	2,700	2,020	8,560	5,570	2,810	2,020	1,520	1,590
19	4,470	5,450	6,080	10,900	2,690	2,030	7,340	4,830	2,820	2,030	1,520	1,590
20	7,610	5,460	5,890	10,500	2,690	2,040	6,070	3,730	2,800	2,030	1,520	1,580
21	11,300	5,450	5,840	11,400	4,980	2,250	4,160	4,380	2,810	2,030	1,530	1,580
22	11,100	5,450	3,360	10,600	5,340	2,500	2,390	5,510	2,520	2,030	1,530	1,590
23	11,100	4,740	4,570	8,660	5,350	2,510	2,130	6,230	2,070	2,030	1,520	1,590
24	10,000	2,810	4,610	8,080	5,340	2,500	2,110	6,210	2,020	2,030	1,530	1,580
25	6,270	5,460	4,630	5,790	5,330	2,500	2,160	5,140	2,010	2,030	1,540	1,570
26	5,870	5,440	4,640	6,030	5,320	4,200	2,120	4,480	2,010	2,030	1,530	1,570
27	5,400	5,470	4,630	6,020	5,340	9,020	2,150	3,090	1,880	2,040	1,530	1,580
28	5,550	5,480	4,560	4,700	5,330	11,400	2,160	2,420	1,760	2,040	1,540	1,570
29	5,540	5,460	2,570	4,980	---	11,200	3,010	2,420	1,760	2,050	1,530	1,560
30	4,370	4,460	2,840	5,410	---	11,100	3,710	2,680	1,790	2,040	1,520	1,590
31	4,220	---	2,840	5,420	---	9,260	---	2,960	---	2,040	1,520	---
TOTAL	131,260	142,380	161,420	180,510	105,370	120,520	144,620	119,810	77,200	58,020	55,400	47,740
MEAN	4,234	4,746	5,207	5,823	3,763	3,888	4,821	3,865	2,573	1,872	1,787	1,591
MAX	11,300	5,480	10,600	13,700	5,420	11,400	9,470	6,230	3,440	2,050	2,060	1,810
MIN	1,950	2,660	2,570	2,700	2,690	2,020	2,110	2,110	1,760	1,530	1,520	1,510
IN.	6.68	7.25	8.21	9.19	5.36	6.13	7.36	6.10	3.93	2.95	2.82	2.43
MEAN†	3,531	3,966	6,588	6,030	2,800	4,492	6,352	4,342	2,223	1,387	922	753
CFSM†	4.83	5.43	9.01	8.25	3.83	6.14	8.69	5.94	3.04	1.90	1.26	1.03
IN.†	5.57	6.05	10.39	9.51	3.99	7.09	9.70	6.85	3.39	2.19	1.45	1.15
AC-FT†	217,100	236,000	405,100	370,500	155,500	276,200	378,000	267,000	132,300	85,300	56,700	44,790

CAL YR 2004 TOTAL 1,502,130 MEAN 4,104 MAX 11,700 MIN 1,110 IN. 76.44 MEAN† 4,250 CFSM† 5.81 IN.† 79.16
AC-FT† 3,085,000
WTR YR 2005 TOTAL 1,344,250 MEAN 3,683 MAX 13,700 MIN 1,510 IN. 68.41 MEAN† 3,624 CFSM† 4.96 IN.† 67.31
AC-FT† 2,624,000

† Adjusted for change in contents in Lake Merwin, Swift Reservoir and Yale Reservoir.

14222500 EAST FORK LEWIS RIVER NEAR HEISSON, WA

LOCATION.--Lat 45°50'13", long 122°27'54", in NE¼NW¼, sec.17, T.4 N., R.3 E., Clark County, Hydrologic Unit 17080002, on right bank 60 ft downstream from Basket Creek, 1.5 mi northeast of Heisson, 3.4 mi southwest of Yacolt, and at mile 20.2.

DRAINAGE AREA.--125 mi^2.

PERIOD OF RECORD.--September 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 356.8 ft above NGVD of 1929 (from river-profile survey). Prior to Oct. 1, 1987, at datum 10.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--76 years (water years 1930-2005), 735 ft^3/s, 79.93 in/yr, 532,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft^3/s, Feb. 8, 1996, from indirect measurement, gage height, 25.26 ft; minimum discharge, 29 ft^3/s, Nov. 3, 1935, Sept. 27, 28, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 18	0845	*6,690	*18.20	Mar 27	1100	6,660	18.18

Minimum discharge, 43 ft^3/s, Sept. 27, 29, gage height, 10.20 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	819	750	571	536	295	1,520	497	537	221	97	62
2	167	1,650	659	520	493	267	1,340	469	499	212	97	60
3	159	1,770	598	478	460	259	1,340	432	453	202	93	60
4	152	1,230	560	444	492	244	1,300	438	411	190	89	58
5	148	935	615	411	511	234	1,140	419	432	181	86	57
6	330	759	633	398	597	224	1,010	388	501	219	86	56
7	224	640	842	422	643	216	1,100	361	523	189	85	55
8	301	555	2,190	390	577	210	1,150	348	503	202	84	53
9	514	489	1,880	354	529	204	974	416	449	305	83	52
10	628	439	3,120	332	490	198	831	811	412	240	81	60
11	467	397	4,520	315	468	192	1,130	732	400	224	83	74
12	381	364	2,490	326	493	187	1,070	628	384	203	81	59
13	327	339	1,690	334	505	179	978	548	360	191	79	55
14	292	317	1,430	310	468	172	869	527	335	180	74	53
15	270	337	1,150	300	433	167	797	608	314	170	73	52
16	272	327	969	313	403	180	1,720	807	314	161	72	52
17	543	307	833	794	378	211	1,840	950	515	153	84	63
18	764	437	729	5,220	359	174	1,550	1,200	407	145	86	56
19	1,320	409	655	2,670	344	209	1,290	1,280	393	138	77	52
20	1,020	365	585	1,780	325	281	1,080	1,230	350	133	72	51
21	770	340	556	1,390	306	316	914	1,210	326	129	71	49
22	745	327	519	1,090	291	264	799	1,190	321	151	70	47
23	794	336	469	888	277	240	790	1,030	300	139	71	48
24	883	602	438	756	268	225	718	878	276	125	70	47
25	792	1,360	449	660	260	231	955	749	262	121	64	47
26	796	1,110	728	591	253	863	871	643	250	116	60	46
27	675	844	597	545	244	5,190	775	562	287	111	60	45
28	596	679	531	501	263	3,630	682	502	292	107	59	45
29	543	583	519	689	---	3,040	608	457	259	104	65	44
30	671	599	492	654	---	2,170	552	427	239	102	79	229
31	822	---	470	590	---	1,580	---	409	---	98	66	---
TOTAL	16,546	19,665	32,666	25,036	11,666	22,052	31,693	21,146	11,304	5,162	2,397	1,787
MEAN	534	656	1,054	808	417	711	1,056	682	377	167	77.3	59.6
MAX	1,320	1,770	4,520	5,220	643	5,190	1,840	1,280	537	305	97	229
MIN	148	307	438	300	244	167	552	348	239	98	59	44
AC-FT	32,820	39,010	64,790	49,660	23,140	43,740	62,860	41,940	22,420	10,240	4,750	3,540
CFSM	4.27	5.24	8.43	6.46	3.33	5.69	8.45	5.46	3.01	1.33	0.62	0.48
IN.	4.92	5.85	9.72	7.45	3.47	6.56	9.43	6.29	3.36	1.54	0.71	0.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2005, BY WATER YEAR (WY)

MEAN	343	1,066	1,472	1,403	1,273	1,106	914	591	347	145	83.5	113
MAX	1,318	2,502	3,957	3,460	2,636	2,432	1,818	1,254	914	561	278	555
(WY)	(1952)	(1996)	(1934)	(1953)	(1961)	(1932)	(1937)	(1933)	(1933)	(1983)	(1968)	(1941)
MIN	36.7	53.7	288	303	394	352	312	198	88.2	59.4	42.7	42.3
(WY)	(1988)	(1937)	(1977)	(1979)	(1977)	(1992)	(1941)	(1931)	(1992)	(1992)	(1992)	(1967)

14222500 EAST FORK LEWIS RIVER NEAR HEISSON, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1930 - 2005	
ANNUAL TOTAL	248,004		201,120			
ANNUAL MEAN	678		551		735	
HIGHEST ANNUAL MEAN					1,117	1974
LOWEST ANNUAL MEAN					411	2001
HIGHEST DAILY MEAN	8,440	Jan 29	5,220	Jan 18	21,000	Feb 8, 1996
LOWEST DAILY MEAN	45	Aug 20	44	Sep 29	30	Sep 27, 1967
ANNUAL SEVEN-DAY MINIMUM	48	Aug 15	46	Sep 23	32	Sep 23, 1967
ANNUAL RUNOFF (AC-FT)	491,900		398,900		532,700	
ANNUAL RUNOFF (CFSM)	5.42		4.41		5.88	
ANNUAL RUNOFF (INCHES)	73.81		59.85		79.93	
10 PERCENT EXCEEDS	1,360		1,140		1,740	
50 PERCENT EXCEEDS	494		398		444	
90 PERCENT EXCEEDS	100		71		63	