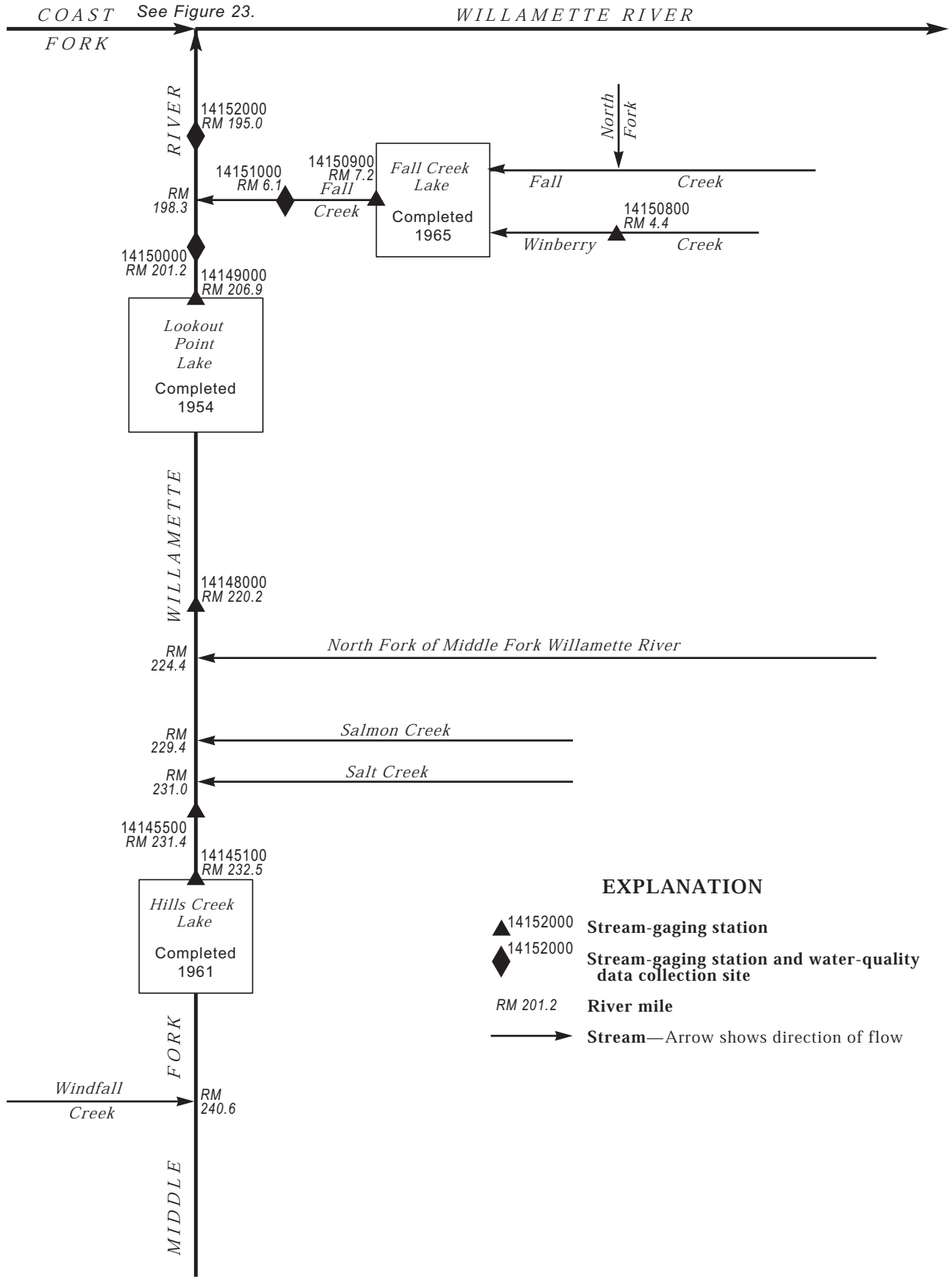


Figure 21. Location of surface-water and water-quality stations in the Willamette River Basin upstream from the Luckiamute River.



EXPLANATION

- ▲ 14152000 Stream-gaging station
- ◆ 14152000 Stream-gaging station and water-quality data collection site
- RM 201.2 River mile
- Stream—Arrow shows direction of flow

Figure 22. Schematic diagram showing gaging stations in the Middle Fork Willamette River Basin.

14145100 HILLS CREEK LAKE NEAR OAKRIDGE, OR

LOCATION.--Lat 43°42'30", long 122°25'25", in NW 1/4 sec.35, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, near right end of Hills Creek Dam on Middle Fork Willamette River, 600 ft downstream from Hills Creek, 3.5 mi southeast of Oakridge, and at mile 232.5.

DRAINAGE AREA.--389 mi².

PERIOD OF RECORD.--August 1961 to current year. Prior to October 1971, published as Hills Creek Reservoir near Oakridge.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in 1961 by the Corps of Engineers; storage began August 1961. Total capacity is 355,600 acre-ft at elevation 1,543.0 ft, top of spillway gates, and usable capacity is 248,900 acre-ft between elevations 1,414.0 ft, minimum power pool, and 1,543.0 ft. Reservoir used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 354,200 acre-ft June 25, 1971, elevation, 1,542.52 ft; minimum contents, 104,800 acre-ft Jan. 2, 1969, elevation, 1,412.52 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 350,300 acre-ft May 17, elevation, 1,541.11 ft; minimum contents, 155,200 acre-ft Jan. 24, elevation, 1,447.88 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,410	101,500	1,460	174,900	1,520	297,200
1,420	114,600	1,480	211,000	1,540	347,300
1,440	143,000	1,500	251,900	1,544	358,500

ELEVATION, in FT (NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1467.84	1456.17	1459.27	1451.41	1454.73	1486.25	1513.96	1534.01	1534.80	1534.51	1529.16	1525.21
2	1467.20	1456.09	1458.87	1452.73	1455.44	1486.87	1514.50	1534.63	1535.29	1534.44	1529.04	1525.07
3	1466.54	1455.96	1457.54	1453.67	1456.13	1487.42	1515.20	1535.28	1535.70	1534.41	1528.91	1524.75
4	1465.89	1455.79	1455.93	1454.00	1456.77	1487.93	1516.04	1535.91	1536.06	1534.41	1528.80	1524.30
5	1465.23	1455.61	1454.65	1454.08	1457.42	1488.45	1517.05	1536.50	1536.41	1534.34	1528.71	1523.67
6	1464.58	1455.43	1454.93	1455.86	1458.09	1489.17	1518.01	1537.08	1536.75	1534.19	1528.59	1522.66
7	1463.92	1455.23	1454.86	1458.64	1459.86	1490.17	1518.82	1537.58	1536.40	1534.02	1528.48	1521.66
8	1463.26	1455.02	1453.68	1464.13	1462.37	1490.95	1519.30	1538.03	1535.89	1533.82	1528.36	1520.63
9	1462.79	1454.80	1452.28	1466.11	1464.06	1491.63	1519.72	1538.48	1535.34	1533.50	1528.25	1519.58
10	1462.54	1454.58	1450.89	1465.87	1465.32	1492.29	1520.75	1538.88	1534.74	1533.19	1528.12	1518.54
11	1462.44	1454.37	1450.02	1464.92	1466.42	1493.13	1521.77	1539.26	1533.96	1532.72	1527.98	1517.51
12	1462.21	1454.19	1449.28	1463.77	1467.39	1495.17	1522.74	1539.65	1533.16	1532.11	1527.84	1516.43
13	1461.91	1454.06	1450.92	1462.37	1468.27	1496.78	1524.18	1540.16	1532.83	1531.49	1527.71	1515.34
14	1461.48	1454.06	1456.32	1460.66	1469.09	1498.03	1528.78	1540.65	1532.98	1530.86	1527.57	1514.25
15	1461.02	1454.00	1457.73	1458.68	1469.82	1499.07	1530.50	1540.97	1533.21	1530.70	1527.44	1513.16
16	1460.58	1454.20	1459.72	1456.58	1470.57	1499.98	1531.05	1541.04	1533.42	1530.62	1527.31	1512.06
17	1460.26	1454.42	1462.52	1454.48	1471.32	1500.73	1531.08	1541.03	1533.68	1530.53	1527.17	1511.58
18	1459.96	1454.44	1462.49	1452.47	1472.05	1501.37	1530.75	1540.44	1534.14	1530.45	1527.04	1511.04
19	1459.56	1454.42	1461.77	1450.96	1473.10	1501.99	1530.59	1539.49	1534.43	1530.36	1526.91	1510.40
20	1459.07	1454.56	1460.72	1449.66	1474.34	1502.72	1530.62	1538.49	1534.64	1530.29	1526.80	1509.71
21	1458.63	1455.35	1459.20	1449.25	1475.77	1503.64	1530.54	1537.47	1534.80	1530.22	1526.68	1508.62
22	1458.36	1457.71	1457.34	1448.42	1477.44	1504.75	1530.38	1536.01	1534.95	1530.15	1526.55	1507.51
23	1458.34	1458.47	1455.24	1447.94	1479.54	1506.14	1530.52	1535.38	1535.07	1530.10	1526.42	1506.41
24	1458.03	1457.96	1453.39	1447.90	1481.32	1507.58	1530.84	1534.74	1535.19	1530.04	1526.29	1505.30
25	1457.65	1457.39	1452.18	1449.92	1482.69	1508.86	1531.28	1534.13	1535.02	1529.97	1526.16	1504.18
26	1457.23	1456.67	1451.26	1452.38	1483.77	1509.92	1531.82	1533.63	1534.79	1529.87	1526.03	1503.05
27	1456.81	1455.72	1450.61	1453.35	1484.72	1510.87	1532.34	1533.25	1534.57	1529.76	1525.91	1501.91
28	1456.37	1457.33	1450.29	1453.78	1485.54	1511.72	1532.76	1533.00	1534.55	1529.66	1525.78	1500.77
29	1456.01	1458.93	1450.07	1453.85	---	1512.52	1533.15	1533.03	1534.56	1529.53	1525.64	1499.64
30	1456.05	1458.97	1449.98	1453.81	---	1513.07	1533.53	1533.56	1534.55	1529.39	1525.51	1498.60
31	1456.17	---	1450.61	1454.01	---	1513.50	---	1534.23	---	1529.27	1525.36	---
MAX	1467.84	1458.97	1462.52	1466.11	1485.54	1513.50	1533.53	1541.04	1536.75	1534.51	1529.16	1525.21
MIN	1456.01	1454.00	1449.28	1447.90	1454.73	1486.25	1513.96	1533.00	1532.83	1529.27	1525.36	1498.60
(†)	168500	173200	159500	165000	221800	282000	330500	332300	333100	319800	310100	248800
(‡)	-21100	+4700	-13700	+5500	+56800	+60200	+48500	+1800	+800	-13300	-9700	-61300

CAL YR 2001 MAX 1509.81 MIN 1448.70 AC-FT† +2900
WTR YR 2002 MAX 1541.04 MIN 1447.90 AC-FT† +59200

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14145500 MIDDLE FORK WILLAMETTE RIVER ABOVE SALT CREEK, NEAR OAKRIDGE, OR

LOCATION.--Lat 43°43'20", long 122°26'15", in NW 1/4 NE 1/4 sec.27, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 90 ft upstream from highway bridge, 0.4 mi upstream from Salt Creek, 1.1 mi downstream from Hills Creek Dam, 2.3 mi southeast of Oakridge, and at mile 231.4.

DRAINAGE AREA.--392 mi².

PERIOD OF RECORD.--October 1913 to September 1914, September 1935 to current year. Monthly discharge only September 1935, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1914.

GAGE.--Water-stage recorder. Datum of gage is 1,208.01 ft above NGVD of 1929 (levels by Corps of Engineers). Oct. 3, 1913, to Sept. 30, 1914, nonrecording gage and Sept. 1, 1935, to Aug. 18, 1960, water-stage recorder at sites 400 ft and 1,000 ft downstream, respectively, at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1961 by Hills Creek Lake (station 14145100). No diversions upstream from station.

AVERAGE DISCHARGE.--68 years (water years 1914, 1936-2002), 1,147 ft³/s, 39.74 in/yr, 831,000 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft³/s Dec. 28, 1945, gage height, 12.06 ft, site and datum then in use, from rating curve extended above 13,000 ft³/s; minimum observed discharge, 0.70 ft³/s Sept. 8-11, 13, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,240 ft³/s Jan. 14, gage height, 5.65 ft; minimum discharge, 239 ft³/s Feb. 4.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	799	421	1520	1230	352	300	711	412	508	507	404	408
2	798	421	2040	1340	304	299	712	301	503	512	407	407
3	797	425	2410	1440	304	300	713	302	505	472	411	610
4	794	425	2460	1470	306	300	714	305	506	403	403	777
5	795	425	2400	1420	308	307	724	304	511	473	405	1000
6	791	428	2590	1410	310	314	718	306	515	591	405	1540
7	791	429	2560	1340	304	313	719	307	1380	595	405	1550
8	798	431	2670	1300	302	311	1070	306	1540	634	405	1560
9	622	432	2560	2320	295	309	1310	307	1530	800	405	1560
10	475	430	2350	2990	307	309	1320	310	1540	786	404	1550
11	442	429	1760	2980	307	309	1320	308	1780	985	404	1530
12	449	429	1650	2930	308	316	1320	305	1810	1190	418	1570
13	518	431	1600	2910	309	318	1330	311	1200	1180	406	1580
14	601	428	1690	2950	308	324	1850	321	565	1180	423	1580
15	598	427	1580	2960	306	325	2510	577	405	568	400	1580
16	595	426	1540	2920	306	324	2490	905	404	414	405	1580
17	497	426	2210	2790	308	324	2480	1060	403	416	398	1030
18	475	426	3080	2630	308	324	2480	2010	408	414	396	989
19	549	425	3100	2240	309	323	2000	2510	410	410	394	1020
20	644	430	2990	2090	309	321	1560	2510	409	395	394	1040
21	593	520	2980	2100	307	324	1560	2520	411	393	402	1570
22	597	705	2950	2040	310	316	1560	3030	412	391	401	1560
23	606	1050	2960	1540	309	309	1120	1800	404	404	404	1550
24	607	1570	2590	1040	310	310	785	1800	405	412	402	1550
25	607	1540	1910	1020	311	308	607	1800	777	410	396	1540
26	606	1550	1610	1060	308	309	507	1800	803	410	395	1560
27	604	1600	1340	1040	297	308	509	1790	804	413	397	1560
28	606	1220	1260	1020	296	300	511	1810	528	409	392	1550
29	588	1290	1220	1070	---	316	516	1630	492	434	392	1550
30	413	1520	1220	997	---	530	515	950	493	443	400	1560
31	421	---	1220	724	---	709	---	560	---	422	407	---
TOTAL	19076	21109	66020	57311	8618	10309	36241	33467	22361	17466	12480	40011
MEAN	615.4	703.6	2130	1849	307.8	332.5	1208	1080	745.4	563.4	402.6	1334
MAX	799	1600	3100	2990	352	709	2510	3030	1810	1190	423	1580
MIN	413	421	1220	724	295	299	507	301	403	391	392	407
AC-FT	37840	41870	131000	113700	17090	20450	71880	66380	44350	34640	24750	79360
MEAN†	272	783	1907	1938	1331	1311	2024	1109	759	347	245	304
CFSM†	0.69	2.00	4.86	4.94	3.39	3.34	5.16	2.83	1.94	0.88	0.62	0.77
IN.†	0.80	2.23	5.61	5.70	3.53	3.86	5.76	3.26	2.16	1.02	0.72	0.86
AC-FT†	16740	46570	117300	119200	73890	80650	120380	68180	45150	21340	15050	18060
CAL YR 2001 TOTAL	243046											
MEAN	665.9											
MAX	3100											
MIN	83											
AC-FT	482100											
MEAN†	670											
CFSM†	1.71											
IN.†	23.20											
AC-FT†	485000											
WTR YR 2002 TOTAL	344469											
MEAN	943.8											
MAX	3100											
MIN	295											
AC-FT	683300											
MEAN†	1025											
CFSM†	2.62											
IN.†	35.52											
AC-FT†	742500											

† Adjusted for change in contents, in Hill Creek Lake.

WILLAMETTE RIVER BASIN

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14149000 LOOKOUT POINT LAKE NEAR LOWELL, OR

LOCATION.--Lat 43°54'50", long 122°45'00", in SE 1/4 sec.13, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, in elevator house at right end of spillway section of dam on Middle Fork Willamette River, 1.5 mi east of Lowell, and at mile 206.9.

DRAINAGE AREA.--991 mi².

PERIOD OF RECORD.--November 1953 to current year. Prior to October 1971, published as Lookout Point Reservoir near Lowell.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers). Nov. 7, 1953, to Dec. 4, 1954, approximate elevations obtained from reference marks and Dec. 5, 1954, to Feb. 4, 1955, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1954 by Corps of Engineers. Planned storage began in November 1953. Total capacity is 455,800 acre-ft at elevation 929 ft, and usable capacity is 349,200 acre-ft between elevations 819 ft and 929 ft, top of spillway gates. Reservoir used for flood control, improvement of navigation, power generation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 464,900 acre-ft Dec. 26, 1964, elevation, 931.09 ft; minimum contents observed since first filling, 91,450 acre-ft Dec. 1, 1954, elevation, 811.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 427,900 acre-ft May 7, elevation, 922.43 ft; minimum contents, 115,100 acre-ft Dec. 27, elevation, 823.22 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

810	89,600	860	205,500	900	338,900
820	108,600	870	235,500	910	377,400
830	129,500	880	267,800	920	417,800
840	152,500	890	302,300	930	460,200
850	177,700				

ELEVATION, in FT (NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	842.19	837.43	835.31	825.68	829.45	861.94	891.93	920.65	919.03	921.88	906.05	866.38
2	842.06	837.50	833.11	826.40	829.74	862.63	892.71	920.96	919.45	921.96	904.96	864.87
3	841.90	837.47	830.73	827.29	830.29	863.21	893.60	921.34	919.40	922.00	903.84	863.41
4	841.72	837.39	827.78	827.85	831.14	863.71	894.56	921.69	919.26	921.99	902.71	861.98
5	841.55	837.28	825.79	828.13	831.82	864.13	895.75	922.05	919.15	921.98	901.54	860.63
6	841.39	837.17	827.43	828.75	832.41	864.77	896.87	922.21	919.02	921.91	900.40	859.85
7	841.35	836.99	829.15	830.02	833.87	865.75	897.89	921.77	918.82	921.85	899.32	859.13
8	841.24	836.81	828.84	832.96	835.94	866.58	898.82	921.25	918.78	921.80	898.19	858.32
9	840.95	836.60	827.81	835.75	837.75	867.30	899.74	920.71	918.72	921.74	896.99	857.41
10	840.58	836.37	826.76	837.21	839.14	868.01	901.52	919.88	918.60	921.66	895.79	856.46
11	840.44	836.18	825.59	837.33	840.34	868.96	903.53	919.01	918.57	921.58	894.65	855.45
12	840.14	836.00	824.43	837.19	841.70	871.17	905.34	918.15	918.54	921.50	893.46	854.59
13	839.77	835.87	824.90	836.73	842.86	873.01	907.80	917.37	918.65	921.38	892.27	853.89
14	839.49	836.02	830.52	835.98	843.70	874.48	913.71	916.61	918.83	921.28	891.05	852.84
15	839.18	836.02	832.30	834.94	844.49	875.79	916.64	915.97	919.10	920.82	889.84	851.90
16	838.88	836.30	836.10	833.98	845.24	876.96	917.15	915.49	919.36	920.11	888.65	851.03
17	838.46	836.66	840.84	832.62	846.14	877.94	917.44	915.06	919.64	919.36	887.39	850.04
18	838.00	836.89	842.17	830.77	846.94	878.79	917.38	915.21	920.13	918.56	886.22	848.95
19	837.48	836.97	842.19	828.87	848.04	879.53	917.06	915.60	920.54	917.69	884.91	847.98
20	836.93	836.60	840.68	827.06	849.40	880.32	916.65	916.16	920.80	916.86	883.52	847.32
21	836.56	836.10	837.74	826.95	850.79	881.26	916.48	916.70	921.03	916.06	882.18	846.97
22	836.45	836.90	834.20	825.50	852.43	882.29	916.69	917.36	921.23	915.21	880.73	846.65
23	837.24	838.00	831.11	824.50	854.36	883.51	916.98	917.32	921.41	914.40	879.38	846.30
24	837.36	838.33	828.50	823.42	856.28	884.89	917.46	917.24	921.55	913.59	878.03	845.97
25	837.30	837.96	825.75	824.77	857.86	886.14	917.79	917.13	921.64	912.71	876.63	845.47
26	837.14	837.17	824.15	826.30	859.19	887.21	918.25	917.13	921.69	911.81	875.18	845.23
27	836.97	836.31	823.56	826.38	860.20	888.20	918.87	917.24	921.57	910.90	873.77	844.83
28	836.82	836.90	823.58	826.22	861.12	889.08	919.31	917.46	921.50	910.07	872.32	844.53
29	836.70	837.64	824.29	826.75	---	889.91	919.71	917.74	921.65	909.16	870.78	844.17
30	836.83	836.89	824.89	827.49	---	890.51	920.31	918.10	921.80	908.12	869.28	843.95
31	837.21	---	825.56	828.33	---	891.21	---	918.61	---	907.10	867.87	---
MAX	842.19	838.33	842.19	837.33	861.12	891.21	920.31	922.21	921.80	922.00	906.05	866.38
MIN	836.45	835.87	823.56	823.42	829.45	861.94	891.93	915.06	918.54	907.10	867.87	843.95
(†)	145800	145100	119900	125800	208700	306600	419100	412100	425300	366100	229000	162200
(‡)	-12500	-700	-25200	+5900	+82900	+97900	+112500	-7000	+13200	-59200	-137100	-66800

CAL YR 2001 MAX 876.26 MIN 823.56 AC-FT† -7700
WTR YR 2002 MAX 922.21 MIN 823.42 AC-FT† +3900

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

WILLAMETTE RIVER BASIN

14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR

LOCATION.--Lat 43°56'45", long 122°50'10", in SE 1/4 NW 1/4 sec.5, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, on right bank 0.6 mi upstream from Lost Creek, 2.0 mi northwest of Dexter, 2.6 mi downstream from Dexter Dam, and at mile 201.2.

DRAINAGE AREA.--1,001 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year. Prior to October 1954, published as "at Lowell".

REVISED RECORDS.--WSP 1638: 1948(P).

GAGE.--Water-stage recorder. Datum of gage is 592.30 ft above NGVD of 1929 (levels by Corps of Engineers). Prior to Aug. 23, 1950, nonrecording gage and Aug. 23, 1950, to Sept. 30, 1954, at site 4.0 mi upstream at different datum, and June 9, 1955, to Feb. 18, 1977, at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1953 by Lookout Point Lake (station 14149000), since 1955 by Dexter Lake (re-regulating), and since 1961 by Hills Creek Lake (station 14145100).

AVERAGE DISCHARGE.--6 years (water years 1947-1952), 3,572 ft³/s, 2,588,000 acre-ft/yr.
50 years (water years 1953-2002), 3,056 ft³/s, 2,214,000 acre-ft/yr, regulated.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,600 ft³/s Jan. 18, 1953, gage height, 12.46 ft, site and datum then in use, from rating curve extended above 33,000 ft³/s; minimum daily discharge, 100 ft³/s Nov. 25, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 13.9 ft Dec. 28, 1945, former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,100 ft³/s Dec. 20, gage height, 8.38 ft; minimum discharge, 1,040 ft³/s Feb. 23.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1620	1310	5770	3450	1390	1110	1700	1610	1830	1210	3020	3220
2	1510	1310	7330	3500	1890	1100	1700	1620	1830	1200	3140	3220
3	1490	1320	7440	3490	1400	1100	1710	1620	2420	1200	3160	3210
4	1490	1320	7580	3530	1170	1140	1710	1620	2510	1190	3160	3230
5	1490	1330	7020	3540	1160	1360	1700	1620	2510	1250	3160	3250
6	1490	1310	5270	3520	1160	1350	1700	1910	2510	1430	3060	3260
7	1500	1320	5160	3490	1160	1340	1700	2980	3210	1430	3110	3260
8	1510	1330	5870	3500	1130	1230	2050	3070	3040	1460	3110	3250
9	1510	1310	6080	4330	1110	1120	2540	2910	3010	1620	3090	3260
10	1520	1300	6040	4940	1110	1130	2360	3520	3010	1620	3100	3250
11	1520	1300	4980	5680	1110	1160	1770	3560	3020	1820	3140	3250
12	1520	1300	4950	5950	1110	1190	1660	3560	3020	2050	3150	3260
13	1520	1300	4950	6000	1110	1190	1660	3560	2330	2020	3120	3250
14	1520	1300	4900	6010	1100	1190	2950	3570	1680	2030	3110	3250
15	1530	1300	4900	6010	1090	1190	5620	3560	1210	2310	3110	3260
16	1520	1300	3180	6010	1090	1200	6430	3540	1180	2480	3110	3230
17	1530	1310	3870	6000	1090	1190	6560	3570	1180	2520	3120	3210
18	1520	1310	6950	5990	1080	1190	6500	3570	1190	2680	3110	3240
19	1640	1310	7970	6020	1080	1180	6330	3600	1190	2670	3120	2850
20	1960	1910	8910	6010	1080	1150	5370	3240	1180	2690	3330	2460
21	1670	2520	9970	6030	1100	1150	4320	3240	1170	2710	3360	2460
22	1520	2590	9940	6010	1100	1180	3580	3490	1190	2700	3340	2470
23	1520	2590	8870	5140	1090	1200	2900	3530	1190	2690	3220	2460
24	1530	3290	7680	4250	1090	1190	2120	3500	1200	2700	3250	2470
25	1500	3990	6590	3440	1100	1200	2010	3530	1620	2710	3240	2470
26	1490	4120	5090	4240	1100	1190	2010	3560	1660	2740	3240	2470
27	1490	4120	3620	4290	1100	1200	1720	3540	2040	2730	3240	2470
28	1500	3270	2880	3840	1110	1220	1600	3540	1620	2740	3220	2480
29	1510	4080	2410	2660	---	1220	1610	3540	1230	2750	3210	2480
30	1320	4690	2410	2060	---	1700	1620	2980	1180	3020	3220	2490
31	1310	---	2850	1670	---	1710	---	1960	---	3040	3230	---
TOTAL	47270	62060	181430	140600	32410	37970	87210	94220	57160	67410	98300	88390
MEAN	1525	2069	5853	4535	1158	1225	2907	3039	1905	2175	3171	2946
MAX	1960	4690	9970	6030	1890	1710	6560	3600	3210	3040	3360	3260
MIN	1310	1300	2410	1670	1080	1100	1600	1610	1170	1190	3020	2460
AC-FT	93760	123100	359900	278900	64290	75310	173000	186900	113400	133700	195000	175300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)

	2851	4470	5340	4977	2873	2335	2282	2885	2471	1706	1970	2482
MEAN	2851	4470	5340	4977	2873	2335	2282	2885	2471	1706	1970	2482
MAX	5266	8779	12310	13510	7724	8084	4854	5464	5072	3145	3171	3932
(WY)	1963	1985	1997	1965	1953	1957	1993	1996	1984	1999	2002	1972
MIN	808	874	981	1050	668	525	437	526	816	1053	1083	892
(WY)	1953	1953	1955	1977	1977	1977	1977	1977	1977	1957	1966	1953

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1953 - 2002

ANNUAL TOTAL	745100	994430	
ANNUAL MEAN	2041	2724	3056
HIGHEST ANNUAL MEAN			4660
LOWEST ANNUAL MEAN			1392
HIGHEST DAILY MEAN	9970	Dec 21	9970
LOWEST DAILY MEAN	1020	Jan 19	1080
ANNUAL SEVEN-DAY MINIMUM	1060	Mar 6	1090
ANNUAL RUNOFF (AC-FT)	1478000	1972000	2214000
10 PERCENT EXCEEDS	4160	5150	6080
50 PERCENT EXCEEDS	1420	2470	2260
90 PERCENT EXCEEDS	1090	1180	1160

14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--August 1955 to September 1997, August 2001 to present.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records fair

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum, 20.5°C several days in September, 1992, Aug. 28, Sept. 15, 16, 2001;
 minimum recorded, 2.5°C Feb. 6-8, 1989, but may have been lower during period of missing record Feb. 9 to
 Mar. 30, 1989

EXTREMES FOR CURRENT YEAR.--Maximum, 19.1°C Oct. 1, 2; minimum, 4.7°C Feb. 10.

WATER TEMPERATURE, in (DEGREES C), AUGUST TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	19.2	16.6	17.6	20.0	17.9	18.7
2	---	---	---	---	---	---	19.4	16.7	17.7	20.3	18.2	18.9
3	---	---	---	---	---	---	18.4	16.8	17.4	20.2	17.9	18.8
4	---	---	---	---	---	---	18.2	16.9	17.4	20.2	18.0	18.9
5	---	---	---	---	---	---	19.3	16.6	17.6	19.5	18.2	18.6
6	---	---	---	---	---	---	19.5	16.8	17.8	20.1	18.0	18.8
7	---	---	---	---	---	---	19.5	17.1	17.9	20.2	17.9	18.8
8	---	---	---	---	---	---	19.6	17.0	18.0	20.4	18.0	18.9
9	---	---	---	---	---	---	19.9	17.3	18.3	20.4	18.1	18.9
10	---	---	---	---	---	---	19.8	17.3	18.3	20.2	18.3	18.9
11	---	---	---	---	---	---	19.8	17.2	18.2	20.3	18.1	18.9
12	---	---	---	---	---	---	19.8	17.5	18.4	20.3	18.4	19.0
13	---	---	---	---	---	---	19.8	17.5	18.4	20.3	18.5	19.1
14	---	---	---	---	---	---	19.7	17.6	18.3	20.4	18.5	19.2
15	---	---	---	---	---	---	20.0	17.7	18.5	20.5	18.9	19.3
16	---	---	---	---	---	---	19.5	17.6	18.2	20.5	18.7	19.2
17	---	---	---	---	---	---	19.9	17.6	18.4	20.2	18.5	19.1
18	---	---	---	---	---	---	19.5	17.8	18.4	20.4	18.4	19.1
19	---	---	---	---	---	---	20.0	17.5	18.3	20.2	18.2	19.0
20	---	---	---	---	---	---	19.9	17.5	18.4	20.3	18.2	19.0
21	---	---	---	---	---	---	19.3	17.6	18.3	20.1	18.2	18.9
22	---	---	---	---	---	---	18.6	18.1	18.3	20.2	18.1	18.9
23	---	---	---	---	---	---	19.6	17.7	18.4	20.2	18.2	18.9
24	---	---	---	---	---	---	20.0	17.7	18.5	19.8	18.3	18.8
25	---	---	---	---	---	---	20.0	17.7	18.6	18.8	18.4	18.6
26	---	---	---	---	---	---	20.2	17.9	18.7	18.7	18.0	18.4
27	---	---	---	---	---	---	20.3	18.0	18.8	18.8	17.7	18.1
28	---	---	---	---	---	---	20.5	18.0	18.9	19.3	17.3	18.0
29	---	---	---	---	---	---	20.2	18.0	18.8	19.1	17.2	17.8
30	---	---	---	---	---	---	20.2	17.8	18.7	19.1	17.1	17.8
31	---	---	---	---	---	---	20.2	18.0	18.7	---	---	---
MONTH	---	---	---	---	---	---	20.5	16.6	18.3	20.5	17.1	18.8

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.1	17.3	18.0	14.1	13.5	13.7	9.8	9.5	9.7	6.3	6.0	6.2
2	19.1	17.3	17.9	14.7	13.5	13.9	9.7	9.4	9.6	6.5	6.1	6.3
3	19.0	17.0	17.7	14.6	13.2	13.7	9.6	9.1	9.3	6.5	6.0	6.2
4	19.0	17.1	17.8	14.0	13.5	13.7	9.2	8.6	8.9	6.3	6.0	6.1
5	18.6	17.2	17.6	14.2	13.2	13.6	8.8	8.6	8.7	6.3	6.0	6.2
6	18.0	17.1	17.5	14.1	12.7	13.3	8.9	8.5	8.7	6.7	6.2	6.5
7	17.8	16.9	17.2	13.8	12.3	12.9	8.8	8.3	8.6	6.9	6.5	6.7
8	18.0	16.6	17.2	13.3	12.2	12.6	8.5	8.1	8.3	7.0	6.7	6.8
9	17.8	16.4	16.9	13.2	11.9	12.4	8.4	7.9	8.1	6.9	6.5	6.7
10	16.6	16.2	16.4	13.2	12.0	12.4	8.0	7.7	7.9	6.8	6.4	6.6
11	17.5	15.9	16.5	13.0	12.1	12.4	7.9	7.5	7.7	6.8	6.5	6.6
12	17.0	15.7	16.2	12.7	12.2	12.4	7.7	7.4	7.5	6.8	6.5	6.7
13	17.0	15.8	16.3	12.6	12.1	12.4	7.7	7.4	7.5	6.8	6.3	6.5
14	17.2	15.7	16.2	13.1	12.4	12.7	7.6	7.2	7.4	6.6	6.2	6.4
15	16.8	15.6	16.0	12.8	12.4	12.5	7.3	7.0	7.2	6.6	6.1	6.3
16	16.7	15.6	16.0	12.5	12.1	12.4	7.5	7.0	7.3	6.4	6.0	6.2
17	16.7	15.4	15.8	12.9	11.8	12.2	7.4	7.0	7.2	6.4	6.1	6.2
18	16.5	15.2	15.6	12.5	11.6	11.9	7.2	6.8	7.1	6.4	6.0	6.2
19	16.5	15.0	15.5	12.5	11.7	12.0	7.0	6.6	6.9	6.3	6.0	6.1
20	15.8	15.2	15.4	11.9	11.5	11.7	7.1	6.8	6.9	6.2	5.8	6.0
21	15.6	15.2	15.3	11.7	11.4	11.6	7.0	6.6	6.8	6.3	5.7	5.9
22	15.4	15.0	15.2	11.5	11.2	11.4	6.8	6.5	6.6	6.0	5.7	5.8
23	15.3	14.4	14.9	11.5	11.2	11.3	6.7	6.2	6.5	6.0	5.6	5.8
24	15.5	14.3	14.7	11.3	10.9	11.1	6.5	6.0	6.3	6.0	5.5	5.7
25	15.7	14.3	14.8	11.1	10.7	10.9	6.3	5.9	6.2	6.0	5.6	5.8
26	15.6	14.0	14.6	10.8	10.4	10.6	6.3	5.9	6.1	6.0	5.5	5.7
27	14.6	14.0	14.3	10.6	10.1	10.4	6.2	5.8	6.0	5.8	5.3	5.5
28	14.3	13.8	14.1	10.2	10.0	10.1	6.3	5.6	5.9	5.8	5.2	5.4
29	14.3	13.8	14.0	10.3	9.9	10.1	6.2	5.8	6.0	5.8	5.0	5.3
30	14.2	13.7	13.9	10.1	9.7	10	6.2	5.7	5.9	5.7	5.0	5.3
31	14.1	13.6	13.8	---	---	---	6.4	5.9	6.1	5.5	5.0	5.3
MONTH	19.1	13.6	15.9	14.7	9.7	12.1	9.8	5.6	7.4	7.0	5.0	6.1

14150800 WINBERRY CREEK NEAR LOWELL, OR

LOCATION.--Lat 43°54'50", long 122°41'15", in NE 1/4 SE 1/4 sec.16, T.19 S., R.1 E., Lane County, Hydrologic Unit 17090001, on right bank 0.9 m upstream from Nelson Creek, 4.6 mi east of Lowell, and at mile 4.4.

DRAINAGE AREA.--43.9 mi².

PERIOD OF RECORD.--August 1963 to September 1981, October 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 863.70 ft above NGVD of 1929. Levels by U.S. Army Corps of Engineers (USACE).

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--20 years (water years 1964-1981, 2001-02), 115 ft³/s, 35.51 in/yr, 83,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s Dec. 22, 1964, gage height, 8.07 ft; minimum discharge, 1.5 ft³/s Sept. 4, 5, 8-10, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 14	0230	*1,250	*4.51	Apr. 14	0730	1,230	4.48

Minimum discharge, 2.5 ft³/s Sept. 10-16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	e50	249	176	e155	97	116	75	35	11	4.2	2.8
2	3.3	e40	243	211	e150	85	113	72	31	10	4.1	2.8
3	3.2	e32	184	185	e150	76	114	74	29	9.4	4.0	2.9
4	3.1	e28	169	149	e150	69	116	68	26	9.1	4.1	3.2
5	3.1	e26	278	127	146	67	e130	64	25	8.8	4.1	3.1
6	3.1	e22	502	156	145	110	e125	62	23	8.4	4.4	2.9
7	3.1	e19	481	177	303	171	e125	60	22	8.3	4.5	2.9
8	3.5	17	302	235	367	136	e115	54	21	8.0	4.1	2.9
9	4.6	15	259	202	268	124	e130	51	22	7.6	3.9	2.8
10	6.0	13	227	158	207	125	e180	48	19	7.3	3.9	2.7
11	47	12	262	129	181	168	178	45	18	7.0	e3.7	2.6
12	12	16	303	119	158	389	174	45	16	6.8	e3.6	2.6
13	8.6	19	480	109	139	297	253	48	15	6.6	e3.5	2.6
14	7.8	29	971	97	123	249	972	46	15	6.3	3.3	2.5
15	6.2	22	489	85	113	227	563	45	15	6.4	3.2	2.5
16	5.5	79	610	76	109	199	388	44	14	6.3	3.1	2.7
17	5.8	106	668	75	110	170	346	45	16	6.2	e3.1	13
18	5.3	60	434	70	109	146	348	44	16	6.0	e3.1	14
19	4.8	43	336	96	160	157	277	44	21	6.0	e3.2	6.1
20	4.5	37	319	149	184	210	217	47	17	6.2	e3.3	4.4
21	4.5	53	257	466	179	262	178	49	15	5.8	e4.2	3.8
22	35	188	196	278	195	268	153	58	15	5.6	e4.0	3.5
23	114	200	150	202	240	284	132	46	14	5.4	3.7	3.2
24	46	130	122	196	236	374	113	43	13	5.2	3.4	3.0
25	24	201	104	527	190	334	102	41	12	5.1	3.3	2.9
26	17	202	92	611	155	248	95	41	11	5.0	3.3	2.9
27	14	140	90	316	130	210	106	41	11	4.9	3.3	2.8
28	16	320	115	208	112	178	92	44	11	4.8	3.1	2.8
29	14	369	106	e150	---	152	84	44	13	4.6	3.0	3.5
30	39	244	106	e125	---	134	80	41	12	4.5	2.9	14
31	e70	---	161	e110	---	123	---	38	---	4.3	2.8	---
TOTAL	537.6	2732	9265	5970	4864	5839	6115	1567	558	206.9	111.4	124.4
MEAN	17.3	91.1	299	193	174	188	204	50.5	18.6	6.67	3.59	4.15
MAX	114	369	971	611	367	389	972	75	35	11	4.5	14
MIN	3.1	12	90	70	109	67	80	38	11	4.3	2.8	2.5
AC-FT	1070	5420	18380	11840	9650	11580	12130	3110	1110	410	221	247
CFSM	0.40	2.07	6.81	4.39	3.96	4.29	4.64	1.15	0.42	0.15	0.08	0.09
IN.	0.46	2.32	7.85	5.06	4.12	4.95	5.18	1.33	0.47	0.18	0.09	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	25.9	137	230	262	158	180	167	116	59.5	16.8	10.7	14.0
MAX	82.6	429	668	512	311	399	362	258	170	46.8	33.0	73.1
(WY)	1969	1974	1965	1971	1979	1972	1979	1977	1964	1969	1978	1978
MIN	7.88	21.8	16.3	32.1	19.7	57.8	80.4	35.8	14.3	6.67	3.59	3.68
(WY)	1975	1977	1977	1977	1977	1978	1968	1966	1966	2002	2002	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1964 - 2002

ANNUAL TOTAL	29864.7	37890.3	
ANNUAL MEAN	81.8	104	115
HIGHEST ANNUAL MEAN			182
LOWEST ANNUAL MEAN			57.9
HIGHEST DAILY MEAN	971	972	3130
LOWEST DAILY MEAN	2.8	2.5	2.0
ANNUAL SEVEN-DAY MINIMUM	2.9	2.6	2.2
ANNUAL RUNOFF (AC-FT)	59240	75160	83120
ANNUAL RUNOFF (CFSM)	1.86	2.36	2.61
ANNUAL RUNOFF (INCHES)	25.31	32.11	35.51
10 PERCENT EXCEEDS	210	262	267
50 PERCENT EXCEEDS	44	46	59
90 PERCENT EXCEEDS	4.0	3.3	6.7

e Estimated

14150900 FALL CREEK LAKE NEAR LOWELL, OR

LOCATION.--Lat 43°56'40", long 122°45'20", in SW 1/4 sec.1, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, in regulating tower near the center of Fall Creek Dam on Fall Creek, 2.2 mi northeast of Lowell, and at mile 7.2.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--January 1966 to current year. Prior to October 1971, published as Fall Creek Reservoir near Lowell.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Levels by U.S. Army Corps of Engineers (USACE).

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1965 by Corps of Engineers; storage began January 1966. Total capacity is 125,100 acre-ft at elevation 834 ft and usable capacity is 115,500 acre-ft between elevation 728 ft and 834 ft. Reservoir used for flood control, conservation, and recreation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by USACE.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 123,200 acre-ft May 30, 31, 1972, May 19, 1991; maximum elevation, 832.98 ft May 31, 1972; minimum contents, no contents Nov. 7 to Dec. 6, 1969, Nov. 14-16, 1970, Nov. 18-25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 113,800 acre-ft May 30 to June 2, elevation, 827.68 ft; minimum contents, 4,820 acre-ft Jan. 7, elevation, 713.57.

Capacity table (elevation, in feet, and total contents, in acre-feet)

670.4	0	725	8,340	785	53,120
679	59	735	13,270	795	64,590
685	366	745	19,480	805	77,880
695	1,400	755	26,130	815	92,750
705	2,850	765	33,770	825	109,200
715	5,200	775	42,580	833	123,200

ELEVATION, in FT (NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	784.12	735.44	727.57	729.33	732.93	787.94	810.56	826.16	827.68	826.46	824.31	820.10
2	782.51	735.48	728.19	728.39	735.53	788.61	810.26	826.30	827.64	826.40	824.23	819.89
3	780.99	735.27	728.16	725.38	738.02	789.11	809.90	826.54	827.60	826.32	824.12	819.63
4	779.39	734.85	728.06	721.18	740.16	789.61	809.68	826.66	827.54	826.24	824.08	819.38
5	777.84	734.41	728.66	716.24	742.36	789.90	809.60	826.78	827.48	826.16	824.00	819.10
6	776.20	733.92	733.95	713.67	744.81	790.64	809.62	826.86	827.38	826.10	823.91	818.84
7	774.59	733.32	735.01	714.05	749.93	791.94	809.78	826.94	827.28	826.00	823.83	818.57
8	772.91	732.69	731.53	717.53	755.01	792.86	809.96	826.92	827.18	825.92	823.76	818.35
9	771.13	732.01	728.34	719.84	758.20	793.76	810.38	826.96	827.12	825.84	823.72	818.10
10	769.36	731.29	727.32	720.88	760.16	794.64	811.60	827.04	827.06	825.76	823.61	817.86
11	768.06	730.58	728.04	722.10	761.64	796.02	812.72	827.10	827.02	825.70	823.53	817.55
12	766.24	729.92	728.59	723.19	762.81	799.36	813.70	827.14	826.98	825.66	823.49	817.33
13	764.31	729.44	732.71	724.37	763.61	801.70	815.18	827.18	826.94	825.58	823.38	817.08
14	762.31	729.97	740.89	725.21	764.53	803.64	819.74	827.24	826.88	825.56	823.28	816.82
15	760.30	729.87	739.96	726.34	765.94	805.04	820.30	827.26	826.84	825.52	823.23	816.58
16	758.08	730.36	740.68	727.52	767.28	805.48	820.58	827.30	826.76	825.42	823.15	816.15
17	755.98	730.00	740.58	728.64	768.66	805.68	820.78	827.32	826.78	825.34	823.06	815.53
18	753.67	728.38	737.83	729.51	769.89	805.72	821.18	827.34	826.90	825.28	822.96	814.68
19	751.33	727.97	736.25	729.99	771.81	806.12	821.78	827.38	826.94	825.22	822.87	813.72
20	748.95	727.81	734.03	730.83	773.77	806.80	822.54	827.42	826.94	825.16	822.79	812.75
21	746.56	728.33	730.00	735.90	775.64	807.84	823.06	827.46	826.94	825.08	822.73	811.79
22	744.58	731.04	728.22	735.28	777.72	808.62	823.54	827.54	826.92	825.04	822.56	810.83
23	744.47	733.34	728.24	732.76	780.10	808.34	824.02	827.56	826.86	824.98	822.30	809.82
24	742.79	732.83	728.13	729.81	782.37	808.38	824.34	827.58	826.82	824.86	822.07	808.78
25	740.55	733.03	728.21	733.65	784.01	808.70	824.68	827.58	826.76	824.82	821.83	807.71
26	738.44	733.35	728.25	738.01	785.29	809.28	825.04	827.58	826.70	824.74	821.60	806.63
27	737.02	732.44	728.26	737.40	786.30	810.02	825.34	827.58	826.62	824.68	821.36	805.57
28	735.52	734.06	728.76	735.28	787.22	810.62	825.62	827.62	826.58	824.62	821.16	804.49
29	734.01	735.00	729.02	732.88	---	811.04	825.76	827.66	826.58	824.58	820.87	803.43
30	733.83	728.99	729.26	731.25	---	811.08	825.96	827.68	826.52	824.46	820.61	802.37
31	734.84	---	729.41	730.77	---	810.84	---	827.68	---	824.38	820.36	---
MAX	784.12	735.48	740.89	738.01	787.22	811.08	825.96	827.68	827.68	826.46	824.31	820.10
MIN	733.83	727.81	727.32	713.67	732.93	787.94	809.60	826.16	826.52	824.38	820.36	802.37
(†)	13180	10090	10300	10980	55580	86380	110800	113800	111800	108100	101400	74220
(‡)	-40550	-3090	+210	+680	+44600	+30800	+24420	+3000	-2000	-3700	-6700	-27180

CAL YR 2001 MAX --- MIN --- AC-FT† +120
WTR YR 2002 MAX 827.68 MIN 713.67 AC-FT† +20490

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR

LOCATION.--Lat 43°56'40", long 122°46'25", in NW 1/4 SE 1/4 sec.2, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, on right bank 10 ft upstream from highway bridge, 1.1 mi downstream from Fall Creek Dam, 2.3 mi southeast of town of Fall Creek, and at mile 6.1.

DRAINAGE AREA.--186 mi².

PERIOD OF RECORD.--October to December 1911 (published as Big Fall Creek near Fall Creek; gage heights and discharge measurements only), September 1935 to current year.

REVISED RECORDS.--WSP 1094: 1946(M). WSP 1248: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 637.81 ft above NGVD of 1929 (Corps of Engineers bench mark). Oct. 1 to Dec. 31, 1911, nonrecording gage at site 0.25 mi downstream at different datum. Sept. 9, 1935, to Aug. 3, 1950, nonrecording gage on left bank at present site and datum. Aug. 4, 1950 to Aug. 27, 1982 water-stage recorder. Aug. 27, 1982 gage moved to right bank at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1966 by Fall Creek Lake (station 14150900). No diversion upstream from station.

AVERAGE DISCHARGE.--67 years (water years 1936-2002), 577 ft³/s, 42.13 in/yr, 418,000 acre-ft/yr, adjusted for storage in Fall Creek Lake since January 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,700 ft³/s Dec. 11, 1956, gage height, 18.80 ft, from rating curve extended above 9,700 ft³/s; minimum discharge, 1.5 ft³/s Oct. 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,880 ft³/s Dec. 17, gage height, 7.31 ft; minimum discharge, 55 ft³/s Mar. 4, 5.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	788	235	1540	757	315	67	775	176	165	113	72	200
2	780	236	1160	1100	168	67	793	162	165	113	72	200
3	770	235	934	1490	172	67	806	162	165	113	72	201
4	770	233	833	1490	175	62	692	162	165	113	72	203
5	767	233	1060	1440	172	199	596	162	165	113	72	203
6	763	235	1800	1100	72	163	444	163	165	113	85	203
7	756	234	2530	720	80	149	303	266	165	113	95	203
8	750	233	2430	627	439	88	304	237	165	113	70	203
9	771	233	2020	618	467	58	187	163	165	113	70	203
10	820	230	1290	584	472	59	98	163	165	113	70	203
11	830	231	954	404	474	60	107	163	130	85	70	202
12	821	233	1280	336	477	64	129	163	108	72	70	201
13	813	231	1550	296	478	65	141	163	109	73	83	201
14	806	233	2610	274	353	66	852	163	110	73	97	200
15	800	259	2660	154	95	273	1940	163	111	72	69	201
16	791	327	2660	99	70	792	1500	161	111	87	69	383
17	783	740	3070	101	70	773	1510	163	112	103	69	638
18	809	751	2990	112	71	737	1270	163	111	81	69	795
19	811	340	2290	376	72	580	805	165	111	81	69	791
20	803	226	2260	785	73	604	398	165	111	81	69	786
21	791	195	2260	1680	74	678	398	165	111	81	87	783
22	783	843	1390	1800	74	925	288	165	112	80	137	779
23	815	1070	798	1780	76	1590	200	165	112	93	203	776
24	816	1080	667	1740	75	1550	200	165	112	100	203	797
25	807	1080	514	1770	76	1210	199	165	112	74	203	805
26	689	1080	482	1910	77	665	200	165	112	74	203	802
27	459	1080	435	1920	73	394	200	165	113	74	202	798
28	454	1200	433	1720	67	395	200	165	113	74	201	795
29	450	1760	433	1490	---	396	200	165	113	74	200	793
30	300	2720	436	1110	---	645	200	165	113	89	200	793
31	229	---	675	739	---	776	---	165	---	100	200	---
TOTAL	22395	18016	46444	30522	5357	14217	15935	5263	3897	2851	3523	14341
MEAN	722.4	600.5	1498	984.6	191.3	458.6	531.2	169.8	129.9	91.97	113.6	478.0
MAX	830	2720	3070	1920	478	1590	1940	266	165	113	203	805
MIN	229	195	433	99	67	58	98	161	108	72	69	200
AC-FT	44420	35730	92120	60540	10630	28200	31610	10440	7730	5650	6990	28450
MEAN†	62.9	549	1501	995	995	959	942	219	96.3	31.7	4.72	21.3
CFSM†	0.34	2.95	8.07	5.35	5.35	5.16	5.06	1.18	0.52	0.17	0.02	0.11
IN.†	0.39	3.29	9.31	6.17	5.57	5.95	5.65	1.35	0.58	0.20	0.03	0.13
AC-FT†	3870	32640	92330	61220	55230	59000	56030	13440	5730	1950	290	1270

CAL YR 2001 TOTAL 143309 MEAN 392.6 MAX 3070 MIN 34 AC-FT 284300 MEAN† 393 CFSM† 2.11 IN.† 28.67 AC-FT† 284400
WTR YR 2002 TOTAL 182761 MEAN 500.7 MAX 3070 MIN 58 AC-FT 362500 MEAN† 529 CFSM† 2.84 IN.† 38.61 AC-FT† 383000

† Adjusted for change in contents, in Fall Creek Lake.

14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 1950 to September 1997. August 2001 to September 2002.

INSTRUMENTATION.--Temperature probe and data logger.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.0°C July 28, 1958; minimum, 0.0°C Dec. 23, 24, 1990.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 21.5°C Aug. 29; minimum, 4.9°C Jan. 23, 24, Feb. 4.

DAY	WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002											
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.0	11.3	11.6	12.1	11.4	11.8	7.8	7.3	7.5	6.4	6.0	6.2
2	12.1	11.4	11.7	11.7	11.2	11.5	7.7	7.2	7.5	6.5	6.2	6.4
3	12.2	11.5	11.8	11.8	11.1	11.5	7.6	7.1	7.4	6.9	6.4	6.6
4	12.2	10.8	11.4	11.7	11.3	11.5	7.4	7.0	7.2	6.9	6.3	6.6
5	12.0	10.9	11.4	11.9	11.3	11.5	7.3	6.8	7.0	6.6	6.3	6.4
6	12.5	11.5	12.0	11.8	11.2	11.4	7.1	6.3	6.7	7.0	6.3	6.6
7	13.1	12.1	12.7	11.8	11.1	11.4	7.5	6.5	7.0	8.0	6.8	7.6
8	13.7	12.8	13.4	11.3	10.7	11.0	7.5	6.9	7.2	8.2	7.6	7.9
9	14.6	13.6	14.1	11.2	10.5	10.8	7.3	6.8	7.0	8.2	7.7	8.0
10	15.5	14.5	15.0	10.8	10.2	10.5	7.2	6.7	7.0	8.0	7.5	7.7
11	16.0	15.2	15.7	10.8	10.3	10.6	6.9	6.4	6.7	7.7	7.2	7.5
12	16.1	15.6	15.9	11.1	10.5	10.8	6.7	6.3	6.5	7.4	7.0	7.3
13	16.2	15.7	16.0	11.2	10.6	10.9	6.7	6.2	6.4	7.3	7.1	7.2
14	16.5	16.0	16.2	11.3	10.8	11.0	7.1	6.3	6.8	7.2	6.8	7.1
15	16.6	16.0	16.3	11.3	10.8	11.0	7.2	6.8	7.0	7.0	6.3	6.7
16	16.7	16.2	16.5	11.2	10.8	11.0	7.1	6.8	7.0	6.4	6.0	6.1
17	16.7	16.2	16.4	11.2	10.6	10.9	7.6	6.8	7.1	6.2	5.4	5.9
18	16.6	16.1	16.3	11.0	10.3	10.7	7.5	7.0	7.2	6.4	5.5	5.9
19	16.5	15.9	16.2	10.5	9.3	10	7.2	6.8	7.0	6.2	5.7	5.9
20	16.3	15.8	16.0	10.3	9.5	9.9	7.1	6.7	6.9	6.1	5.7	5.9
21	16.1	15.7	15.9	10.2	9.6	9.9	7.2	6.9	7.0	5.9	5.3	5.6
22	16.0	15.4	15.7	10.1	9.6	9.9	7.0	6.6	6.8	5.5	5.1	5.3
23	15.8	13.5	14.6	9.9	9.1	9.4	6.7	6.0	6.4	5.4	4.9	5.2
24	13.8	13.1	13.5	9.6	8.8	9.1	6.2	5.9	6.1	5.2	4.9	5.1
25	13.7	13.1	13.3	9.2	8.5	8.8	6.0	5.5	5.8	5.3	5.0	5.2
26	13.8	12.9	13.4	8.7	7.9	8.3	5.6	5.2	5.4	5.6	5.1	5.3
27	13.6	12.9	13.3	8.2	7.6	8.0	5.4	5.1	5.3	5.8	5.5	5.7
28	13.6	13.1	13.3	8.1	7.4	7.8	5.4	5.1	5.3	5.9	5.5	5.7
29	13.6	13.1	13.4	7.8	7.2	7.4	5.5	5.2	5.4	5.8	5.4	5.6
30	13.5	12.5	13.1	7.9	7.3	7.6	5.6	5.2	5.4	5.6	5.4	5.5
31	12.9	11.8	12.3	---	---	---	6.0	5.5	5.7	5.6	5.2	5.3
MONTH	16.7	10.8	14.1	12.1	7.2	10.2	7.8	5.1	6.6	8.2	4.9	6.3

WILLAMETTE RIVER BASIN

14152000 MIDDLE FORK WILLAMETTE RIVER AT JASPER, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	7.6	4.3	5.7	10.6	6.9	8.3	11.6	8.9	9.9
2	---	---	---	7.9	4.2	5.8	10.5	7.2	8.4	11.0	9.0	9.8
3	---	---	---	8.3	4.4	6.1	10.7	7.2	8.5	12.5	9.0	10.2
4	---	---	---	8.6	5.0	6.5	11.3	7.5	8.9	12.5	8.4	10.2
5	---	---	---	7.0	6.2	6.6	8.9	8.2	8.6	11.1	9.1	9.9
6	---	---	---	7.3	6.3	6.8	9.4	8.2	8.7	10.7	8.8	9.6
7	6.1	---	---	7.0	5.5	6.1	11.0	8.3	9.3	11.4	8.6	9.6
8	6.5	5.5	5.9	7.1	5.2	6.0	11.3	8.0	9.2	11.7	8.3	9.5
9	6.7	5.0	5.7	6.7	5.3	6.1	10.1	8.9	9.2	10.2	8.9	9.4
10	7.0	5.0	6.0	7.3	6.0	6.7	10.6	8.9	9.7	11.0	8.6	9.4
11	6.5	5.2	5.9	7.8	6.9	7.3	10.4	9.0	9.5	11.7	8.6	9.8
12	6.0	4.7	5.3	8.2	6.6	7.2	12.6	8.8	10.3	12.1	8.9	10.2
13	6.7	4.6	5.4	7.1	6.2	6.5	10.6	9.5	10.0	10.0	9.3	9.5
14	6.6	4.2	5.2	7.5	5.9	6.5	10.4	8.1	9.5	11.6	8.8	9.8
15	6.8	4.2	5.4	6.9	5.6	6.2	9.0	7.8	8.2	11.7	8.9	9.9
16	7.3	5.3	6.1	6.6	5.4	5.8	8.6	7.8	8.1	11.9	8.9	10.0
17	7.5	5.8	6.5	7.0	5.3	6.0	8.3	7.6	7.9	12.3	9.2	10.3
18	8.1	6.2	6.9	6.5	5.5	6.0	8.6	7.5	7.9	10.6	9.4	9.8
19	7.1	6.4	6.9	7.7	6.0	6.6	8.7	7.7	8.1	10.1	9.2	9.6
20	8.3	6.1	7.0	8.5	5.8	7.0	9.5	7.9	8.4	11.0	8.9	9.7
21	8.8	7.0	7.8	8.5	6.4	7.2	10.1	7.6	8.6	10.6	9.0	9.6
22	9.3	6.9	7.9	7.9	6.0	6.8	10.6	7.8	8.9	11.2	8.9	9.7
23	8.6	7.5	8.0	8.2	6.5	7.2	10.9	8.0	9.1	12.2	8.6	9.9
24	7.8	6.1	7.0	7.7	6.7	7.1	11.8	7.6	9.3	12.1	9.2	10.3
25	7.8	5.2	6.2	9.1	6.2	7.4	12.1	8.1	9.7	11.7	9.4	10.3
26	8.0	5.1	6.3	9.1	6.1	7.5	10.2	8.3	9.2	12.8	9.7	10.8
27	7.8	4.7	6.0	9.7	7.1	8.1	12.0	8.3	9.6	11.3	10.0	10.6
28	7.6	4.8	5.9	10.0	6.8	8.1	12.5	7.6	9.7	10.9	10.0	10.4
29	---	---	---	10.6	6.8	8.3	12.9	8.3	10.1	11.7	9.8	10.5
30	---	---	---	9.9	6.7	8.0	9.9	9.0	9.4	13.2	9.8	11.0
31	---	---	---	10.1	7.0	8.1	---	---	---	14.2	9.9	11.5
MONTH	---	---	---	10.6	4.2	6.8	12.9	6.9	9.0	14.2	8.3	10.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	14.6	10.2	11.9	17.9	12.3	14.6	16.4	13.3	14.5	19.3	16.6	17.7
2	14.7	10.0	11.9	18.0	11.9	14.5	16.2	13.3	14.3	19.6	16.9	17.9
3	13.8	10.3	11.7	16.7	12.3	14.1	16.3	13.2	14.3	19.2	16.7	17.9
4	14.7	10.9	12.3	17.2	12.4	14.3	15.2	13.4	14.1	18.6	15.9	16.9
5	13.9	11.2	12.1	17.8	12.3	14.5	15.5	13.3	14.1	18.5	16.0	16.9
6	14.1	10.7	11.9	16.7	12.6	14.4	16.2	13.3	14.3	18.6	16.1	17.0
7	13.1	10.6	11.5	15.7	12.9	14.0	16.4	13.2	14.4	18.5	16.3	17.0
8	12.3	10.4	11.2	17.8	12.5	14.7	16.6	13.6	14.7	18.4	16.1	17.0
9	13.3	10.6	11.6	18.2	12.7	15.0	16.9	13.8	15.0	18.8	16.1	17.1
10	14.0	10.4	11.7	18.5	13.2	15.4	17.2	14.2	15.3	18.9	16.4	17.3
11	14.3	10.7	12.1	17.6	13.2	15.1	17.3	14.2	15.3	19.1	16.6	17.5
12	14.5	11.1	12.5	16.6	13.3	14.8	17.5	14.2	15.5	19.2	16.7	17.6
13	15.4	11.2	12.9	16.7	13.4	14.8	17.7	14.6	15.8	19.3	16.8	17.7
14	15.4	11.2	12.7	17.3	13.2	14.8	18.1	15.0	16.1	18.8	16.8	17.6
15	16.4	11.2	13.1	16.9	13.0	14.6	17.8	14.8	16.0	18.4	17.0	17.5
16	15.5	11.5	13.0	17.0	13.3	14.8	17.8	14.9	15.9	17.6	16.1	16.9
17	12.6	11.4	12.0	16.9	13.5	14.7	17.9	14.9	16.0	16.7	15.5	16.1
18	13.5	11.5	12.2	16.7	13.5	14.6	17.7	14.9	15.9	17.1	15.2	15.8
19	16.8	10.6	13.2	16.4	13.7	14.6	17.5	15.2	15.9	17.3	14.7	15.7
20	16.9	11.1	13.7	16.7	13.2	14.6	16.8	15.4	15.9	17.0	14.7	15.5
21	15.7	11.7	13.3	16.5	13.0	14.4	17.6	15.2	16.0	17.0	14.4	15.3
22	13.4	11.9	12.6	16.4	13.1	14.4	18.1	15.2	16.3	17.1	14.4	15.4
23	17.3	11.7	13.9	16.5	13.5	14.6	18.4	15.6	16.7	17.1	14.5	15.4
24	17.2	11.9	14.1	16.5	13.3	14.6	18.5	15.7	16.8	17.1	14.5	15.5
25	17.0	11.5	13.9	16.6	13.5	14.5	17.8	16.0	16.7	17.2	14.6	15.5
26	16.9	12.1	14.1	16.5	13.6	14.6	18.6	16.3	17.0	16.8	14.7	15.5
27	14.8	12.3	13.3	16.3	13.1	14.4	18.8	16.0	17.1	17.3	15.0	15.7
28	14.0	12.5	13.2	16.7	13.2	14.5	19.3	16.3	17.4	17.2	14.8	15.6
29	15.4	12.7	13.7	16.9	13.5	14.8	19.2	16.6	17.5	16.3	15.1	15.5
30	17.2	12.6	14.4	16.8	13.6	14.8	19.1	16.4	17.4	16.1	14.8	15.3
31	---	---	---	16.4	13.5	14.5	19.4	16.4	17.5	---	---	---
MONTH	17.3	10.0	12.7	18.5	11.9	14.6	19.4	13.2	15.8	19.6	14.4	16.5

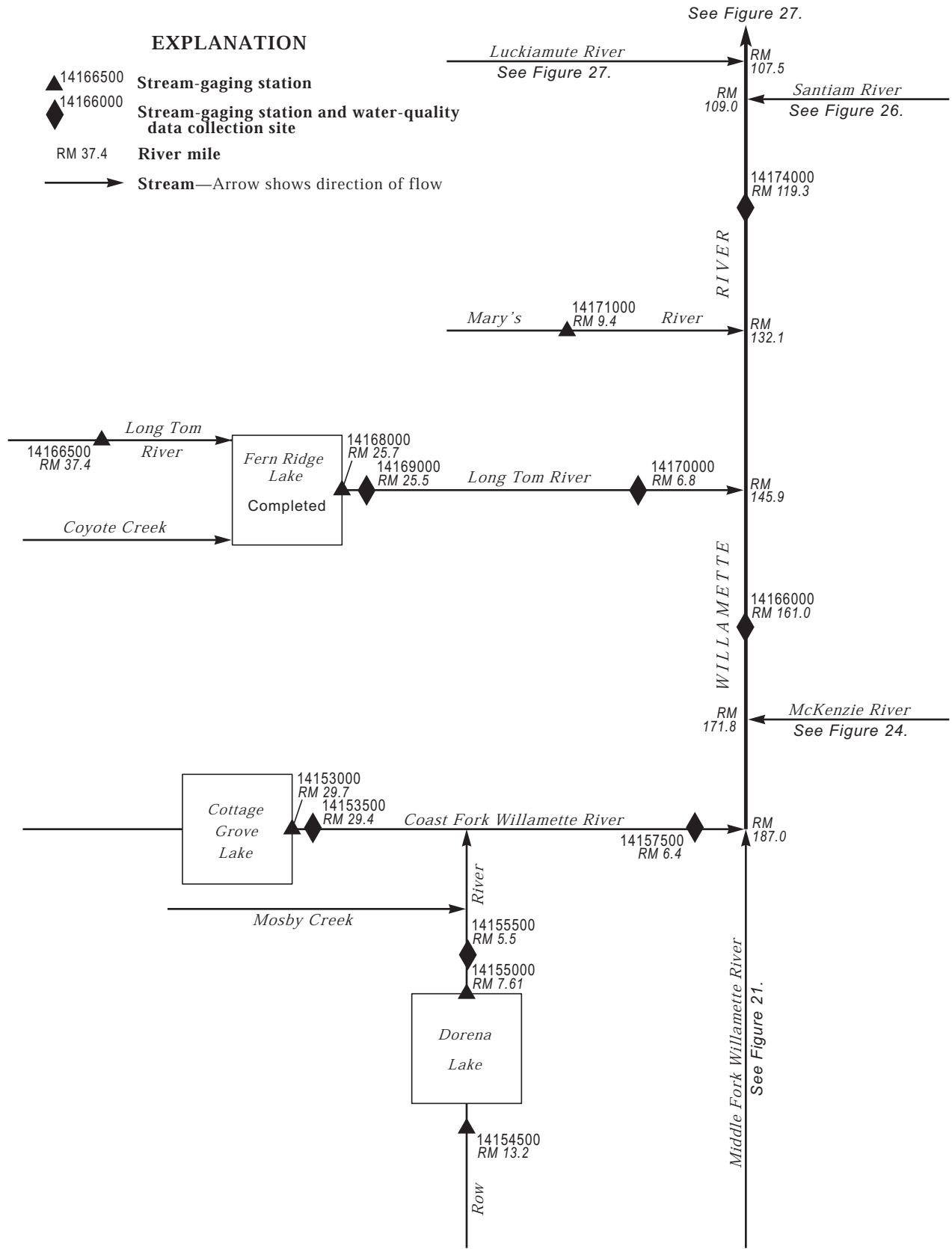


Figure 23. Schematic diagram showing gaging stations in the Long Tom, Coast Fork Willamette and upper Willamette River Basins.

WILLAMETTE RIVER BASIN

14153000 COTTAGE GROVE LAKE NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°43'00", long 123°02'55", in NE 1/4 sec.28, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, in east abutment of dam on Coast Fork Willamette River 5.8 mi south of Cottage Grove, and at mile 29.7.

DRAINAGE AREA.--104 mi².

PERIOD OF RECORD.--October 1942 to current year. Prior to October 1971, published as Cottage Grove Reservoir near Cottage Grove.

REVISED RECORDS.--WSP 1218: 1950.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by earthfill dam with concrete spillway completed by Corps of Engineers in 1942; storage began Oct. 31, 1942. Capacity, 32,930 acre-ft between elevation 719.0 ft, outlet conduit, and 791.0 ft, crest of spillway. Dead storage negligible. Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 36,750 acre-ft Dec. 24, 1964, elevation, 794.23 ft; minimum contents since first filling, no contents Sept. 26 to Oct. 19, 1966, and Nov. 14, 15, Nov. 20 to Dec. 8, 1969.

EXTREMES FOR CURRENT YEAR.-- Maximum contents, 29,310 acre-ft May 29 to June 1, elevation, 787.77 ft; minimum contents, 2,900 acre-ft Jan. 10, elevation, 749.16 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

710.9	0	755	4,860	780	21,460
730	151	760	7,150	785	26,370
740	926	765	9,970	790	31,780
745	1,840	770	13,260	793	35,270
750	3,140	775	17,070	795	37,690

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	764.98	753.72	751.29	750.58	751.63	768.14	778.18	786.50	787.76	786.73	784.68	781.71
2	764.16	753.45	750.44	750.81	752.44	768.52	778.20	786.61	787.74	786.68	784.68	781.62
3	763.31	753.04	750.46	750.86	753.08	768.86	778.23	786.71	787.72	786.63	784.59	781.54
4	762.46	752.55	750.39	750.48	753.60	769.17	778.37	786.80	787.70	786.58	784.51	781.45
5	761.58	752.01	751.33	750.24	754.20	769.47	778.58	786.87	787.68	786.54	784.44	781.37
6	760.68	751.43	751.71	750.42	754.86	770.11	778.81	786.96	787.64	786.49	784.36	781.28
7	759.76	750.91	749.41	750.53	757.91	770.91	779.01	787.03	787.60	786.43	784.20	781.20
8	758.88	750.64	749.72	751.03	761.83	771.22	779.19	787.08	787.58	786.38	784.08	781.12
9	757.94	750.46	749.91	749.64	763.88	771.42	779.43	787.13	787.55	786.32	783.93	781.03
10	757.37	750.27	749.43	749.45	765.00	771.65	779.75	787.18	787.52	786.27	783.77	780.95
11	757.36	750.08	749.27	749.50	765.63	772.18	779.99	787.21	787.49	786.21	783.60	780.86
12	757.25	749.98	749.29	749.94	766.00	773.50	780.20	787.24	787.45	786.15	783.44	780.78
13	757.12	749.93	751.13	750.10	766.17	774.19	780.76	787.27	787.41	786.08	783.27	780.70
14	756.96	750.02	753.80	750.09	766.18	774.57	782.16	787.30	787.36	786.02	783.16	780.61
15	756.80	750.15	750.87	750.08	766.07	774.56	782.20	787.31	787.32	785.95	783.08	780.52
16	756.64	750.81	750.31	750.01	766.02	774.08	782.27	787.33	787.27	785.87	782.99	780.46
17	756.46	749.87	751.08	750.09	766.10	774.01	782.47	787.36	787.26	785.80	782.91	780.53
18	756.29	749.98	749.94	750.36	766.15	774.18	782.69	787.37	787.25	785.74	782.83	780.51
19	756.11	749.97	749.43	750.56	765.99	774.49	783.18	787.41	787.24	785.67	782.75	780.45
20	755.93	750.00	749.61	750.98	765.23	774.94	783.76	787.51	787.20	785.60	782.68	780.38
21	755.75	750.53	749.69	755.27	764.74	775.43	784.22	787.56	787.15	785.53	782.61	780.30
22	755.73	752.82	749.60	752.94	765.06	775.73	784.61	787.62	787.11	785.46	782.53	780.23
23	756.16	751.81	749.85	749.91	765.74	775.53	784.93	787.65	787.07	785.39	782.45	780.03
24	756.06	750.42	750.01	749.77	766.24	775.58	785.20	787.67	787.02	785.32	782.38	779.77
25	755.79	751.14	749.83	751.52	766.57	775.85	785.43	787.69	786.97	785.25	782.30	779.49
26	755.35	750.84	749.70	750.12	766.98	776.41	785.66	787.69	786.91	785.17	782.22	779.22
27	754.84	750.14	749.76	755.78	767.42	777.01	785.89	787.72	786.85	785.08	782.14	778.82
28	754.29	751.24	750.04	752.98	767.79	777.48	786.07	787.75	786.80	785.00	782.06	778.37
29	753.79	752.08	750.34	750.77	---	777.88	786.23	787.77	786.80	784.92	781.97	777.94
30	753.52	750.07	750.67	750.45	---	778.07	786.37	787.77	786.77	784.84	781.88	777.63
31	753.66	---	750.64	750.51	---	778.14	---	787.77	---	784.75	781.79	---
MAX	764.98	753.72	753.80	755.78	767.79	778.14	786.37	787.77	787.76	786.73	784.68	781.71
MIN	753.52	749.87	749.27	749.45	751.63	768.14	778.18	786.50	786.77	784.75	781.79	777.63
(†)	4350	3160	3330	3290	11740	19770	27800	29310	28230	26110	23160	19320
(‡)	-6110	-1190	+170	-40	+8450	+8030	+8030	+1510	-1080	-2120	-2950	-3840
CAL YR 2001	MAX 784.23	MIN 749.27	AC-FT†	-100								
WTR YR 2002	MAX 787.77	MIN 749.27	AC-FT†	+8860								

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14153500 COAST FORK WILLAMETTE RIVER BELOW COTTAGE GROVE DAM, OR

LOCATION.--Lat 43°43'15", long 123°02'55", in NE 1/4 sec.28, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, on right bank at bridge 0.3 mi downstream from Cottage Grove Dam, 5.5 mi south of Cottage Grove, and at mile 29.4.

DRAINAGE AREA.--104 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1944, published as "near Cottage Grove."

REVISED RECORDS.--WSP 1448: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft above NGVD of 1929 (Corps of Engineers bench mark). Jan. 1 to Oct. 12, 1939, nonrecording gage and Oct. 13, 1939, to Sept. 30, 1944, water-stage recorder at several sites and datums 0.8 mi downstream.

REMARKS.--Records good. Flow regulated since 1942 by Cottage Grove Lake (station 14153000). Small diversions for irrigation upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--63 years (water years 1940-2002), 265 ft³/s, 34.60 in/yr, 192,000 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,910 ft³/s Dec. 24, 1964, gage height, 11.83 ft; no flow July 5-7, 1945, and for part of Aug. 24, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,580 ft³/s Jan. 26, gage height, 6.56 ft; minimum discharge, 33 ft³/s Mar. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	146	910	383	388	85	193	74	60	49	47	43
2	278	145	1090	383	364	57	193	74	60	47	47	43
3	275	143	580	383	348	57	177	74	60	48	47	43
4	273	142	493	383	322	57	120	74	60	48	47	43
5	270	141	930	330	280	57	85	74	60	48	47	43
6	268	141	1170	371	246	58	71	74	60	48	47	43
7	264	118	1330	423	251	122	72	74	60	48	47	43
8	262	73	647	635	337	211	72	74	61	48	64	43
9	258	54	561	737	348	210	72	74	60	48	97	43
10	174	53	542	459	351	209	72	74	60	48	97	43
11	53	50	448	347	353	211	72	74	60	48	97	43
12	53	51	422	267	353	376	73	74	61	48	97	42
13	53	52	525	268	353	481	76	74	62	48	97	42
14	53	55	1470	269	353	483	497	74	62	48	68	42
15	52	55	1460	241	353	555	751	74	62	47	41	42
16	52	151	1030	228	319	690	494	74	61	47	42	42
17	52	340	1370	206	252	489	420	74	61	47	42	43
18	52	111	e1400	162	252	353	389	74	60	47	42	43
19	52	107	e1200	252	361	277	188	74	60	47	42	43
20	52	107	776	388	544	239	71	74	60	47	42	42
21	52	128	585	915	456	240	71	68	60	47	42	42
22	52	530	492	1410	233	303	71	60	60	47	42	42
23	52	814	364	1170	225	504	71	60	60	47	41	101
24	85	570	318	634	226	503	71	60	60	47	41	146
25	106	555	316	976	226	371	72	60	60	47	40	146
26	128	652	280	1570	156	168	72	60	60	47	40	146
27	146	470	251	1540	110	90	72	60	60	47	40	204
28	146	642	251	1290	109	91	73	60	60	47	49	231
29	146	978	251	929	---	91	74	60	60	47	43	231
30	146	962	252	517	---	155	74	60	60	47	43	230
31	146	---	374	414	---	193	---	60	---	47	43	---
TOTAL	4332	8536	22088	18480	8469	7986	4879	2148	1810	1471	1661	2373
MEAN	140	285	713	596	302	258	163	69.3	60.3	47.5	53.6	79.1
MAX	281	978	1470	1570	544	690	751	74	62	49	97	231
MIN	52	50	251	162	109	57	71	60	60	47	40	42
AC-FT	8590	16930	43810	36660	16800	15840	9680	4260	3590	2920	3290	4710
MEAN†	40.3	264	715	596	455	388	298	93.8	42.2	13.0	5.5	14.6
CFSM†	0.39	2.54	6.88	5.73	4.37	3.73	2.86	0.90	0.41	0.12	0.05	0.14
IN.†	0.45	2.84	7.93	6.60	4.55	4.30	3.19	1.04	0.45	0.14	0.06	0.16
AC-FT†	2480	15740	43980	36620	25250	23870	17710	5770	2510	800	340	870
CAL YR 2001	TOTAL 55558	MEAN 152	MAX 1470	MIN 42	AC-FT 110200	MEAN† 152	CFSM† 1.46	IN.† 19.85	AC-FT† 110100			
WTR YR 2002	TOTAL 84233	MEAN 231	MAX 1570	MIN 40	AC-FT 167100	MEAN† 243	CFSM† 2.34	IN.† 31.73	AC-FT† 175960			

e Estimated

† Adjusted for change in contents, in Cottage Grove Lake.

14153500 COAST FORK WILLAMETTE RIVER BELOW COTTAGE GROVE DAM, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURE: August 2001 to September 2002.

INSTRUMENTATION.--Temperature recorder since September 2001.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 22.0°C Aug. 31, Sept. 2, 15, 2001; minimum, 4.8°C Dec. 28, 2001.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 20.4°C Sept. 19, 22; minimum, 4.8°C Dec. 28.

WATER TEMPERATURE, in (DEGREES C), SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	21.8	19.8	20.5
2	---	---	---	---	---	---	---	---	---	22.0	20.0	20.7
3	---	---	---	---	---	---	18.2	16.4	17.0	21.9	19.9	20.6
4	---	---	---	---	---	---	17.7	16.5	17.0	21.7	20.1	20.7
5	---	---	---	---	---	---	19.0	16.4	17.3	21.3	20.2	20.6
6	---	---	---	---	---	---	19.3	16.3	17.5	21.9	20.1	20.6
7	---	---	---	---	---	---	19.2	16.8	17.6	21.8	19.9	20.5
8	---	---	---	---	---	---	19.5	16.8	17.8	21.9	20.0	20.6
9	---	---	---	---	---	---	19.7	17.1	18.1	21.9	19.8	20.5
10	---	---	---	---	---	---	19.7	17.3	18.1	21.8	19.9	20.5
11	---	---	---	---	---	---	19.8	17.5	18.2	21.7	19.8	20.5
12	---	---	---	---	---	---	19.9	17.6	18.4	21.7	20.0	20.6
13	---	---	---	---	---	---	20.0	17.8	18.6	21.9	20.0	20.6
14	---	---	---	---	---	---	20.1	17.9	18.6	21.9	20.0	20.7
15	---	---	---	---	---	---	20.0	17.9	18.6	22.0	20.4	20.9
16	---	---	---	---	---	---	19.6	17.9	18.5	21.9	20.1	20.7
17	---	---	---	---	---	---	20.2	17.8	18.6	21.8	20.1	20.6
18	---	---	---	---	---	---	20.0	18.1	18.7	21.1	20.1	20.7
19	---	---	---	---	---	---	20.5	17.9	18.8	21.2	20.7	20.9
20	---	---	---	---	---	---	20.6	18.2	19.0	21.1	20.6	20.8
21	---	---	---	---	---	---	20.2	18.5	19.1	20.9	20.4	20.6
22	---	---	---	---	---	---	19.8	18.8	19.3	20.6	20.2	20.4
23	---	---	---	---	---	---	20.4	19.1	19.6	20.7	20.1	20.3
24	---	---	---	---	---	---	21.3	19.2	19.9	20.5	20.1	20.3
25	---	---	---	---	---	---	21.4	19.3	20.0	20.3	20.1	20.2
26	---	---	---	---	---	---	21.6	19.3	20.1	20.1	19.7	19.9
27	---	---	---	---	---	---	21.7	19.3	20.1	19.8	19.2	19.6
28	---	---	---	---	---	---	21.8	19.5	20.3	19.5	18.7	19.1
29	---	---	---	---	---	---	21.6	19.7	20.3	19.1	18.6	18.8
30	---	---	---	---	---	---	21.8	19.8	20.4	19.1	18.6	18.7
31	---	---	---	---	---	---	22.0	19.8	20.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	22.0	18.6	20.4

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.0	18.5	18.7	12.2	11.8	12.0	7.4	7.2	7.3	6.6	5.5	6.2
2	19.0	18.5	18.7	12.4	11.7	11.9	7.5	7.2	7.4	7.3	6.3	6.9
3	18.9	18.3	18.5	12.6	11.9	12.2	7.6	7.3	7.4	7.7	7.2	7.4
4	18.7	18.2	18.4	12.4	12.1	12.2	7.3	6.7	7.1	7.3	6.7	7.0
5	18.6	18.2	18.4	12.3	11.8	12.0	6.7	6.4	6.6	6.8	6.6	6.7
6	18.5	18.0	18.3	12.4	11.6	11.9	---	---	---	7.8	6.4	7.1
7	18.0	17.0	17.8	---	---	---	---	---	---	8.5	7.3	7.8
8	17.5	16.9	17.3	---	---	---	---	---	---	9.1	8.4	8.6
9	17.1	16.5	16.8	---	---	---	7.2	6.9	7.1	8.9	8.5	8.7
10	16.6	16.1	16.3	---	---	---	6.9	6.4	6.7	8.5	7.7	8.1
11	16.7	15.5	16.0	11.0	9.7	10.3	6.5	6.3	6.4	7.8	7.5	7.6
12	16.3	15.3	15.6	10.6	10.1	10.4	6.5	6.3	6.4	7.6	7.4	7.5
13	16.2	15.3	15.6	10.9	10.0	10.6	---	---	---	7.5	7.3	7.4
14	16.3	15.1	15.5	11.6	10.7	11.1	7.3	6.7	7.1	7.3	6.9	7.2
15	16.1	15.2	15.5	11.2	10.9	11.1	6.9	6.7	6.8	6.9	6.4	6.7
16	16.0	15.1	15.4	11.2	10.9	11.1	---	6.8	---	6.4	6.1	6.3
17	15.9	14.6	15.2	11.0	10.2	10.7	7.7	7.1	7.5	6.2	5.7	6.0
18	15.6	14.5	14.7	10.6	9.8	10.2	---	---	---	5.9	5.6	5.8
19	15.4	14.0	14.4	10.5	9.8	10.1	---	---	---	5.7	5.4	5.5
20	14.3	13.8	14.1	10.1	9.7	9.9	7.1	6.9	7.0	5.8	5.4	5.5
21	14.4	13.7	14.0	9.7	9.6	9.7	7.2	7.0	7.1	5.8	5.4	5.6
22	14.1	13.5	13.8	9.6	8.8	9.2	7.2	6.8	7.0	5.6	5.3	5.4
23	14.0	12.6	13.4	8.9	8.4	8.7	6.8	6.0	6.4	5.7	5.5	5.6
24	13.4	12.7	13.0	8.4	8.2	8.3	6.1	5.8	6.0	5.8	5.6	5.7
25	13.4	12.8	12.9	8.2	7.6	8.0	5.8	5.5	5.7	6.6	5.8	6.2
26	13.4	12.6	12.9	7.6	7.3	7.4	5.5	5.2	5.4	6.7	6.2	6.5
27	13.2	12.8	12.9	---	---	---	5.2	5.0	5.1	6.3	5.9	6.1
28	12.8	12.0	12.6	---	---	---	5.0	4.8	4.9	6.0	5.7	5.9
29	12.5	12.1	12.3	7.4	7.0	7.3	5.2	4.9	5.0	5.9	5.5	5.7
30	12.3	12.0	12.1	7.5	7.3	7.4	5.5	5.1	5.3	5.6	5.2	5.4
31	12.3	12.1	12.2	---	---	---	6.0	5.4	5.7	5.3	5.1	5.2
MONTH	19.0	12.0	15.3	---	---	---	---	---	---	9.1	5.1	6.6

WILLAMETTE RIVER BASIN

14153500 COAST FORK WILLAMETTE RIVER BELOW COTTAGE GROVE DAM, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.3	5.0	5.1	8.2	7.0	7.4	8.4	7.6	7.9	10.4	9.4	9.7
2	5.8	5.2	5.5	8.4	6.8	7.3	8.4	7.8	8.1	11.0	9.3	9.9
3	6.3	5.5	5.9	8.4	6.8	7.3	8.5	7.8	8.2	11.2	9.3	9.9
4	6.4	5.8	6.1	8.6	6.9	7.6	9.2	7.9	8.4	11.3	9.2	9.9
5	6.2	5.6	5.9	7.5	7.1	7.2	8.3	8.0	8.2	10.4	9.3	9.8
6	6.0	5.7	5.9	7.8	7.0	7.4	8.8	7.9	8.3	10.4	9.3	9.7
7	6.0	5.7	5.8	8.0	7.0	7.5	9.3	7.9	8.5	11.1	9.2	9.8
8	6.4	5.9	6.1	8.0	7.2	7.6	9.7	8.0	8.5	11.3	9.3	10.0
9	6.3	6.0	6.1	7.7	7.1	7.3	9.4	8.1	8.5	10.3	9.5	9.8
10	6.6	6.1	6.3	7.7	7.2	7.4	9.4	8.1	8.6	11.0	9.6	10.1
11	6.5	6.0	6.2	7.7	7.3	7.5	9.3	8.2	8.7	11.7	9.4	10.3
12	6.4	6.1	6.2	7.7	7.4	7.6	10.0	8.2	8.9	11.8	9.5	10.4
13	6.4	6.1	6.2	7.7	7.5	7.6	9.1	8.3	8.8	10.2	9.8	10.0
14	6.5	6.1	6.3	7.9	7.4	7.6	10.6	8.4	9.3	11.8	9.7	10.4
15	6.5	6.1	6.3	7.7	7.3	7.5	10.2	9.3	9.7	11.6	9.5	10.4
16	6.6	6.4	6.4	7.6	7.2	7.4	10.5	9.2	9.7	11.9	9.5	10.5
17	6.7	6.5	6.6	7.4	7.0	7.2	10.0	9.1	9.5	11.8	10.0	10.5
18	7.8	6.5	7.1	7.3	7.0	7.1	9.7	9.2	9.5	10.9	9.9	10.4
19	7.8	7.2	7.5	7.3	6.5	6.9	10.2	9.1	9.4	11.3	9.9	10.4
20	7.4	7.2	7.2	6.9	6.4	6.7	10.5	8.9	9.3	11.7	10.1	10.6
21	7.8	7.2	7.5	7.0	6.5	6.7	10.6	8.8	9.4	11.1	10.0	10.4
22	7.6	7.3	7.5	7.4	6.6	6.9	10.8	9.1	9.5	11.9	10.0	10.7
23	8.7	7.3	7.9	7.7	6.8	7.2	10.8	8.9	9.5	12.5	10.0	10.9
24	8.7	7.8	8.1	7.6	7.1	7.4	11.0	8.8	9.6	12.4	9.9	10.9
25	8.3	7.7	7.9	7.8	7.0	7.3	11.0	9.1	9.7	12.3	10.1	11.0
26	8.4	7.2	7.7	7.5	7.0	7.2	10.1	9.0	9.4	12.6	10.3	11.1
27	8.3	7.2	7.6	8.2	6.9	7.4	10.7	9.0	9.6	11.5	10.4	10.8
28	8.2	7.0	7.4	8.3	7.1	7.4	11.0	9.0	9.7	11.3	10.3	10.8
29	---	---	---	8.4	7.2	7.6	11.0	9.2	9.8	12.0	10.7	11.1
30	---	---	---	8.0	7.2	7.6	9.7	9.3	9.5	12.7	10.6	11.2
31	---	---	---	8.2	7.5	7.8	---	---	---	12.8	10.5	11.2
MONTH	8.7	5.0	6.7	8.6	6.4	7.3	11.0	7.6	9.1	12.8	9.2	10.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13.0	10.5	11.4	14.7	11.8	12.8	16.1	13.4	14.3	18.5	15.8	16.7
2	13.0	10.4	11.3	14.7	11.8	12.8	16.1	13.5	14.3	18.6	15.9	16.8
3	12.9	10.5	11.4	14.0	12.0	12.7	16.2	13.5	14.4	18.1	16.2	16.8
4	13.3	10.7	11.6	14.5	12.0	12.8	15.2	13.8	14.3	18.3	15.9	16.7
5	12.8	10.8	11.5	14.9	12.0	13.0	16.0	13.7	14.4	18.4	15.9	16.8
6	12.9	10.8	11.5	14.3	12.1	12.9	16.3	13.8	14.6	18.4	16.4	17.1
7	12.6	10.6	11.3	13.7	12.3	12.8	16.5	13.7	14.7	18.9	16.6	17.3
8	12.3	10.6	11.2	14.9	12.3	13.2	16.4	13.8	14.7	18.8	16.7	17.4
9	12.9	10.8	11.5	15.3	12.2	13.3	16.2	14.4	15.0	19.3	16.9	17.7
10	13.3	10.8	11.7	15.3	12.6	13.5	16.4	14.6	15.2	19.5	17.2	18.0
11	13.6	10.8	11.8	15.3	12.6	13.5	16.6	14.7	15.4	19.6	17.4	18.2
12	13.8	10.9	12.0	14.7	12.7	13.4	16.8	14.8	15.6	19.8	17.6	18.3
13	13.8	11.0	12.0	14.8	12.8	13.4	17.0	15.1	15.8	19.9	17.6	18.5
14	13.2	11.1	11.8	15.3	12.6	13.6	17.6	14.8	15.9	19.6	17.7	18.3
15	13.5	11.1	11.9	15.1	12.5	13.5	17.4	14.6	15.5	19.3	18.1	18.4
16	13.3	11.3	12.0	15.4	12.7	13.7	17.4	14.6	15.5	19.2	17.9	18.4
17	11.9	11.4	11.7	15.3	13.0	13.7	17.4	14.7	15.6	19.2	18.2	18.5
18	12.5	11.4	11.8	15.4	12.9	13.7	17.5	14.8	15.6	20.1	18.3	18.8
19	13.8	11.2	12.1	15.1	13.1	13.7	17.1	14.8	15.6	20.4	18.2	18.9
20	13.7	11.2	12.2	15.7	12.8	13.8	16.5	14.9	15.5	20.2	18.3	18.9
21	13.5	11.3	12.1	15.8	13.0	14.0	17.4	14.9	15.7	20.2	18.1	18.8
22	12.2	11.6	11.9	15.6	13.2	14.0	17.7	14.9	15.9	20.4	18.2	18.9
23	13.7	11.6	12.3	15.7	13.3	14.1	17.8	15.0	16.0	20.3	18.2	19.0
24	14.0	11.6	12.4	15.7	13.1	14.0	17.7	15.2	16.1	20.0	19.0	19.4
25	14.4	11.5	12.5	15.9	13.3	14.2	17.5	15.4	16.0	20.0	19.2	19.4
26	14.3	11.8	12.6	15.5	13.4	14.1	17.8	15.5	16.3	19.9	19.2	19.4
27	13.2	11.8	12.4	15.9	13.1	14.1	18.0	15.2	16.2	19.9	19.3	19.5
28	13.0	12.0	12.3	16.2	13.4	14.3	18.4	15.5	16.6	20.0	19.4	19.5
29	13.0	11.9	12.4	16.3	13.6	14.5	18.3	15.7	16.6	19.7	19.4	19.5
30	14.1	11.9	12.7	16.3	13.7	14.5	18.2	15.6	16.4	19.5	19.1	19.3
31	---	---	---	16.0	13.4	14.3	18.4	15.6	16.5	---	---	---
MONTH	14.4	10.4	11.9	16.3	11.8	13.6	18.4	13.4	15.5	20.4	15.8	18.3

WILLAMETTE RIVER BASIN

189

14155000 DORENA LAKE NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°47'10", long 122°57'15", in SE 1/4 sec.32, T.20 S., R.2 W., Lane County, Hydrologic Unit 17090002, on left end of Dorena Dam on Row River, 5.0 mi east of Cottage Grove, and at mile 7.61.

DRAINAGE AREA.--265 mi².

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1971, published as Dorena Reservoir near Cottage Grove.

REVISED RECORDS.--WRD OR-78-1: 1969.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete outlet and spillway, completed in 1949 by Corps of Engineers; controlled storage began Oct. 11, 1949. Capacity, 77,580 acre-ft between elevations 739.0 ft, sill of outlet gates, and 835.0 ft, crest of spillway. Dead storage, 18 acre-ft below elevation 739.0 ft. Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 95,550 acre-ft Dec. 23, 1964, elevation, 844.03 ft; minimum contents observed since first filling, 159 acre-ft Dec. 14, 1970, elevation, 743.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum recorded contents, 66,640 acre-ft June 28 but may have been higher during period of missing record, elevation, 828.95 ft; minimum recorded contents, 6,380 acre-ft Dec. 9, elevation, 769.08 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

760	2,810	785	15,850	810	39,380	835	77,600
765	4,560	790	19,580	815	45,620	840	87,320
770	6,840	795	23,780	820	52,480	845	97,580
775	9,540	800	28,490	825	60,060		
780	12,530	805	33,700	830	68,470		

ELEVATION, in FT (NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	807.98	775.41	771.85	770.75	773.66	797.26	813.47	826.52	---	828.58	825.95	820.95
2	807.02	774.91	770.55	771.23	774.57	797.91	813.18	826.78	---	828.53	825.83	820.82
3	806.04	774.12	770.57	769.97	775.78	798.51	813.09	827.05	---	828.41	825.72	820.69
4	805.06	773.11	770.16	770.38	777.01	799.04	813.10	827.28	---	828.41	825.62	820.56
5	804.05	772.39	770.74	770.97	778.21	799.56	813.52	827.47	---	828.34	825.51	820.42
6	803.03	772.15	775.19	771.40	779.16	800.50	814.05	827.65	---	828.28	825.41	820.29
7	801.92	771.98	774.91	770.56	784.07	802.16	814.52	827.67	---	828.22	825.30	820.16
8	800.99	771.79	770.85	774.06	788.18	802.95	814.93	827.71	---	828.15	825.13	820.03
9	799.90	771.53	769.54	771.70	789.48	803.52	815.51	827.82	---	828.08	824.84	819.90
10	798.88	771.22	769.77	769.86	789.42	804.07	816.70	827.91	---	828.01	824.55	819.76
11	798.05	770.88	769.82	770.07	788.95	805.08	817.66	827.99	---	827.93	824.25	819.62
12	797.03	770.61	770.04	770.85	787.93	808.49	818.18	---	---	827.86	823.96	819.49
13	795.93	770.49	775.37	771.04	787.36	809.68	818.94	---	---	827.76	823.56	819.34
14	794.79	770.95	784.88	770.71	787.31	809.48	822.60	---	---	827.68	823.34	819.21
15	793.62	771.22	783.13	770.43	787.49	808.77	821.37	---	---	827.59	823.06	819.07
16	792.44	772.73	784.70	770.65	788.05	807.60	820.99	---	---	827.50	822.92	818.94
17	791.24	772.68	789.12	770.96	788.76	807.22	821.33	---	---	827.42	822.79	818.97
18	789.97	771.41	786.83	771.05	789.30	807.74	821.61	---	---	827.33	822.66	819.05
19	788.68	770.39	783.47	771.20	790.18	808.42	822.05	---	---	827.24	822.53	818.92
20	787.38	770.85	778.80	771.60	790.80	809.61	822.42	---	---	827.15	822.46	818.89
21	786.05	771.06	772.06	778.07	791.46	811.37	822.71	---	---	827.06	822.34	818.54
22	784.88	777.43	770.14	777.85	792.44	812.85	823.17	---	---	826.97	822.22	817.88
23	785.19	778.06	770.25	775.83	793.91	813.57	823.72	---	---	826.88	822.10	817.18
24	784.33	775.14	770.14	773.11	794.69	814.46	824.13	---	---	826.78	821.97	816.48
25	783.03	773.29	770.19	779.06	795.07	814.56	824.51	---	---	826.68	821.85	815.76
26	781.41	771.25	770.13	783.71	795.59	814.00	824.94	---	---	826.59	821.72	815.06
27	779.65	770.11	770.57	782.55	796.27	813.53	825.38	---	---	826.48	821.61	814.31
28	777.76	775.27	771.13	780.74	796.80	813.46	825.71	---	828.89	826.38	821.48	813.62
29	775.89	777.98	770.83	779.17	---	813.81	825.99	---	828.78	826.28	821.34	812.94
30	774.75	773.35	771.56	776.93	---	813.83	826.25	---	828.64	826.17	821.21	812.28
31	775.39	---	771.62	774.27	---	813.67	---	---	---	826.06	821.08	---
MAX	807.98	778.06	789.12	783.71	796.80	814.56	826.25	---	---	828.58	825.95	820.95
MIN	774.75	770.11	769.54	769.86	773.66	797.26	813.09	---	---	826.06	821.08	812.28
(†)	9770	8620	7680	9130	25420	43900	62080	*---	66100	61770	54050	42150
(‡)	-28350	-1150	-940	+1450	+16290	+18480	+18180	*---	---	-4330	-7720	-11900
CAL YR 2001	MAX 833.50	MIN 769.54	AC-FT†	-10								
WTR YR 2002	MAX	---	MIN	---	AC-FT†	+4030						

e Estimated

† Contents, in acre-feet, at 2400, on last day of month.

* No substitute values available between May 12 to June 28.

‡ Change in contents, in acre-feet.

WILLAMETTE RIVER BASIN

14155500 ROW RIVER NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°47'35", long 122°59'25", in NE 1/4 sec.36, T.20 S., R.3 W., Lane County, Hydrologic Unit 17090002, on right bank 1.7 mi upstream from Mosby Creek, 2.1 mi downstream from Dorena Dam, 3.5 mi east of Cottage Grove, and at mile 5.5.

DRAINAGE AREA.--270 mi².

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1947, published as "near Dorena."

GAGE.--Water-stage recorder. Datum of gage is 685.24 ft above NGVD of 1929 (levels by Corps of Engineers). Jan. 5 to Oct. 12, 1939, nonrecording gage at site 180 ft upstream at datum 1.00 ft higher.

REMARKS.--Records good. Flow regulated since October 1949 by Dorena Lake (station 14155000). No diversion upstream from station.

AVERAGE DISCHARGE.--63 years (water years 1940-2002), 742 ft³/s, 37.32 in/yr, 537,600 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft³/s Dec. 28, 1945, gage height, 18.20 ft; minimum discharge, 0.20 ft³/s Sept. 25 to Oct. 7, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,220 ft³/s Dec. 17, 18, gage height, 7.47 ft; minimum recorded discharge, 87 ft³/s July 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	601	385	2640	1490	1080	369	801	210	213	115	101	93
2	597	385	2530	1540	662	226	800	208	213	101	100	93
3	593	381	1310	1640	557	213	800	208	213	101	100	93
4	590	377	1130	932	527	210	699	208	213	101	101	93
5	585	292	1440	700	536	208	476	208	213	101	100	93
6	580	166	2500	1330	603	208	314	208	213	101	99	93
7	577	123	3080	1970	624	264	314	280	213	101	99	93
8	573	121	2840	2310	1490	400	275	266	213	101	143	93
9	591	119	1830	2540	1580	402	210	217	213	101	258	94
10	600	119	1160	1700	1590	405	208	215	213	101	258	98
11	592	119	1080	919	1580	409	299	213	195	101	258	100
12	589	119	1340	738	1570	706	508	213	189	101	257	98
13	583	119	1530	740	1260	1140	825	213	208	101	256	98
14	578	119	3540	737	940	1650	2740	213	208	101	276	98
15	572	119	3540	637	761	1770	3860	213	208	101	247	98
16	567	282	3500	480	592	1890	2290	213	208	101	93	97
17	560	799	4000	426	532	1220	1480	213	208	101	93	99
18	573	665	4170	427	534	562	1330	213	208	101	93	96
19	574	487	4030	534	677	427	971	213	208	101	93	96
20	567	214	3820	719	1030	371	817	213	208	100	94	96
21	558	639	3510	1420	1030	414	710	213	208	100	94	276
22	553	1070	1710	1960	1040	762	474	213	208	100	93	495
23	549	1630	934	1920	1050	1220	301	213	208	99	93	521
24	576	1780	804	1850	1060	1520	301	213	207	100	93	518
25	601	1710	667	1950	925	1760	276	213	206	101	93	518
26	650	1660	622	2520	660	1780	213	213	204	101	93	514
27	663	1070	551	2600	438	1490	213	213	204	101	93	511
28	647	1160	792	2080	431	1030	213	213	204	101	93	508
29	631	2300	939	1550	---	617	213	213	206	100	93	508
30	522	2940	779	1500	---	731	213	213	204	100	93	506
31	385	---	1310	1450	---	804	---	213	---	100	93	---
TOTAL	17977	21469	63628	43309	25359	25178	23144	6701	6237	3136	4143	6787
MEAN	580	716	2053	1397	906	812	771	216	208	101	134	226
MAX	663	2940	4170	2600	1590	1890	3860	280	213	115	276	521
MIN	385	119	551	426	431	208	208	208	189	99	93	93
AC-FT	35660	42580	126200	85900	50300	49940	45910	13290	12370	6220	8220	13460
MEAN†	119	696	2037	1421	1199	1113	1077	---	---	30.7	8.13	26.2
CFSM†	0.44	2.58	7.54	5.26	4.44	4.12	3.99	---	---	0.11	0.03	0.10
IN.†	0.51	2.88	8.70	6.06	4.62	4.75	4.45	---	---	0.13	0.04	0.11
AC-FT†	7310	41430	125300	87350	66590	68420	64090	---	---	1890	500	1560

CAL YR 2001 TOTAL 172655 MEAN 473 MAX 4170 MIN 96 AC-FT 342500 MEAN† 473 CFSM† 1.75 IN.† 23.77 AC-FT† 342400
WTR YR 2002 TOTAL 247068 MEAN 677 MAX 4170 MIN 93 AC-FT 490100 MEAN† 682 CFSM† 2.53 IN.† 34.32 AC-FT† 494100

Adjusted for change in contents, in Dorena Lake.

WILLAMETTE RIVER BASIN

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14155500 ROW RIVER NEAR COTTAGE GROVE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2001 to September 2002.

INSTRUMENTATION.--Temperature recorder since August 2001.

REMARKS.--Water temperature records good.

EXTREMES FOR CURRENT PERIOD.--

WATER TEMPERATURE: Maximum, 19.3°C Oct. 1; minimum, 4.6°C Dec. 27.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19.3	18.2	18.6	12.3	11.8	12.1	7.4	7.3	7.3	7.1	6.6	7.0
2	19.2	18.2	18.6	12.2	11.3	11.7	7.6	7.3	7.4	7.6	7.0	7.3
3	19.2	18.2	18.5	12.5	11.5	11.9	7.6	7.4	7.5	7.7	7.1	7.5
4	19.2	18.2	18.5	12.3	11.6	12.0	7.4	6.8	7.1	7.1	6.5	6.9
5	18.8	18.2	18.4	12.4	11.2	11.9	6.8	6.3	6.5	6.7	6.5	6.5
6	18.7	18.1	18.4	12.0	10.5	11.3	7.3	6.4	6.8	7.6	6.6	7.0
7	18.4	17.9	18.1	11.6	10.0	10.6	7.5	7.2	7.3	8.3	7.6	7.9
8	18.4	17.6	17.9	11.3	9.6	10.3	7.3	6.9	7.0	8.3	7.9	8.1
9	18.2	17.1	17.6	11.1	9.4	10.0	7.0	6.7	6.9	8.2	7.6	8.0
10	17.3	17.1	17.2	11.1	9.6	10.1	6.8	6.1	6.5	7.6	6.9	7.2
11	17.4	16.7	17.0	11.1	9.7	10.2	6.2	6.0	6.1	6.9	6.7	6.8
12	17.2	16.5	16.8	10.6	9.8	10.2	6.1	6.0	6.0	7.0	6.8	6.9
13	16.8	15.9	16.4	10.5	9.9	10.3	6.8	6.1	6.4	7.1	6.8	6.9
14	16.8	15.9	16.2	11.5	10.4	10.7	7.2	6.7	7.1	7.0	6.6	6.8
15	16.7	15.9	16.2	11.1	10.4	10.7	6.9	6.5	6.7	6.6	6.0	6.4
16	16.7	15.9	16.2	10.8	10.3	10.6	7.6	6.6	7.0	6.2	5.8	6.0
17	16.5	15.7	16.0	10.7	10.1	10.5	7.7	7.3	7.5	6.0	5.3	5.6
18	16.1	15.5	15.8	10.1	9.5	9.8	7.3	6.9	7.1	5.5	5.1	5.3
19	16.0	15.4	15.6	9.9	9.4	9.6	7.0	6.8	6.9	5.3	5.0	5.1
20	15.6	15.2	15.4	9.5	9.2	9.4	7.1	6.8	7.0	5.1	4.9	5.0
21	15.4	15.1	15.2	9.2	9.0	9.1	7.1	6.6	6.8	5.1	4.7	4.9
22	15.2	14.9	15.1	9.0	8.5	8.8	6.6	6.0	6.2	5.2	4.8	5.0
23	15.0	14.3	14.8	8.6	8.4	8.5	6.2	5.7	5.9	5.5	5.1	5.3
24	14.3	12.9	13.5	8.5	8.1	8.3	5.7	5.2	5.5	5.4	5.1	5.2
25	13.4	12.5	13.0	8.2	7.7	8.0	5.2	4.8	5.0	5.7	5.2	5.4
26	13.6	12.6	13.0	7.8	7.0	7.4	5.1	4.8	4.9	6.3	5.7	6.1
27	13.5	12.8	13.1	7.1	6.6	6.8	4.8	4.6	4.8	6.2	5.8	6.0
28	13.2	12.9	13.0	6.8	6.5	6.6	5.1	4.7	4.9	5.9	5.5	5.7
29	13.1	12.7	12.9	7.5	6.7	7.1	5.5	4.9	5.3	5.6	5.1	5.4
30	12.8	12.5	12.7	7.6	7.3	7.4	6.1	5.4	5.8	5.3	4.9	5.1
31	12.8	12.0	12.4	--	--	--	6.6	6.0	6.3	5.1	4.8	5.0
MONTH	19.3	12.0	15.9	12.5	6.5	9.7	7.7	4.6	6.4	8.3	4.7	6.2

14157500 COAST FORK WILLAMETTE RIVER NEAR GOSHEN, OR

LOCATION.--Lat 43°58'50", long 122°57'55", in NW 1/4 sec.29, T.18 S., R.2 W., Lane County, Hydrologic Unit 17090002, on right bank at downstream side of bridge on State Highway 58, 2.5 mi southeast of Goshen, and at mile 6.4.

DRAINAGE AREA.--642 mi².

WATER-DISCHARGES RECORDS

PERIOD OF RECORD.--August 1905 to February 1912, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1248: 1905-12. WSP 1935: 1956.

GAGE.--Water-stage recorder. Datum of gage is 473.80 ft above NGVD of 1929. Aug. 23, 1905 to Feb. 7, 1912, nonrecording gage at site 600 ft upstream at different datum.

REMARKS.--Records good. Flow regulated since 1942 by Cottage Grove Lake (station 14153000) and since 1949 by Dorena Lake (station 14155000). Several small diversions for logponds and irrigation upstream from station. Several observations of water temperature were made during the year. Continuous water-quality records for the period October 1961 to September 1975 have been collected at this location. Periodic suspended sediment data are available for the period October 1991 to September 1993.

AVERAGE DISCHARGE.--58 years (water years 1906-11, 1951-2002), 1,580 ft³/s, 1,145,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,500 ft³/s Nov. 22, 1909, gage height, 19.5 ft, site and datum then in use, from rating curve extended above 15,000 ft³/s; minimum discharge, 36 ft³/s Sept. 29, 30, Oct. 11, 12, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,680 ft³/s Dec. 14, gage height, 10.45 ft; minimum discharge, 118 ft³/s July 29-31, Aug. 1, 3, 4, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	970	814	5150	2750	e1690	e510	e1140	485	266	236	119	128
2	960	725	6170	2860	e1180	e325	e1140	455	261	158	121	130
3	951	649	3300	3000	e1040	e310	e1120	422	256	149	120	131
4	946	609	2880	2260	e975	e310	e940	407	257	146	121	130
5	937	567	4270	1820	e940	e305	e645	395	258	145	122	129
6	930	372	5420	2500	e975	e305	e445	387	255	141	121	130
7	922	297	6160	3620	e1010	e445	e445	449	249	140	119	130
8	920	239	4750	4770	e2100	e705	e400	519	248	139	120	131
9	922	209	3710	4610	e2220	e705	e325	367	250	135	259	130
10	939	209	2710	3520	e2230	e705	e320	358	248	132	311	131
11	771	207	2420	2230	e2220	e715	e425	348	241	130	313	135
12	746	212	2520	1920	e2210	e1240	e670	341	243	128	312	134
13	720	216	2930	1770	e1850	e1860	e1040	332	275	128	312	133
14	703	244	8450	1690	e1490	e2450	e3720	334	272	129	313	133
15	692	272	7020	e1000	e1280	e2690	e5300	326	272	127	308	135
16	685	520	6320	e725	e1050	e2970	e3200	319	273	126	181	136
17	671	1520	7670	e725	e905	e1960	e2180	326	277	125	129	155
18	673	1220	7490	e675	e905	e1050	e1980	322	294	125	128	170
19	683	874	7600	e905	e1190	e810	e1330	322	299	125	128	163
20	673	594	6310	e1270	e1810	e700	e1710	392	286	126	130	152
21	664	867	5210	e2690	e1710	e750	1520	381	276	125	136	197
22	689	2640	3670	e3880	e1460	e1220	1240	376	274	124	134	460
23	815	3870	2320	e3550	e1470	e1980	882	358	275	122	134	582
24	790	3120	1940	e2860	e1480	e2330	812	333	271	122	132	712
25	825	3130	1710	e3360	e1320	e2450	764	315	265	122	131	704
26	846	3450	1530	e4700	e940	e2280	624	306	258	122	132	704
27	927	2580	1380	e4760	e630	e1820	619	297	256	122	131	727
28	915	2890	1530	e3880	e620	e1290	582	306	260	123	131	797
29	905	5660	1900	e2850	---	e810	544	310	279	120	131	808
30	900	5180	1670	e2320	---	e1020	520	297	278	120	128	833
31	836	---	2440	e2140	---	e1150	---	274	---	118	128	---
TOTAL	25526	43956	128550	81610	38900	38170	36582	11159	7972	4130	5235	9270
MEAN	823	1465	4147	2633	1389	1231	1219	360	266	133	169	309
MAX	970	5660	8450	4770	2230	2970	5300	519	299	236	313	833
MIN	664	207	1380	675	620	305	320	274	241	118	119	128
AC-FT	50630	87190	255000	161900	77160	75710	72560	22130	15810	8190	10380	18390

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 2002, BY WATER YEAR (WY)

	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	788	1966	3340	3562	2775	2207	1559	1063	579	251	358	542																																																																																					
MAX	3119	6305	9820	7814	6891	5716	4020	3285	2424	588	1115	1057																																																																																					
(WY)	1951	1974	1965	1909	1961	1957	1963	1963	1993	1957	1955	1978																																																																																					
MIN	147	121	196	200	203	385	460	247	129	90.3	49.7	63.5																																																																																					
(WY)	1911	1953	1977	1977	1977	1992	1987	1987	1987	1910	1910	1910																																																																																					

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1906 - 2002
ANNUAL TOTAL	334344	431060	
ANNUAL MEAN	916	1181	1580
HIGHEST ANNUAL MEAN			2701
LOWEST ANNUAL MEAN			512
HIGHEST DAILY MEAN	8450	8450	36500
LOWEST DAILY MEAN	137	118	36
ANNUAL SEVEN-DAY MINIMUM	137	120	42
ANNUAL RUNOFF (AC-FT)	663200	855000	1145000
10 PERCENT EXCEEDS	1920	3050	4150
50 PERCENT EXCEEDS	486	664	740
90 PERCENT EXCEEDS	145	130	172

e Estimated

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURE: August 2001 to September 2002.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 27.1°C July 11, 2002; minimum, 4.8°C Dec. 26-28, 2001.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 27.1°C July 11; minimum, 4.8°C Dec. 26-28.

WATER TEMPERATURE, in (DEGREES C), SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	21.4	17.9	19.6
2	---	---	---	---	---	---	---	---	---	22.0	18.3	19.8
3	---	---	---	---	---	---	---	---	---	20.8	16.9	18.8
4	---	---	---	---	---	---	---	---	---	20.2	16.4	18.2
5	---	---	---	---	---	---	---	---	---	18.8	16.1	17.4
6	---	---	---	---	---	---	---	---	---	18.3	14.6	16.4
7	---	---	---	---	---	---	---	---	---	17.5	14.6	16.0
8	---	---	---	---	---	---	---	---	---	18.0	15.0	16.3
9	---	---	---	---	---	---	---	---	---	18.4	15.2	16.6
10	---	---	---	---	---	---	---	---	---	18.4	15.8	16.9
11	---	---	---	---	---	---	---	---	---	18.2	15.4	16.7
12	---	---	---	---	---	---	---	---	---	18.8	16.3	17.4
13	---	---	---	---	---	---	---	---	---	19.4	16.6	17.7
14	---	---	---	---	---	---	---	---	---	19.5	16.6	17.9
15	---	---	---	---	---	---	---	---	---	20.0	17.7	18.6
16	---	---	---	---	---	---	22.9	20.0	21.0	19.6	17.4	18.4
17	---	---	---	---	---	---	22.6	18.7	20.3	18.1	16.3	17.1
18	---	---	---	---	---	---	22.3	19.1	20.2	17.8	15.1	16.3
19	---	---	---	---	---	---	22.4	17.7	19.7	17.4	15.4	16.5
20	---	---	---	---	---	---	22.5	17.8	19.7	17.6	15.4	16.7
21	---	---	---	---	---	---	20.5	18.0	19.3	17.8	15.8	17.0
22	---	---	---	---	---	---	19.6	18.7	19.2	18.3	15.8	17.2
23	---	---	---	---	---	---	21.1	17.7	19.0	19.1	16.8	18.0
24	---	---	---	---	---	---	22.2	17.8	19.6	19.1	17.4	18.4
25	---	---	---	---	---	---	22.2	18.0	19.8	18.8	17.9	18.3
26	---	---	---	---	---	---	23.0	18.4	20.3	18.4	17.9	18.1
27	---	---	---	---	---	---	23.5	19.0	20.8	18.3	17.2	17.7
28	---	---	---	---	---	---	23.7	19.1	21.0	18.7	16.6	17.7
29	---	---	---	---	---	---	21.8	19.5	20.5	18.7	16.7	17.9
30	---	---	---	---	---	---	21.7	17.6	19.5	19.0	16.8	18.1
31	---	---	---	---	---	---	22.0	18.0	19.8	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	22.0	14.6	17.6

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.2	17.0	18.3	12.2	11.9	12.1	7.7	7.5	7.6	7.2	6.8	7.0
2	19.0	17.1	18.2	13.2	12.1	12.5	7.8	7.3	7.5	7.8	7.0	7.3
3	18.3	16.3	17.5	13.0	12.2	12.6	7.9	7.4	7.6	7.7	7.1	7.4
4	18.4	16.4	17.5	12.6	12.1	12.3	7.4	6.7	6.9	7.1	6.4	6.7
5	18.2	16.9	17.5	12.7	11.8	12.2	7.0	6.5	6.7	7.1	6.4	6.7
6	17.8	17.0	17.4	12.3	10.4	11.5	7.7	7.0	7.4	8.2	7.1	7.6
7	17.2	15.8	16.4	10.4	8.9	9.6	7.8	7.3	7.6	8.7	8.2	8.4
8	17.1	16.2	16.6	9.7	8.1	8.8	7.3	6.9	7.1	8.9	8.5	8.7
9	16.9	15.5	16.2	9.7	7.7	8.7	7.3	6.8	7.1	8.6	7.9	8.3
10	16.2	14.8	15.3	10.1	8.5	9.3	6.8	6.5	6.6	7.9	7.4	7.7
11	16.8	15.4	15.9	11.0	9.6	10.3	6.8	6.3	6.6	7.7	7.2	7.4
12	16.2	14.5	15.3	11.0	10.4	10.7	6.7	6.4	6.5	7.9	7.3	7.5
13	16.9	16.0	16.4	10.8	10.3	10.6	7.6	6.6	7.1	7.7	7.0	7.2
14	16.2	14.7	15.6	12.6	10.8	11.7	7.6	7.0	7.3	7.0	6.6	6.8
15	16.0	15.0	15.6	12.0	11.5	11.8	7.0	6.7	6.9	6.6	5.9	6.4
16	15.8	15.1	15.5	11.5	10.6	11.2	7.9	7.0	7.5	5.9	5.2	5.5
17	15.5	14.3	14.9	10.6	10.0	10.2	8.0	7.4	7.7	6.2	5.5	5.8
18	14.7	13.3	14.1	10.2	9.4	9.7	7.4	7.0	7.2	6.2	5.6	6.0
19	15.0	13.2	14.2	10.1	9.3	9.7	7.1	6.7	6.9	6.3	5.8	6.1
20	14.7	13.7	14.3	10.0	9.6	9.8	7.3	6.9	7.1	6.3	5.5	5.8
21	14.2	13.3	13.7	9.6	9.0	9.2	7.2	6.5	7.0	6.3	5.2	5.6
22	14.4	14.1	14.2	9.2	8.9	9.1	6.9	6.2	6.5	5.8	5.1	5.4
23	14.3	13.1	13.8	8.9	8.5	8.7	6.6	5.9	6.2	6.0	5.5	5.7
24	13.5	12.2	12.9	8.7	8.1	8.4	6.0	5.4	5.6	6.0	5.5	5.8
25	13.9	12.3	13.2	8.3	7.8	8.1	5.7	5.1	5.4	6.7	6.0	6.3
26	13.6	11.8	12.9	8.0	7.3	7.7	5.2	4.8	5.1	6.6	6.1	6.4
27	13.4	12.4	12.6	7.3	7.0	7.1	5.2	4.8	4.9	6.2	5.7	6.0
28	12.4	11.8	11.9	7.6	6.8	7.2	5.7	4.8	5.3	6.2	5.6	5.8
29	12.3	11.8	12.0	7.8	7.5	7.7	5.9	5.2	5.5	6.0	5.3	5.6
30	12.6	12.1	12.4	7.8	7.5	7.7	6.2	5.7	5.9	5.8	5.0	5.3
31	12.5	12.1	12.3	---	---	---	7.1	6.0	6.5	5.6	5.0	5.2
MONTH	19.2	11.8	15.0	13.2	6.8	9.9	8.0	4.8	6.7	8.9	5.0	6.6

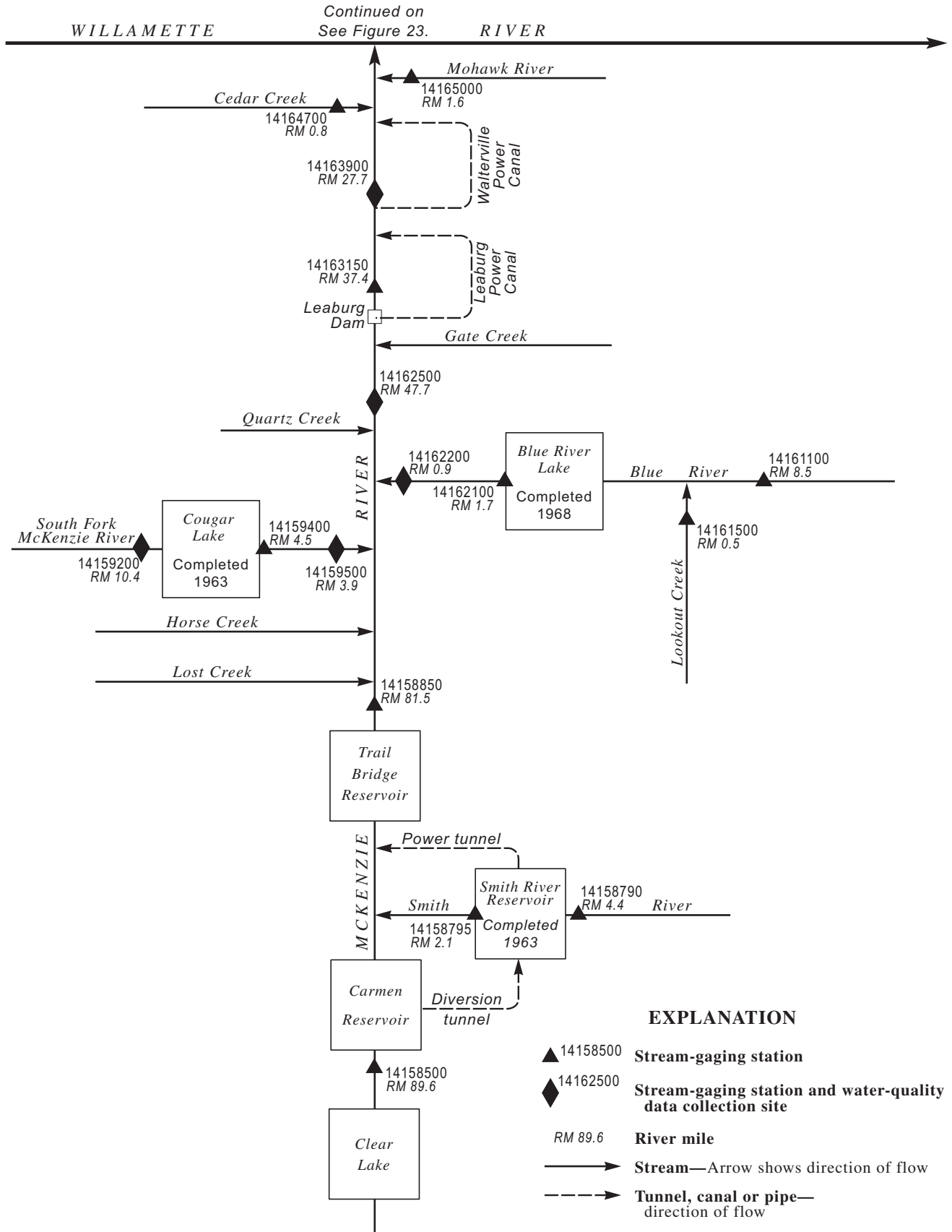


Figure 24. Schematic diagram showing gaging stations and diversions in the McKenzie River Basin.

14158500 MCKENZIE RIVER AT OUTLET OF CLEAR LAKE, OR

LOCATION.--Lat 44°21'40", long 121°59'40", in SE 1/4 sec.8, T.14 S., R.7 E., Linn County, Hydrologic Unit 17090004, Willamette National Forest, on west bank of Clear Lake in narrow channel, 150 ft upstream from outlet and at mile 89.6.

DRAINAGE AREA.--92.4 mi², hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--June 1912 to September 1915, October 1947 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1949. WSP 1318: 1915(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,015.32 ft above NGVD of 1929 (levels by Eugene Water and Electric Board). June 20, 1912, to July 31, 1915, nonrecording gage at site 1.0 mi north at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by natural storage in lake. At high stages an undetermined flow enters numerous sinkholes in lava rock along south edge of lake upstream from station.

AVERAGE DISCHARGE.--58 years (water years 1913-15, 1948-2002), 458 ft³/s, 67.27 in/yr, 331,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft³/s Dec. 23, 1964, gage height, 8.15 ft; minimum discharge, 116 ft³/s Oct. 27, 28, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,740 ft³/s Apr. 14, gage height, 5.52 ft; minimum discharge, 134 ft³/s Oct. 10, 19-21.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	162	394	405	366	334	376	744	786	483	350	271
2	139	168	398	403	355	335	379	746	771	474	346	268
3	139	175	395	397	348	335	384	761	757	465	341	268
4	137	177	398	392	339	335	391	755	745	455	338	266
5	137	178	399	388	331	335	402	747	745	450	334	265
6	136	177	415	403	325	353	414	744	742	444	330	262
7	136	175	430	418	323	354	468	726	716	440	327	261
8	136	173	433	433	312	347	535	707	682	435	324	260
9	136	172	437	782	297	342	580	694	652	431	321	257
10	137	168	445	663	287	343	795	681	625	429	317	257
11	141	166	441	591	278	366	938	664	607	428	315	255
12	137	166	428	580	270	405	955	655	596	424	311	253
13	137	170	461	589	265	394	1030	666	595	423	309	253
14	138	172	679	585	260	390	1620	676	600	421	307	251
15	137	172	681	574	254	395	1490	677	591	418	304	249
16	136	181	683	558	250	402	1210	676	575	415	302	249
17	136	186	843	543	247	402	1120	680	565	412	299	251
18	136	192	797	519	245	403	1080	699	586	409	298	247
19	135	200	711	501	248	406	1040	710	582	406	294	246
20	134	205	663	494	246	402	1000	709	558	402	293	244
21	134	216	631	485	248	400	971	704	547	398	291	242
22	141	253	610	466	250	396	940	704	542	395	288	242
23	146	273	588	436	266	395	914	696	539	391	288	239
24	142	291	562	417	282	392	882	691	528	387	286	238
25	146	316	534	422	298	388	856	697	516	383	284	238
26	149	325	505	410	312	384	840	715	508	380	280	236
27	151	329	485	398	323	383	825	744	502	375	279	235
28	151	357	472	388	330	379	791	775	495	370	277	234
29	152	378	447	382	---	377	764	821	496	366	276	233
30	156	374	425	375	---	375	756	839	488	361	274	235
31	161	---	412	371	---	375	---	808	---	356	272	---
TOTAL	4368	6647	16202	14970	8155	11622	24746	22311	18237	12826	9455	7505
MEAN	140.9	221.6	522.6	482.9	291.2	374.9	824.9	719.7	607.9	413.7	305.0	250.2
MAX	161	378	843	782	366	406	1620	839	786	483	350	271
MIN	134	162	394	371	245	334	376	655	488	356	272	233
AC-FT	8660	13180	32140	29690	16180	23050	49080	44250	36170	25440	18750	14890
CFSM	1.52	2.40	5.66	5.23	3.15	4.06	8.93	7.79	6.58	4.48	3.30	2.71
IN.	1.76	2.68	6.52	6.03	3.28	4.68	9.96	8.98	7.34	5.16	3.81	3.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2002, BY WATER YEAR (WY)

	248.2	371.1	539.9	520.0	527.8	506.4	595.4	680.2	563.3	388.5	300.9	252.5
MEAN	248.2	371.1	539.9	520.0	527.8	506.4	595.4	680.2	563.3	388.5	300.9	252.5
MAX	428	828	1209	1123	1313	1205	873	1178	1202	737	499	392
(WY)	1951	1951	1965	1997	1996	1972	1997	1949	1974	1950	1974	1974
MIN	122	141	209	191	180	224	341	319	203	173	149	132
(WY)	1993	1988	1977	1977	1977	1977	1955	1992	1992	1977	1992	1992

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1913 - 2002

ANNUAL TOTAL	100117	157044	
ANNUAL MEAN	274.3	430.3	457.5
HIGHEST ANNUAL MEAN			688
LOWEST ANNUAL MEAN			241
HIGHEST DAILY MEAN	843	Dec 17	1620
LOWEST DAILY MEAN	134	Oct 20	134
ANNUAL SEVEN-DAY MINIMUM	135	Oct 15	135
ANNUAL RUNOFF (AC-FT)	198600	311500	331400
ANNUAL RUNOFF (CFSM)	2.97	4.66	4.95
ANNUAL RUNOFF (INCHES)	40.31	63.23	67.27
10 PERCENT EXCEEDS	433	745	798
50 PERCENT EXCEEDS	246	388	395
90 PERCENT EXCEEDS	145	169	210

14158795 SMITH RIVER RESERVOIR NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°18'20", long 122°02'40", in SW 1/4 SW 1/4 sec.36, T.14 S., R.6 E., Linn County, Hydrologic Unit 17090004, Willamette National Forest, in intake tower near left end of Smith River Dam on Smith River, 800 ft upstream from Bunchgrass Creek, 8 mi north of town of Belknap Springs, and at mile 2.1.

DRAINAGE AREA.--18.2 mi².

PERIOD OF RECORD.--March 1963 to current year.

REVISED RECORDS.--WDR OR-86-2: 1985.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Eugene Water and Electric Board).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in 1963 by Eugene Water and Electric Board; storage began Mar. 18, 1963. Total capacity is 15,000 acre-ft at elevation 2,605.0 ft, top of spillway gates, and usable capacity is 9,900 acre-ft between elevations 2,525.0 ft, minimum power pool, and 2,605.0 ft. Storage of 5,100 acre-ft, below elevation 2,525.0 ft, not normally available for release. Water used for power generation. Figures herein represent total contents and are furnished by Eugene Water and Electric Board.

COOPERATION.--Elevations and area-volume curves furnished by Eugene Water and Electric Board.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 15,200 acre-ft Dec. 22, 1964, elevation, 2,606.5 ft; minimum contents, 5,700 acre-ft Apr. 11, 14, 1964, elevation, 2,532.90 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,870 acre-ft Apr. 14, elevation, 2,604.53 ft; minimum contents, 11,250 acre-ft Nov. 8, elevation, 2,581.26 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30.....	2,598.34	13,830	--
Oct. 31.....	2,595.99	13,460	-370
Nov. 30.....	2,591.60	12,760	-700
Dec. 31.....	2,589.44	12,410	-350
CAL YR 2001.....			-610
Jan. 31.....	2,584.14	11,600	-810
Feb. 28.....	2,588.34	12,230	+630
Mar. 31.....	2,594.89	13,280	+1,050
Apr. 30.....	2,598.68	13,890	+610
May 31.....	2,600.79	14,230	+340
June 30.....	2,601.25	14,310	+80
July 31.....	2,601.73	14,390	+80
Aug. 31.....	2,601.31	14,320	-70
Sept.30.....	2,601.38	14,330	+10
WTR YR 2002.....			+500

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°16'05", long 122°02'55", in T.15 S., R.6 E., (unsurveyed), Linn County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 0.4 mi downstream from Trail Bridge Dam, 0.5 mi upstream from Anderson Creek, 5 mi north of town of Belknap Springs, and at mile 81.5.

DRAINAGE AREA.--184 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 1,980.00 ft above NGVD of 1929 (levels by Eugene Water and Electric Board). Prior to Oct. 11, 1963, at datum 5.60 ft higher.

REMARKS.--No estimated daily discharges. Records good. Discharge for the period Dec. 12 to Feb. 28 computed from data obtained from the Eugene Water & Electric Board (EWEB). Flow regulated since 1963 by Smith River Reservoir (station 14158795). Diurnal fluctuations by powerplants and by Trail Bridge re-regulation reservoir upstream. Water is diverted from McKenzie River in SW 1/4 sec.20, T.14 S., R.7 E., to Smith River Reservoir and returned to river upstream from station. Continuous water-quality records for the period November 1976 to September 1985, July 1992 September 1993 have been collected at this location.

AVERAGE DISCHARGE.--43 years (water years 1960-2002), 1,016 ft³/s, 74.99 in/yr, 736,100 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s Dec. 22, 1964, gage height, 12.45 ft, from rating curve extended above 3,700 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 185 ft³/s Feb. 3, 1963; minimum daily, 423 ft³/s Nov. 22, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,840 ft³/s Apr. 14, gage height, 9.27 ft; minimum discharge, 450 ft³/s Oct. 10.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	556	702	1100	953	881	898	1030	1410	1380	987	762	683
2	551	690	1110	1040	852	891	1070	1410	1370	959	751	683
3	554	758	1120	1100	805	883	1050	1410	1330	918	760	684
4	550	786	1070	1030	844	888	1080	1410	1300	923	761	704
5	550	806	1040	1020	821	864	1150	1410	1300	886	761	682
6	551	805	1140	1150	823	892	1180	1400	1360	866	761	644
7	554	769	1350	1480	852	1010	1220	1350	1290	871	741	668
8	569	659	1170	1870	867	941	1270	1350	1240	861	722	674
9	547	569	1160	1710	824	923	1360	1320	1170	912	731	635
10	513	569	1170	1510	799	918	1780	1280	1170	856	746	675
11	597	591	1090	1410	776	1090	1770	1260	1110	846	737	674
12	561	527	1070	1320	750	1500	1760	1240	1120	869	722	674
13	564	554	1230	1330	740	1360	1970	1300	1140	877	724	672
14	562	623	1930	1310	729	1170	3300	1230	1160	852	748	664
15	570	650	1570	1210	746	1070	2560	1200	1110	865	736	663
16	560	656	1700	1160	675	1010	2170	1220	1110	825	722	665
17	532	646	1840	1110	631	1000	1880	1240	1040	847	716	665
18	540	648	1700	1120	682	986	1850	1300	1090	839	716	665
19	548	661	1540	1090	801	979	1660	1250	1120	815	715	664
20	547	677	1490	1040	848	987	1610	1210	1070	845	717	665
21	550	752	1350	1050	821	987	1590	1260	1060	814	716	666
22	593	1370	1280	1080	947	974	1580	1270	1060	842	716	661
23	678	1160	1250	1050	1020	957	1560	1280	1030	779	710	648
24	644	1020	1130	925	1160	967	1580	1220	1050	798	703	649
25	644	971	1070	1030	1020	968	1540	1280	1000	794	707	650
26	645	963	1050	1120	959	968	1460	1290	1000	812	709	650
27	645	929	1060	1000	940	969	1450	1320	995	797	709	651
28	630	965	1060	945	916	968	1430	1380	936	794	700	651
29	572	1140	1010	941	---	966	1410	1440	962	793	699	653
30	581	1090	964	879	---	972	1410	1410	980	787	691	677
31	698	---	929	875	---	1020	---	1380	---	778	683	---
TOTAL	17956	23706	38743	35858	23529	30976	47730	40730	34053	26307	22492	19999
MEAN	579.2	790.2	1250	1157	840.3	999.2	1591	1314	1135	848.6	725.5	666.6
MAX	698	1370	1930	1870	1160	1500	3300	1440	1380	987	762	704
MIN	513	527	929	875	631	864	1030	1200	936	778	683	644
AC-FT	35620	47020	76850	71120	46670	61440	94670	80790	67540	52180	44610	39670
MEAN†	573	779	1244	1143	852	1016	1602	1319	1137	850	724	667
CFSM†	3.11	4.23	6.76	6.21	4.63	5.52	8.71	7.17	6.18	4.62	3.93	3.62
IN.†	3.59	4.72	7.80	7.16	4.82	6.37	9.71	8.27	6.89	5.32	4.54	4.04
AC-FT†	35250	46320	76500	70310	47300	62490	95280	81130	67620	52260	44540	39680

CAL YR 2001 TOTAL 281481 MEAN 771.2 MAX 1930 MIN 505 AC-FT 558300 MEAN† 770 CFSM† 4.18 IN.† 56.83 AC-FT† 557700
WTR YR 2002 TOTAL 362079 MEAN 992.0 MAX 3300 MIN 513 AC-FT 718200 MEAN† 993 CFSM† 5.40 IN.† 73.24 AC-FT† 718700

† Adjusted for change in contents in Smith River Reservoir.

WILLAMETTE RIVER BASIN

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR

LOCATION.--Lat 44°02'50", long 122°13'00", in T.17 S., R.5 E., (unsurveyed), Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 100 ft upstream from Tipsoo Creek, 8.0 mi south of Rainbow, 9.0 mi southeast of town of Blue River, and at mile 10.4.

DRAINAGE AREA.--160 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to September 1987, October 2000 to current year. Prior to October 1971 published as South Fork McKenzie River above Cougar Lake Reservoir.

REVISED RECORDS.--WSP 1638: Drainage area. WSP 1935: 1958(M).

GAGE.--Water-stage recorder. Datum of gage is 1,709.52 ft above NGVD of 1929 (Corps of Engineers bench mark..

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

AVERAGE DISCHARGE.--32 years (water years 1958-87, 2001-02), 629 ft³/s, 53.39 in/yr, 455,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s Dec. 22, 1964, gage height, 20.06 ft, from floodmark, from rating curve extended above 7,600 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 170 ft³/s Oct. 5, 2001.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 13	2330	3,570	9.00	Apr. 14	0700	*6,140	*11.12

Minimum discharge, 170 ft³/s Oct. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	397	913	876	575	665	833	794	1100	336	229	208
2	175	336	868	1110	553	619	910	852	999	323	228	208
3	174	298	723	1120	537	584	1020	904	926	313	228	208
4	174	275	636	954	516	560	1140	871	876	306	228	209
5	173	266	612	856	510	552	1300	848	877	298	229	207
6	173	256	1460	1080	508	691	1240	806	852	291	229	206
7	174	247	1490	1430	652	805	1170	746	776	286	227	208
8	178	239	1060	2280	786	701	1080	691	694	280	225	207
9	180	234	882	1810	688	648	1230	669	632	275	223	204
10	189	231	769	1390	622	628	1980	635	589	269	223	203
11	300	227	693	1170	595	855	1930	622	576	265	222	202
12	207	235	650	1130	573	1620	1880	660	582	262	220	201
13	193	303	1450	1050	556	1240	2290	753	608	259	218	200
14	187	421	2540	932	540	1000	5090	757	628	256	217	199
15	184	339	1510	831	537	883	3270	787	604	254	216	199
16	181	414	1770	756	548	809	2200	791	570	251	216	201
17	180	432	2100	701	578	749	1690	839	581	249	215	241
18	179	376	1600	651	583	685	1390	899	732	247	215	232
19	178	348	1330	631	689	667	1210	896	598	245	215	212
20	178	366	1180	648	743	660	1080	859	533	244	221	207
21	178	513	1020	778	855	725	993	849	496	242	222	204
22	331	1050	893	675	1120	804	944	839	468	241	218	201
23	520	979	786	612	1350	914	915	778	442	259	217	200
24	308	708	709	582	1240	916	869	769	420	250	219	199
25	254	606	654	1040	1020	867	862	809	399	241	217	198
26	240	538	610	1120	879	819	880	914	381	238	215	197
27	229	481	585	847	785	807	859	1000	367	237	213	197
28	230	e874	613	718	720	778	796	1130	355	235	212	197
29	233	1190	603	646	---	762	773	1290	381	233	211	201
30	307	873	616	598	---	759	805	1280	354	232	210	244
31	450	---	785	572	---	788	---	1190	---	231	209	---
TOTAL	7013	14052	32110	29594	19858	24560	42629	26527	18396	8148	6807	6200
MEAN	226	468	1036	955	709	792	1421	856	613	263	220	207
MAX	520	1190	2540	2280	1350	1620	5090	1290	1100	336	229	244
MIN	173	227	585	572	508	552	773	622	354	231	209	197
AC-FT	13910	27870	63690	58700	39390	48710	84550	52620	36490	16160	13500	12300
CFSM	1.41	2.93	6.47	5.97	4.43	4.95	8.88	5.35	3.83	1.64	1.37	1.29
IN.	1.63	3.27	7.47	6.88	4.62	5.71	9.91	6.17	4.28	1.89	1.58	1.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

	287	616	962	917	897	766	841	903	603	300	241	235
MEAN	287	616	962	917	897	766	841	903	603	300	241	235
MAX	475	1305	2915	1827	1778	2065	1421	1383	1418	457	338	304
(WY)	1983	1985	1965	1971	1982	1972	2002	1972	1974	1975	1976	1978
MIN	188	261	231	234	232	410	445	426	270	221	195	179
(WY)	1981	1977	1977	1977	1977	1977	1968	1968	1987	1973	2001	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1958 - 2002

ANNUAL TOTAL	159928	235894	
ANNUAL MEAN	438	646	629
HIGHEST ANNUAL MEAN			917
LOWEST ANNUAL MEAN			346
HIGHEST DAILY MEAN	2540	Dec 14	5090
LOWEST DAILY MEAN	173	Sep 24	173
ANNUAL SEVEN-DAY MINIMUM	174	Oct 1	174
ANNUAL RUNOFF (AC-FT)	317200	467900	455900
ANNUAL RUNOFF (CFSM)	2.74	4.04	3.93
ANNUAL RUNOFF (INCHES)	37.18	54.85	53.43
10 PERCENT EXCEEDS	822	1170	1200
50 PERCENT EXCEEDS	322	598	476
90 PERCENT EXCEEDS	181	205	220

e Estimated

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1957 to September 1987, December 2000 to current year.
 TURBIDITY: November 2000 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Water temperature and turbidity records good. Turbidity values are considered relative to this site.
 The probe was checked using a polymer bead standard, after Feb. 27, formazine was used.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 17.0°C July 8, 1968, July 19, 20, 1979; minimum, 0.0°C Dec. 7-11, 1972,
 Dec. 30, 1978, Jan. 1, 1979, Jan. 4, 1982, Dec. 24, 1983.
 TURBIDITY: Maximum, 323 NTU Apr. 14, 2002; minimum, <1 NTU many days every year.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 15.4°C July 13; minimum recorded, 2.4°C Jan. 29.
 TURBIDITY: Maximum, 323 NTU Apr. 14; minimum, <1 NTU many days during year.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.8	7.8	8.7	8.4	7.9	8.1	5.8	5.6	5.8	5.8	5.1	5.5
2	9.7	7.7	8.7	8.3	7.5	8.0	6.2	5.5	5.8	6.1	5.4	5.8
3	9.5	7.6	8.5	7.5	6.6	7.1	5.9	5.3	5.7	5.9	5.1	5.5
4	9.7	7.6	8.6	7.2	6.3	6.8	5.3	4.2	4.7	5.3	4.7	5.0
5	9.5	7.3	8.4	7.6	6.7	7.1	5.0	3.8	4.3	5.9	5.1	5.6
6	9.2	8.2	8.6	6.7	5.6	6.2	6.0	5.0	5.5	6.1	5.7	5.9
7	8.2	6.8	7.6	5.6	4.8	5.2	6.1	5.7	5.9	6.2	5.9	6.1
8	8.3	7.5	7.9	6.1	4.7	5.4	6.0	5.5	5.8	6.2	5.7	6.0
9	8.1	7.0	7.5	6.4	5.0	5.8	5.8	5.1	5.6	5.7	5.0	5.4
10	7.8	6.0	6.8	6.9	5.7	6.3	5.1	4.7	4.9	5.8	5.1	5.5
11	8.6	7.5	8.1	7.7	6.6	7.1	5.4	5.0	5.2	6.1	5.3	5.7
12	8.2	6.6	7.4	8.0	7.2	7.6	5.2	4.9	5.1	5.9	5.5	5.7
13	8.8	7.7	8.1	7.8	7.3	7.5	5.8	5.2	5.5	5.5	5.1	5.2
14	8.2	6.9	7.5	8.6	7.8	8.1	5.8	5.2	5.5	5.1	4.4	4.8
15	8.2	6.7	7.5	8.1	7.6	7.8	5.5	5.2	5.4	4.4	3.5	3.8
16	8.7	7.3	7.9	8.0	7.5	7.8	6.0	5.4	5.8	4.1	3.1	3.5
17	8.0	6.7	7.2	7.5	6.1	6.9	6.0	5.5	5.8	4.5	3.8	4.2
18	7.1	5.4	6.3	6.5	5.5	6.0	5.5	5.3	5.4	4.6	4.1	4.4
19	7.7	5.9	6.7	7.4	6.2	6.8	5.8	5.3	5.5	4.3	3.7	4.1
20	7.9	6.7	7.2	7.2	6.8	6.9	5.6	5.2	5.5	4.1	3.1	3.5
21	7.2	5.9	6.6	6.9	6.6	6.7	5.2	4.8	5.0	3.9	2.9	3.3
22	8.4	7.2	7.6	7.0	6.4	6.8	5.4	4.7	5.0	3.6	3.3	3.5
23	8.4	7.1	7.6	6.7	6.2	6.4	5.0	4.6	4.7	4.1	3.3	3.8
24	7.2	6.4	6.8	6.3	4.9	5.9	4.6	4.2	4.4	4.6	4.0	4.3
25	7.8	6.8	7.2	5.5	4.9	5.1	5.0	4.2	4.6	4.4	3.6	4.1
26	7.5	6.2	6.8	5.4	4.7	5.0	5.2	4.5	4.8	4.4	4.0	4.2
27	7.5	6.4	7.0	4.9	4.1	4.5	5.5	4.8	5.2	4.3	3.8	4.0
28	7.7	6.6	7.2	5.5	3.1	4.3	5.4	4.7	5.1	3.9	3.2	3.6
29	7.8	7.1	7.5	5.6	5.5	5.6	5.6	4.6	5.1	3.6	2.4	3.1
30	8.3	7.6	7.9	5.8	5.4	5.6	5.6	4.8	5.2	4.3	3.5	3.9
31	8.5	8.0	8.2	---	---	---	5.7	5.1	5.4	4.5	3.8	4.1
MONTH	9.8	5.4	7.6	8.6	3.1	6.5	6.2	3.8	5.3	6.2	2.4	4.6
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.6	3.6	4.1	4.4	3.0	3.7	7.0	4.2	5.5	8.2	5.6	6.6
2	4.3	3.8	4.1	4.7	3.1	3.8	7.1	4.4	5.6	8.7	5.7	6.9
3	4.8	4.0	4.3	5.1	3.4	4.1	7.1	4.5	5.7	7.8	5.5	6.4
4	4.2	3.4	3.9	5.5	3.6	4.4	7.2	4.6	5.7	7.8	4.5	6.0
5	4.5	3.6	4.1	5.4	4.2	4.7	5.7	5.3	5.5	6.7	5.2	5.8
6	4.5	3.9	4.2	5.6	4.1	5.0	6.3	5.2	5.7	6.4	5.0	5.6
7	4.3	4.0	4.2	4.3	3.1	3.8	6.3	5.1	5.6	6.5	4.4	5.3
8	4.6	3.6	4.0	4.2	2.9	3.5	7.1	4.5	5.7	7.7	3.8	5.6
9	4.6	3.7	4.1	4.4	3.3	3.8	6.0	5.3	5.6	6.4	5.2	5.8
10	4.9	4.0	4.3	4.9	3.9	4.4	6.0	5.0	5.4	7.7	5.0	6.2
11	5.1	4.1	4.6	5.5	4.4	4.9	6.0	5.1	5.5	8.9	4.7	6.6
12	4.9	3.6	4.2	4.9	4.2	4.7	6.7	5.2	5.8	9.6	5.4	7.3
13	4.8	3.9	4.3	4.6	3.7	4.1	6.0	5.4	5.7	7.6	6.2	6.6
14	4.4	3.3	3.8	5.0	3.9	4.3	5.7	4.3	4.9	9.0	5.8	7.1
15	4.9	3.7	4.2	4.8	3.7	4.2	4.8	4.1	4.4	8.8	5.5	6.9
16	5.0	4.0	4.5	3.7	2.7	3.3	4.7	4.0	4.3	8.8	5.1	6.8
17	5.1	3.9	4.5	4.0	2.5	3.3	5.0	3.8	4.3	9.5	6.4	7.6
18	5.5	4.5	4.9	4.2	3.2	3.7	5.7	4.2	4.8	8.3	6.6	7.3
19	4.9	4.5	4.8	4.8	3.6	4.1	5.9	4.4	5.1	6.9	6.2	6.6
20	5.8	4.4	5.0	5.6	3.8	4.5	7.1	4.7	5.7	7.3	5.8	6.5
21	5.8	4.9	5.3	5.6	4.0	4.7	7.5	4.6	5.9	7.0	5.9	6.4
22	5.8	4.7	5.1	5.9	4.2	4.9	7.7	4.6	6.0	7.4	5.6	6.4
23	5.7	4.9	5.3	6.0	4.5	5.2	7.4	5.0	6.0	8.9	4.9	6.7
24	5.3	4.3	4.9	6.0	4.8	5.3	7.7	4.1	5.8	8.7	5.8	7.2
25	4.9	3.8	4.3	6.1	4.2	5.0	8.0	4.8	6.2	9.7	6.4	7.8
26	5.3	4.1	4.6	6.4	4.0	5.1	6.6	4.9	5.7	9.4	7.0	8.1
27	5.2	3.7	4.4	6.4	4.8	5.5	6.8	4.8	5.6	8.1	7.0	7.6
28	5.1	3.8	4.3	6.6	4.8	5.5	7.3	4.0	5.6	7.7	7.0	7.4
29	---	---	---	6.7	4.4	5.5	7.5	4.8	6.1	9.7	7.1	8.1
30	---	---	---	6.8	4.1	5.3	6.4	5.2	5.8	9.9	7.3	8.4
31	---	---	---	6.8	4.1	5.3	---	---	---	9.7	7.3	8.4
MONTH	5.8	3.3	4.4	6.8	2.5	4.5	8.0	3.8	5.5	9.9	3.8	6.8

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.9	7.6	8.5	13.6	9.4	11.3	13.4	9.0	11.1	12.3	8.9	10.5
2	10.2	7.3	8.5	13.8	9.2	11.3	12.8	8.7	10.7	12.4	9.1	10.6
3	9.5	7.2	8.3	12.5	9.2	10.8	11.9	8.3	10.1	10.7	9.2	9.8
4	11.0	7.9	9.1	12.3	9.0	10.5	10.4	8.9	9.5	10.9	7.8	9.2
5	10.8	8.5	9.4	13.4	8.5	10.6	10.6	8.0	9.2	10.6	7.8	9.1
6	10.5	7.8	9.0	13.5	9.2	11.2	11.9	8.3	9.8	10.0	7.3	8.6
7	9.7	7.0	8.2	12.2	9.7	11.0	11.8	7.5	9.6	10.0	8.0	9.0
8	8.6	6.6	7.4	13.6	9.6	11.3	12.1	7.9	9.9	9.8	7.0	8.3
9	8.8	6.8	7.6	14.2	9.0	11.4	12.7	8.3	10.4	10.8	7.5	9.0
10	11.2	7.0	8.7	14.9	9.8	12.2	13.1	8.8	10.8	11.2	8.0	9.5
11	11.8	7.7	9.5	15.1	10.4	12.6	12.9	8.8	10.8	11.4	8.4	9.8
12	12.3	8.1	10	14.3	10.5	12.4	13.2	8.8	10.8	11.8	8.6	10.1
13	12.9	8.8	10.6	15.4	10.8	12.9	13.7	9.2	11.3	11.8	8.8	10.2
14	12.9	9.3	10.9	14.7	10.7	12.5	13.6	9.5	11.4	11.4	8.9	10.1
15	12.8	9.1	10.7	13.9	9.8	11.8	13.2	9.1	11.1	11.0	9.1	10
16	12.1	9.4	10.5	14.2	9.7	11.8	12.9	8.8	10.8	10.2	8.9	9.6
17	10.2	9.3	9.6	14.5	9.9	12.0	12.8	9.0	10.8	10.2	9.2	9.7
18	9.7	8.8	9.3	14.4	9.7	11.9	12.4	8.4	10.4	10.9	9.1	9.9
19	11.6	7.7	9.5	14.2	10.0	11.9	12.3	8.8	10.5	10.7	8.1	9.3
20	12.4	8.5	10.2	14.2	9.4	11.7	10.6	8.9	9.8	10.6	8.2	9.3
21	12.3	9.2	10.6	14.4	9.5	11.8	11.5	8.7	9.9	10.4	7.8	9.0
22	13.4	9.7	11.2	14.1	10.1	12.0	12.2	8.3	10.1	10.4	7.7	9.0
23	13.6	10.0	11.5	14.2	10.7	12.3	12.0	8.8	10.3	10.7	8.2	9.3
24	13.5	9.3	11.2	14.3	10.0	12.0	12.5	8.9	10.6	10.6	8.1	9.3
25	14.0	9.5	11.6	14.4	10.1	12.1	12.4	9.1	10.6	10.3	7.9	9.0
26	13.9	10.2	11.9	14.3	10.0	12.0	12.5	9.4	10.8	9.7	7.7	8.7
27	13.1	10.3	11.7	13.8	9.7	11.6	12.4	8.7	10.5	9.9	7.7	8.7
28	11.8	10.2	11.0	13.8	9.3	11.4	12.6	9.1	10.7	9.8	7.2	8.4
29	12.2	10.2	11.0	14.2	9.7	11.8	12.6	9.4	10.9	8.9	8.0	8.4
30	12.5	9.8	10.9	13.9	9.8	11.8	12.3	9.3	10.7	8.5	7.7	8.1
31	---	---	---	13.7	9.8	11.6	12.0	8.2	10.0	---	---	---
MONTH	14.0	6.6	9.9	15.4	8.5	11.7	13.7	7.5	10.4	12.4	7.0	9.3
YEAR	15.4	2.4	7.2									

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	---	---	---	2	<1	<1	2	<1	<1	2	<1	<1
2	---	---	---	2	<1	<1	5	<1	<1	11	<1	1
3	---	---	---	2	<1	<1	3	<1	<1	6	<1	<1
4	---	---	---	<1	<1	<1	2	<1	<1	5	<1	<1
5	---	---	---	1	<1	<1	1	<1	<1	2	<1	<1
6	---	---	---	<1	<1	<1	19	<1	5	4	<1	<1
7	---	---	---	<1	<1	<1	14	1	3	5	1	2
8	---	---	---	2	<1	<1	10	<1	<1	20	4	10
9	---	---	---	<1	<1	<1	10	<1	<1	6	2	3
10	---	---	---	<1	<1	<1	3	<1	<1	2	<1	1
11	---	---	---	<1	<1	<1	2	<1	<1	5	<1	<1
12	---	---	---	3	<1	<1	6	<1	<1	5	<1	<1
13	1	<1	<1	4	<1	<1	119	<1	2	2	<1	<1
14	<1	<1	<1	4	<1	<1	102	4	12	1	<1	<1
15	<1	<1	<1	3	<1	<1	12	2	3	3	<1	<1
16	<1	<1	<1	3	<1	<1	10	2	4	2	<1	<1
17	<1	<1	<1	8	<1	<1	16	2	5	1	<1	<1
18	<1	<1	<1	4	<1	<1	9	1	2	2	<1	<1
19	<1	<1	<1	2	<1	<1	6	<1	1	2	<1	<1
20	<1	<1	<1	2	<1	<1	2	<1	<1	6	<1	<1
21	<1	<1	<1	4	<1	<1	3	<1	<1	1	<1	<1
22	40	<1	<1	18	1	6	3	<1	<1	15	<1	<1
23	8	<1	2	9	<1	2	2	<1	<1	6	<1	<1
24	5	<1	<1	7	<1	<1	5	<1	<1	<1	<1	<1
25	1	<1	<1	4	<1	<1	1	<1	<1	8	<1	3
26	<1	<1	<1	4	<1	<1	1	<1	<1	3	<1	1
27	<1	<1	<1	2	<1	<1	2	<1	<1	<1	<1	<1
28	<1	<1	<1	10	<1	4	2	<1	<1	3	<1	<1
29	<1	<1	<1	5	<1	2	2	<1	<1	1	<1	<1
30	3	<1	<1	2	<1	<1	1	<1	<1	<1	<1	<1
31	3	<1	<1	---	---	---	12	<1	<1	2	<1	<1
MAX	---	---	---	18	1	6	119	4	12	20	4	10
MIN	---	---	---	<1	<1	<1	1	<1	<1	<1	<1	<1

14159400 COUGAR LAKE NEAR RAINBOW, OR

LOCATION.--Lat 44°07'40", long 122°14'25", in SE 1/4 SE 1/4 sec.31, T.16 S., R.5 E., Lane County, Hydrologic Unit 17090004, Willamette National Forest, in intake tower near left end of Cougar Dam on South Fork McKenzie River, 2.7 mi south of Rainbow, and at mile 4.5.

DRAINAGE AREA.--207 mi².

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1971, published as Cougar Reservoir near Rainbow.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--The 2400 hour elevations for the period Apr. 10-13 and Apr. 20 to Sept. 30, were furnished by the Corps of Engineers. Lake is formed by earthfill dam with concrete spillway completed in 1963 by the Corps of Engineers; storage began September 1963. Total capacity is 200,000 acre-ft at elevation 1,699 ft, maximum pool, and usable capacity is 156,500 acre-ft between elevations 1,516 ft, minimum power pool, and 1,699 ft. Lake used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 215,900 acre-ft Apr. 28, 1990, elevation, 1,696.51 ft; minimum contents, 5,930 acre-ft June 15, Sept. 15, 2002, elevation, 1,399.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 106,800 acre-ft Oct. 1, elevation, 1,590.53 ft; minimum contents, 5,930 acre-ft June 15, Sept. 15, elevation, 1,399.00 ft.

Capacity table January 1968 to April 4, 2002 (elevation, in feet, and total contents, in acre-feet)

1,510	50,920	1,650	162,300
1,550	75,940	1,696	215,300
1,600	114,800		

Capacity table no. 2 in effect April 5, 2002 to September 30, 2002 (elevation, in feet, and total contents, in acre-feet)

1,300	0.0	1,600	97,800
1,400	6,060	1,650	144,100
1,500	35,700	1,699	200,000

ELEVATION, in FT (NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1589.31	1556.60	1545.06	1535.57	1532.29	1537.08	1530.48	1473.36	1399.21	1399.66	1399.45	1399.52
2	1588.08	1555.91	1545.28	1536.89	1532.26	1535.89	1528.72	1470.11	1399.64	1399.79	1399.86	1399.40
3	1586.84	1555.01	1543.49	1538.20	1532.20	1534.53	1527.13	1466.96	1399.34	1399.38	1400.00	1399.36
4	1585.61	1553.99	1540.23	1538.65	1532.20	1533.04	1524.48	1463.66	1399.60	1399.45	1399.80	1399.74
5	1584.35	1552.95	1536.94	1538.65	1532.37	1532.45	1521.39	1460.69	1399.71	1399.34	1399.62	1399.40
6	1583.07	1551.82	1538.95	1539.74	1532.54	1533.38	1518.52	1457.72	1399.35	1399.34	1399.40	1399.40
7	1581.76	1550.60	1540.67	1540.26	1533.60	1534.65	1515.13	1454.79	1399.24	1399.22	1399.39	1399.40
8	1580.48	1549.36	1540.88	1542.86	1535.49	1536.64	1512.21	1451.93	1399.35	1399.14	1399.31	1399.40
9	1579.19	1548.09	1541.31	1546.69	1537.01	1538.35	1509.94	1451.17	1399.24	1399.20	1399.39	1399.50
10	1578.04	1546.77	1541.16	1548.42	1538.36	1539.97	1507.30	1444.71	1399.58	1399.30	1399.48	1399.50
11	1577.24	1545.45	1540.62	1546.81	1539.54	1542.94	1504.48	1441.77	1399.70	1399.45	1399.56	1399.55
12	1576.02	1544.26	1539.96	1545.13	1540.38	1549.88	1503.04	1438.95	1399.68	1399.42	1399.39	1399.55
13	1574.77	1543.36	1544.10	1543.06	1540.89	1554.39	1504.33	1436.31	1399.89	1399.37	1399.23	1399.55
14	1573.49	1542.97	1554.91	1540.49	1541.33	1557.63	1523.21	1433.46	1399.52	1399.25	1399.23	1399.55
15	1572.50	1542.40	1559.82	1537.47	1540.94	1560.20	1521.94	1430.62	1399.00	1399.15	1399.23	1399.00
16	1571.45	1542.25	1566.08	1534.93	1539.68	1562.44	1518.95	1427.76	1399.17	1399.25	1399.23	1399.20
17	1570.14	1542.03	1569.42	1533.35	1538.55	1564.30	1516.01	1425.14	1399.50	1399.35	1399.48	1399.70
18	1568.78	1541.48	1567.29	1532.69	1537.42	1565.08	1512.94	1422.11	1399.40	1399.35	1399.50	1399.90
19	1567.40	1540.45	1563.61	1532.81	1536.91	1565.07	1509.96	1418.99	1399.31	1399.36	1399.62	1399.70
20	1566.03	1539.27	1558.62	1533.26	1536.49	1565.11	1506.84	1415.85	1399.44	1399.25	1399.62	1399.24
21	1564.66	1538.68	1552.89	1534.35	1536.54	1565.41	1503.89	1412.89	1399.19	1399.19	1399.75	1399.14
22	1564.21	1541.05	1546.29	1534.55	1537.80	1565.79	1500.88	1410.02	1399.02	1399.30	1399.80	1399.26
23	1564.35	1542.72	1541.09	1533.40	1536.08	1563.60	1497.75	1407.07	1399.31	1399.40	1399.83	1399.30
24	1563.53	1542.85	1539.04	1532.13	1538.09	1559.74	1494.63	1403.84	1399.46	1399.65	1399.65	1399.40
25	1562.46	1542.57	1538.08	1534.49	1538.99	1555.61	1491.67	1401.24	1399.38	1399.70	1399.73	1399.40
26	1561.29	1541.89	1537.57	1535.72	1539.10	1551.71	1488.76	1400.06	1399.06	1399.84	1399.55	1399.43
27	1560.13	1540.84	1537.30	1535.19	1538.74	1548.73	1485.58	1400.17	1399.39	1399.68	1399.45	1399.43
28	1558.88	1542.14	1537.17	1533.74	1538.05	1545.56	1482.66	1400.10	1399.94	1399.45	1399.50	1399.43
29	1557.69	1544.20	1536.73	1532.41	---	1542.25	1479.72	1400.10	1399.88	1399.16	1399.48	1399.43
30	1557.02	1544.49	1535.64	1532.07	---	1538.20	1476.60	1399.50	1399.34	1399.09	1399.58	1399.56
31	1556.94	---	1535.38	1532.17	---	1533.76	---	1399.39	---	1399.28	1399.40	---
MAX	1589.31	1556.60	1569.42	1548.42	1541.33	1565.79	1530.48	1473.36	1399.94	1399.84	1400.00	1399.90
MIN	1556.94	1538.68	1535.38	1532.07	1532.20	1532.45	1476.60	1399.39	1399.00	1399.09	1399.23	1399.00
(†)	80840	72140	66070	64010	67820	65030	25900	5980	5970	5960	5980	6000
(‡)	-25960	-8700	-6070	-2060	+3810	-2790	-39130	-19920	-10	-10	+20	+20
CAL YR 2001	MAX 1653.35	MIN 1533.17	AC-FT†	+28800								
WTR YR 2002	MAX 1589.31	MIN 1399.00	AC-FT†	-100800								

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

WILLAMETTE RIVER BASIN

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR

LOCATION.--Lat 44°08'10", long 122°14'50", in NE 1/4 sec.31, T.16 S., R.5 E., Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 0.2 mi upstream from Cougar Creek, 0.6 mi downstream from Cougar Dam, 2.1 mi south of Rainbow, and at mile 3.9.

DRAINAGE AREA.--208 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 1638: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,236.42 ft above NGVD of 1929 (Federal Highway Administration bench mark). Oct. 1 to Nov. 4, 1947, nonrecording gage at site 40 ft upstream at datum 0.80 ft higher.

REMARKS.--Records good except for the period July 1 to Sept. 30 and estimated daily discharges, which are fair. Flow regulated since 1963 by Cougar Lake (station 14159400), usable capacity, 164,800 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--55 years (water years 1948-2002), 851 ft³/s, 55.56 in/yr, 616,500 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft³/s Dec. 11, 1956, gage height, 8.66 ft, from rating curve extended above 8,100 ft³/s; maximum gage height, 8.90 ft Dec. 22, 1955 (backwater from debris); minimum discharge, 17 ft³/s Nov. 18, 1965; minimum daily, 85 ft³/s Apr. 26-28, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 24,500 ft³/s Dec. 28, 1945, gage height, 8.8 ft, from floodmarks, at Corps of Engineers gage at site 40 ft upstream at datum 0.80 ft higher; gage height at present site and datum, about 9.3 ft, computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,000 ft³/s Apr. 15, gage height, 4.77 ft; minimum discharge, 156 ft³/s Feb. 7.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	710	728	1200	1160	735	e1170	2020	1620	1310	329	227	231
2	710	728	1210	1160	753	e1170	1670	1660	1130	328	231	240
3	709	729	1560	1170	758	1170	1770	1670	1110	368	236	237
4	704	725	1920	1170	686	1160	2230	1640	1010	317	263	241
5	709	723	1920	1180	624	890	2580	1520	1020	321	262	245
6	718	724	1870	1180	630	738	2390	1470	1020	312	249	220
7	725	726	1810	1820	679	759	2440	1370	911	309	249	221
8	726	726	1500	2470	642	303	2130	1290	797	313	235	244
9	726	727	1070	1330	511	295	2180	912	746	288	224	246
10	725	724	1090	1300	419	301	3540	1720	647	278	227	249
11	724	722	1070	2010	424	314	3470	1170	668	277	232	209
12	724	720	1070	2000	499	320	3010	1190	683	276	245	211
13	721	719	1040	1980	578	298	2840	1260	699	285	241	211
14	721	714	455	1970	588	290	2290	1280	766	278	223	211
15	604	649	551	1960	823	295	4590	1300	750	285	227	211
16	614	642	569	1700	1140	295	3630	1300	637	271	223	208
17	718	696	2000	1340	1130	284	2920	1310	644	265	227	214
18	722	697	3180	1020	1130	599	2520	1400	880	271	227	247
19	725	799	3250	794	1150	904	2220	1400	723	259	237	251
20	723	870	3450	803	1170	889	2080	1340	595	279	242	253
21	724	883	3380	931	1160	895	1900	1310	585	270	222	222
22	726	901	3400	898	1170	967	1830	1280	547	260	234	208
23	728	967	2700	1160	2500	1980	1810	1210	466	257	236	207
24	723	1040	1560	1160	1190	2580	1760	1210	451	248	250	217
25	723	1040	1140	987	1170	2570	1680	1210	464	264	250	207
26	726	1030	949	1310	1170	2380	1690	1220	437	263	256	211
27	723	1040	857	1360	e1170	2020	1730	1220	357	273	245	212
28	724	1030	863	1430	e1170	2020	1600	1370	338	283	241	208
29	725	1130	932	1260	---	2020	1570	1560	424	290	248	218
30	729	1200	1140	889	---	2220	1590	1580	438	254	226	267
31	727	---	1150	747	---	2340	---	1410	---	239	227	---
TOTAL	22136	24749	49856	41649	25769	34436	69680	42402	21253	8810	7362	6777
MEAN	714.1	825.0	1608	1344	920.3	1111	2323	1368	708.4	284.2	237.5	225.9
MAX	729	1200	3450	2470	2500	2580	4590	1720	1310	368	263	267
MIN	604	642	455	747	419	284	1570	912	338	239	222	207
AC-FT	43910	49090	98890	82610	51110	68300	138200	84100	42160	17470	14600	13440
MEAN†	292	679	1509	1310	989	1065	1665	1044	709	284	238	226
CFSM†	1.40	3.26	7.25	6.30	4.75	5.12	8.00	5.02	3.41	1.36	1.14	1.09
IN.†	1.62	3.64	8.37	7.26	4.95	5.90	8.93	5.78	3.80	1.57	1.32	1.21
AC-FT†	17940	40390	92820	80550	54920	65510	99070	64180	42150	17460	14620	13460

CAL YR 2001 TOTAL 224748 MEAN 615.7 MAX 3450 MIN 231 AC-FT 445800 MEAN† 655 CFSM† 3.15 IN.† 42.78 AC-FT† 474600
WTR YR 2002 TOTAL 354879 MEAN 972.3 MAX 4590 MIN 207 AC-FT 703900 MEAN† 833 CFSM† 4.00 IN.† 54.37 AC-FT† 603100

e Estimated

† Adjusted for change in contents, in Cougar Lake.

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1955 to November 1999, December 2000 to current year.

DISSOLVED OXYGEN: December 2000 to current year.

TURBIDITY: December 2000 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Water temperature records excellent, except for the period Feb. 6 to Apr. 3, Apr. 14 to May 12, which are poor. Dissolved oxygen records poor. Turbidity records fair except those for the period Aug. 1 to Sept. 12, which are poor. The probe was checked using a polymer bead standard, after Feb. 27 formazie was used. Water-quality data collected at this site may not always provide a representative value of the total stream due to inadequate mixing of the flow between the dam (0.6 mi upstream) and the gage.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 20.0°C July 28, 1958; minimum, 0.5°C Jan. 20-23, 1962.

DISSOLVED OXYGEN: Maximum, 14.5 mg/L Feb. 23, 2002, due to Cougar Lake tunnel tap; minimum, 7.4 mg/L Sept. 15, 2001.

TURBIDITY: Maximum, 1,410 NTU Feb. 23, 2002, due to Cougar Lake tunnel tap; minimum, <1 many days each year.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 17.6°C July 31, Aug. 1; minimum, 4.0°C Feb. 4, 6, 7, 12-15.

DISSOLVED OXYGEN: Maximum, 14.5 mg/L Feb. 23, due to Cougar Lake tunnel tap; minimum, 7.8 mg/L Oct. 1.

TURBIDITY: Maximum, 1,410 NTU Feb. 23, due to Cougar Lake tunnel tap; minimum, <1 on many days.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.5	13.7	14.0	---	11.4	---	6.9	6.5	6.7	5.2	5.1	5.2
2	14.5	13.5	14.0	---	---	---	6.8	6.6	6.7	5.3	5.1	5.2
3	14.7	13.4	14.0	12.1	11.6	11.8	6.7	6.4	6.6	5.4	5.1	5.2
4	14.5	13.5	14.0	11.8	---	---	6.5	6.1	6.3	5.3	5.1	5.2
5	14.4	13.7	14.1	---	---	---	6.3	6.0	6.2	5.4	5.1	5.3
6	14.5	13.8	14.1	11.7	10.8	11.2	6.3	6.0	6.2	5.5	5.3	5.4
7	14.2	13.8	14.0	11.5	11.1	11.2	6.2	6.0	6.1	5.5	5.3	5.4
8	14.2	13.7	14.0	11.4	10.6	11.1	6.1	5.9	6.0	5.8	5.4	5.6
9	14.3	13.8	14.0	11.2	10.5	10.8	6.0	5.7	5.9	5.8	5.6	5.7
10	14.0	13.5	13.8	11.0	10.5	10.8	5.8	5.7	5.7	5.8	5.6	5.7
11	14.2	13.6	13.9	10.9	10.3	10.6	5.8	5.6	5.7	5.8	5.5	5.7
12	13.9	13.6	13.7	10.8	10.0	10.4	5.7	5.5	5.6	5.7	5.5	5.6
13	14.0	13.5	13.8	---	---	---	6.3	5.5	5.7	5.7	5.4	5.5
14	14.0	13.6	13.8	10.9	---	---	6.4	5.6	6.0	5.6	5.3	5.5
15	14.2	13.4	13.7	10.8	10.0	10.5	5.7	5.5	5.6	5.5	5.3	5.4
16	13.9	13.1	13.5	10.0	9.3	9.7	5.7	5.5	5.6	5.4	5.2	5.3
17	14.1	13.3	13.7	10.2	9.8	10.0	5.8	5.4	5.6	5.3	5.0	5.2
18	14.3	13.3	13.7	10.1	9.8	9.9	5.6	5.4	5.5	5.2	4.9	5.1
19	14.0	13.4	13.6	9.8	9.6	9.7	5.6	5.4	5.5	5.0	4.8	4.9
20	13.9	13.3	13.5	9.7	9.2	9.5	5.6	5.4	5.5	4.9	4.6	4.8
21	13.8	13.0	13.4	9.5	9.0	9.3	5.6	5.4	5.5	4.9	4.6	4.8
22	13.7	12.9	13.3	9.3	8.8	9.0	5.5	5.3	5.4	5.0	4.5	4.7
23	---	12.3	---	8.9	8.5	8.7	5.5	5.2	5.3	4.7	4.5	4.6
24	12.8	12.2	12.5	8.5	7.8	8.2	5.4	5.1	5.2	4.8	4.5	4.6
25	12.7	12.1	12.5	8.0	7.8	7.9	5.3	5.1	5.2	4.8	4.5	4.7
26	---	---	---	7.9	7.5	7.7	5.3	5.0	5.1	4.8	4.3	4.5
27	---	11.7	---	7.6	7.4	7.5	5.2	5.0	5.1	4.5	4.2	4.4
28	---	---	---	7.5	7.1	7.3	5.3	5.0	5.2	4.5	4.1	4.3
29	---	---	---	7.4	7.1	7.2	5.2	5.0	5.1	4.3	4.1	4.2
30	---	---	---	7.2	6.8	7.0	5.2	5.0	5.1	4.4	4.1	4.2
31	---	---	---	---	---	---	5.3	5.1	5.2	4.4	4.1	4.2
MONTH	---	---	---	---	---	---	6.9	5.0	5.7	5.8	4.1	5.0

WILLAMETTE RIVER BASIN

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	4.4	4.1	4.2	---	---	---	7.0	6.0	6.4	7.4	7.1	7.3
2	4.3	4.1	4.2	---	---	---	7.4	6.3	7.0	7.6	7.3	7.4
3	4.4	4.1	4.2	5.3	4.9	5.1	7.6	4.8	6.7	7.7	7.4	7.5
4	4.3	4.0	4.2	5.3	4.9	5.1	7.4	4.5	6.4	7.9	7.5	7.7
5	4.4	4.1	4.2	5.3	5.0	5.1	5.6	4.8	5.1	7.8	7.6	7.7
6	4.2	4.0	4.1	5.1	4.9	5.0	6.5	5.1	5.8	7.9	7.5	7.7
7	4.5	4.0	4.2	4.9	4.6	4.8	6.6	5.7	6.1	7.8	7.3	7.6
8	4.5	4.2	4.4	5.1	4.6	4.8	6.7	5.8	6.4	7.8	7.2	7.5
9	4.5	4.1	4.2	5.1	4.6	4.9	6.8	4.6	5.5	7.7	7.3	7.5
10	4.5	4.1	4.3	5.2	4.8	5.0	5.1	4.7	4.9	8.0	7.6	7.7
11	4.4	4.1	4.3	5.4	4.9	5.2	5.3	5.0	5.1	8.0	7.6	7.8
12	4.4	4.0	4.2	5.6	5.1	5.4	5.6	5.1	5.3	8.1	7.7	7.9
13	4.5	4.0	4.2	5.2	4.9	5.0	5.8	5.5	5.7	8.0	7.8	7.9
14	4.5	4.0	4.2	5.6	4.8	5.1	6.5	5.7	6.0	8.4	7.9	8.1
15	4.6	4.0	4.2	5.4	4.9	5.1	6.3	6.2	6.2	8.5	8.1	8.2
16	4.5	4.1	4.3	5.0	4.5	4.8	6.3	6.2	6.2	8.6	7.9	8.2
17	4.5	4.1	4.3	5.0	4.5	4.8	6.4	5.9	6.1	8.6	8.1	8.4
18	4.5	4.1	4.3	5.0	4.6	4.8	6.0	5.7	5.8	8.8	8.5	8.6
19	4.5	4.2	4.4	4.9	4.6	4.8	5.8	5.5	5.7	8.9	8.6	8.7
20	4.7	4.3	4.5	5.1	4.7	4.9	5.9	5.5	5.6	8.8	8.4	8.6
21	4.9	4.4	4.7	5.3	4.9	5.1	5.9	5.6	5.7	8.7	8.2	8.5
22	5.3	4.6	5.0	5.3	4.9	5.1	5.9	5.6	5.7	8.4	7.7	8.1
23	5.4	4.4	5.1	5.4	4.9	5.2	6.0	5.6	5.8	8.2	7.5	7.9
24	5.2	4.8	5.0	5.5	5.0	5.3	6.0	5.7	5.8	8.3	7.9	8.1
25	5.3	4.9	5.1	5.8	5.0	5.4	6.2	5.7	5.9	8.8	8.2	8.4
26	5.5	5.0	5.3	6.2	4.9	5.5	6.3	5.9	6.1	9.2	8.5	8.8
27	---	---	---	5.4	4.8	5.1	6.6	6.1	6.4	9.4	9.0	9.2
28	---	---	---	5.5	4.9	5.1	6.9	6.4	6.7	9.4	8.8	9.1
29	---	---	---	6.7	5.0	5.9	7.2	6.8	7.0	9.2	8.7	9.0
30	---	---	---	6.7	5.4	6.1	7.3	6.9	7.1	9.8	9.0	9.2
31	---	---	---	6.7	5.4	6.2	---	---	---	9.7	9.2	9.4
MONTH	---	---	---	---	---	---	7.6	4.5	6.0	9.8	7.1	8.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10.0	9.4	9.6	15.0	13.8	14.2	17.6	15.8	16.3	15.7	14.1	14.5
2	10.1	9.5	9.8	15.0	13.7	14.1	17.4	15.6	16.1	15.8	14.2	14.6
3	10.0	9.4	9.7	14.7	13.8	14.1	16.9	15.4	15.8	14.9	14.2	14.5
4	10.2	9.6	9.9	15.0	13.7	14.2	16.0	15.4	15.6	15.2	13.6	14.2
5	10.6	9.9	10.2	14.8	13.6	14.1	15.8	14.8	15.3	14.9	13.4	13.9
6	10.9	10.1	10.5	15.0	13.6	14.1	15.9	14.7	15.0	14.7	13.1	13.6
7	10.7	9.9	10.4	15.0	13.7	14.2	15.8	14.4	14.9	14.3	13.0	13.4
8	10.3	9.6	10.0	15.4	14.1	14.4	15.9	14.3	14.7	14.0	12.6	13.1
9	10.0	9.4	9.8	15.5	14.0	14.5	16.0	14.2	14.8	14.2	12.6	13.0
10	10.1	9.4	9.8	15.6	14.1	14.6	16.1	14.3	14.9	14.1	12.5	13.0
11	10.3	9.5	9.9	15.7	14.2	14.7	16.2	14.4	15.0	14.2	12.7	13.1
12	10.6	9.8	10.1	15.6	14.3	14.7	16.2	14.6	15.0	14.3	12.8	13.2
13	10.8	10.0	10.4	15.7	14.5	14.9	16.4	14.6	15.1	14.4	12.9	13.3
14	11.2	10.3	10.7	16.0	14.5	15.0	16.5	14.6	15.1	14.3	13.0	13.4
15	11.8	10.8	11.4	16.1	14.7	15.2	16.6	14.7	15.2	14.2	13.0	13.4
16	12.6	11.6	12.1	16.3	14.9	15.4	16.5	14.7	15.2	---	---	---
17	12.7	12.1	12.5	16.6	15.2	15.6	16.4	14.7	15.1	13.7	13.1	13.4
18	12.6	11.9	12.2	16.8	15.0	15.7	16.3	14.6	15.0	13.9	12.9	13.3
19	12.0	11.3	11.7	16.9	15.4	15.9	16.2	14.6	15.0	14.0	12.6	13.0
20	12.2	11.4	11.7	17.0	15.5	16.0	15.5	14.6	14.9	13.8	12.6	12.9
21	12.6	11.6	12.0	17.0	15.6	16.0	15.9	14.4	14.9	13.9	12.4	12.8
22	12.8	11.9	12.3	17.0	15.7	16.1	15.8	14.1	14.7	13.7	12.2	12.6
23	13.4	12.2	12.6	17.3	15.8	16.3	15.6	14.1	14.6	13.6	12.2	12.6
24	13.6	12.4	12.8	17.4	15.8	16.3	15.7	14.2	14.6	13.6	12.2	12.6
25	13.8	12.7	13.0	17.3	15.8	16.3	15.6	14.2	14.6	13.5	12.1	12.5
26	13.9	12.9	13.2	17.4	15.9	16.3	15.8	14.5	14.8	13.0	11.9	12.3
27	14.0	13.0	13.4	17.4	15.9	16.3	15.8	14.3	14.8	13.3	11.8	12.3
28	14.2	12.2	13.4	17.2	15.8	16.3	15.9	14.3	14.7	13.2	11.7	12.1
29	14.6	13.4	13.9	17.4	15.9	16.3	15.9	14.2	14.7	12.6	11.6	11.9
30	14.6	13.3	14.0	17.5	15.9	16.4	15.9	14.3	14.8	12.2	11.4	11.8
31	---	---	---	17.6	15.9	16.4	15.9	14.1	14.7	---	---	---
MONTH	14.6	9.4	11.4	17.6	13.6	15.3	17.6	14.1	15.0	---	---	---

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.9	7.8	8.3	9.7	9.3	9.4	10.1	9.5	9.8	10.9	10.8	10.9
2	8.9	7.9	8.4	9.8	9.3	9.4	10.2	10.0	10.1	11.0	10.8	10.9
3	9.0	7.9	8.5	9.8	9.3	9.5	10.3	10.1	10.3	11.1	11.0	11.1
4	9.1	8.0	8.5	9.7	9.3	9.4	10.4	10.3	10.4	11.3	11.1	11.2
5	9.0	8.1	8.6	9.7	9.3	9.4	10.4	10.1	10.3	11.2	11.1	11.1
6	8.8	8.1	8.5	9.8	9.4	9.5	10.5	10.0	10.3	11.2	11.1	11.2
7	9.0	8.4	8.7	9.9	9.5	9.6	10.5	10.4	10.5	11.4	11.2	11.3
8	9.0	8.5	8.7	10.0	9.6	9.7	10.6	10.4	10.5	11.6	11.3	11.5
9	9.1	8.8	8.9	10.0	9.5	9.7	10.4	10.3	10.4	11.6	11.3	11.5
10	9.0	8.8	8.9	10.0	9.6	9.7	10.4	10.3	10.3	11.6	11.4	11.5
11	9.4	8.8	9.0	9.8	9.5	9.6	10.4	10.3	10.4	11.6	11.5	11.6
12	9.6	9.0	9.2	9.7	9.4	9.5	10.9	10.3	10.4	11.6	11.5	11.6
13	9.7	9.1	9.2	9.7	9.5	9.5	10.4	10.3	10.4	11.6	11.5	11.6
14	9.7	9.1	9.2	9.9	9.5	9.6	10.8	10.3	10.6	11.6	11.5	11.6
15	10.4	9.0	9.7	10.5	9.4	9.8	10.7	10.5	10.6	11.7	11.5	11.6
16	10.6	9.1	9.8	10.7	9.4	9.8	10.8	10.5	10.6	11.6	11.5	11.6
17	9.6	9.0	9.2	9.9	9.5	9.7	11.5	10.5	11.0	11.6	11.3	11.4
18	9.6	9.1	9.2	10.1	9.7	9.8	11.6	11.3	11.4	11.4	11.2	11.3
19	9.6	9.1	9.2	9.8	9.6	9.7	11.7	11.3	11.6	11.6	11.2	11.4
20	9.6	9.1	9.2	9.8	9.5	9.7	11.9	11.7	11.8	11.6	11.4	11.5
21	9.5	9.0	9.2	9.8	9.5	9.7	12.0	11.9	11.9	11.6	11.5	11.5
22	9.2	9.0	9.1	9.8	9.4	9.7	12.0	11.8	12.0	12.3	11.5	11.9
23	9.6	9.1	9.2	10.0	9.6	9.8	12.0	11.3	11.7	11.6	11.4	11.5
24	9.7	9.2	9.4	9.7	9.6	9.6	11.3	11.1	11.2	11.5	11.3	11.4
25	9.7	9.2	9.3	9.9	9.6	9.8	11.2	11.1	11.2	11.4	11.2	11.3
26	---	---	---	9.9	9.8	9.8	11.2	11.0	11.1	11.5	11.2	11.3
27	9.6	9.2	9.3	10.1	9.9	10	11.0	10.9	10.9	11.4	11.2	11.3
28	9.7	9.2	9.4	9.9	9.8	9.9	11.1	10.9	11.0	11.4	11.2	11.3
29	9.6	9.2	9.3	10.1	9.8	9.9	11.1	10.8	10.9	11.6	11.4	11.5
30	9.4	9.2	9.2	10.1	9.7	9.9	11.0	10.8	10.9	13.1	11.5	11.8
31	9.5	9.2	9.3	---	---	---	11.0	10.8	10.9	11.7	11.5	11.6
MONTH	---	---	---	10.7	9.3	9.7	12.0	9.5	10.8	13.1	10.8	11.4
	FEBRUARY			MARCH			APRIL			MAY		
1	11.9	11.6	11.7	---	---	---	13.3	11.4	12.1	11.4	11.3	11.4
2	11.9	11.6	11.7	---	---	---	13.2	12.9	13.0	11.3	11.2	11.3
3	12.0	11.7	11.8	12.3	12.2	12.2	13.1	12.2	12.9	11.4	11.3	11.3
4	12.0	11.6	11.8	12.3	12.2	12.2	13.0	12.6	12.8	11.3	11.2	11.3
5	12.6	11.6	11.8	12.3	12.1	12.2	13.1	12.6	12.8	11.2	11.2	11.2
6	11.9	11.6	11.7	12.2	12.1	12.1	13.5	12.7	13.1	11.3	11.2	11.3
7	12.3	11.5	11.8	12.9	11.9	12.1	13.8	13.3	13.6	11.4	11.3	11.3
8	12.4	11.6	12.0	12.4	12.0	12.2	13.6	13.3	13.4	11.4	11.3	11.3
9	12.2	11.6	11.8	12.4	12.0	12.1	13.3	12.5	12.9	11.3	10.9	11.2
10	12.2	11.7	11.8	12.3	12.0	12.1	12.8	12.6	12.7	11.3	11.2	11.2
11	12.2	11.7	11.9	12.3	11.8	12.0	12.7	12.4	12.5	11.2	11.1	11.2
12	12.3	11.7	11.9	12.4	11.8	11.9	12.5	12.2	12.4	11.2	11.1	11.1
13	12.1	11.7	11.8	12.3	11.8	11.9	12.2	12.0	12.2	11.2	11.1	11.2
14	12.1	11.8	11.9	12.3	11.8	12.0	12.0	11.4	11.8	11.2	11.1	11.2
15	12.9	11.8	12.0	12.3	11.8	12.0	12.2	12.0	12.1	11.1	11.1	11.1
16	12.0	11.8	11.8	12.2	11.8	11.9	12.0	11.9	11.9	11.2	11.1	11.1
17	12.0	11.8	11.8	12.3	11.8	12.0	12.8	11.9	12.1	11.1	10.9	11.0
18	12.0	11.8	11.8	12.2	11.8	11.9	12.2	12.1	12.2	10.9	10.8	10.9
19	12.0	11.8	11.9	12.1	11.9	11.9	12.2	12.1	12.2	11.0	10.8	10.8
20	13.1	11.9	12.4	12.1	11.9	12.0	12.1	12.0	12.1	11.1	10.9	11.0
21	13.1	12.0	12.6	12.1	11.9	12.0	12.0	12.0	12.0	11.2	11.0	11.1
22	12.2	11.9	12.1	11.9	11.7	11.9	12.1	12.0	12.0	11.4	11.2	11.3
23	14.5	12.1	12.6	12.1	11.7	11.9	12.1	12.0	12.0	11.4	11.2	11.3
24	12.3	12.1	12.2	12.1	12.0	12.0	12.1	11.9	12.0	11.2	11.1	11.2
25	12.4	12.2	12.3	12.1	11.9	12.0	12.0	11.8	11.9	11.1	10.9	11.1
26	12.4	12.2	12.2	13.8	11.8	12.3	11.8	11.6	11.7	11.1	10.8	11.0
27	---	---	---	11.8	11.6	11.7	11.7	11.6	11.6	10.9	10.9	10.9
28	---	---	---	11.8	11.7	11.7	11.6	11.5	11.6	11.1	10.9	11.0
29	---	---	---	11.8	11.7	11.7	11.5	11.4	11.4	11.2	11.0	11.1
30	---	---	---	11.8	11.6	11.7	11.4	11.3	11.4	11.1	10.9	11.1
31	---	---	---	11.8	11.6	11.7	---	---	---	11.1	10.9	11.0
MONTH	---	---	---	---	---	---	13.8	11.3	12.3	11.4	10.8	11.1

WILLAMETTE RIVER BASIN

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	11.1	10.9	11.0	10.2	9.6	9.8	9.8	8.4	8.9	10.1	8.5	9.0
2	11.0	10.8	11.0	10.1	9.6	9.7	9.9	8.5	8.9	10.3	8.6	9.1
3	11.1	10.8	11.0	10.1	9.6	9.7	10.0	8.5	9.0	9.8	8.6	9.0
4	---	---	---	10.0	9.5	9.7	9.7	8.6	9.1	10.4	8.8	9.3
5	10.9	10.8	10.9	10.0	9.6	9.7	9.9	8.7	9.2	10.6	9.0	9.5
6	10.9	10.6	10.8	10.0	9.6	9.7	10.2	8.8	9.3	10.6	9.1	9.5
7	10.9	10.7	10.8	9.9	9.6	9.7	10.2	8.8	9.3	10.4	9.0	9.5
8	11.0	10.7	10.8	10.1	9.6	9.8	10.2	8.8	9.2	10.8	9.2	9.7
9	11.0	10.8	10.9	10.1	9.6	9.7	10.6	8.7	9.2	10.7	9.3	9.7
10	11.0	10.7	10.9	10.0	9.5	9.7	10.5	8.7	9.2	10.7	9.3	9.7
11	10.9	10.7	10.8	10.0	9.5	9.7	10.5	8.6	9.2	10.6	9.3	9.7
12	10.8	10.6	10.7	9.9	9.5	9.6	10.6	8.7	9.3	11.1	9.3	9.8
13	10.8	10.5	10.6	9.8	9.5	9.6	10.6	8.7	9.2	11.0	9.6	10
14	10.7	10.5	10.6	9.7	9.4	9.5	10.6	8.6	9.2	10.9	9.6	9.9
15	10.5	10.2	10.4	9.7	9.3	9.5	10.4	8.5	9.0	10.8	9.5	9.9
16	10.3	10.0	10.2	9.7	9.3	9.4	10.5	8.5	9.1	10.3	9.5	9.8
17	10.1	10.0	10.0	9.7	9.2	9.4	10.6	8.5	9.2	10.3	9.5	9.8
18	10.4	10.0	10.2	9.6	9.2	9.3	10.5	8.5	9.2	10.5	9.7	9.9
19	10.6	10.2	10.3	9.6	9.2	9.3	10.6	8.5	9.2	10.4	9.8	10
20	10.5	10.1	10.3	9.6	9.2	9.3	10.4	8.6	9.2	10.3	9.8	9.9
21	10.4	10.1	10.2	9.5	9.0	9.2	10.4	8.6	9.2	10.3	9.8	9.9
22	10.4	10.0	10.2	9.6	9.0	9.2	10.3	8.7	9.2	10.3	9.7	9.9
23	10.4	9.9	10.1	9.6	9.0	9.2	10.3	8.7	9.2	10.3	9.8	10
24	10.4	9.9	10.0	9.6	8.9	9.2	10.1	8.6	9.1	10.2	9.8	9.9
25	10.3	9.8	10	9.6	8.9	9.1	10.2	8.5	9.1	10.1	9.8	9.9
26	10.1	9.8	9.9	9.6	8.9	9.1	10.1	8.4	9.0	10.2	9.8	9.9
27	10.1	9.6	9.8	9.6	8.8	9.1	10.1	8.4	8.9	10.1	9.7	9.8
28	10.0	9.5	9.7	9.6	8.8	9.1	10.0	8.3	8.8	10.1	9.7	9.8
29	10.0	9.5	9.7	9.7	8.7	9.0	10.0	8.2	8.9	10.2	9.8	9.9
30	10.1	9.6	9.8	9.8	8.7	9.0	10.1	8.3	8.9	10.2	9.8	10
31	---	---	---	9.9	8.5	9.0	10.2	8.3	9.0	---	---	---
MONTH	---	---	---	10.2	8.5	9.4	10.6	8.2	9.1	11.1	8.5	9.7

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	1	<1	<1	2	<1	<1	7	<1	1	2	2	2
2	<1	<1	<1	1	<1	<1	2	<1	1	2	1	2
3	<1	<1	<1	---	<1	---	2	<1	1	2	1	1
4	1	<1	<1	1	<1	<1	2	<1	1	2	<1	1
5	2	<1	<1	6	<1	<1	2	<1	1	2	<1	1
6	2	<1	<1	8	<1	<1	3	1	2	1	<1	<1
7	1	<1	<1	17	<1	<1	2	1	1	5	<1	1
8	<1	<1	<1	9	<1	<1	2	1	2	2	<1	1
9	1	<1	<1	16	<1	<1	2	1	2	5	<1	<1
10	2	<1	<1	1	<1	<1	3	1	2	57	1	2
11	1	<1	1	1	<1	<1	2	1	2	14	1	2
12	1	<1	<1	1	<1	<1	3	1	2	2	1	1
13	1	<1	<1	9	<1	<1	19	2	2	2	1	1
14	<1	<1	<1	8	<1	<1	11	3	5	2	1	1
15	2	<1	<1	4	2	3	5	2	3	2	1	1
16	6	<1	1	5	2	3	4	2	3	1	<1	1
17	50	2	4	8	2	3	6	2	3	5	<1	1
18	7	<1	4	5	2	2	5	2	2	2	<1	<1
19	1	<1	<1	4	<1	1	6	3	3	2	<1	<1
20	2	<1	<1	2	<1	<1	4	2	3	4	<1	<1
21	1	<1	<1	3	<1	<1	4	3	3	4	<1	2
22	3	<1	<1	8	<1	2	4	3	3	3	<1	1
23	2	<1	<1	3	1	2	4	3	3	2	<1	<1
24	3	<1	<1	2	2	2	4	2	3	1	<1	<1
25	3	<1	<1	3	1	2	3	2	2	8	<1	2
26	---	<1	---	3	1	2	4	2	2	2	<1	1
27	---	1	---	4	1	1	4	2	2	1	<1	<1
28	6	2	3	4	1	2	3	2	2	2	<1	<1
29	5	2	3	2	1	2	6	2	2	1	<1	<1
30	6	2	3	2	<1	1	3	2	2	1	<1	<1
31	5	<1	<1	---	---	---	3	2	2	2	<1	<1
MAX	---	2	---	---	2	---	19	3	5	57	2	2
MIN	---	<1	---	---	<1	---	2	<1	1	1	<1	<1

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
FEBRUARY			MARCH			APRIL			MAY			
1	2	<1	<1	---	---	---	2	<1	<1	139	81	93
2	1	<1	<1	---	<1	<1	3	<1	1	94	77	83
3	<1	<1	<1	1	<1	<1	9	<1	2	88	72	79
4	2	<1	<1	<1	<1	<1	26	1	3	98	82	90
5	1	<1	<1	<1	<1	<1	16	4	6	98	80	88
6	1	<1	<1	3	<1	<1	18	8	12	103	86	91
7	3	<1	1	<1	<1	<1	19	9	11	113	94	100
8	2	1	1	<1	<1	<1	23	15	17	109	90	100
9	3	1	1	<1	<1	<1	189	18	28	115	87	100
10	3	<1	1	<1	<1	<1	64	22	30	131	92	105
11	2	<1	1	3	<1	<1	52	23	30	114	92	101
12	2	<1	1	8	<1	2	48	25	32	110	85	96
13	1	<1	1	3	<1	<1	44	34	39	96	79	87
14	4	<1	1	<1	<1	<1	136	39	77	95	80	86
15	8	<1	1	<1	<1	<1	131	99	109	103	79	87
16	1	<1	<1	1	<1	<1	101	81	93	106	79	89
17	3	<1	<1	2	<1	<1	83	48	71	109	87	93
18	3	<1	<1	2	<1	<1	64	47	52	106	86	95
19	3	<1	<1	12	<1	<1	48	35	43	125	92	113
20	4	<1	2	23	<1	<1	45	33	36	119	106	112
21	23	<1	2	18	<1	<1	42	35	37	139	114	126
22	5	<1	<1	15	<1	<1	41	33	36	147	120	137
23	1410	<1	2	12	<1	1	60	30	34	138	113	125
24	137	<1	2	38	<1	3	34	30	32	128	104	109
25	50	<1	2	18	<1	<1	34	29	32	131	93	104
26	311	<1	<1	2	<1	<1	46	32	35	155	99	109
27	---	<1	1	88	<1	<1	131	39	44	126	106	115
28	---	---	---	<1	<1	<1	379	72	86	110	91	101
29	---	---	---	2	<1	<1	93	65	78	120	88	98
30	---	---	---	<1	<1	<1	214	69	75	98	74	86
31	---	---	---	1	<1	<1	---	---	---	78	56	65
MAX	---	---	---	---	---	---	379	99	109	155	120	137
MIN	---	---	---	---	---	---	2	<1	<1	78	56	65

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	63	48	54	---	8	9	4	2	2	---	2	2
2	52	42	47	---	7	8	5	2	3	---	2	2
3	45	36	40	8	6	7	6	2	3	---	2	2
4	41	31	32	8	6	6	---	2	4	---	2	2
5	32	29	30	8	6	6	---	2	4	---	2	2
6	30	25	28	6	5	6	---	2	---	---	2	---
7	26	20	22	9	5	5	---	3	---	---	2	---
8	22	18	19	5	5	5	---	3	---	---	2	2
9	20	17	18	27	4	5	---	2	---	---	2	2
10	17	14	15	6	4	4	3	2	2	---	1	2
11	16	13	14	5	3	4	6	2	3	---	1	---
12	15	13	13	5	3	4	6	2	2	---	1	2
13	15	12	12	5	3	4	3	2	2	3	1	2
14	12	11	11	4	3	4	6	2	2	3	1	2
15	11	9	10	4	3	4	5	2	2	3	1	2
16	10	9	9	87	3	5	4	2	2	3	1	2
17	26	9	21	45	4	4	3	2	2	4	1	2
18	18	14	16	9	3	4	---	2	2	4	2	2
19	15	12	13	14	3	4	5	2	2	4	1	2
20	14	10	12	5	3	4	6	2	3	3	1	2
21	18	10	11	4	3	3	5	2	2	3	1	1
22	12	10	11	16	3	3	4	2	2	2	1	1
23	11	9	10	8	3	3	4	2	2	3	1	1
24	12	8	9	4	3	4	4	2	2	3	1	2
25	10	8	9	4	3	4	4	2	2	4	1	2
26	14	8	9	4	2	3	4	2	3	2	1	1
27	9	8	8	4	2	3	6	2	3	2	1	2
28	9	7	8	6	2	3	3	2	2	3	1	1
29	15	8	8	4	2	3	---	2	---	4	1	1
30	---	8	8	4	2	3	---	2	---	4	1	2
31	---	---	---	3	2	2	---	2	2	---	---	---
MAX	---	48	54	---	8	9	---	3	---	---	2	---
MIN	---	7	8	---	2	2	---	2	---	---	1	---

WILLAMETTE RIVER BASIN

14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR

LOCATION.--Lat 44°13'05", long 122°15'50", in SE 1/4 NE 1/4 sec.36, T.15 S., R.4 E., Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 0.2 mi downstream from Tidbits Creek, 5.5 mi northeast of town of Blue River, and at mile 8.5.

DRAINAGE AREA.--45.8 mi².

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,386.90 ft above NGVD of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good. No regulation or diversion upstream from station. Continuous water-quality records for the period September 1963 to September 1987 have been collected at this location. U.S. Geological Survey satellite telemetry at station.

AVERAGE DISCHARGE.--39 years (water years 1964-2002), 251 ft³/s, 74.55 in/yr, 182,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft³/s Dec. 22, 1964, gage height, 15.32 ft, from floodmarks, from rating curve extended above 2,800 ft³/s on basis of slope-area measurement of peak flow; minimum daily discharge, 6.0 ft³/s Oct. 27-29, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 22	1830	2,200	6.95	Jan. 8	0800	2,070	6.80
Dec. 13	2130	*4,160	*8.66	Mar. 12	0100	2,070	6.80
Dec. 17	0230	2,080	6.81	Apr. 14	0330	3,730	8.34

Minimum discharge, 7.0 ft³/s Oct. 5-8.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	289	811	521	179	291	479	246	213	52	18	14
2	7.5	169	771	743	169	257	517	258	188	49	18	14
3	7.3	108	506	684	168	233	569	274	170	46	17	13
4	7.3	79	389	521	167	225	617	247	158	44	18	13
5	7.2	69	325	429	168	234	652	234	155	43	18	13
6	7.2	57	1150	903	173	741	559	225	144	41	18	13
7	7.1	49	1160	1240	340	796	516	198	128	40	17	13
8	7.8	43	683	1730	431	492	467	178	114	39	17	13
9	8.9	39	499	989	330	374	605	170	104	38	17	12
10	13	35	396	628	269	345	1350	157	94	37	17	12
11	73	33	328	483	259	924	1090	157	94	36	17	12
12	28	39	299	505	235	1510	945	184	97	35	16	11
13	21	229	1660	477	218	833	1120	231	98	34	16	11
14	18	422	2040	383	213	576	2490	216	97	32	15	11
15	16	204	917	315	220	448	1100	212	90	29	15	11
16	14	239	1480	269	251	373	721	205	83	28	15	11
17	14	242	1620	236	292	309	570	214	91	27	15	25
18	13	179	914	211	283	265	471	225	141	25	15	21
19	13	150	654	205	461	256	406	214	101	24	15	15
20	12	167	587	228	501	267	350	199	85	23	17	14
21	12	372	474	429	585	319	318	191	79	23	19	13
22	183	1630	386	289	779	365	304	194	73	22	18	13
23	236	1030	319	231	1160	428	299	181	68	25	17	12
24	96	532	274	214	932	490	273	179	63	22	17	12
25	54	370	241	753	619	464	276	190	60	21	16	12
26	40	290	216	594	462	428	288	207	57	21	16	12
27	33	237	206	380	382	443	271	222	54	21	15	12
28	32	863	320	288	336	413	239	250	53	20	15	12
29	36	1190	302	233	---	396	239	360	72	19	14	12
30	203	682	304	202	---	407	266	295	58	19	14	19
31	411	---	432	186	---	444	---	243	---	19	14	---
TOTAL	1639.0	10037	20663	15499	10582	14346	18367	6756	3082	954	506	401
MEAN	52.87	334.6	666.5	500.0	377.9	462.8	612.2	217.9	102.7	30.77	16.32	13.37
MAX	411	1630	2040	1730	1160	1510	2490	360	213	52	19	25
MIN	7.1	33	206	186	167	225	239	157	53	19	14	11
AC-FT	3250	19910	40990	30740	20990	28460	36430	13400	6110	1890	1000	795
CFSM	1.15	7.30	14.6	10.9	8.25	10.1	13.4	4.76	2.24	0.67	0.36	0.29
IN.	1.33	8.15	16.78	12.59	8.59	11.65	14.92	5.49	2.50	0.77	0.41	0.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

	MEAN	68.76	336.7	510.9	490.7	437.1	379.5	349.9	254.8	123.0	39.04	20.86	24.60
MAX	234	731	1471	1033	1066	995	611	521	320	90.9	51.9	82.2	
(WY)	1998	1974	1965	1970	1996	1972	2002	1971	1974	1983	1968	1978	
MIN	6.42	21.0	33.0	48.3	65.0	84.6	147	70.7	27.3	17.7	9.51	8.62	
(WY)	1988	1994	1977	1977	1977	1992	1968	1992	1992	1992	1992	1987	

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1964 - 2002

ANNUAL TOTAL	64468.3	102832.0	
ANNUAL MEAN	176.6	281.7	251.3
HIGHEST ANNUAL MEAN			404
LOWEST ANNUAL MEAN			106
HIGHEST DAILY MEAN	2040	Dec 14	2490
LOWEST DAILY MEAN	7.0	Sep 24	7.1
ANNUAL SEVEN-DAY MINIMUM	7.3	Oct 1	7.3
ANNUAL RUNOFF (AC-FT)	127900	204000	182100
ANNUAL RUNOFF (CFSM)	3.86	6.15	5.49
ANNUAL RUNOFF (INCHES)	52.36	83.52	74.55
10 PERCENT EXCEEDS	394	683	578
50 PERCENT EXCEEDS	98	202	142
90 PERCENT EXCEEDS	9.8	13	15

WILLAMETTE RIVER BASIN

14162100 BLUE RIVER LAKE NEAR BLUE RIVER, OR

LOCATION.--Lat 44°10'20", long 122°19'40", in SE 1/4 SE 1/4 sec.16, T.16 S., R.4 E., Lane County, Hydrologic Unit 17090004, in intake tower near left end of Blue River Dam on Blue River, 1.4 mi north of town of Blue River, and at mile 1.7.

DRAINAGE AREA.--87.3 mi².

PERIOD OF RECORD.--October 1968 to current year. Prior to October 1971, published as Blue River Reservoir near Blue River.

REVISED RECORDS.--WDR OR-92-1: 1975-77.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1968 by Corps of Engineers; storage began October 1968. Total capacity is 89,520 acre-ft at elevation 1,357 ft, maximum pool, and usable capacity is 85,550 acre-ft between elevations 1,180 ft, minimum flood control pool, and 1,357 ft, maximum pool. Reservoir used for flood control. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 86,260 acre-ft Apr. 28, 1990, elevation, 1,353.63 ft; minimum contents observed since first filling in 1968, 305 acre-ft Dec. 7, 1973, elevation, 1,125.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 84,580 acre-ft June 17, 18, elevation, 1,351.86 ft; minimum contents recorded, 3,830 acre-ft Jan. 4, elevation, 1,178.91 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,120	156	1,160	1,870	1,250	19,260
1,130	437	1,180	3,970	1,290	36,960
1,140	764	1,200	7,030	1,340	73,710
1,150	1,210	1,220	11,040	1,354	86,620

ELEVATION, in FT (NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1211.23	1210.96	1186.93	1186.21	1186.32	1298.06	1320.14	1345.95	1349.92	1349.92	1348.98	1335.62
2	1210.07	1212.72	1185.03	1185.23	1191.92	1299.20	1319.95	1346.25	1349.89	1349.89	1348.92	1335.05
3	1208.90	1213.01	1185.26	1181.19	1196.80	1300.16	1319.92	1346.63	1349.83	1349.83	1348.83	1334.47
4	1207.69	1212.78	1183.33	1181.00	1201.12	1301.09	1319.94	1346.90	1349.83	1349.80	1348.76	1333.88
5	1206.47	1211.05	1183.14	1180.54	1205.07	1302.05	1320.71	1347.12	1350.05	1349.80	1348.70	1333.31
6	1205.24	1207.83	1206.23	1185.39	1208.89	1305.56	1321.42	1347.31	1350.34	1349.80	1348.63	1332.73
7	1204.01	1204.34	1208.78	1185.38	1217.26	1308.57	1321.90	1347.39	1350.59	1349.80	1348.56	1332.14
8	1202.79	1200.63	1193.59	1196.86	1226.26	1308.78	1322.23	1347.56	1350.82	1349.82	1348.41	1331.56
9	1201.58	1196.72	1182.09	1187.45	1231.91	1308.38	1323.57	1348.00	1350.99	1349.82	1348.12	1330.98
10	1200.60	1192.61	1180.78	1182.91	1235.88	1307.89	1328.66	1348.36	1351.15	1349.82	1347.84	1330.37
11	1200.92	1188.15	1181.95	1180.43	1239.22	1310.47	1332.32	1348.75	1351.29	1349.78	1347.56	1329.79
12	1200.15	1183.62	1182.65	1186.18	1241.85	1315.23	1333.10	1349.24	1351.45	1349.77	1347.27	1329.20
13	1199.15	1185.73	1214.46	1183.29	1244.17	1315.51	1332.93	1349.78	1351.62	1349.76	1346.98	1328.60
14	1198.06	1194.33	1245.99	1182.77	1246.26	1314.74	1342.07	1350.09	1351.70	1349.74	1346.70	1328.02
15	1196.93	1194.66	1253.07	1181.73	1248.36	1313.79	1341.89	1350.24	1351.77	1349.71	1346.26	1327.42
16	1195.74	1195.76	1264.49	1182.26	1250.63	1311.91	1340.02	1350.28	1351.80	1349.68	1345.52	1326.86
17	1194.52	1194.48	1268.52	1182.88	1253.18	1311.87	1337.51	1350.26	1351.86	1349.65	1344.79	1326.39
18	1193.27	1189.42	1262.54	1182.64	1255.54	1311.97	1335.70	1350.36	1351.58	1349.63	1344.06	1325.86
19	1191.99	1182.92	1254.08	1183.08	1259.52	1312.38	1335.79	1350.42	1351.11	1349.59	1343.32	1325.26
20	1190.68	1183.00	1243.72	1185.07	1263.71	1312.99	1337.02	1350.38	1350.58	1349.55	1342.60	1324.67
21	1189.34	1183.15	1228.46	1185.30	1268.18	1313.81	1338.12	1350.31	1350.08	1349.53	1341.86	1324.08
22	1192.69	1207.34	1206.78	1181.71	1273.78	1314.71	1339.12	1350.27	1350.05	1349.47	1341.21	1323.48
23	1197.68	1209.65	1186.43	1180.81	1281.46	1315.63	1340.11	1350.18	1350.05	1349.45	1340.64	1322.88
24	1198.70	1200.20	1181.78	1180.86	1287.23	1316.45	1340.99	1350.10	1350.00	1349.42	1340.10	1321.93
25	1198.71	1187.74	1181.20	1192.89	1290.79	1317.12	1341.88	1350.09	1349.93	1349.37	1339.54	1320.60
26	1198.27	1184.88	1180.88	1189.51	1293.24	1317.95	1342.86	1350.18	1349.86	1349.33	1338.98	1319.13
27	1197.66	1183.10	1180.34	1186.85	1295.14	1318.96	1343.71	1350.26	1349.83	1349.28	1338.43	1317.65
28	1197.01	1192.46	1181.18	1185.61	1296.74	1319.80	1344.43	1350.16	1349.82	1349.22	1337.88	1316.16
29	1196.46	1195.56	1180.93	1184.39	---	1320.58	1345.04	1350.30	1349.89	1349.17	1337.32	1314.76
30	1199.63	1182.35	1183.87	1183.55	---	1320.62	1345.58	1350.15	1349.90	1349.10	1336.76	1313.40
31	1206.58	---	1183.92	1182.55	---	1320.32	---	1349.89	---	1349.05	1336.18	---
MAX	1211.23	1213.01	1268.52	1196.86	1296.74	1320.62	1345.58	1350.42	1351.86	1349.92	1348.98	1335.62
MIN	1189.34	1182.35	1180.34	1180.43	1186.32	1298.06	1319.92	1345.95	1349.82	1349.05	1336.18	1313.40
(†)	8230	4290	4500	4320	4010	57490	78720	82720	82730	81930	70380	52320
(‡)	-1150	-3940	+210	-180	+36690	+16480	+21230	+4000	+10	-800	-11550	-18060

CAL YR 2001 MAX 1304.39 MIN 1180.34 AC-FT† -90
WTR YR 2002 MAX 1351.86 MIN 1180.34 AC-FT† +42940

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14162200 BLUE RIVER AT BLUE RIVER, OR

LOCATION.--Lat 44°09'45", long 122°19'55", in NW 1/4 SE 1/4 sec.21, T.16 S., R.4 E., Lane County, Hydrologic Unit 17090004, on right bank 0.3 mi upstream from Simmonds Creek, 0.7 mi north of town of Blue River, 0.8 mi downstream from Blue River Dam, and at mile 0.9.

DRAINAGE AREA.--87.7 mi².

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,056.53 ft above NGVD of 1929 (Corps of Engineers bench mark). Prior to Aug. 25, 1966, nonrecording gage at datum 0.80 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since October 1968 by Blue River Lake (station 14162100). No diversion upstream from station. Discharge not adjusted for storage or release from Blue River Lake as losses from reservoir at times exceed natural flow.

AVERAGE DISCHARGE.--36 years (water years 1967-2002), 457 ft³/s, 331,200 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,270 ft³/s Feb. 23, 1968, gage height, 8.93 ft; minimum discharge, 0.80 ft³/s Oct. 8, 10, 11, 1968; minimum daily, 3.7 ft³/s Oct. 8, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964 reached a stage of 16.5 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,050 ft³/s Dec. 17, 20, 21, gage height, 7.60 ft; minimum discharge, 8 ft³/s Oct. 30.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	110	1140	708	220	65	764	256	344	86	49	258
2	108	134	1440	1200	69	65	833	304	316	86	49	258
3	109	160	874	1250	72	65	887	304	290	86	49	258
4	107	161	803	848	74	65	927	304	239	74	49	258
5	106	262	681	707	76	65	752	304	160	56	49	258
6	105	352	1130	1110	77	70	638	304	95	55	49	258
7	103	343	2180	1830	92	328	636	304	83	55	49	257
8	102	335	2370	2180	85	724	634	226	79	55	86	257
9	101	326	1510	2200	58	721	427	97	82	55	148	257
10	100	314	790	1270	55	724	290	96	82	51	148	256
11	102	302	623	893	54	736	406	96	82	51	148	256
12	102	288	627	576	54	1070	1270	96	81	52	148	256
13	101	211	1280	893	54	1390	1960	133	92	52	147	256
14	100	205	408	650	54	1270	884	210	114	52	148	255
15	99	307	547	565	54	1090	1990	281	114	52	209	255
16	97	309	577	432	54	1240	1980	332	114	50	343	255
17	97	485	2000	372	54	558	1970	352	171	49	343	255
18	95	585	2990	373	55	455	1510	334	369	49	343	255
19	94	556	2950	382	56	381	648	331	369	49	342	254
20	93	260	2950	474	58	338	104	351	369	49	341	254
21	92	501	2980	1190	58	334	102	358	346	49	341	253
22	94	1020	2720	816	59	335	102	335	120	49	305	253
23	101	1620	1830	532	64	402	102	340	118	49	259	252
24	101	1570	697	449	64	518	102	328	118	49	259	376
25	101	1430	443	1050	64	518	103	311	118	49	259	523
26	101	716	385	1540	64	400	104	311	118	49	259	562
27	101	542	370	922	65	341	104	361	98	49	258	560
28	100	872	465	646	65	341	103	463	86	49	258	555
29	99	1770	489	528	---	341	145	524	86	49	258	556
30	77	1840	357	440	---	591	221	558	86	49	258	553
31	107	---	665	414	---	763	---	495	---	49	258	---
TOTAL	3104	17886	39271	27440	1928	16304	20698	9399	4939	1703	6209	9569
MEAN	100.1	596.2	1267	885.2	68.86	525.9	689.9	303.2	164.6	54.94	200.3	319.0
MAX	109	1840	2990	2200	220	1390	1990	558	369	86	343	562
MIN	77	110	357	372	54	65	102	96	79	49	49	252
AC-FT	6160	35480	77890	54430	3820	32340	41050	18640	9800	3380	12320	18980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2002, BY WATER YEAR (WY)

	308.8	661.1	963.7	866.1	452.6	385.3	357.0	344.0	231.3	274.8	368.2	263.1
MEAN	308.8	661.1	963.7	866.1	452.6	385.3	357.0	344.0	231.3	274.8	368.2	263.1
MAX	811	1459	2189	1720	1594	1766	869	699	549	626	765	566
(WY)	1998	1974	1978	1997	1996	1972	2000	1999	1984	1979	1971	1997
MIN	45.7	39.4	63.1	68.1	32.6	12.0	12.0	35.0	49.7	46.6	26.6	27.1
(WY)	1993	1988	1977	1977	1977	1977	1977	1973	2000	1967	1967	1967

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1967 - 2002

ANNUAL TOTAL	116173	158450	
ANNUAL MEAN	318.3	434.1	
HIGHEST ANNUAL MEAN			457.2
LOWEST ANNUAL MEAN			727
HIGHEST DAILY MEAN	2990	Dec 18	2990
LOWEST DAILY MEAN	46	Feb 2	49
ANNUAL SEVEN-DAY MINIMUM	47	Feb 2	49
ANNUAL RUNOFF (AC-FT)	230400	314300	331200
10 PERCENT EXCEEDS	629	1120	1000
50 PERCENT EXCEEDS	111	258	288
90 PERCENT EXCEEDS	50	55	50

14162200 BLUE RIVER AT BLUE RIVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 1966 to November 1999, Aug. 2001 to current year.

INSTRUMENTATION.--Temperature recorder and data logger.

REMARKS.--Records excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 26.0°C July 6, 1968; minimum, 0.0°C Jan. 5-9, 1974, Dec. 23, 24, 1983.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 18.6°C Oct. 1-4; minimum, 3.1°C Jan. 21, 23.

WATER TEMPERATURE, in (DEGREES C), AUGUST TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	21.6	20.8	21.0
2	---	---	---	---	---	---	---	---	---	21.6	20.7	21.0
3	---	---	---	---	---	---	---	---	---	21.7	20.7	21.0
4	---	---	---	---	---	---	---	---	---	21.7	20.8	21.1
5	---	---	---	---	---	---	---	---	---	21.2	20.7	20.9
6	---	---	---	---	---	---	---	---	---	21.7	20.3	20.9
7	---	---	---	---	---	---	---	---	---	21.3	20.1	20.5
8	---	---	---	---	---	---	---	---	---	21.3	20.0	20.3
9	---	---	---	---	---	---	15.8	15.2	15.5	21.1	19.9	20.2
10	---	---	---	---	---	---	16.1	15.6	15.8	20.7	19.7	20.0
11	---	---	---	---	---	---	16.5	15.9	16.2	21.0	19.7	20.1
12	---	---	---	---	---	---	16.8	16.2	16.6	20.9	19.8	20.1
13	---	---	---	---	---	---	17.3	16.7	17.0	20.9	19.8	20.1
14	---	---	---	---	---	---	17.7	17.0	17.4	20.9	19.7	20.1
15	---	---	---	---	---	---	18.2	17.5	17.9	20.4	19.9	20.0
16	---	---	---	---	---	---	18.5	17.9	18.3	20.9	19.7	20.0
17	---	---	---	---	---	---	19.0	18.3	18.7	20.9	19.6	20.0
18	---	---	---	---	---	---	19.3	18.6	19.0	20.8	19.5	19.9
19	---	---	---	---	---	---	19.6	19.1	19.3	20.7	19.6	19.8
20	---	---	---	---	---	---	19.9	19.4	19.6	20.7	19.5	19.8
21	---	---	---	---	---	---	20.2	19.7	20.0	20.4	19.5	19.7
22	---	---	---	---	---	---	20.5	20.1	20.3	20.4	19.4	19.6
23	---	---	---	---	---	---	20.9	20.4	20.6	20.3	19.3	19.5
24	---	---	---	---	---	---	21.1	20.7	20.8	20.2	19.2	19.5
25	---	---	---	---	---	---	21.1	20.7	20.9	19.4	19.3	19.3
26	---	---	---	---	---	---	21.3	20.9	21.0	19.3	18.8	19.2
27	---	---	---	---	---	---	21.6	20.8	21.1	19.0	18.1	18.6
28	---	---	---	---	---	---	21.6	20.7	21.0	18.9	18.0	18.3
29	---	---	---	---	---	---	21.6	20.7	21.0	18.8	18.1	18.3
30	---	---	---	---	---	---	21.6	20.7	21.0	18.6	18.0	18.2
31	---	---	---	---	---	---	21.7	20.7	21.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	21.7	18.0	19.9

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.6	18.0	18.2	10.3	9.9	10.1	6.3	6.0	6.1	5.5	5.2	5.4
2	18.6	18.0	18.2	10.1	9.8	9.9	6.4	6.3	6.3	6.0	5.3	5.6
3	18.6	18.0	18.2	10.1	9.7	9.8	6.6	6.4	6.5	6.1	5.8	5.9
4	18.6	18.0	18.2	9.9	9.5	9.6	6.4	5.3	6.0	6.0	5.2	5.6
5	18.5	17.8	18.0	9.8	9.6	9.7	5.3	4.5	4.9	5.5	5.2	5.3
6	18.1	17.7	17.8	9.8	9.7	9.7	6.0	4.4	5.2	6.1	5.4	5.8
7	17.9	17.4	17.7	9.9	9.4	9.7	6.4	6.0	6.3	6.4	6.1	6.3
8	17.5	17.0	17.3	9.4	9.1	9.3	6.4	6.0	6.2	6.6	6.4	6.4
9	17.4	16.6	17.0	9.1	8.9	9.0	6.1	5.9	6.0	6.6	5.9	6.2
10	16.8	16.5	16.6	9.1	8.9	8.9	5.9	4.9	5.5	5.9	5.4	5.7
11	16.5	14.2	15.6	9.2	8.9	9.1	4.9	4.6	4.7	6.0	5.6	5.8
12	14.3	14.0	14.1	9.5	9.2	9.4	5.0	4.7	4.9	6.0	5.7	5.9
13	14.7	14.1	14.3	9.7	9.4	9.5	6.0	5.0	5.5	6.0	5.5	5.8
14	15.0	14.3	14.6	9.4	9.1	9.2	6.5	6.0	6.1	5.5	5.0	5.2
15	15.2	14.6	14.8	9.4	9.1	9.3	6.0	6.0	6.0	5.0	4.5	4.9
16	15.2	14.7	14.8	9.3	9.2	9.3	6.0	5.9	6.0	4.5	3.9	4.2
17	15.3	14.6	14.9	9.4	9.1	9.3	5.9	5.8	5.8	4.0	3.5	3.7
18	15.2	14.4	14.7	9.1	8.3	8.8	5.9	5.7	5.9	3.7	3.4	3.5
19	14.9	14.1	14.4	8.3	7.8	8.1	6.0	5.9	5.9	3.9	3.6	3.8
20	14.8	14.1	14.3	8.1	7.9	8.0	6.0	5.7	5.8	4.0	3.7	3.8
21	14.4	14.2	14.3	8.2	8.0	8.1	5.7	5.5	5.6	4.3	3.1	3.7
22	14.2	13.1	14.0	8.0	7.8	7.9	5.5	5.2	5.4	3.5	3.2	3.3
23	13.1	11.0	11.8	7.9	7.8	7.8	5.2	4.8	5.0	3.4	3.1	3.2
24	11.0	10.1	10.6	7.8	7.4	7.7	4.8	4.1	4.5	3.8	3.3	3.5
25	10.4	9.9	10.1	7.4	6.5	7.0	4.1	3.7	3.9	4.5	3.7	4.1
26	10.5	9.9	10.1	6.5	6.0	6.2	4.0	3.6	3.8	4.9	4.5	4.7
27	10.2	10.0	10.2	6.2	6.0	6.1	4.4	3.9	4.1	4.7	4.2	4.5
28	10.4	10.2	10.3	6.0	4.7	5.6	4.6	4.2	4.4	4.3	4.0	4.2
29	10.3	10.2	10.2	6.3	4.7	5.7	5.1	4.6	4.8	4.0	3.7	3.8
30	11.2	10.2	10.4	6.4	6.1	6.3	5.0	4.6	4.8	3.7	3.4	3.5
31	10.4	10.2	10.2	---	---	---	5.3	4.9	5.1	3.6	3.3	3.4
MONTH	18.6	9.9	14.4	10.3	4.7	8.5	6.6	3.6	5.4	6.6	3.1	4.7

14162500 MCKENZIE RIVER NEAR VIDA, OR

LOCATION.--Lat 44°07'30", long 122°28'10", in NE 1/4 NE 1/2 sec.5, T.17 S., R.3 E., Lane County, Hydrologic Unit 17090004, on right bank 0.4 mi downstream from Mason Creek, 5.4 mi east of Vida, and at mile 47.7.

DRAINAGE AREA.--930 mi² at cableway 0.4 mi downstream, where all discharge measurement are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1910 to March 1911 (published as "at Martins Rapids, near Vida"), September 1924 to current year. Monthly discharge only for some periods (water years 1910-11, 1924-25), published in WSP 1318.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 855.71 ft above NGVD of 1929 (levels by Eugene Water and Electric Board). July 1, 1910, to Mar. 31, 1911, nonrecording gage at site 3 mi downstream at different datum. Sept. 1, 1924, to Nov. 16, 1928, nonrecording gage at site 20 ft upstream at datum 0.15 ft lower. Nov. 17, 1928, to Sept. 23, 1968, water-stage recorder at present site on left bank at datum 0.15 ft lower.

REMARKS.--Records good. Flow regulated since 1963 by Smith River Reservoir (station 14158795) and Cougar Lake (station 14159400), and since 1968 by Blue River Lake (station 14162100). No diversion upstream from station. All records given herein are for measuring site. Continuous water-quality records for the period June 1961 to September 1985 have been collected at this location. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--38 years (water years 1925-1962), 4,001 ft³/s, 2,898,000 acre-ft/yr.
40 years (water years 1963-2002), 4,096 ft³/s, 2,967,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,400 ft³/s Dec. 28, 1945, gage height, 17.70 ft, site and datum then in use, from rating curve extended above 32,000 ft³/s; minimum discharge, 1,260 ft³/s Nov. 7, 1930, Sept. 17, Oct. 4, 8, 9, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1923 reached a stage of 17.2 ft, from floodmarks, discharge, 62,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,700 ft³/s Apr. 14, gage height, 6.41 ft; minimum discharge, 1,710 ft³/s Oct. 15, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1890	2700	5840	4730	3750	3820	5920	4940	4840	2570	1900	1900
2	1870	2460	6180	5660	3500	3710	5640	5040	4540	2470	1880	1890
3	1870	2390	5470	5790	3400	3630	5790	5130	4370	2470	1880	1900
4	1860	2360	5610	5100	3330	3580	6320	5040	4070	2390	1910	1920
5	1860	2450	5600	4720	3180	3330	6840	4890	4050	2330	1950	1920
6	1860	2540	8620	5630	3160	3700	6460	4810	4060	2270	1930	1850
7	1880	2490	9700	7650	4060	4720	6510	4580	3760	2270	1920	1850
8	1900	2370	8220	10500	4660	4130	6180	4340	3490	2270	1890	1880
9	1900	2240	6350	8880	3960	3880	6170	3810	3320	2270	1940	1870
10	1890	2190	5340	6820	3470	3830	9090	4450	3140	2230	1950	1870
11	2200	2200	4970	6710	3340	4690	9240	3880	3090	2170	1950	1870
12	1970	2150	4940	6140	3190	7850	9500	3890	3120	2210	1950	1860
13	1940	2250	7940	6320	3190	6930	10400	4140	3250	2200	1930	1860
14	1910	2710	10400	5910	3090	5990	14200	4220	3410	2170	1930	1850
15	1800	2500	7160	5550	3210	5290	13800	4250	3350	2170	1960	1840
16	1750	2720	7930	5030	3540	5140	11600	4310	3190	2110	2090	1850
17	1840	3040	10600	4500	3530	4190	10100	4360	3160	2090	2080	1960
18	1850	2910	11700	4050	3530	4020	8940	4610	3890	2110	2070	1950
19	1870	2900	11100	3880	3980	4320	7340	4580	3640	2050	2070	1910
20	1860	2740	10800	4220	4240	4360	6260	4410	3350	2090	2090	1900
21	1850	3190	10100	6510	4210	4490	5890	4460	3280	2050	2100	1860
22	2190	6040	9510	5140	4660	4510	5680	4490	2990	2050	2050	1860
23	2880	6690	8000	4730	6580	5430	5560	4270	2860	2040	1990	1800
24	2270	5500	5500	4380	5550	6460	5440	4230	2830	1990	2010	1900
25	2120	5230	4410	6910	4790	6380	5280	4220	2780	1990	1990	2060
26	2070	4380	4050	8040	4380	5990	5200	4380	2760	1990	1980	2110
27	2050	3790	3850	6150	4140	5500	5210	4570	2670	2000	1970	2110
28	2060	5330	4030	5330	3990	5410	4930	5090	2540	1990	1940	2110
29	2010	7050	4000	4810	---	5340	4820	5550	2670	1990	1940	2130
30	2270	6400	4020	4120	---	5700	4920	5660	2670	1970	1940	2300
31	2790	---	4540	3810	---	6090	---	5240	---	1940	1910	---
TOTAL	62330	103910	216480	177720	109610	152410	219230	141840	101140	66910	61090	57900
MEAN	2011	3464	6983	5733	3915	4916	7308	4575	3371	2158	1971	1930
MAX	2880	7050	11700	10500	6580	7850	14200	5660	4840	2570	2100	2300
MIN	1750	2150	3850	3810	3090	3330	4820	3810	2540	1940	1880	1800
AC-FT	123600	206100	429400	352500	217400	302300	434800	281300	200600	132700	121200	114800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2002, BY WATER YEAR (WY)

	2796	4583	6294	6075	4907	4391	4356	4463	3523	2614	2636	2544
MEAN	2796	4583	6294	6075	4907	4391	4356	4463	3523	2614	2636	2544
MAX	4116	8718	14430	11180	11510	11210	7308	6625	6604	3529	3510	3358
(WY)	1998	1985	1965	1965	1996	1972	2002	1999	1974	1974	1971	1972
MIN	1640	1925	1865	1752	1542	2351	2671	2268	2180	1813	1824	1711
(WY)	1993	1988	1977	1977	1977	1977	1977	1992	1973	1968	1967	1963

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1963 - 2002

ANNUAL TOTAL	1092600	1470570										
ANNUAL MEAN	2993	4029								4096		
HIGHEST ANNUAL MEAN										6014		1997
LOWEST ANNUAL MEAN										2447		1977
HIGHEST DAILY MEAN			11700		Dec 18		14200	Apr 14		43200	Dec 22	1964
LOWEST DAILY MEAN			1750		Oct 16		1750	Oct 16		1330	Feb 19	1977
ANNUAL SEVEN-DAY MINIMUM			1820		Jul 6		1830	Oct 15		1350	Oct 23	1992
ANNUAL RUNOFF (AC-FT)			2167000				2917000			2967000		
10 PERCENT EXCEEDS			4720				6620			6980		
50 PERCENT EXCEEDS			2300				3640			3230		
90 PERCENT EXCEEDS			1880				1900			2200		

14162500 MCKENZIE RIVER NEAR VIDA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1976 to September 1985.

WATER TEMPERATURE: June 1961 to September 1985, November 2000 to current year.

INSTRUMENTATION.--Temperature probe and data logger.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 72 microsiemens Nov. 20, 1980; minimum recorded, 2.4 microsiemens Nov. 25, 1977.

WATER TEMPERATURE: Maximum, 16.8°C July 23, 2002; minimum recorded, 0.5°C Jan. 1, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 16.8°C July 23; minimum, 3.9°C Jan. 29.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.4	10.9	12.2	9.8	9.3	9.6	6.8	6.5	6.6	6.1	5.6	5.9
2	13.4	10.9	12.1	10.4	9.4	9.8	6.8	6.4	6.6	6.5	6.0	6.2
3	13.2	10.6	11.9	9.6	8.6	9.2	6.8	6.3	6.6	6.2	5.8	6.1
4	13.3	10.7	12.0	9.4	8.6	9.0	6.3	5.4	5.9	5.8	5.3	5.6
5	13.0	10.6	11.9	9.9	8.9	9.3	6.0	5.2	5.6	6.2	5.5	5.9
6	12.6	11.4	12.0	9.1	8.1	8.6	6.7	5.8	6.3	6.5	6.1	6.3
7	11.7	10.3	11.1	8.5	7.4	7.9	6.7	6.3	6.5	6.5	6.4	6.5
8	11.9	10.9	11.3	8.6	7.2	7.9	6.5	6.0	6.3	6.7	6.4	6.6
9	12.3	10.7	11.3	8.8	7.4	8.1	6.4	5.9	6.2	6.4	5.9	6.1
10	10.9	9.7	10.2	9.1	7.9	8.5	5.9	5.2	5.5	6.2	5.6	5.9
11	11.5	10.5	10.9	9.4	8.5	8.9	5.7	5.4	5.5	6.3	5.8	6.1
12	11.2	9.8	10.5	9.6	8.9	9.2	5.7	5.5	5.7	6.4	6.0	6.2
13	12.1	10.5	11.2	9.3	9.0	9.1	6.7	5.7	6.1	6.1	5.7	5.9
14	11.8	10.1	10.9	9.8	8.8	9.3	6.6	5.7	6.1	5.8	5.4	5.6
15	11.5	9.8	10.7	9.4	8.9	9.1	6.0	5.7	5.8	5.4	4.8	5.1
16	11.4	10.1	10.8	9.2	8.7	8.9	6.6	5.9	6.2	4.9	4.5	4.7
17	11.0	9.8	10.5	8.8	7.8	8.5	6.6	5.9	6.2	5.4	4.5	5.0
18	10.8	8.9	9.8	8.2	7.2	7.7	6.0	5.8	5.9	5.4	4.9	5.2
19	11.1	9.0	10.0	8.7	7.8	8.2	6.1	5.8	6.0	5.2	4.7	5.0
20	11.5	10.0	10.6	8.5	8.1	8.2	6.3	5.8	6.0	5.1	4.0	4.5
21	10.5	9.7	10.1	8.2	7.9	8.0	5.8	5.5	5.6	5.1	4.3	4.6
22	10.4	9.9	10.1	8.0	7.7	7.9	5.9	5.4	5.6	4.8	4.3	4.5
23	10.2	9.2	9.7	8.0	7.6	7.8	5.6	5.1	5.3	5.0	4.3	4.7
24	9.9	8.7	9.3	7.8	6.9	7.5	5.2	4.8	5.0	5.2	4.8	5.0
25	10.5	9.1	9.7	7.0	6.6	6.8	5.4	4.7	5.0	5.5	5.0	5.2
26	10.2	8.7	9.4	7.0	6.5	6.7	5.5	4.8	5.1	5.3	4.9	5.1
27	9.6	9.0	9.3	6.6	5.9	6.2	5.7	5.1	5.4	5.3	4.7	5.0
28	9.8	8.9	9.3	6.5	5.6	6.1	5.8	5.3	5.6	4.9	4.4	4.7
29	9.9	9.2	9.6	6.7	6.3	6.5	5.8	5.1	5.4	4.6	3.9	4.3
30	9.9	9.6	9.8	6.7	6.5	6.6	5.9	5.2	5.6	5.1	4.4	4.7
31	10.0	9.5	9.8	--	--	--	6.3	5.8	5.9	5.1	4.6	4.8
MONTH	13.4	8.7	10.6	10.4	5.6	8.2	6.8	4.7	5.8	6.7	3.9	5.4

14163150 MCKENZIE RIVER BELOW LEABURG DAM, NEAR LEABURG, OR

LOCATION.--Lat 44°07'26", long 122°37'35", in NE 1/4 NE 1/4 sec.1, T.17 S., R.1 E., Lane County, Hydrologic Unit 17090004, on right bank 1.4 mi downstream from Leaburg Dam, 3.0 mi northeast of Leaburg, and at mile 37.4.

DRAINAGE AREA.--1,030 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 710 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1963 by Smith River Reservoir (station 14158795) and Cougar Lake (station 14159400), and since 1968 by Blue River Lake (station 14162100). Diversion upstream from station through the Leaburg Power canal. Continuous water temperature records for the period June 1992 to September 1993 have been collected at this location.

AVERAGE DISCHARGE.--13 years (water years 1990-2002), 2,658 ft³/s, 1,926,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,900 ft³/s Feb. 7, 1996, gage height, 17.95 ft; minimum discharge, 457 ft³/s Aug. 29, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,800 ft³/s Dec. 14, gage height, 11.37 ft; minimum discharge, 781 ft³/s June 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	1840	4950	3210	2570	2260	4220	3360	3040	989	956	983
2	1090	1490	5450	4170	2240	2080	3830	3440	2720	983	958	984
3	1080	1370	4300	4370	2110	1970	3950	3530	2540	986	958	972
4	1070	1320	4330	3660	2010	1890	4440	3450	2210	1080	986	974
5	1060	1390	4430	3200	1850	1690	5300	3280	2190	1210	985	984
6	1070	1490	9020	4120	1790	2280	4580	3170	2200	1140	1080	973
7	1080	1430	10500	6190	3370	3520	4630	2950	1910	1150	982	989
8	1100	1320	7640	9680	5250	2790	4320	2720	1620	1120	966	1000
9	1120	1160	5420	7950	3600	2400	4280	2120	1450	1100	999	987
10	1140	1100	4260	5560	2470	2330	7510	2750	1210	1080	982	994
11	1200	1090	3860	5300	2230	3500	7770	2130	1140	1030	986	997
12	1120	1100	3900	4680	2000	7380	7920	2120	1140	1030	969	993
13	1160	1230	7890	4780	1900	6140	8940	2370	1260	1010	963	994
14	1130	1940	13300	4400	1760	5000	14800	2480	1440	1000	958	993
15	1070	1540	7360	3990	1790	4120	14000	2480	1420	998	972	983
16	1040	1830	8090	3480	2150	3870	11100	2560	1210	985	974	979
17	1080	2240	10700	2920	2130	2900	9400	2590	1210	974	984	1000
18	1070	1990	11700	2460	2120	2540	8110	2860	2070	984	987	991
19	1080	1940	10900	2370	2620	2910	6330	2880	1790	957	1000	979
20	1080	1750	10300	3030	3020	3000	5060	2670	1460	969	1000	983
21	1080	1930	9280	6530	2890	3200	4620	2720	1360	959	1030	982
22	1360	5680	8440	4390	3410	3200	4320	2770	1040	957	1020	977
23	2000	6680	6860	3660	5530	3940	4180	2470	996	984	1010	974
24	1240	4980	4220	3230	4550	5090	4010	2450	1010	983	1000	981
25	1070	4480	3010	6790	3600	4960	3810	2410	989	1000	1010	989
26	1030	3250	2580	8290	3020	4540	3710	2580	996	1010	1010	992
27	1020	2440	2320	5560	2720	3960	3730	2780	991	1000	997	981
28	1030	4510	2880	4450	2490	3820	3400	3320	985	989	978	985
29	998	6620	2440	3720	---	3700	3250	4960	1010	979	975	983
30	1260	5500	2440	2910	---	3960	3330	5720	1000	960	993	1080
31	1940	---	2960	2520	---	4320	---	4170	---	951	988	---
TOTAL	35958	76630	195730	141570	77190	109260	178850	92260	45607	31547	30656	29656
MEAN	1160	2554	6314	4567	2757	3525	5962	2976	1520	1018	989	989
MAX	2000	6680	13300	9680	5530	7380	14800	5720	3040	1210	1080	1080
MIN	998	1090	2320	2370	1760	1690	3250	2120	985	951	956	972
AC-FT	71320	152000	388200	280800	153100	216700	354700	183000	90460	62570	60810	58820

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	1179	3102	4957	4769	3577	2927	3239	3107	1912	1089	1062	1017	
MAX	2361	7467	12250	9241	11880	6149	6042	5410	3632	1390	1285	1374	
(WY)	1998	1997	1997	1997	1996	1993	1993	1999	1999	1999	1995	2000	
MIN	610	741	1269	1036	1066	897	1595	1099	1072	946	907	525	
(WY)	1990	1990	1990	2001	2001	1992	1998	1994	2001	1993	1991	1990	

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1990 - 2002
ANNUAL TOTAL	670058	1044914	
ANNUAL MEAN	1836	2863	2658
HIGHEST ANNUAL MEAN			4550
LOWEST ANNUAL MEAN			1321
HIGHEST DAILY MEAN	13300	14800	42700
LOWEST DAILY MEAN	998	951	478
ANNUAL SEVEN-DAY MINIMUM	1020	964	486
ANNUAL RUNOFF (AC-FT)	1329000	2073000	1926000
10 PERCENT EXCEEDS	3170	5610	5680
50 PERCENT EXCEEDS	1120	2130	1440
90 PERCENT EXCEEDS	1020	983	944

14163900 MCKENZIE RIVER NEAR WALTERVILLE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1992 to September 1993. August 2001 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.-- Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 19.5°C Aug. 11, 14, 18, 1992; minimum, 2.0°C Feb. 17, 1993.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 18.5°C July 30; minimum, 4.0°C Jan. 29.

WATER TEMPERATURE, in (DEGREES C), AUGUST TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	16.2	13.8	14.9
2	---	---	---	---	---	---	---	---	---	16.2	13.5	14.7
3	---	---	---	---	---	---	---	---	---	15.9	13.3	14.3
4	---	---	---	---	---	---	---	---	---	15.8	13.0	14.1
5	---	---	---	---	---	---	---	---	---	14.6	12.7	13.8
6	---	---	---	---	---	---	---	---	---	13.9	11.8	12.7
7	---	---	---	---	---	---	---	---	---	14.5	11.8	13.0
8	---	---	---	---	---	---	17.1	14.5	15.6	15.0	12.1	13.4
9	---	---	---	---	---	---	17.5	14.4	15.9	15.2	12.4	13.5
10	---	---	---	---	---	---	17.0	14.7	15.8	15.5	12.6	13.8
11	---	---	---	---	---	---	17.2	14.6	15.7	15.1	12.7	13.6
12	---	---	---	---	---	---	16.6	14.5	15.5	15.7	13.0	14.3
13	---	---	---	---	---	---	16.8	14.3	15.4	15.9	13.5	14.5
14	---	---	---	---	---	---	16.8	14.5	15.5	16.0	13.7	14.7
15	---	---	---	---	---	---	17.4	14.4	15.7	15.6	13.8	14.6
16	---	---	---	---	---	---	16.7	14.2	15.6	15.5	13.4	14.2
17	---	---	---	---	---	---	17.3	13.9	15.5	15.4	13.2	14.2
18	---	---	---	---	---	---	16.5	13.9	15.3	15.0	12.7	13.7
19	---	---	---	---	---	---	16.3	13.6	14.8	14.7	12.5	13.3
20	---	---	---	---	---	---	16.2	13.4	14.6	14.6	12.3	13.2
21	---	---	---	---	---	---	15.3	13.3	14.2	14.3	12.1	13.0
22	---	---	---	---	---	---	14.8	13.2	14.0	14.5	12.0	13.1
23	---	---	---	---	---	---	15.0	12.9	13.8	15.0	12.4	13.5
24	---	---	---	---	---	---	15.9	13.7	14.6	14.9	12.8	13.6
25	---	---	---	---	---	---	16.2	13.7	14.8	13.6	12.4	13.3
26	---	---	---	---	---	---	16.8	13.6	15.1	12.6	11.8	12.3
27	---	---	---	---	---	---	17.2	14.4	15.6	12.8	11.5	12.1
28	---	---	---	---	---	---	16.8	14.0	15.3	13.3	11.2	12.1
29	---	---	---	---	---	---	16.8	13.8	15.1	13.6	11.4	12.3
30	---	---	---	---	---	---	16.9	13.9	15.2	14.1	11.8	12.7
31	---	---	---	---	---	---	16.7	14.0	15.2	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	16.2	11.2	13.6

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.6	12.2	13.2	10.2	9.7	10.0	7.2	6.6	7.0	6.8	6.0	6.3
2	14.4	12.3	13.1	10.8	9.8	10.2	7.3	6.7	7.0	7.0	6.2	6.6
3	13.9	11.9	12.7	10.2	9.2	9.8	7.4	6.6	7.0	6.7	6.1	6.4
4	13.9	11.9	12.6	9.7	9.2	9.4	6.8	5.9	6.2	6.3	5.4	5.8
5	13.7	12.0	12.6	10.0	9.1	9.5	6.3	5.3	5.8	6.6	5.6	6.1
6	13.2	11.8	12.5	9.5	8.3	9.0	7.4	6.1	6.8	7.3	6.4	6.8
7	12.4	11.0	11.7	8.5	7.4	7.9	7.4	6.7	7.1	7.4	6.8	7.1
8	12.3	10.9	11.5	8.1	7.3	7.5	7.2	6.2	6.6	7.5	6.7	7.1
9	12.6	11.1	11.6	8.4	7.4	7.9	6.9	6.3	6.6	6.8	6.0	6.5
10	11.3	10.3	10.9	9.0	7.8	8.4	6.6	5.3	5.8	6.6	5.7	6.2
11	11.7	10.2	10.8	9.6	8.4	9.1	6.2	5.5	5.9	6.7	5.8	6.3
12	11.6	10.6	10.9	9.7	9.2	9.4	6.4	5.7	6.0	6.8	6.2	6.5
13	12.6	10.6	11.6	9.8	9.4	9.6	7.4	5.8	6.6	6.6	5.7	6.1
14	12.7	11.1	11.8	10.1	9.3	9.7	7.3	6.2	6.8	6.0	5.4	5.8
15	12.3	10.9	11.4	9.9	9.2	9.7	6.7	5.8	6.3	5.8	4.8	5.3
16	12.3	10.9	11.4	9.7	9.1	9.4	7.5	6.3	6.8	5.0	4.4	4.7
17	11.8	10.5	11.1	9.3	8.5	9.0	7.3	6.2	6.9	5.4	4.4	4.8
18	10.9	9.6	10.2	8.5	7.5	7.9	6.7	5.8	6.2	5.6	4.8	5.2
19	11.1	9.5	10.1	8.8	7.9	8.4	7.0	5.8	6.4	5.5	4.9	5.2
20	11.5	9.9	10.6	9.0	8.3	8.6	7.1	6.1	6.5	5.2	4.3	4.8
21	11.1	10.4	10.8	8.5	8.0	8.3	6.3	5.6	6.0	5.2	4.3	4.8
22	10.8	10.2	10.5	8.5	8.2	8.3	6.4	5.5	5.9	5.2	4.4	4.7
23	10.6	9.6	10.2	8.6	7.9	8.2	6.0	5.2	5.6	5.4	4.5	4.9
24	10.0	9.3	9.6	8.3	7.4	7.9	5.5	4.8	5.2	5.7	4.8	5.2
25	10.8	9.3	10	7.5	6.8	7.1	5.6	4.7	5.1	6.0	5.2	5.6
26	10.8	9.7	10.1	7.1	6.7	7.0	5.6	4.8	5.3	6.0	5.1	5.5
27	10.3	9.3	9.8	6.9	6.1	6.4	5.9	5.4	5.6	5.5	4.8	5.2
28	9.7	9.0	9.3	7.3	6.0	6.5	6.5	5.8	6.1	5.4	4.4	4.9
29	10.1	9.3	9.7	7.3	6.6	7.0	6.1	5.3	5.6	4.8	4.0	4.4
30	10.5	9.8	10.2	7.2	6.7	6.9	6.2	5.5	5.8	5.3	4.2	4.7
31	10.5	10.0	10.2	---	---	---	6.7	5.9	6.3	5.2	4.6	5.0
MONTH	14.6	9.0	11.1	10.8	6.0	8.5	7.5	4.7	6.2	7.5	4.0	5.6

WILLAMETTE RIVER BASIN

225

14164700 CEDAR CREEK AT SPRINGFIELD, OR

LOCATION.--Lat 44°03'34", long 122°55'07", in land grant parcel number 75, T.17S., R.2 W, Lane County, Hydrologic Unit 17090004, on left bank, and at mile 0.8.

DRAINAGE AREA.--9.62 mi².

PERIOD OF RECORD.--October 2001 to September 2002.

GAGE.--Water-stage recorder. Elevation of gage is 490 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Flow from the McKenzie River can be diverted to Cedar Creek at a point upstream from gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 180 ft³/s Jan. 21, gage height, 3.44 ft; minimum discharge, 11 ft³/s Oct. 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e16	23	71	33	84	18	21	34	33	29	25	24
2	e16	23	77	37	70	17	20	34	33	34	24	24
3	e16	18	56	35	63	16	19	34	32	34	25	24
4	e17	17	56	32	55	15	21	32	33	33	25	24
5	17	16	73	30	49	15	32	32	32	32	25	25
6	16	17	69	36	46	28	31	30	31	30	25	24
7	15	23	76	41	78	47	31	30	29	31	24	23
8	15	29	65	69	104	36	29	29	28	30	24	24
9	15	30	53	61	88	31	33	26	27	29	23	24
10	21	30	47	49	72	29	39	27	26	30	22	23
11	21	28	46	41	60	35	41	39	26	29	23	23
12	17	21	46	37	51	65	39	33	25	29	22	23
13	17	17	60	32	44	79	52	29	26	29	23	24
14	16	18	139	30	37	77	116	30	26	29	23	24
15	16	17	106	27	32	68	101	30	26	29	24	23
16	15	25	110	25	29	67	75	31	26	28	25	24
17	14	28	117	25	26	60	88	35	29	27	25	27
18	13	20	119	23	24	52	99	35	30	28	26	27
19	13	24	131	26	23	47	76	36	32	28	27	24
20	13	30	107	47	22	43	62	38	30	29	27	24
21	12	35	85	158	20	37	52	37	29	29	28	25
22	19	91	70	132	20	33	45	36	28	27	27	24
23	18	106	56	111	31	33	40	35	27	28	26	23
24	14	85	46	96	28	37	37	34	26	27	26	24
25	16	102	38	117	25	34	39	34	25	26	25	26
26	16	94	33	143	23	31	38	34	25	27	25	27
27	17	74	29	109	21	29	37	34	26	26	24	28
28	16	79	28	86	20	26	34	35	27	27	23	28
29	17	100	25	70	---	24	34	36	31	26	24	29
30	22	74	24	59	---	22	33	35	29	25	23	31
31	24	---	31	55	---	21	---	35	---	25	23	---
TOTAL	510	1294	2089	1872	1245	1172	1414	1029	853	890	761	747
MEAN	16.5	43.1	67.4	60.4	44.5	37.8	47.1	33.2	28.4	28.7	24.5	24.9
MAX	24	106	139	158	104	79	116	39	33	34	28	31
MIN	12	16	24	23	20	15	19	26	25	25	22	23
AC-FT	1010	2570	4140	3710	2470	2320	2800	2040	1690	1770	1510	1480
CFSM	1.71	4.48	7.00	6.28	4.62	3.93	4.90	3.45	2.96	2.98	2.55	2.59
IN.	1.97	5.00	8.08	7.24	4.81	4.53	5.47	3.98	3.30	3.44	2.94	2.89

WTR YR 2002 TOTAL 13876 MEAN 38.0 MAX 158 MIN 12 AC-FT 27520 CFSM 3.95 IN. 53.66

e Estimated

WILLAMETTE RIVER BASIN

14165000 MOHAWK RIVER NEAR SPRINGFIELD, OR

LOCATION.--Lat 44°05'34", long 122°57'20", in SE 1/4 NW 1/4 sec.17, T.17 S., R.2 W., Lane County, Hydrologic Unit 17090004, on left bank 50 ft downstream from bridge, 1.3 mi northeast of Springfield, and at mile 1.59.

DRAINAGE AREA.--177 mi².

PERIOD OF RECORD.--September 1935 to September 1952, October 1963 to September 1997. October 1998 to current year. Prior to October 1935 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1939. WSP 1738: Drainage area. WDR OR-86-2: 1985(m).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 442.47 ft above NGVD of 1929. Oct. 1, 1935, to Sept. 30, 1952, nonrecording gage at same site and datum.

REMARKS.--Records good except for Dec. 7,8 and estimated daily discharges, which are poor. Many diversions for irrigation upstream from station. Continuous water-quality records for the period October 1963 to September 1969 and April 1983 to September 1984 have been collected at this location.

AVERAGE DISCHARGE.--56 years (water years 1936-52, 1963-97, 1999-2002), 530 ft³/s, 40.68 in/yr, 384,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s Feb. 7, 1996, gage height, 23.11 ft; minimum discharge, 8.2 ft³/s Sept. 9, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached at stage of 22.9 ft, from floodmark, probably affected by backwater from McKenzie River, discharge, 9,200 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 14	0700	3,930	11.32	Jan. 21	1130	4,340	11.99
Dec. 17	0800	3,520	10.60	Jan. 26	0130	*5,400	*13.64

Minimum discharge, 13 ft³/s Sept. 13, 14.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	250	1420	538	1580	461	481	338	136	92	29	18
2	19	161	1830	608	1300	431	450	321	129	81	28	17
3	18	117	1240	594	1160	404	425	306	125	76	29	16
4	17	93	1120	540	1020	379	410	286	121	74	31	16
5	17	89	1720	500	927	375	408	275	120	70	31	17
6	17	86	1950	749	863	656	395	273	119	68	31	17
7	19	73	2170	948	1690	984	377	263	112	65	30	17
8	21	67	1580	e1600	2760	749	355	247	111	68	27	18
9	24	62	1260	e1200	2180	652	374	237	116	61	27	18
10	27	59	1060	e950	1670	619	e550	230	110	58	25	17
11	87	56	989	e800	1370	831	e500	218	104	54	25	16
12	51	65	974	796	1160	1950	e520	210	98	52	23	15
13	34	107	1240	722	1010	1800	717	202	91	51	22	14
14	33	235	3380	657	879	1740	2060	203	88	50	20	14
15	30	161	2340	594	780	1440	e1600	191	88	47	18	16
16	27	261	2710	544	725	1290	e1250	183	88	46	18	18
17	26	307	3280	542	667	1130	e1200	186	94	44	18	30
18	28	222	e2600	507	623	971	e1100	180	158	45	19	54
19	25	197	e2200	673	610	927	908	183	116	44	19	32
20	24	239	e1700	1320	588	880	773	195	97	45	21	25
21	25	403	e1400	3700	561	845	684	207	90	42	31	22
22	60	1400	e1200	2600	558	801	615	192	88	40	29	20
23	206	1700	e1000	1950	917	779	556	176	89	37	23	19
24	92	883	878	1620	788	877	507	164	82	37	22	18
25	60	902	756	3360	669	799	471	157	78	36	20	18
26	48	752	667	4530	598	727	443	150	73	37	22	16
27	43	592	609	2810	544	669	456	145	70	37	21	17
28	58	1010	582	2010	499	615	408	160	74	36	19	17
29	55	2090	524	1530	---	572	376	184	150	34	18	20
30	89	1460	484	1240	---	536	354	164	124	32	16	31
31	293	---	536	1130	---	508	---	145	---	30	16	---
TOTAL	1594	14099	45399	41862	28696	26397	19723	6571	3139	1589	728	603
MEAN	51.42	470.0	1464	1350	1025	851.5	657.4	212.0	104.6	51.26	23.48	20.10
MAX	293	2090	3380	4530	2760	1950	2060	338	158	92	31	54
MIN	17	56	484	500	499	375	354	145	70	30	16	14
AC-FT	3160	27970	90050	83030	56920	52360	39120	13030	6230	3150	1440	1200
CFSM	0.29	2.66	8.27	7.63	5.79	4.81	3.71	1.20	0.59	0.29	0.13	0.11
IN.	0.34	2.96	9.54	8.80	6.03	5.55	4.15	1.38	0.66	0.33	0.15	0.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2002, BY WATER YEAR (WY)

	MEAN	108.7	609.1	1145	1233	1116	868.0	592.0	363.3	200.3	76.45	38.52	39.86
MAX	719	1653	3235	2464	2480	1975	1545	762	752	190	91.4	112	
(WY)	1951	1951	1997	1965	1996	1972	1937	1996	1984	1983	1968	1968	
MIN	19.2	26.5	52.6	84.0	126	281	242	118	54.3	34.3	14.7	18.9	
(WY)	1988	1937	1977	1977	1977	1965	1942	1966	1966	1940	1966	1967	

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1936 - 2002

ANNUAL TOTAL		118357		190400								
ANNUAL MEAN		324.3		521.6					530.0			
HIGHEST ANNUAL MEAN									883			1997
LOWEST ANNUAL MEAN									164			1977
HIGHEST DAILY MEAN			3380	Dec 14		4530	Jan 26		11500		Dec 22	1964
LOWEST DAILY MEAN			15	Sep 24		14	Sep 13		9.6		Aug 18	1966
ANNUAL SEVEN-DAY MINIMUM			16	Sep 18		16	Sep 9		11		Aug 15	1966
ANNUAL RUNOFF (AC-FT)			234800			377700			384000			
ANNUAL RUNOFF (CFSM)			1.83			2.95			2.99			
ANNUAL RUNOFF (INCHES)			24.88			40.02			40.68			
10 PERCENT EXCEEDS			689			1430			1360			
50 PERCENT EXCEEDS			196			203			251			
90 PERCENT EXCEEDS			23			19			30			

e Estimated

14166000 WILLAMETTE RIVER AT HARRISBURG, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--June 1961 to September 1987, October 2000 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum, 24.0°C Aug. 12, 1973; minimum, 0.0°C Jan. 8, 9, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum, 21.5°C July 11; minimum, 5.1°C Jan. 30.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.0	15.7	16.3	12.0	11.6	11.8	8.6	8.3	8.4	7.2	6.7	6.9
2	17.1	16.0	16.5	12.8	11.9	12.3	8.4	8.0	8.2	7.3	6.8	7.1
3	16.4	15.3	15.9	12.9	12.1	12.5	8.6	8.2	8.4	7.2	6.8	7.0
4	16.3	15.1	15.7	12.4	11.9	12.2	8.3	7.6	7.9	7.0	6.3	6.5
5	16.2	15.2	15.6	12.3	11.5	11.9	7.6	7.4	7.6	6.9	6.2	6.4
6	15.9	15.0	15.4	11.5	10.8	11.2	8.1	7.6	7.9	7.9	6.9	7.4
7	15.0	14.2	14.4	10.8	9.3	9.9	8.1	7.8	8.0	8.2	7.9	8.0
8	15.0	14.3	14.6	9.5	8.9	9.2	7.8	7.4	7.6	8.4	7.9	8.1
9	14.8	13.6	14.2	9.6	8.7	9.2	7.8	7.4	7.6	8.0	7.4	7.6
10	14.4	13.6	13.8	10.2	9.4	9.8	7.4	7.1	7.2	7.4	6.9	7.1
11	14.6	13.5	14.0	10.9	10.1	10.5	7.2	6.9	7.1	7.2	6.8	7.0
12	14.3	13.5	13.9	11.0	10.7	10.9	7.2	7.1	7.1	7.4	6.9	7.1
13	15.5	14.3	14.8	11.1	10.8	10.9	7.7	7.2	7.5	7.1	6.6	6.8
14	15.3	14.4	14.8	11.9	11.1	11.6	7.7	7.2	7.5	6.6	6.1	6.4
15	14.9	14.4	14.6	11.8	11.3	11.5	7.2	7.0	7.1	6.3	5.8	6.0
16	14.9	14.2	14.6	11.3	10.8	11.1	8.0	7.2	7.6	5.8	5.2	5.4
17	14.4	13.5	13.9	10.8	10.3	10.5	8.0	7.5	7.8	5.8	5.5	5.6
18	13.8	12.8	13.3	10.3	9.5	9.9	7.5	7.1	7.2	6.2	5.7	6.0
19	13.9	12.8	13.4	10.1	9.4	9.7	7.2	7.0	7.1	6.3	5.9	6.1
20	13.8	13.2	13.5	10.1	10.0	10.0	7.5	7.1	7.3	6.1	5.7	5.9
21	13.2	12.6	12.9	10.1	9.8	9.9	7.3	6.8	7.1	6.1	5.3	5.7
22	13.6	13.2	13.4	9.9	9.4	9.7	6.8	6.4	6.7	5.7	5.3	5.5
23	13.3	12.2	12.7	9.4	9.1	9.2	6.7	6.4	6.5	5.9	5.6	5.7
24	12.6	11.7	12.2	9.3	9.0	9.1	6.4	5.8	6.1	6.1	5.8	5.9
25	13.3	12.2	12.7	9.0	8.7	8.8	6.1	5.7	5.9	6.4	6.1	6.3
26	13.2	12.4	12.9	8.8	8.3	8.6	5.9	5.6	5.8	6.4	6.0	6.3
27	12.9	11.6	12.4	8.6	8.0	8.2	6.0	5.6	5.8	6.0	5.6	5.8
28	11.6	11.2	11.4	8.4	7.9	8.1	6.7	5.9	6.2	5.9	5.6	5.7
29	11.6	11.2	11.3	8.4	8.0	8.2	6.7	6.2	6.4	5.8	5.3	5.5
30	12.1	11.6	11.8	8.3	8.0	8.2	6.4	6.1	6.3	5.6	5.1	5.4
31	12.1	11.8	12.0	--	--	--	7.2	6.4	6.7	5.7	5.5	5.6
MONTH	17.1	11.2	13.8	12.9	7.9	10.2	8.6	5.6	7.1	8.4	5.1	6.4

WILLAMETTE RIVER BASIN

14166000 WILLAMETTE RIVER AT HARRISBURG, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.3	5.6	5.9	7.2	5.6	6.4	10.3	8.4	9.3	11.0	9.2	10.0
2	6.3	5.5	6.0	7.0	5.3	6.2	10.6	8.8	9.7	10.7	9.9	10.3
3	6.9	6.2	6.5	7.4	5.6	6.5	10.8	9.0	9.9	12.6	10.1	11.2
4	6.5	5.8	6.0	8.0	6.1	7.1	10.9	9.2	10.1	12.1	10.1	11.1
5	5.8	5.3	5.5	7.6	7.0	7.2	10.2	8.8	9.7	11.7	10.4	11.0
6	6.0	5.4	5.7	7.4	7.1	7.3	9.1	8.5	8.9	10.8	9.6	10.2
7	6.4	6.0	6.2	7.3	6.3	6.8	10.0	8.8	9.3	11.1	9.2	10.2
8	6.7	6.1	6.3	6.6	5.7	6.1	10.5	8.8	9.6	11.6	9.3	10.5
9	6.6	6.0	6.3	6.4	5.7	6.1	10.4	9.6	10.0	11.4	10.0	10.6
10	7.0	6.2	6.6	7.4	6.2	6.7	10.0	9.2	9.6	11.8	9.4	10.5
11	7.0	6.5	6.8	7.9	7.3	7.6	9.7	9.2	9.4	12.8	9.9	11.3
12	6.5	5.8	6.1	7.9	7.1	7.6	10.4	8.9	9.6	13.8	11.0	12.4
13	6.7	5.6	6.1	7.1	6.7	6.9	10.3	9.6	9.8	13.4	11.2	12.0
14	6.5	5.6	6.1	7.0	6.4	6.7	10.3	9.3	9.7	12.8	10.0	11.3
15	6.6	5.5	6.2	7.0	6.6	6.8	9.4	8.2	8.6	13.4	10.8	12.1
16	7.3	6.3	6.8	6.9	6.4	6.6	8.5	7.9	8.2	13.3	10.9	12.2
17	7.7	6.5	7.1	6.5	5.8	6.2	8.6	7.8	8.2	13.0	11.4	12.3
18	8.1	7.0	7.6	6.5	6.0	6.3	9.0	7.7	8.3	12.9	11.6	12.4
19	8.1	7.6	7.9	7.6	6.3	6.8	9.0	8.2	8.6	12.2	10.8	11.4
20	8.1	7.1	7.6	8.3	6.8	7.5	9.8	8.3	9.0	12.2	10.4	11.3
21	9.0	8.0	8.5	8.7	7.6	8.1	10.3	8.4	9.4	12.2	10.7	11.5
22	9.3	8.4	8.8	8.0	7.3	7.7	11.0	9.1	10.0	12.0	10.5	11.3
23	9.0	8.2	8.7	8.9	7.3	8.1	11.1	9.2	10.2	13.2	10.5	11.8
24	8.2	7.1	7.7	8.4	7.9	8.1	11.1	9.0	10.1	13.9	11.5	12.7
25	7.3	6.0	6.7	8.7	7.4	8.0	11.9	9.8	10.8	13.7	12.0	12.9
26	7.4	6.0	6.7	8.8	7.8	8.3	11.2	9.6	10.3	14.8	12.1	13.4
27	7.4	5.9	6.7	9.6	8.1	8.8	10.8	9.0	9.8	14.6	13.1	13.6
28	7.4	6.0	6.7	8.8	8.2	8.5	11.6	9.3	10.3	13.1	12.0	12.3
29	---	---	---	9.8	8.0	8.9	12.4	9.8	11.1	13.0	11.8	12.4
30	---	---	---	10.1	8.4	9.2	11.7	9.8	10.8	14.2	11.8	12.9
31	---	---	---	9.9	8.4	9.2	---	---	---	14.6	12.6	13.6
MONTH	9.3	5.3	6.8	10.1	5.3	7.4	12.4	7.7	9.6	14.8	9.2	11.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.4	12.9	14.1	18.8	16.4	17.6	18.6	17.1	17.8	19.1	17.8	18.4
2	15.5	12.9	14.2	19.0	16.5	17.8	18.0	16.7	17.4	19.4	18.0	18.7
3	15.1	13.4	14.3	18.5	17.0	17.8	17.8	16.5	17.2	19.0	18.2	18.6
4	15.7	13.5	14.5	18.4	16.2	17.3	17.3	16.2	16.7	18.2	16.9	17.6
5	16.1	14.6	15.3	18.8	16.3	17.6	17.1	15.7	16.3	17.3	16.2	16.9
6	15.7	13.7	14.7	19.6	17.2	18.4	17.4	15.5	16.4	17.2	16.0	16.7
7	15.0	13.1	14.0	19.2	17.4	18.1	17.6	16.1	16.8	17.5	16.0	16.8
8	13.8	12.1	12.8	19.1	16.4	17.7	18.0	16.4	---	17.0	15.9	16.5
9	14.2	11.8	13.0	20.3	17.4	18.8	18.6	16.9	17.7	17.5	16.1	16.8
10	15.3	12.7	14.0	---	19.0	---	19.2	17.8	18.5	17.9	16.5	17.2
11	16.7	13.8	15.1	21.5	19.4	20.4	19.0	17.6	18.3	18.5	17.0	17.8
12	17.6	14.9	16.2	20.6	19.4	20.0	19.1	17.7	18.4	18.7	17.4	18.1
13	17.8	15.5	16.8	20.5	19.1	19.7	19.8	18.1	18.9	18.8	17.5	18.2
14	17.5	15.4	16.3	19.9	18.0	18.9	20.1	18.6	19.4	18.4	17.2	17.7
15	16.6	14.8	15.7	19.8	18.0	19.0	19.6	18.3	19.0	17.4	16.9	17.2
16	17.2	15.1	16.1	19.7	18.2	19.0	19.0	17.6	18.4	17.0	16.6	16.7
17	16.7	14.8	15.3	19.4	18.2	18.9	18.7	17.4	18.1	16.7	16.1	16.4
18	15.2	13.6	14.4	19.0	17.9	18.5	18.3	17.0	17.8	16.5	15.5	16.0
19	15.9	12.9	14.4	18.7	17.9	18.3	18.0	16.9	17.4	17.1	15.6	16.4
20	17.9	14.3	15.9	19.4	17.5	18.4	17.7	17.0	17.2	16.9	15.9	16.5
21	17.6	15.3	16.5	19.5	18.2	18.9	17.6	16.1	16.8	16.3	15.2	15.8
22	17.0	15.1	15.8	20.0	18.6	19.2	17.9	16.2	17.1	16.5	15.3	15.9
23	17.5	13.9	15.6	19.9	18.5	19.2	18.6	17.0	17.8	16.7	15.6	16.1
24	18.3	16.1	17.3	19.7	18.2	19.0	18.9	17.5	18.2	16.7	15.5	16.1
25	19.7	16.6	18.1	19.4	18.2	18.9	18.5	17.3	17.8	16.5	15.5	16.1
26	19.8	17.6	18.7	19.1	18.4	18.7	18.8	17.3	18.0	16.2	15.3	15.7
27	19.4	17.2	18.1	19.0	17.6	18.3	18.9	17.3	18.1	16.4	15.3	15.9
28	17.2	16.1	16.4	19.4	17.6	18.5	19.6	18.1	18.9	16.2	15.1	15.7
29	16.6	15.6	16.1	20.0	18.4	19.1	19.6	18.5	19.1	15.9	15.1	15.4
30	18.3	15.6	16.8	20.0	18.8	19.4	19.0	17.6	18.3	15.2	14.4	14.8
31	---	---	---	19.1	17.4	18.1	18.8	17.4	18.1	---	---	---
MONTH	19.8	11.8	15.6	---	16.2	---	20.1	15.5	---	19.4	14.4	16.8

14168000 FERN RIDGE LAKE NEAR ELMIRA, OR

LOCATION.--Lat 44°07'15", long 123°18'00", near center of sec.4, T.17 S., R.5 W., Lane County, Hydrologic Unit 17090003, in control house at spillway section of dam across Long Tom River and Coyote Creek, 4.5 mi northeast of Elmira, and at mile 25.7.

DRAINAGE AREA.--252 mi², not including Amazon Creek basin (see REMARKS).

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1971, published as Fern Ridge Reservoir near Elmira.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by earth-fill dam with concrete outlet and spillway, completed in 1941 by Corps of Engineers; storage began Nov. 13, 1941. Total capacity (new capacity table put into use Oct. 1, 1992 based on Dec. 1992 resurvey), 107,400 acre-ft at elevation 375.1 ft, maximum pool elevation. Usable capacity, 93,350 acre-ft between elevations 340.0 ft, sill of outlet gate, and 373.5 ft, normal maximum operating pool level. Reservoir used for flood control and improvement of navigation. Since November 1951, most of flow of Amazon Creek has been diverted in SE 1/4 sec.29, T.17 S., R.4 W., and discharged into Fern Ridge Lake; drainage area at point of diversion, 21.3 mi².

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 124,500 acre-ft Dec. 27, 1955, elevation, 375.83 ft; minimum contents since first filling in 1942, 163 acre-ft Nov. 11, 1950, elevation, 344.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 93,440 acre-ft May 20, 28, 29, elevation, 373.51 ft; minimum contents, 2,800 acre-ft Dec. 9, elevation, 352.83 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

349	439	356	6,810	364	30,560	372	81,180
350	835	358	10,680	366	40,480	374	97,590
352	2,090	360	15,830	368	52,350	375	106,400
354	4,030	362	22,410	370	65,980		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	362.00	359.79	355.74	353.96	360.89	365.46	371.18	373.26	373.46	373.04	372.24	371.36
2	361.96	359.55	356.15	354.01	360.25	365.53	371.24	373.29	373.45	373.02	372.20	371.34
3	361.92	359.23	355.61	353.75	359.41	365.63	371.29	373.30	373.45	373.00	372.18	371.31
4	361.90	358.91	354.17	353.70	358.87	365.70	371.35	373.32	373.44	372.98	372.15	371.28
5	361.85	358.56	353.28	353.86	358.49	365.84	371.40	373.34	373.42	372.97	372.12	371.25
6	361.81	358.22	353.09	354.87	358.20	366.21	371.45	373.34	373.41	372.96	372.09	371.23
7	361.78	357.85	353.00	356.17	359.00	366.62	371.50	373.34	373.39	372.93	372.06	371.20
8	361.75	357.48	352.94	357.69	360.46	366.87	371.54	373.34	373.41	372.90	372.04	371.18
9	361.71	357.10	352.88	358.12	361.67	367.08	371.66	373.33	373.40	372.90	372.01	371.15
10	361.70	356.70	352.89	357.75	362.47	367.32	371.76	373.33	373.39	372.88	371.97	371.13
11	361.68	356.28	353.04	356.85	362.93	367.76	371.85	373.34	373.39	372.85	371.95	371.11
12	361.66	355.89	353.11	355.64	363.28	368.59	371.91	373.35	373.39	372.81	371.90	371.09
13	361.63	355.54	354.43	353.91	363.52	369.34	372.06	373.35	373.36	372.80	371.88	371.07
14	361.60	355.10	356.42	353.44	363.72	369.78	372.22	373.35	373.33	372.76	371.86	371.04
15	361.57	354.73	357.56	353.26	363.86	369.96	372.38	373.35	373.32	372.73	371.83	371.01
16	361.54	354.40	357.95	353.16	363.99	370.10	372.50	373.36	373.30	372.71	371.79	371.01
17	361.50	353.92	358.38	353.13	364.08	370.19	372.61	373.39	373.31	372.69	371.76	371.04
18	361.47	353.48	358.52	353.29	364.16	370.26	372.72	373.39	373.29	372.65	371.73	371.04
19	361.43	353.50	358.50	353.32	364.21	370.34	372.80	373.46	373.27	372.62	371.69	371.01
20	361.40	353.50	358.07	353.61	364.27	370.38	372.86	373.50	373.25	372.59	371.69	370.98
21	361.38	353.70	357.16	356.19	364.31	370.37	372.92	373.47	373.23	372.58	371.65	370.96
22	361.45	353.97	355.79	358.23	364.50	370.38	372.96	373.46	373.20	372.54	371.63	370.94
23	361.31	354.18	353.98	358.74	364.72	370.43	373.00	373.45	373.18	372.52	371.61	370.92
24	361.14	353.62	353.54	358.54	364.88	370.50	373.05	373.46	373.16	372.49	371.59	370.90
25	360.94	353.25	353.49	359.92	365.03	370.60	373.08	373.47	373.14	372.46	371.55	370.88
26	360.73	353.22	353.43	362.09	365.15	370.71	373.12	373.47	373.11	372.43	371.52	370.85
27	360.54	353.16	353.44	362.94	365.27	370.82	373.15	373.48	373.09	372.40	371.50	370.80
28	360.33	354.33	353.53	362.99	365.36	370.90	373.19	373.51	373.09	372.38	371.48	370.80
29	360.15	355.86	353.57	362.64	---	370.98	373.23	373.48	373.08	372.35	371.45	370.80
30	360.08	355.45	353.70	362.01	---	371.06	373.24	373.47	373.06	372.32	371.42	370.83
31	359.95	---	353.80	361.30	---	371.12	---	373.47	---	372.27	371.40	---
MAX	362.00	359.79	358.52	362.99	365.36	371.12	373.24	373.51	373.46	373.04	372.24	371.36
MIN	359.95	353.16	352.88	353.13	358.20	365.46	371.18	373.26	373.06	372.27	371.40	370.80
(†)	15680	5950	3800	19940	37100	74350	91180	93100	89690	83300	76510	72140
(‡)	-6840	-9730	-2150	+16140	+17160	+37250	+16830	+1920	-3410	-6390	-6790	-4370

CAL YR 2001 MAX 365.80 MIN 352.88 AC-FT† -220
WTR YR 2002 MAX 373.51 MIN 352.88 AC-FT† +49620

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

WILLAMETTE RIVER BASIN

14169000 LONG TOM RIVER NEAR ALVADORE, OR

LOCATION.--Lat 44°07'25", long 123°17'55", in SW 1/4 NE 1/4 sec.4, T.17 S., R.5 W., Lane County, Hydrologic Unit 17090003, on left bank 0.2 mi downstream from Fern Ridge Dam, 1.7 mi west of Alvadore, and at mile 25.5.

DRAINAGE AREA.--252 mi², not including Amazon Creek basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1939 to current year. Prior to October 1943, published as "at Smithfield," and October 1943 to September 1959, as "below Fern Ridge Dam, near Smithfield." Prior to October 1985, published figures included diversion from Fern Ridge Reservoir into Coyote Creek channel (station 14169001).

REVISED RECORDS.--WSP 1248: 1940-41, 1948.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 332.00 ft above NGVD of 1929 (levels by Corps of Engineers). Prior to Sept. 21, 1939, nonrecording gage and Sept. 21, 1939, to Sept. 30, 1943, water-stage recorder at site 2.5 mi downstream at datum 11.09 ft lower.

REMARKS.--No estimated daily discharges. Records good except for the period June 28 to Sept. 30, which are fair. Flow regulated since 1941 by Fern Ridge Lake (station 14168000). Several small diversions for irrigation upstream from station. Approximately 7 ft³/s diverted from Fern Ridge Reservoir into Coyote Creek channel. Discharge not adjusted for storage or release from Fern Ridge Lake as evaporation from reservoir at times exceeds natural flow and diversions, and beginning in November 1951, most of flow of Amazon Creek has been diverted into Fern Ridge Lake.

AVERAGE DISCHARGE.--59 years (water years 1944-2002), 519 ft³/s, 376,000 acre-ft/yr, adjusted for Coyote Creek diversion.
17 years (water years 1986-2002), 477 ft³/s, 345,700 acre-ft/yr, not adjusted for diversions into or out of Fern Ridge Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s Jan. 1, 1943, gage height, 15.12 ft, site and datum then in use; minimum daily discharge, 2 ft³/s Aug. 7, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,850 ft³/s Dec. 19, gage height, 6.97 ft; minimum discharge, 29 ft³/s June 30.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	371	2630	538	2460	61	51	48	49	38	54	50
2	53	374	2610	538	2500	61	51	48	48	38	55	50
3	53	489	2580	538	2430	61	51	48	48	38	55	50
4	53	517	2600	591	1590	61	52	48	48	38	55	50
5	53	517	2450	652	1210	61	53	48	48	38	55	50
6	53	517	2210	892	1090	61	53	64	48	38	55	50
7	53	514	1840	1280	929	59	53	106	48	38	55	48
8	53	495	1280	1470	895	58	53	104	48	38	55	48
9	53	492	1000	1890	660	58	53	104	48	38	54	48
10	54	479	796	2250	484	58	53	93	48	41	54	48
11	54	479	685	2180	484	58	53	58	48	55	54	48
12	54	471	683	2070	442	58	50	58	55	55	54	48
13	54	468	746	1920	409	275	50	58	65	54	53	48
14	55	458	1850	982	409	692	50	58	65	55	53	48
15	56	446	2040	753	409	981	50	58	65	54	53	48
16	56	445	2100	647	409	983	50	58	72	54	53	48
17	56	436	2330	586	409	977	49	58	81	54	53	48
18	56	348	2770	474	409	891	48	60	89	54	54	48
19	56	170	2750	504	409	651	48	60	89	54	54	47
20	56	145	2830	544	385	688	48	197	89	54	54	48
21	56	219	2730	970	377	740	48	285	88	54	53	48
22	58	760	2570	1520	181	689	48	185	89	54	51	48
23	374	1060	2190	2290	58	547	48	91	88	54	51	48
24	388	1080	952	2550	58	370	48	54	88	54	51	48
25	379	872	658	1890	57	186	48	54	87	54	51	48
26	377	687	591	1240	54	54	48	54	86	54	51	48
27	377	548	542	2430	53	54	48	54	86	54	51	48
28	377	684	539	2650	60	54	48	74	86	53	50	48
29	371	1380	538	2620	---	52	48	163	86	53	50	48
30	371	2500	538	2560	---	51	48	91	64	53	50	48
31	371	---	538	2460	---	51	---	60	---	54	50	---
TOTAL	4583	18421	51166	44479	19320	9701	1499	2599	2047	1517	1641	1451
MEAN	147.8	614.0	1651	1435	690.0	312.9	49.97	83.84	68.23	48.94	52.94	48.37
MAX	388	2500	2830	2650	2500	983	53	285	89	55	55	50
MIN	53	145	538	474	53	51	48	48	48	38	50	47
AC-FT	9090	36540	101500	88220	38320	19240	2970	5160	4060	3010	3250	2880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2002, BY WATER YEAR (WY)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	754.3	733.5	970.2	1367	874.9	391.0	161.0	189.5	92.97	59.05	56.07	85.27					
MAX	1007	1475	2851	2973	3148	1136	895	497	469	150	73.6	293					
(WY)	1998	1997	1997	1997	1996	1999	1993	1996	1993	1993	1993	1999					
MIN	148	218	103	101	53.5	21.3	24.5	20.8	34.7	39.1	40.5	38.3					
(WY)	2002	1994	1990	2001	2001	1988	1988	1987	1990	1986	1986	1990					

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1986 - 2002

ANNUAL TOTAL	89725	158424															
ANNUAL MEAN	245.8	434.0								477.2							
HIGHEST ANNUAL MEAN										907						1999	
LOWEST ANNUAL MEAN										183						2001	
HIGHEST DAILY MEAN	2830	Dec 20				2830	Dec 20			5570	Jan 5	1997					
LOWEST DAILY MEAN	26	May 8				38	Jul 1			16	Mar 3	1988					
ANNUAL SEVEN-DAY MINIMUM	29	May 17				38	Jul 1			17	Apr 30	1990					
ANNUAL RUNOFF (AC-FT)	178000					314200				345700							
10 PERCENT EXCEEDS	540					1490				1250							
50 PERCENT EXCEEDS	54					58				70							
90 PERCENT EXCEEDS	40					48				39							

14169000 LONG TOM RIVER NEAR ALVADORE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2001 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 25.2°C Aug. 15, 2002; minimum, 4.2°C Dec. 27, 28, 2001.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 25.2°C Aug. 15; minimum, 4.2°C Dec. 27, 28.

WATER TEMPERATURE, in (DEGREES C), AUGUST TO SEPTEMBER 2001												
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	22.5	21.0	21.7
2	---	---	---	---	---	---	---	---	---	22.6	21.0	21.7
3	---	---	---	---	---	---	---	---	---	22.7	21.1	21.8
4	---	---	---	---	---	---	---	---	---	21.5	20.4	20.9
5	---	---	---	---	---	---	---	---	---	21.0	20.0	20.5
6	---	---	---	---	---	---	---	---	---	20.5	19.7	20.0
7	---	---	---	---	---	---	---	---	---	20.3	19.5	19.9
8	---	---	---	---	---	---	22.5	21.2	21.8	20.0	19.0	19.5
9	---	---	---	---	---	---	23.0	21.5	22.2	19.5	18.9	19.1
10	---	---	---	---	---	---	23.8	22.1	23.0	19.6	18.8	19.1
11	---	---	---	---	---	---	23.6	22.1	22.9	19.5	18.6	19.0
12	---	---	---	---	---	---	23.2	21.8	22.6	19.8	18.9	19.3
13	---	---	---	---	---	---	23.6	22.5	23.0	20.6	19.4	20.0
14	---	---	---	---	---	---	23.1	21.7	22.6	20.5	19.7	20.1
15	---	---	---	---	---	---	23.0	21.6	22.2	20.4	19.8	20.1
16	---	---	---	---	---	---	22.1	21.2	21.9	21.1	19.8	20.3
17	---	---	---	---	---	---	22.5	21.2	21.5	20.5	19.8	20.1
18	---	---	---	---	---	---	21.8	20.9	21.3	20.1	19.5	19.8
19	---	---	---	---	---	---	21.7	20.7	21.2	20.0	19.4	19.6
20	---	---	---	---	---	---	21.8	20.6	21.1	19.7	18.8	19.3
21	---	---	---	---	---	---	21.5	20.6	21.1	19.8	18.4	19.0
22	---	---	---	---	---	---	20.9	20.5	20.7	19.1	18.1	18.5
23	---	---	---	---	---	---	20.7	20.0	20.3	19.6	18.0	18.8
24	---	---	---	---	---	---	20.8	19.6	20.1	20.1	18.9	19.6
25	---	---	---	---	---	---	20.2	19.2	19.7	19.4	18.2	18.9
26	---	---	---	---	---	---	21.3	19.4	20.3	18.2	17.8	18.0
27	---	---	---	---	---	---	21.4	20.2	20.7	18.1	17.6	17.8
28	---	---	---	---	---	---	21.2	19.8	20.4	18.0	16.6	17.4
29	---	---	---	---	---	---	20.9	19.7	20.2	17.3	16.4	16.7
30	---	---	---	---	---	---	21.3	19.8	20.5	17.0	16.2	16.6
31	---	---	---	---	---	---	22.5	21.0	21.8	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	22.7	16.2	19.4

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.6	16.4	16.9	11.4	11.3	11.3	---	---	---	6.6	6.1	6.4
2	17.7	16.9	17.2	11.6	11.2	11.4	---	---	---	7.0	6.3	6.6
3	17.6	16.8	17.1	11.7	11.2	11.4	---	---	---	7.2	6.3	6.7
4	17.9	16.9	17.2	13.1	11.3	12.1	---	---	---	6.9	6.5	6.7
5	18.6	17.0	17.8	13.1	12.0	12.6	7.2	6.6	6.8	6.8	6.3	6.5
6	18.1	16.6	17.4	12.3	11.6	12.0	8.5	6.8	7.8	9.2	6.8	7.4
7	16.9	16.3	16.6	12.0	11.2	11.6	8.6	8.2	8.4	9.9	9.0	9.4
8	16.6	15.6	16.2	11.5	10.8	11.1	8.2	7.1	7.7	10.3	9.8	10.1
9	16.2	15.1	15.6	11.2	10.3	10.6	7.6	6.6	7.1	10.0	9.5	9.8
10	15.1	14.8	14.9	10.8	10.1	10.5	6.7	5.9	6.4	9.5	8.9	9.2
11	15.1	14.0	14.6	10.6	10.1	10.3	6.7	6.2	6.4	8.9	8.5	8.7
12	15.0	13.9	14.4	---	---	---	7.3	6.4	6.7	8.5	8.2	8.3
13	15.1	14.6	14.9	---	---	---	9.2	7.3	8.0	8.2	6.8	7.8
14	15.5	14.6	15.0	---	---	---	8.0	7.1	7.6	7.1	6.5	6.8
15	15.4	14.7	15.1	---	---	---	7.2	6.6	7.0	6.7	5.8	6.2
16	15.6	14.7	15.1	---	---	---	8.6	6.8	7.7	5.9	4.6	5.1
17	14.7	14.2	14.5	---	---	---	8.6	7.5	8.0	5.2	4.4	4.9
18	14.2	13.5	13.8	---	---	---	7.8	7.3	7.5	5.8	5.1	5.5
19	14.1	13.3	13.6	---	---	---	7.6	7.1	7.3	5.8	5.2	5.5
20	13.6	13.1	13.3	---	---	---	7.3	7.1	7.2	6.0	5.3	5.7
21	13.2	12.8	13.0	---	---	---	7.6	7.2	7.3	5.9	4.8	5.4
22	13.1	12.6	13.0	---	---	---	7.6	7.2	7.4	5.0	4.4	4.7
23	12.7	12.1	12.4	---	---	---	7.3	6.8	7.1	4.9	4.4	4.7
24	12.5	11.9	12.2	---	---	---	6.8	6.3	6.5	5.4	4.9	5.2
25	12.8	12.2	12.5	---	---	---	6.4	5.6	5.9	6.5	5.4	6.1
26	13.0	12.1	12.4	---	---	---	5.7	4.6	5.1	6.6	5.6	6.1
27	12.7	12.3	12.6	---	---	---	4.6	4.2	4.4	5.6	5.0	5.3
28	12.3	11.7	11.9	---	---	---	4.8	4.2	4.5	5.1	4.9	5.0
29	11.7	11.4	11.5	---	---	---	5.4	4.8	5.1	5.5	4.9	5.2
30	11.5	11.3	11.4	---	---	---	5.9	5.3	5.6	5.3	5.1	5.2
31	11.4	11.2	11.4	---	---	---	6.2	5.8	6.0	5.2	5.0	5.1
MONTH	18.6	11.2	14.4	---	---	---	---	---	---	10.3	4.4	6.5

WILLAMETTE RIVER BASIN

14169000 LONG TOM RIVER AT ALVADORE, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.6	5.2	5.3	9.1	8.1	8.5	11.9	10.4	11.2	14.7	13.9	14.2
2	6.0	5.4	5.7	8.8	7.8	8.3	12.2	10.6	11.4	14.6	13.7	14.2
3	6.9	6.0	6.4	8.8	8.0	8.4	12.4	11.3	12.0	14.9	13.9	14.4
4	6.7	6.3	6.5	9.4	8.0	8.7	12.8	11.8	12.3	14.7	13.6	14.0
5	6.6	6.3	6.4	9.4	8.5	8.9	12.8	12.4	12.7	14.7	13.6	14.2
6	6.5	6.2	6.3	9.1	8.6	8.9	13.2	12.8	13.0	14.7	13.8	14.2
7	6.4	6.1	6.2	8.9	8.2	8.5	13.6	12.6	13.0	14.4	13.8	14.0
8	6.4	5.9	6.1	8.6	7.8	8.1	13.5	12.4	12.8	14.3	13.5	13.8
9	6.4	6.2	6.3	8.2	7.7	8.0	13.6	12.6	13.0	14.2	13.4	13.8
10	7.1	6.1	6.5	8.3	7.9	8.1	14.3	13.3	13.7	14.5	13.7	14.0
11	7.1	6.5	7.0	8.7	8.1	8.5	14.3	13.3	14.0	14.6	13.4	13.9
12	6.6	6.1	6.4	9.1	8.3	8.6	14.7	13.8	14.1	15.2	13.5	14.3
13	6.6	6.3	6.4	8.5	8.2	8.4	14.7	13.9	14.4	15.6	14.6	15.2
14	6.7	6.3	6.5	8.7	8.1	8.3	15.2	14.3	14.7	16.1	15.0	15.5
15	7.3	6.3	6.5	8.3	8.1	8.2	14.7	13.7	14.1	15.6	14.5	15.0
16	7.0	6.3	6.6	8.1	7.7	7.9	13.7	12.9	13.3	15.8	14.5	15.1
17	7.5	6.6	7.0	7.8	7.5	7.7	13.6	12.6	13.0	16.7	15.0	15.8
18	9.0	7.0	8.2	7.8	7.4	7.6	13.5	12.6	12.9	16.3	15.4	15.8
19	9.0	8.4	8.7	8.0	7.4	7.7	13.3	12.5	12.8	16.7	15.7	16.0
20	8.7	8.2	8.4	8.3	7.8	7.9	13.6	12.6	12.9	16.3	15.6	15.9
21	10.6	8.6	9.5	8.6	7.9	8.2	13.7	12.6	13.0	16.8	16.0	16.4
22	10.3	9.1	9.8	8.9	8.4	8.6	13.8	12.8	13.1	16.7	15.8	16.3
23	10.8	9.3	10.1	9.0	8.3	8.6	13.8	12.7	13.1	16.4	15.6	15.9
24	10.7	9.7	10.3	9.6	8.9	9.2	14.2	12.6	13.4	16.7	15.6	16.0
25	9.8	9.0	9.4	9.8	9.0	9.5	14.3	13.2	13.7	16.9	15.7	16.2
26	9.4	8.7	9.0	10.3	9.0	9.5	14.1	13.2	13.5	17.3	16.0	16.6
27	9.2	8.5	8.8	10.8	9.7	10.1	14.5	13.4	13.8	17.8	16.0	16.8
28	9.1	8.4	8.7	10.8	9.7	10.3	14.8	13.3	14.0	16.6	16.3	16.4
29	---	---	---	10.8	9.8	10.2	14.6	13.5	13.9	17.3	16.4	16.8
30	---	---	---	10.8	9.9	10.2	14.3	13.6	14.0	17.4	16.0	16.6
31	---	---	---	10.8	9.6	10.2	---	---	---	16.8	15.9	16.2
MONTH	10.8	5.2	7.5	10.8	7.4	8.7	15.2	10.4	13.2	17.8	13.4	15.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.9	15.9	16.9	21.6	19.8	20.5	24.5	22.4	23.1	22.4	21.4	21.8
2	19.2	16.3	17.5	21.6	19.9	20.7	23.1	21.8	22.4	22.3	21.5	21.8
3	17.6	16.1	16.8	21.8	19.9	20.6	23.8	21.9	22.5	22.4	21.4	22.0
4	19.4	16.9	17.9	21.6	19.8	20.5	22.8	21.6	22.1	22.4	21.3	21.7
5	19.3	16.9	17.8	21.4	19.8	20.5	22.5	21.2	21.7	22.4	21.2	21.6
6	17.6	16.9	17.2	22.0	19.9	20.8	22.6	21.0	21.6	22.2	21.0	21.4
7	18.2	16.6	17.3	22.7	20.4	21.7	21.8	20.7	21.2	21.7	20.5	21.0
8	19.0	17.0	18.0	22.8	20.7	21.7	21.9	20.7	21.2	21.1	20.2	20.6
9	19.6	18.0	18.7	22.0	20.4	21.2	22.2	21.0	21.6	21.0	20.0	20.4
10	19.6	18.3	18.8	22.9	20.9	21.8	22.6	21.2	21.8	20.9	19.9	20.3
11	19.4	18.2	18.7	23.2	21.6	22.2	22.7	21.5	22.1	20.8	19.8	20.2
12	19.5	18.1	18.7	22.6	21.3	21.9	23.1	21.8	22.4	21.1	19.9	20.4
13	20.4	18.1	19.4	24.8	21.3	23.3	23.2	21.8	22.4	21.1	20.2	20.6
14	21.2	19.5	20.5	23.9	22.8	23.3	23.8	22.3	22.9	21.4	20.2	20.8
15	20.7	19.5	20.2	23.4	22.1	22.7	25.2	22.3	23.5	20.9	20.2	20.7
16	20.7	19.5	20.0	24.1	22.0	22.7	24.4	22.5	23.2	20.6	20.0	20.3
17	20.1	19.5	19.8	24.3	22.2	23.4	24.3	22.2	23.0	20.2	19.7	20.0
18	19.8	19.2	19.4	23.8	22.5	23.2	23.4	22.3	22.8	20.1	19.5	19.7
19	20.0	18.9	19.5	23.4	22.5	23.1	23.8	22.0	22.7	20.1	19.3	19.6
20	21.7	19.3	19.9	23.2	22.1	22.7	23.3	22.0	22.5	19.7	18.9	19.2
21	21.0	19.4	20.4	23.5	22.4	22.9	22.8	21.8	22.2	19.5	18.8	19.1
22	21.3	19.7	20.5	24.5	22.4	23.2	22.6	21.8	22.1	19.3	18.5	18.8
23	20.6	19.6	20.0	24.0	22.7	23.5	23.0	21.6	22.1	19.1	18.2	18.6
24	20.9	19.4	19.7	25.0	22.8	24.1	22.8	21.6	22.2	18.9	18.1	18.4
25	20.5	19.3	20.0	24.1	22.9	23.5	22.8	21.9	22.4	18.8	17.9	18.3
26	22.0	19.5	20.6	24.1	22.6	23.2	22.5	21.6	22.0	18.8	17.9	18.3
27	23.1	20.5	22.0	23.4	22.4	22.8	22.2	21.4	21.7	18.9	18.2	18.5
28	22.4	21.4	21.8	23.4	22.2	22.8	22.4	21.4	21.8	19.1	18.0	18.5
29	21.7	20.7	21.4	24.0	22.6	23.2	22.6	21.6	22.0	19.0	18.0	18.6
30	21.9	20.1	21.0	24.4	22.6	23.4	22.5	21.6	22.1	18.7	17.6	18.2
31	---	---	---	23.5	22.4	22.9	22.3	21.4	21.7	---	---	---
MONTH	23.1	15.9	19.3	25.0	19.8	22.4	25.2	20.7	22.2	22.4	17.6	20.0

14170000 LONG TOM RIVER AT MONROE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--August 2001 to current year.

INSTRUMENTATION.--Temperature probe and data logger.

REMARKS.--Records fair. Recorded temperatures during low flow periods may not necessarily represent the average temperature of the cross-section.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum, 25.4°C July 12, 2002; minimum, 4.8°C Dec. 28, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum, 25.4°C July 12; minimum, 4.8°C Dec. 28.

DAY	WATER TEMPERATURE, in (DEGREES C), AUGUST TO SEPTEMBER 2001											
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	---	---	---	22.3	21.6	21.9
2	---	---	---	---	---	---	---	---	---	22.0	21.5	21.8
3	---	---	---	---	---	---	---	---	---	21.9	20.8	21.3
4	---	---	---	---	---	---	---	---	---	21.2	20.4	20.8
5	---	---	---	---	---	---	---	---	---	20.9	19.8	20.2
6	---	---	---	---	---	---	---	---	---	19.8	18.6	19.0
7	---	---	---	---	---	---	---	---	---	19.6	18.4	19.0
8	---	---	---	---	---	---	23.0	22.5	22.7	19.8	18.4	19.0
9	---	---	---	---	---	---	23.2	22.4	22.8	19.3	18.7	19.0
10	---	---	---	---	---	---	23.9	23.0	23.4	19.6	18.9	19.2
11	---	---	---	---	---	---	23.8	23.5	23.6	20.1	19.1	19.5
12	---	---	---	---	---	---	23.8	23.5	23.7	20.4	19.5	19.9
13	---	---	---	---	---	---	24.0	23.5	23.8	20.7	20.0	20.4
14	---	---	---	---	---	---	23.7	23.4	23.5	21.1	20.4	20.6
15	---	---	---	---	---	---	23.4	23.0	23.2	21.1	20.5	20.8
16	---	---	---	---	---	---	23.1	22.6	22.8	21.4	20.8	21.1
17	---	---	---	---	---	---	22.6	21.5	21.9	21.2	19.6	20.5
18	---	---	---	---	---	---	22.3	21.6	21.9	19.9	18.8	19.5
19	---	---	---	---	---	---	22.5	21.1	21.6	19.6	18.6	19.1
20	---	---	---	---	---	---	21.7	20.4	21.0	19.3	18.1	18.5
21	---	---	---	---	---	---	21.1	20.5	20.8	18.3	17.8	18.1
22	---	---	---	---	---	---	20.5	19.6	20.1	18.5	18.1	18.2
23	---	---	---	---	---	---	20.0	19.4	19.5	18.7	18.2	18.4
24	---	---	---	---	---	---	20.0	18.8	19.3	19.2	18.5	18.7
25	---	---	---	---	---	---	20.0	18.9	19.5	18.8	18.1	18.6
26	---	---	---	---	---	---	20.8	19.4	20.2	18.1	17.4	17.6
27	---	---	---	---	---	---	21.3	20.1	20.7	17.4	16.7	16.9
28	---	---	---	---	---	---	21.4	20.5	20.9	16.8	16.2	16.5
29	---	---	---	---	---	---	21.9	21.0	21.4	16.6	15.8	16.3
30	---	---	---	---	---	---	22.2	21.2	21.6	16.9	16.2	16.6
31	---	---	---	---	---	---	22.3	21.3	21.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	22.3	15.8	19.2

DAY	WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002											
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.2	16.6	16.9	11.6	11.4	11.5	8.0	7.7	7.9	6.7	6.3	6.5
2	17.8	16.6	17.2	12.2	11.5	11.9	7.9	7.5	7.7	6.9	6.6	6.7
3	17.6	17.0	17.3	12.2	11.5	11.9	7.8	7.5	7.6	6.8	6.4	6.6
4	17.3	16.4	16.9	12.1	11.8	12.0	7.6	7.0	7.2	6.8	6.5	6.7
5	16.9	16.3	16.7	12.9	11.9	12.3	7.0	6.7	6.8	7.0	6.6	6.7
6	16.8	16.1	16.4	12.2	11.3	11.8	8.3	7.0	7.6	9.0	7.0	7.9
7	16.2	15.1	15.5	11.3	10.6	10.9	8.5	8.2	8.3	10.1	9.0	9.7
8	15.3	14.8	15.1	10.6	9.9	10.3	8.4	7.7	8.0	10.2	9.8	10.0
9	14.9	14.1	14.4	10.4	9.6	10.0	7.7	7.0	7.2	10.1	9.6	9.7
10	14.3	13.1	13.7	10.4	9.9	10.1	7.3	6.5	6.8	9.6	9.1	9.2
11	13.6	13.1	13.2	10.6	10.1	10.3	6.9	6.5	6.7	9.1	8.5	8.7
12	13.8	13.4	13.6	10.6	10.3	10.4	7.0	6.6	6.7	8.6	8.1	8.4
13	15.4	13.6	14.1	10.8	10.2	10.4	8.7	7.0	7.7	8.1	7.6	7.8
14	14.9	14.2	14.4	11.9	10.8	11.4	8.8	7.3	8.0	7.6	6.7	6.9
15	14.4	13.9	14.1	12.2	11.7	12.0	7.3	6.8	7.1	6.7	6.0	6.3
16	14.6	13.9	14.3	12.1	11.4	11.8	8.6	7.3	7.8	6.0	5.3	5.7
17	13.9	13.1	13.5	11.4	10.5	10.8	8.6	8.0	8.2	5.5	5.0	5.3
18	13.1	12.2	12.5	10.5	10.0	10.3	8.1	7.5	7.7	6.2	5.5	5.8
19	12.6	11.9	12.2	10.2	9.9	10.0	7.6	7.3	7.4	6.4	6.1	6.2
20	13.0	12.0	12.7	10.1	9.8	10	7.5	7.2	7.3	6.4	5.7	6.0
21	12.6	11.4	12.0	9.9	9.2	9.5	7.6	7.3	7.4	6.4	5.4	5.8
22	12.0	11.4	11.7	9.4	9.1	9.3	7.4	7.2	7.3	5.4	4.9	5.1
23	12.6	11.5	12.0	9.1	8.8	8.9	7.4	7.0	7.1	5.4	5.0	5.1
24	12.3	11.4	11.8	8.8	8.5	8.6	7.0	6.3	6.6	5.8	5.3	5.6
25	12.9	12.0	12.4	8.5	8.1	8.3	6.3	5.8	6.1	7.0	5.8	6.5
26	12.7	12.3	12.6	8.1	7.5	7.8	5.8	5.4	5.6	7.0	5.8	6.4
27	12.5	11.7	12.2	7.7	7.3	7.5	5.4	4.9	5.1	5.8	5.3	5.4
28	11.7	11.4	11.5	7.8	7.1	7.4	5.4	4.8	5.1	5.4	5.1	5.2
29	11.4	11.1	11.3	8.2	7.7	8.0	5.7	5.4	5.5	5.7	5.2	5.4
30	11.5	11.1	11.3	8.0	7.6	7.8	6.0	5.3	5.7	5.7	5.4	5.5
31	11.8	11.3	11.5	---	---	---	6.4	6.0	6.2	5.5	5.3	5.4
MONTH	17.8	11.1	13.7	12.9	7.1	10.1	8.8	4.8	7.0	10.2	4.9	6.7

14171000 MARYS RIVER NEAR PHILOMATH, OR

LOCATION.--Lat 44°31'35", long 123°20'00", in NE 1/4 SE 1/4 sec.18, T.12 S., R.5 W., Benton County, Hydrologic Unit 17090003, on right bank 15 ft downstream from bridge on Bellfountain Road, 0.6 mi downstream from Newton Creek, 2.0 mi southeast of Philomath, and at mile 9.4.

DRAINAGE AREA.--159 mi², including drainage area of Evergreen Creek above Bellfountain Road, 1.4 mi south of station.

PERIOD OF RECORD.--October 1940 to September 1985, October 2000 to current year.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1935: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 224.01 ft above NGVD of 1929 (levels by Corps of Engineers). Prior to Oct. 1 1961, nonrecording gage at bridge 50 ft upstream at same datum. October 1, 1961 to Sept. 30, 1985, gage on left bank, 35 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records fair. Records include flow of Evergreen Creek at Bellfountain Road crossing 1.4 mi south of station, with which overflow from Marys River may at times be mingled. Slight regulation by small storage reservoir on Rock Creek from which municipal supply is diverted for city of Corvallis. Other small diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--47 years (water years 1941-85, 2001-02), 455 ft³/s, 38.86 in/yr, 329,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s Dec. 22, 1964, gage height, 20.72 ft; maximum gage height, 20.91 ft Jan. 15, 1974; minimum discharge, 0.60 ft³/s Aug. 23, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1830	4,390	19.39	Jan. 8	0400	3,310	17.72
Dec. 17	0400	3,370	17.87	Jan. 25	1600	*4,550	*19.52

Minimum discharge, 4.8 ft³/s Aug. 30.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	106	3560	615	1330	285	344	175	85	59	18	8.3
2	14	93	3020	709	1150	270	326	168	80	51	18	8.1
3	13	72	1820	636	1030	256	310	164	77	46	17	6.5
4	12	55	1500	571	946	250	295	158	74	43	17	6.5
5	12	44	2160	540	852	254	286	154	73	43	19	6.4
6	12	37	2170	1260	797	741	281	165	71	40	23	6.9
7	13	34	2150	2490	1290	710	268	164	70	39	21	7.9
8	14	30	1620	2940	2290	557	256	150	70	38	19	9.6
9	14	27	1220	2040	1880	506	262	142	71	36	17	8.8
10	15	26	971	1410	1420	634	294	136	68	34	15	7.8
11	19	25	891	1070	1110	1140	286	130	65	33	15	7.6
12	24	26	848	922	914	2010	266	126	62	30	12	8.2
13	30	39	1390	825	774	1910	258	122	59	30	12	7.3
14	24	197	3110	714	669	1620	447	120	57	29	10	7.7
15	23	207	2470	629	591	1280	479	116	55	26	9.6	8.4
16	22	143	2340	559	535	1120	442	112	55	26	10	9.3
17	21	116	2940	531	464	1040	422	113	58	25	10	16
18	20	93	2180	485	429	911	405	111	68	26	9.8	27
19	19	94	1750	590	420	1380	373	106	71	25	11	23
20	19	161	1400	1250	392	1490	347	121	64	26	11	20
21	18	270	1090	2640	369	1210	321	123	57	26	12	15
22	22	1150	902	2640	359	955	299	111	53	24	11	12
23	66	1550	757	2150	495	798	277	104	53	23	10	10
24	86	937	645	1670	442	727	260	99	52	23	10	9.3
25	53	682	565	3370	392	617	247	95	50	23	10	9.3
26	38	522	503	3490	374	543	232	91	46	24	10	9.0
27	31	412	467	2630	347	490	236	88	44	24	8.9	9.0
28	31	1020	556	1900	304	449	221	97	46	23	8.9	9.3
29	30	2320	491	1360	---	419	203	113	63	21	8.6	9.5
30	67	1760	455	1080	---	389	182	104	73	20	7.1	10
31	96	---	529	1030	---	365	---	91	---	18	8.3	---
TOTAL	893	12248	46470	44746	22365	25326	9125	3869	1890	954	399.2	313.7
MEAN	28.81	408.3	1499	1443	798.8	817.0	304.2	124.8	63.00	30.77	12.88	10.46
MAX	96	2320	3560	3490	2290	2010	479	175	85	59	23	27
MIN	12	25	455	485	304	250	182	88	44	18	7.1	6.4
AC-FT	1770	24290	92170	88750	44360	50230	18100	7670	3750	1890	792	622
CFSM	0.18	2.57	9.43	9.08	5.02	5.14	1.91	0.78	0.40	0.19	0.08	0.07
IN.	0.21	2.87	10.87	10.47	5.23	5.93	2.13	0.91	0.44	0.22	0.09	0.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

	70.57	472.7	1065	1198	1050	786.0	457.6	218.4	93.84	35.76	17.89	19.55
MEAN	70.57	472.7	1065	1198	1050	786.0	457.6	218.4	93.84	35.76	17.89	19.55
MAX	568	1897	2360	2455	2398	1736	1133	660	295	89.6	35.8	51.9
(WY)	1948	1974	1982	1970	1949	1961	1963	1963	1984	1984	1968	1941
MIN	8.24	21.9	29.9	37.6	83.2	190	160	90.9	43.1	16.4	4.89	6.02
(WY)	1953	1953	1977	1977	1977	1941	1977	1966	1966	1973	1967	1967

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1941 - 2002

ANNUAL TOTAL	93033.9	168598.9	
ANNUAL MEAN	254.9	461.9	454.8
HIGHEST ANNUAL MEAN			816
LOWEST ANNUAL MEAN			104
HIGHEST DAILY MEAN	3560	Dec 1	11300
LOWEST DAILY MEAN	9.1	Sep 13	1.4
ANNUAL SEVEN-DAY MINIMUM	11	Sep 8	2.4
ANNUAL RUNOFF (AC-FT)	184500	334400	329500
ANNUAL RUNOFF (CFSM)	1.60	2.91	2.86
ANNUAL RUNOFF (INCHES)	21.77	39.45	38.86
10 PERCENT EXCEEDS	496	1400	1260
50 PERCENT EXCEEDS	110	116	158
90 PERCENT EXCEEDS	14	10	15

14174000 WILLAMETTE RIVER AT ALBANY, OR

LOCATION.--Lat 44°38'20", long 123°06'20", in SW 1/4 sec.6, T.11 S., R.3 W., Linn County, Hydrologic Unit 17090003, on right bank 5 ft upstream from bridge on U.S. Highway 20 (Ellsworth Street) in Albany, 0.2 mi downstream from Calapooia River, and at mile 119.31.

DRAINAGE AREA.--4,840 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1878 to April 1888 (fragmentary), January to June 1892, November 1892 to September 1894, December 1894 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 694: Drainage area. WSP 904: 1939. WSP 964: 1881, 1890, 1894, 1897, 1901, 1903, 1908, 1910, 1916, 1923, 1927, 1932(M). WSP 984: 1916. WSP 1248: 1895, 1902, 1907, 1915(M), 1917(M), 1918-19, 1934(M). WSP 1318 (monthly and annual figures only): 1894, 1897, 1901-3, 1907-8, 1910, 1916, 1918-19, 1923, 1927.

GAGE.--Water-stage recorder. Datum of gage is 167.18 ft above NGVD of 1929. Prior to Sept. 27, 1906, nonrecording gage at site 0.2 mi upstream at datum 5.00 ft higher. Sept. 27, 1906, to Nov. 12, 1934, nonrecording gage at site 300 ft upstream at datum 5.00 ft higher. Nov. 14, 1934, to Sept. 30, 1962, at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by nine reservoirs upstream from station. Albany power canal diverts water from South Santiam River at Lebanon and discharges into Calapooia River near mouth; small diversions for irrigation and municipal water supply.

AVERAGE DISCHARGE.--47 years (water years 1894, 1896-1941), 13,530 ft³/s, 38.00 in/yr, 9,805,000 acre-ft/yr. 61 years (water years 1942-2002), 14,750 ft³/s, 41.41 in/yr, 10,690,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 266,000 ft³/s Jan. 14, 1881, gage height, 37.8 ft, present datum; minimum discharge, 1,840 ft³/s Sept. 1, 2, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 4, 1861, reached a stage of 41.0 ft, discharge, 340,000 ft³/s, from rating curve extended above 220,000 ft³/s. Flood of Feb. 4, 1890, reached a stage of 38.9 ft, discharge, 291,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53,900 ft³/s Jan. 27, gage height, 18.78 ft; minimum discharge, 4,170 ft³/s July 9, 10.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5330	6920	34300	17200	21500	9860	12700	9440	8690	5190	4880	5230
2	5270	6840	38700	19500	22100	9330	12500	9260	8120	5040	4910	5230
3	5140	6200	39100	20400	19500	8760	12000	9180	7800	4820	4920	5230
4	5070	5850	31700	20200	17600	8390	12000	9150	7740	4560	4960	5200
5	5050	5650	32800	18200	15600	8190	12100	8970	7740	4410	5020	5190
6	5050	5550	35100	19400	14500	9630	12300	8790	7640	4280	5060	5230
7	5070	5450	38100	26600	15900	15400	11600	8850	7590	4240	5050	5260
8	5120	5350	40100	31200	27900	16000	11400	9620	7700	4210	5020	5230
9	5130	5180	34500	35900	31300	13100	11300	9560	7700	4190	4980	5240
10	5160	4980	28900	32400	24400	12000	12000	8820	7530	4180	4970	5250
11	5320	4790	24400	27000	20000	12600	15300	9590	7320	4200	5050	5240
12	5630	4860	21700	24300	17600	20100	15400	9220	7140	4200	5110	5230
13	5400	4930	22500	22800	15900	28600	15100	9120	7010	4240	5160	5250
14	5270	5130	34800	21800	14500	27900	18100	9230	6730	4310	5150	5250
15	5170	6110	49100	20000	13100	24500	29900	9310	6320	4370	5130	5260
16	5100	6000	45900	18500	12200	22200	33700	9220	5930	4410	5100	5330
17	4980	6550	44900	17400	11900	21500	30700	9310	5650	4530	5110	5420
18	4990	7900	48000	16400	11300	18900	27700	9320	5540	4630	5100	5700
19	5020	7510	49700	15900	10900	17400	25500	9480	5730	4750	5100	6000
20	5110	6770	49100	18300	11500	16500	22000	9720	5980	4850	5120	5970
21	5340	7000	45900	29700	12300	15500	18600	9610	5800	4890	5240	5680
22	5290	9470	41700	45500	12100	15100	16400	9640	5570	4930	5400	5410
23	5690	20200	36700	43200	14200	15000	14600	9730	5410	4930	5440	5360
24	7080	22000	30200	34200	17200	16900	13100	9370	5260	4900	5420	5390
25	6410	19300	23600	33500	15100	18200	11900	9150	5120	4860	5390	5430
26	6000	19400	19800	45900	13100	17200	11200	9040	5090	4830	5390	5550
27	5800	18100	17100	52900	11600	15400	10800	9150	5110	4820	5380	5660
28	5660	16500	15400	43800	10500	13900	10500	9300	5170	4820	5350	5730
29	5570	24800	14700	33500	---	12900	9880	9780	5240	4820	5320	5800
30	5760	33300	14000	26500	---	12000	9590	10300	5240	4800	5250	5910
31	5950	---	14300	22200	---	12300	---	9930	---	4810	5220	---
TOTAL	167930	308590	1016800	854300	455300	485260	479870	290160	194610	143020	159700	162860
MEAN	5417	10290	32800	27560	16260	15650	16000	9360	6487	4614	5152	5429
MAX	7080	33300	49700	52900	31300	28600	33700	10300	8690	5190	5440	6000
MIN	4980	4790	14000	15900	10500	8190	9590	8790	5090	4180	4880	5190
AC-FT	333100	612100	2017000	1695000	903100	962500	951800	575500	386000	283700	316800	323000
CFSM	1.12	2.13	6.78	5.69	3.36	3.23	3.30	1.93	1.34	0.95	1.06	1.12
IN.	1.29	2.37	7.82	6.57	3.50	3.73	3.69	2.23	1.50	1.10	1.23	1.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2002, BY WATER YEAR (WY)

MEAN	8143	17000	28020	28840	23860	18730	15120	12640	8925	5283	4999	5879
MAX	17070	46180	69630	61230	51960	43890	29610	24830	18460	7333	7313	8985
(WY)	1948	1951	1956	1956	1961	1957	1955	1963	1993	1969	1971	1972
MIN	2629	3196	4150	3901	3208	6571	5630	4733	4091	3281	2485	2623
(WY)	1943	1953	1977	1977	1977	2001	1977	1973	1987	1944	1944	1944

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1942 - 2002

ANNUAL TOTAL		3176020		4718400								
ANNUAL MEAN		8701		12930						14750		
HIGHEST ANNUAL MEAN										24080		1956
LOWEST ANNUAL MEAN										5831		1977
HIGHEST DAILY MEAN			49700	Dec 19	52900	Jan 27	210000	Jan 2	1943			
LOWEST DAILY MEAN			3770	Jul 30	4180	Jul 10	2130	Sep 12	1944			
ANNUAL SEVEN-DAY MINIMUM			3830	Jul 28	4210	Jul 7	2180	Sep 8	1944			
ANNUAL RUNOFF (AC-FT)			6300000		9359000					10690000		
ANNUAL RUNOFF (CFSM)			1.80		2.67					3.05		
ANNUAL RUNOFF (INCHES)			24.41		36.27					41.41		
10 PERCENT EXCEEDS			15000		29800					33200		
50 PERCENT EXCEEDS			5760		9120					9370		
90 PERCENT EXCEEDS			3900		4970					4550		

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--August 2001 to current year.

INSTRUMENTATION.--Temperature probe and data logger.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 23.0°C July 11, 2002; minimum, 4.9°C Jan. 27, 28, 2002.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 23.0°C July 11; minimum, 4.9°C Jan. 27, 28.

WATER TEMPERATURE, in (DEGREES C), AUGUST TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	20.4	19.2	19.9
2	---	---	---	---	---	---	---	---	---	20.5	19.1	19.8
3	---	---	---	---	---	---	---	---	---	20.0	18.7	19.4
4	---	---	---	---	---	---	---	---	---	19.7	18.7	19.2
5	---	---	---	---	---	---	---	---	---	19.2	17.7	18.3
6	---	---	---	---	---	---	---	---	---	18.1	16.8	17.5
7	---	---	---	---	---	---	---	---	---	17.9	16.6	17.2
8	---	---	---	---	---	---	---	---	---	18.1	16.6	17.4
9	---	---	---	---	---	---	---	---	---	18.8	17.2	17.9
10	---	---	---	---	---	---	22.9	---	---	19.1	17.6	18.4
11	---	---	---	---	---	---	22.5	20.6	21.7	19.2	17.9	18.6
12	---	---	---	---	---	---	22.4	20.8	21.7	19.5	18.1	18.8
13	---	---	---	---	---	---	22.4	20.5	21.5	19.7	18.4	19.1
14	---	---	---	---	---	---	21.8	20.1	20.9	19.4	18.6	19.0
15	---	---	---	---	---	---	21.4	19.7	20.6	19.8	18.6	19.1
16	---	---	---	---	---	---	20.7	19.3	19.9	19.9	18.8	19.3
17	---	---	---	---	---	---	20.5	18.8	19.6	19.2	18.1	18.6
18	---	---	---	---	---	---	20.0	19.0	19.6	18.3	17.2	17.7
19	---	---	---	---	---	---	20.5	18.9	19.7	17.9	16.9	17.4
20	---	---	---	---	---	---	20.2	18.6	19.4	17.4	16.5	17.0
21	---	---	---	---	---	---	19.6	18.4	18.8	17.4	16.3	17.0
22	---	---	---	---	---	---	18.4	17.8	18.2	17.8	16.7	17.3
23	---	---	---	---	---	---	18.5	17.4	17.9	18.1	16.9	17.6
24	---	---	---	---	---	---	19.1	17.2	18.2	18.0	17.2	17.6
25	---	---	---	---	---	---	19.9	18.0	18.9	17.5	16.3	16.9
26	---	---	---	---	---	---	20.5	18.7	19.6	16.4	15.9	16.2
27	---	---	---	---	---	---	20.6	18.9	19.8	15.9	15.2	15.5
28	---	---	---	---	---	---	21.0	19.2	20.1	15.7	14.7	15.3
29	---	---	---	---	---	---	21.1	19.5	20.3	16.3	15.0	15.7
30	---	---	---	---	---	---	20.9	19.4	20.2	16.8	15.6	16.3
31	---	---	---	---	---	---	20.9	19.1	20.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	20.5	14.7	17.8

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.2	16.0	16.6	12.0	11.5	11.7	8.2	7.9	8.1	7.2	6.7	7.0
2	17.4	16.6	17.0	12.4	11.7	12.0	8.1	7.6	7.9	7.3	6.9	7.1
3	17.1	16.2	16.7	12.9	12.2	12.5	8.1	7.6	7.9	7.6	7.2	7.4
4	16.6	15.7	16.2	12.9	12.6	12.8	7.9	7.0	7.6	7.3	6.7	7.0
5	16.3	15.5	16.0	12.8	11.9	12.3	7.1	6.4	6.7	6.8	6.6	6.7
6	16.1	15.6	15.9	11.9	11.3	11.6	7.9	6.6	7.4	8.7	6.8	7.5
7	15.6	14.8	15.1	11.3	10.1	10.6	8.1	7.9	8.0	9.8	8.7	9.5
8	14.9	14.4	14.7	10.1	9.1	9.4	8.0	7.5	7.8	10.0	9.4	9.8
9	14.6	13.9	14.3	9.1	8.6	8.9	7.7	7.4	7.5	9.6	8.5	9.1
10	14.3	13.5	13.8	9.7	8.8	9.2	7.5	6.9	7.2	8.5	7.9	8.2
11	14.0	13.4	13.7	10.5	9.6	10	7.0	6.8	6.9	8.0	7.7	7.9
12	14.4	13.4	13.9	10.9	10.4	10.6	7.2	6.8	7.0	7.9	7.6	7.7
13	15.0	14.0	14.4	11.1	10.9	10.9	8.2	7.1	7.6	7.7	7.2	7.4
14	15.5	14.8	15.1	12.3	11.1	11.7	8.3	7.3	7.9	7.2	6.6	7.0
15	15.1	14.4	14.8	12.3	11.8	12.0	7.3	6.7	6.9	6.6	6.0	6.3
16	14.9	14.1	14.5	12.0	11.4	11.7	8.2	6.7	7.4	6.0	5.5	5.8
17	14.1	13.5	13.8	11.4	10.3	10.8	8.4	7.9	8.2	5.8	5.4	5.6
18	13.6	12.9	13.2	10.3	9.9	10.1	7.9	7.2	7.6	6.4	5.8	6.1
19	13.7	12.7	13.2	9.9	9.6	9.8	7.3	7.1	7.2	6.6	6.2	6.4
20	13.8	13.1	13.4	10.0	9.7	9.8	7.5	7.1	7.3	6.4	6.0	6.2
21	13.4	12.5	12.8	9.8	9.7	9.7	7.6	7.2	7.4	6.3	5.8	6.1
22	13.1	12.5	12.8	9.8	9.4	9.7	7.2	6.7	6.9	5.8	5.0	5.3
23	13.4	12.8	13.0	9.4	9.0	9.2	6.8	6.4	6.6	5.8	5.1	5.4
24	12.9	11.6	12.1	9.1	8.8	9.0	6.5	6.0	6.2	6.2	5.8	6.0
25	12.9	12.0	12.4	8.8	8.5	8.7	6.0	5.5	5.7	6.8	6.2	6.6
26	13.1	12.4	12.8	8.5	8.1	8.3	5.7	5.4	5.6	6.8	5.9	6.4
27	13.1	12.2	12.7	8.2	7.8	8.1	5.7	5.5	5.6	5.9	4.9	5.3
28	12.2	11.2	11.5	7.8	7.4	7.6	6.1	5.6	5.8	5.6	4.9	5.3
29	11.2	11.0	11.1	8.2	7.6	8.0	6.6	6.0	6.3	5.7	5.3	5.6
30	11.7	11.0	11.2	8.2	7.9	8.0	6.3	6.0	6.2	5.7	5.5	5.6
31	12.2	11.7	12.0	---	---	---	6.7	6.3	6.5	6.0	5.6	5.8
MONTH	17.4	11.0	13.9	12.9	7.4	10.2	8.4	5.4	7.1	10.0	4.9	6.7



Figure 25. Location of surface-water and water-quality stations in the Willamette River Basin, downstream from the Luckiamute River.

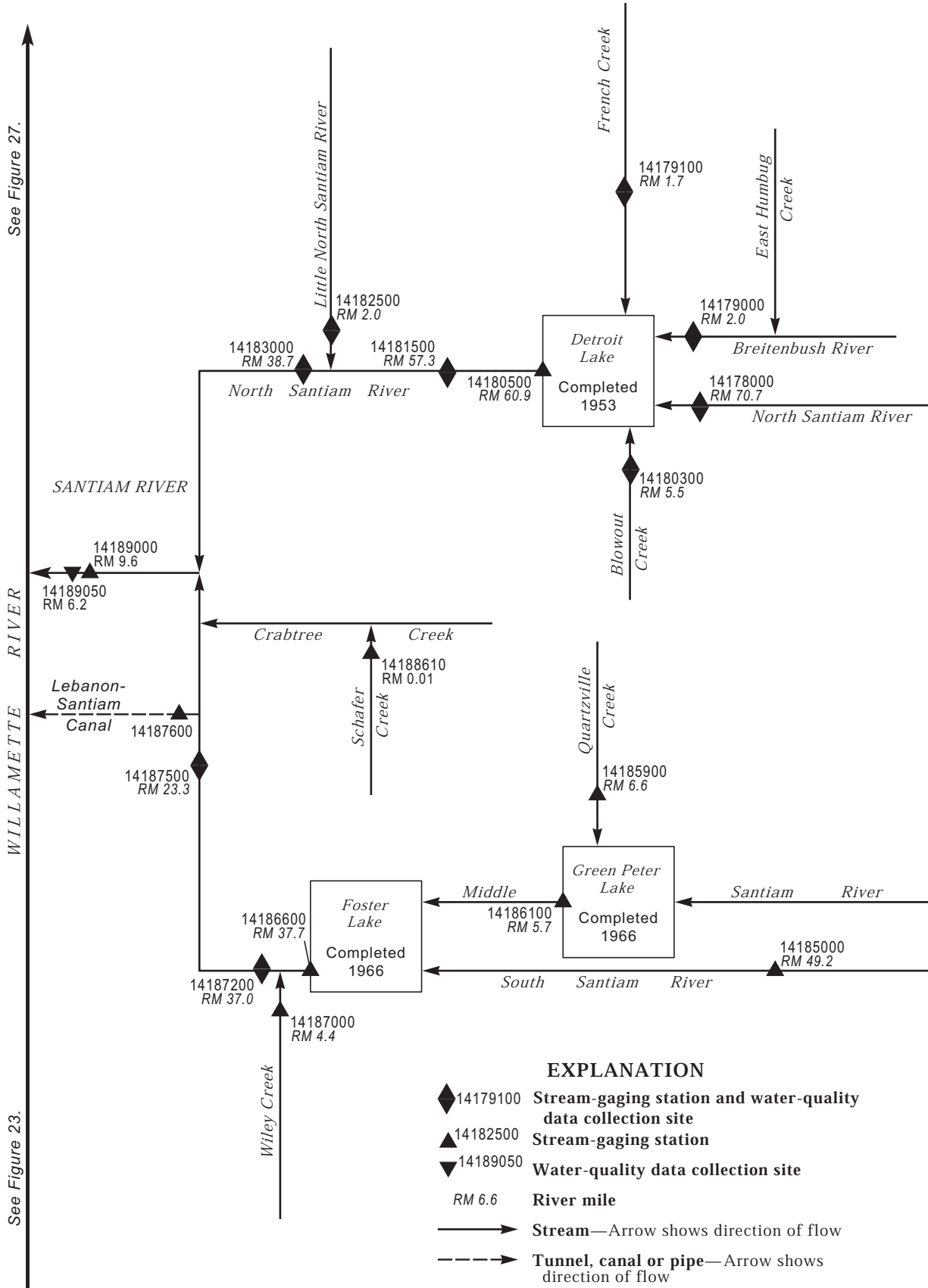


Figure 26. Schematic diagram showing gaging stations and diversions in the Santiam River Basin.

WILLAMETTE RIVER BASIN

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR

LOCATION.--Lat 44°42'25", long 122°06'00", in SE 1/4 NW 1/4 sec.17, T.10 S., R.6 E., Marion County, Hydrologic Unit 17090005, on right bank 0.5 mi downstream from Boulder Creek, 3.0 mi southeast of Detroit, and at mile 70.7.

DRAINAGE AREA.--216 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1907 to October 1910, October 1928 to current year. Monthly discharge only January 1907, published in WSP 1318. Prior to October 1952, published as "at Detroit."

REVISED RECORDS.--WSP 814: Drainage area at former site. WSP 1248: 1931. WDR OR-85-2: 1982-82 (P).

GAGE.--Water-stage recorder. Datum of gage is 1,590.07 ft above NGVD of 1929. See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station. Continuous water-quality records for the period April 1951 to September 1987 and Oct. 1998 to current year have been collected at this location.

AVERAGE DISCHARGE.--76 years (water years 1908, 1909, 1929-2002), 1,007 ft³/s, 63.34 in/yr, 729,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft³/s Dec. 22, 1964, slope-area measurement of peak flow, gage height, 13.76 ft, temporary backwater from debris; minimum discharge, 250 ft³/s Sept. 13, 1909.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 14	0100	4,650	6.32	Jan. 8	0830	5,310	6.62
Dec. 17	0400	4,120	6.06	Apr. 14	0500	*9,200	*8.12

Minimum discharge, 277 ft³/s Oct. 4-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	750	1730	938	771	942	1130	1500	2020	948	530	449
2	288	613	1640	1190	734	881	1220	1670	1870	887	528	452
3	285	508	1320	1320	718	834	1310	1800	1730	850	520	457
4	284	451	1140	1230	691	804	1450	1670	1640	803	517	442
5	280	429	1030	1150	674	800	1650	1600	1690	777	511	433
6	280	404	1540	1680	672	1100	1710	1540	1660	764	509	428
7	280	381	1840	2820	781	1160	1800	1390	1490	774	500	425
8	286	366	1470	4690	868	1020	1770	1270	1330	761	496	423
9	292	355	1250	3340	794	943	2050	1220	1220	734	497	422
10	305	346	1120	2420	753	923	3900	1150	1140	760	502	424
11	455	339	1020	1950	731	1530	3630	1150	1150	756	499	425
12	349	347	936	1870	702	2970	3850	1230	1230	742	493	424
13	331	432	1870	1750	681	2140	3920	1420	1390	738	498	422
14	316	822	3520	1540	661	1690	7330	1430	1530	717	496	424
15	308	608	2280	1360	649	1430	4430	1470	1490	673	489	419
16	299	717	2970	1230	644	1270	3160	1450	1390	653	482	419
17	296	734	3600	1130	643	1140	2500	1520	1330	648	477	472
18	289	623	2660	1050	646	1030	2080	1630	1730	638	473	449
19	285	588	2100	1010	749	994	1820	1620	1420	625	470	430
20	285	661	1780	1030	809	940	1640	1590	1260	607	479	419
21	285	979	1490	1020	899	920	1570	1590	1240	596	479	411
22	410	2480	1300	942	1160	886	1560	1590	1230	594	469	404
23	599	2230	1150	866	1600	886	1570	1500	1190	591	467	403
24	429	1480	1040	854	1670	937	1500	1480	1130	585	482	400
25	373	1170	957	1250	1430	960	1490	1520	1070	576	469	399
26	352	974	891	1190	1230	966	1520	1660	1090	574	463	396
27	338	843	858	1030	1110	997	1470	1800	1080	564	462	394
28	341	1330	959	926	1020	997	1380	2030	1020	556	470	393
29	342	1960	885	851	---	997	1370	2580	1200	565	465	402
30	474	1510	841	803	---	1020	1460	2470	1070	556	455	493
31	818	---	869	780	---	1060	---	2210	---	543	446	---
TOTAL	10843	25430	48056	45210	24490	35167	67240	49750	41030	21155	15093	12753
MEAN	350	848	1550	1458	875	1134	2241	1605	1368	682	487	425
MAX	818	2480	3600	4690	1670	2970	7330	2580	2020	948	530	493
MIN	280	339	841	780	643	800	1130	1150	1020	543	446	393
AC-FT	21510	50440	95320	89670	48580	69750	133400	98680	81380	41960	29940	25300
CFSM	1.62	3.92	7.18	6.75	4.05	5.25	10.4	7.43	6.33	3.16	2.25	1.97
IN.	1.87	4.38	8.28	7.79	4.22	6.06	11.58	8.57	7.07	3.64	2.60	2.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2002, BY WATER YEAR (WY)

	508	988	1383	1319	1298	1193	1364	1421	1092	628	474	436
MEAN	508	988	1383	1319	1298	1193	1364	1421	1092	628	474	436
MAX	1215	2167	3840	2991	3552	2865	2241	2762	2759	1101	723	595
(WY)	1951	1951	1965	1953	1996	1972	2002	1949	1933	1950	1999	1971
MIN	312	335	432	383	404	616	610	600	412	363	319	302
(WY)	1981	1994	1977	1937	1977	1941	1941	1992	1992	1992	1992	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1908 - 2002

ANNUAL TOTAL	253842	396217	
ANNUAL MEAN	695	1086	
HIGHEST ANNUAL MEAN			1007
LOWEST ANNUAL MEAN			1506
HIGHEST DAILY MEAN	3600	Dec 17	7330
LOWEST DAILY MEAN	280	Oct 5	280
ANNUAL SEVEN-DAY MINIMUM	283	Oct 2	283
ANNUAL RUNOFF (AC-FT)	503500		785900
ANNUAL RUNOFF (CFSM)	3.22		5.03
ANNUAL RUNOFF (INCHES)	43.72		68.24
10 PERCENT EXCEEDS	1250		1800
50 PERCENT EXCEEDS	552		786
90 PERCENT EXCEEDS	305		401

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Water-quality monitor.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1998 to current year.

pH: October 1998 to current year.

WATER TEMPERATURE: April 1951 to September 1987, October 1998 to current year.

TURBIDITY: October 1998 to current year.

REMARKS.--Water-quality data for the 2001 water year available in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Record good.

pH: Record good.

WATER TEMPERATURE: Record good.

TURBIDITY: Record good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 54 microsiemens Sept. 12, 2001; minimum recorded, 18 microsiemens Apr. 14, 2002.

pH: Maximum recorded, 8.4 units Sept. 15, 2002; minimum recorded, 6.8 units Mar. 28, Apr. 30, 2001.

WATER TEMPERATURE: Maximum recorded, 19.0°C July 18, 19, 1970; minimum recorded, 0.0°C several days in Jan. 1974, Jan., Feb. 1979, Jan. 1980, Dec. 1998.

TURBIDITY: Maximum recorded, 1,770 NTU Oct. 1, 2001, minimum recorded, <1 NTU on many days during most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 53 microsiemens Oct. 1; minimum recorded, 18 microsiemens Apr. 14.

pH: Maximum recorded, 8.4 units Sept. 15; minimum recorded, 7.4 units May 29.

WATER TEMPERATURE: Maximum recorded, 16.6°C July 23; minimum recorded, 0.4°C Jan. 21.

TURBIDITY: Maximum recorded, 1,470 NTU Apr. 14, minimum recorded, <1 NTU on many days during the year.

WATER-QUALITY DATA

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT					
11...	1300	480	87	13	16.8
23...	1705	548	67	6.0	8.9
31...	1601	883	77	14	33.4
NOV					
14...	1334	783	56	5.0	10.6
22...	1530	3280	57	147	1300
23...	1256	2110	56	14	79.8
23...	1316	2090	58	15	84.6
29...	1010	2030	45	15	82.3
DEC					
07...	0900	1890	42	5.0	25.5
14...	1140	3430	46	28	259
16...	1526	3450	34	34	317
16...	1545	3440	34	38	353
JAN					
08...	1117	5210	38	134	1880
FEB					
21...	1402	907	73	2.0	4.9
MAR					
12...	1133	2970	43	23	184
APR					
14...	1336	7350	43	225	4470
JUL					
18...	0727	650	76	9.0	15.8

WILLAMETTE RIVER BASIN

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	53	51	52	42	41	42	38	37	37	41	40	41
2	52	52	52	44	42	43	39	37	38	40	38	39
3	52	51	52	44	44	44	40	39	39	38	38	38
4	52	51	51	45	44	45	40	40	40	39	38	39
5	51	51	51	46	45	45	41	39	40	39	39	39
6	52	51	52	47	46	46	41	36	38	39	34	37
7	52	51	51	47	47	47	38	36	37	34	30	32
8	51	50	51	47	47	47	39	38	38	30	27	28
9	50	50	50	48	47	47	40	39	39	32	29	31
10	51	48	50	48	48	48	40	39	40	34	32	33
11	50	48	49	48	47	48	41	40	40	35	34	35
12	51	50	50	48	47	47	41	40	41	35	34	35
13	50	49	50	48	45	47	41	29	37	35	34	35
14	50	50	50	45	42	43	42	28	31	36	35	36
15	50	50	50	44	43	44	49	40	44	37	36	37
16	51	50	50	43	42	42	45	36	41	38	37	38
17	50	49	50	42	41	42	47	32	36	39	38	38
18	49	49	49	43	42	43	34	33	33	39	39	39
19	49	49	49	43	43	43	36	34	35	39	39	39
20	50	49	49	43	42	43	37	36	36	39	38	38
21	49	49	49	42	40	41	38	37	38	40	38	39
22	49	45	47	40	32	35	39	38	38	40	39	40
23	46	44	45	37	33	36	39	39	39	41	40	41
24	47	46	47	38	37	38	40	39	40	41	40	41
25	48	47	48	39	38	39	41	40	40	40	38	39
26	48	48	48	40	39	40	41	41	41	41	39	40
27	49	48	48	41	40	41	41	41	41	41	41	41
28	49	48	48	41	35	38	41	40	40	41	40	41
29	48	47	47	37	35	36	41	41	41	41	41	41
30	48	45	47	38	37	38	42	41	41	41	41	41
31	45	41	42	---	---	---	42	41	41	42	41	42
MONTH	53	41	49	48	32	43	49	28	39	42	27	38
	FEBRUARY			MARCH			APRIL			MAY		
1	42	41	41	42	41	41	39	39	39	35	34	35
2	42	42	42	42	42	42	39	38	38	34	33	34
3	43	42	42	43	42	42	38	37	37	33	32	33
4	44	43	43	43	42	43	37	36	37	34	33	33
5	45	44	44	43	42	43	36	34	35	34	34	34
6	44	43	44	43	40	41	34	33	34	35	34	34
7	43	42	43	41	40	41	33	33	33	36	35	35
8	43	42	42	42	41	41	33	32	33	37	36	36
9	43	43	43	42	42	42	32	28	31	37	36	37
10	44	43	44	42	42	42	28	26	26	37	37	37
11	44	44	44	42	33	40	27	25	26	37	37	37
12	44	44	44	34	31	32	26	25	25	38	36	37
13	44	44	44	36	34	34	26	22	24	36	35	35
14	44	44	44	37	36	36	22	18	19	35	35	35
15	44	44	44	38	37	37	---	---	---	35	34	34
16	45	44	44	38	38	38	---	---	---	34	34	34
17	45	44	45	39	38	39	---	---	---	34	33	34
18	45	44	45	40	39	40	---	---	---	33	33	33
19	45	43	44	40	39	40	---	---	---	33	33	33
20	43	43	43	41	40	41	---	---	---	33	33	33
21	43	42	42	41	41	41	---	---	---	33	33	33
22	42	40	41	41	41	41	---	---	---	33	33	33
23	40	38	39	42	41	41	---	---	---	34	33	34
24	38	38	38	42	41	41	35	35	35	34	34	34
25	39	38	39	41	41	41	35	35	35	34	33	34
26	40	39	40	41	41	41	35	35	35	33	33	33
27	41	40	40	41	40	40	35	35	35	33	32	32
28	41	41	41	40	40	40	36	35	35	32	31	31
29	---	---	---	40	40	40	36	36	36	31	28	29
30	---	---	---	40	40	40	36	35	35	29	28	29
31	---	---	---	40	39	40	---	---	---	30	29	30
MONTH	45	38	42	43	31	40	---	---	---	38	28	34

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	31	30	31	37	36	36	45	44	45	49	48	48
2	31	30	31	38	37	37	45	45	45	49	47	48
3	32	31	31	38	38	38	45	45	45	49	48	48
4	32	32	32	39	38	38	46	45	45	49	47	48
5	32	31	32	39	39	39	46	45	45	49	48	48
6	32	31	31	40	39	39	46	44	45	49	48	48
7	33	32	32	40	39	39	45	45	45	49	49	49
8	33	32	32	40	39	40	46	45	46	50	48	48
9	34	33	34	41	40	40	46	46	46	49	48	49
10	35	34	35	40	40	40	47	46	46	50	48	49
11	35	35	35	40	39	39	47	46	47	50	48	49
12	35	34	35	40	39	39	47	46	47	49	48	48
13	34	32	33	40	39	39	48	47	47	49	48	48
14	32	31	32	40	38	39	48	46	47	49	48	48
15	33	31	32	41	40	40	48	47	47	49	47	48
16	34	32	33	41	41	41	48	47	48	48	47	47
17	34	33	34	42	41	41	49	48	48	47	46	47
18	34	31	32	42	41	41	49	48	48	48	46	47
19	34	32	33	42	41	41	49	47	47	48	47	48
20	35	34	34	43	42	42	48	47	47	49	48	48
21	35	34	35	43	42	43	48	47	48	49	48	49
22	35	34	34	43	43	43	49	48	48	49	48	49
23	36	34	35	43	43	43	50	48	48	50	49	49
24	36	35	35	43	43	43	50	47	48	50	48	49
25	37	36	36	44	43	44	48	47	48	49	48	48
26	37	35	35	44	43	44	48	47	48	49	48	49
27	35	34	35	44	44	44	49	48	48	49	48	49
28	36	35	35	44	44	44	49	48	48	49	47	48
29	36	33	34	45	43	44	49	45	46	48	47	48
30	36	34	35	44	44	44	47	46	46	47	46	46
31	---	---	---	45	44	44	48	47	47	---	---	---
MONTH	37	30	33	45	36	41	50	44	47	50	46	48

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.9	7.6	7.6	7.8	7.6	7.7	7.6	7.5	7.6	7.7	7.7	7.7
2	8.0	7.6	7.6	7.8	7.6	7.6	7.7	7.5	7.6	7.8	7.7	7.7
3	7.9	7.6	7.6	7.8	7.6	7.7	7.7	7.6	7.6	7.8	7.7	7.7
4	8.0	7.6	7.7	7.8	7.6	7.6	7.7	7.6	7.6	7.8	7.7	7.7
5	8.0	7.6	7.6	7.8	7.6	7.7	7.7	7.6	7.6	7.8	7.7	7.7
6	8.0	7.6	7.6	7.9	7.6	7.7	7.6	7.5	7.6	7.7	7.6	7.7
7	8.0	7.6	7.6	7.8	7.7	7.7	7.6	7.5	7.6	7.7	7.6	7.6
8	8.0	7.6	7.7	7.9	7.7	7.7	7.7	7.6	7.6	7.6	7.5	7.6
9	8.0	7.6	7.7	7.9	7.7	7.7	7.7	7.6	7.6	7.6	7.5	7.6
10	7.8	7.6	7.6	7.9	7.7	7.7	7.7	7.6	7.6	7.7	7.5	7.6
11	7.8	7.6	7.7	7.9	7.7	7.7	7.7	7.6	7.6	7.7	7.6	7.7
12	7.9	7.6	7.6	7.9	7.6	7.7	7.7	7.6	7.7	7.7	7.7	7.7
13	7.9	7.6	7.6	7.9	7.7	7.7	7.7	7.5	7.6	7.7	7.6	7.7
14	8.0	7.6	7.6	7.8	7.6	7.7	7.6	7.5	7.6	7.7	7.7	7.7
15	7.9	7.6	7.6	7.8	7.6	7.7	7.6	7.6	7.6	7.7	7.7	7.7
16	7.9	7.6	7.7	7.8	7.6	7.7	7.6	7.5	7.6	7.7	7.7	7.7
17	7.9	7.6	7.6	7.8	7.7	7.7	7.6	7.5	7.6	7.7	7.7	7.7
18	7.8	7.6	7.6	7.8	7.7	7.7	7.6	7.6	7.6	7.8	7.7	7.7
19	7.9	7.5	7.6	7.8	7.7	7.7	7.7	7.6	7.6	7.8	7.7	7.7
20	7.9	7.5	7.6	7.8	7.6	7.7	7.7	7.6	7.6	7.7	7.7	7.7
21	7.9	7.6	7.6	7.7	7.7	7.7	7.7	7.6	7.7	7.7	7.6	7.7
22	7.8	7.6	7.6	7.7	7.5	7.6	7.7	7.7	7.7	7.7	7.6	7.7
23	7.7	7.6	7.6	7.6	7.5	7.6	7.7	7.7	7.7	7.7	7.7	7.7
24	8.0	7.6	7.8	7.7	7.6	7.6	7.7	7.7	7.7	7.8	7.7	7.7
25	8.0	7.8	7.8	7.7	7.6	7.6	7.8	7.7	7.7	7.7	7.7	7.7
26	8.0	7.7	7.8	7.7	7.6	7.6	7.8	7.7	7.7	7.7	7.7	7.7
27	8.0	7.7	7.8	7.7	7.6	7.6	7.8	7.7	7.7	7.7	7.7	7.7
28	8.0	7.7	7.8	7.7	7.5	7.6	7.8	7.7	7.7	7.7	7.7	7.7
29	7.9	7.6	7.7	7.6	7.5	7.6	7.8	7.7	7.7	7.7	7.7	7.7
30	7.8	7.6	7.7	7.6	7.6	7.6	7.8	7.7	7.7	7.8	7.7	7.7
31	7.8	7.7	7.7	---	---	---	7.8	7.7	7.7	7.8	7.7	7.7
MAX	8.0	7.8	7.8	7.9	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7
MIN	7.7	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.6	7.6	7.5	7.6

WILLAMETTE RIVER BASIN

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.6	7.7
2	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.6	7.6
3	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.6	7.6
4	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.6	7.6
5	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.6
6	7.8	7.7	7.7	7.7	7.7	7.7	7.8	7.7	7.7	7.6	7.6	7.6
7	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.6	7.6
8	7.7	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.6	7.6
9	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.6	7.6	7.6
10	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.6	7.6	7.7	7.6	7.6
11	7.8	7.7	7.7	7.8	7.6	7.7	7.7	7.6	7.6	7.7	7.6	7.6
12	7.8	7.7	7.7	7.7	7.6	7.6	7.7	7.6	7.6	7.7	7.6	7.6
13	7.7	7.7	7.7	7.7	7.6	7.6	7.7	7.6	7.6	7.6	7.5	7.6
14	7.7	7.7	7.7	7.7	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.6
15	7.8	7.7	7.7	7.7	7.6	7.7	7.6	7.5	7.5	7.8	7.5	7.7
16	7.8	7.7	7.7	7.7	7.7	7.7	7.6	7.5	7.6	7.7	7.7	7.7
17	7.8	7.6	7.7	7.7	7.7	7.7	7.6	7.6	7.6	7.7	7.7	7.7
18	7.8	7.6	7.7	7.7	7.7	7.7	7.7	7.6	7.6	7.7	7.6	7.7
19	7.7	7.6	7.7	7.7	7.7	7.7	7.7	7.6	7.7	7.7	7.6	7.7
20	7.7	7.6	7.6	7.8	7.7	7.7	7.7	7.6	7.7	7.7	7.7	7.7
21	7.8	7.6	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.7	7.7
22	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.7
23	7.7	7.6	7.6	7.8	7.7	7.7	7.7	7.6	7.7	7.7	7.6	7.7
24	7.7	7.6	7.6	7.8	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.7
25	7.7	7.6	7.7	7.8	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.6
26	7.7	7.7	7.7	7.8	7.7	7.7	7.7	7.6	7.7	7.7	7.6	7.6
27	7.7	7.7	7.7	7.8	7.7	7.7	7.7	7.7	7.7	7.7	7.6	7.6
28	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.6	7.7	7.6	7.5	7.6
29	---	---	---	7.8	7.7	7.7	7.7	7.6	7.7	7.6	7.4	7.5
30	---	---	---	7.8	7.7	7.7	7.7	7.6	7.7	7.6	7.5	7.5
31	---	---	---	7.8	7.7	7.7	---	---	---	7.6	7.5	7.6
MAX	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.7
MIN	7.7	7.6	7.6	7.7	7.6	7.6	7.6	7.5	7.5	7.6	7.4	7.5

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.6	7.5	7.6	7.8	7.7	7.8	8.0	7.7	7.8	8.2	7.7	7.7
2	7.6	7.5	7.6	7.8	7.7	7.8	8.0	7.7	7.8	8.2	7.7	7.7
3	7.6	7.5	7.6	7.9	7.7	7.8	8.0	7.8	7.8	8.3	7.6	7.7
4	7.6	7.5	7.6	7.9	7.7	7.8	8.0	7.8	7.8	8.3	7.7	7.7
5	7.6	7.5	7.6	7.9	7.7	7.8	8.0	7.8	7.8	8.2	7.6	7.7
6	7.6	7.5	7.6	7.9	7.7	7.8	8.0	7.8	7.8	8.2	7.6	7.7
7	7.6	7.5	7.6	7.9	7.7	7.8	8.0	7.8	7.8	8.2	7.6	7.7
8	7.6	7.5	7.6	7.9	7.7	7.8	8.0	7.7	7.8	8.3	7.6	7.7
9	7.7	7.5	7.6	7.9	7.7	7.7	8.0	7.7	7.8	8.2	7.6	7.6
10	7.7	7.5	7.6	7.9	7.6	7.7	8.0	7.7	7.7	8.2	7.6	7.6
11	7.7	7.6	7.7	7.9	7.5	7.7	8.0	7.7	7.7	8.2	7.5	7.6
12	7.8	7.7	7.7	7.9	7.7	7.7	8.0	7.7	7.7	8.3	7.5	7.6
13	7.8	7.6	7.7	7.9	7.7	7.8	8.0	7.6	7.7	8.3	7.5	7.6
14	7.8	7.6	7.7	7.9	7.7	7.8	8.0	7.6	7.7	8.4	7.5	7.6
15	7.8	7.6	7.7	7.9	7.7	7.8	8.0	7.6	7.7	8.4	7.5	7.6
16	7.8	7.7	7.7	8.0	7.7	7.8	8.1	7.7	7.7	8.0	7.5	7.6
17	7.8	7.7	7.7	8.0	7.7	7.8	8.1	7.6	7.7	8.0	7.6	7.7
18	7.8	7.7	7.7	7.9	7.6	7.8	8.0	7.7	7.7	8.1	7.7	7.7
19	7.8	7.7	7.7	7.9	7.7	7.8	8.1	7.7	7.7	8.1	7.6	7.7
20	7.8	7.6	7.7	7.9	7.7	7.8	8.0	7.7	7.7	8.1	7.6	7.7
21	7.8	7.6	7.7	7.9	7.7	7.8	8.1	7.7	7.7	8.1	7.6	7.7
22	7.8	7.6	7.7	7.9	7.7	7.8	8.0	7.6	7.7	8.2	7.6	7.6
23	7.8	7.7	7.8	7.9	7.7	7.7	8.1	7.6	7.7	8.2	7.6	7.6
24	7.8	7.7	7.7	7.9	7.7	7.7	8.0	7.6	7.7	8.2	7.6	7.6
25	7.8	7.6	7.7	7.9	7.7	7.8	8.1	7.6	7.7	8.2	7.6	7.6
26	7.8	7.6	7.7	7.9	7.7	7.8	8.1	7.6	7.7	8.2	7.6	7.6
27	7.8	7.6	7.7	7.9	7.7	7.8	8.0	7.6	7.7	8.1	7.5	7.6
28	7.8	7.7	7.8	7.9	7.7	7.8	8.0	7.5	7.6	8.2	7.5	7.6
29	7.8	7.7	7.8	7.9	7.7	7.7	8.1	7.5	7.7	8.2	7.5	7.6
30	7.8	7.7	7.8	8.0	7.7	7.8	8.2	7.7	7.8	8.0	7.6	7.6
31	---	---	---	8.0	7.7	7.8	8.1	7.7	7.8	---	---	---
MAX	7.8	7.7	7.8	8.0	7.7	7.8	8.2	7.8	7.8	8.4	7.7	7.7
MIN	7.6	7.5	7.6	7.8	7.5	7.7	8.0	7.5	7.6	8.0	7.5	7.6

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.9	8.9	10.1	8.1	7.5	7.8	5.3	4.9	5.2	4.7	4.1	4.5
2	10.7	9.0	10.1	8.5	7.9	8.1	5.6	4.9	5.2	5.2	4.7	4.8
3	10.2	8.4	9.5	7.9	6.7	7.1	5.3	4.9	5.1	4.9	4.4	4.7
4	10.2	8.5	9.6	7.1	6.0	6.6	4.9	3.0	4.0	4.7	4.1	4.5
5	9.8	7.8	9.0	7.3	6.4	7.0	4.1	2.5	3.4	5.2	4.4	4.8
6	10.2	8.7	9.4	6.4	5.1	5.7	4.4	3.9	4.2	5.3	4.9	5.1
7	9.2	7.4	8.2	5.1	4.0	4.5	4.8	4.4	4.6	5.4	5.1	5.2
8	9.4	8.4	8.8	4.8	3.7	4.4	5.1	4.4	4.7	5.2	4.8	5.0
9	9.3	7.7	8.4	5.3	4.0	4.7	5.0	4.5	4.8	5.0	4.5	4.7
10	7.9	6.3	7.0	6.4	4.9	5.6	4.5	3.8	4.0	5.1	4.4	4.7
11	8.7	7.7	8.2	7.1	6.0	6.6	4.4	3.9	4.2	5.2	4.6	4.9
12	8.5	7.3	7.9	7.7	6.9	7.3	4.4	4.1	4.2	5.1	4.6	4.9
13	9.7	8.3	8.9	7.7	7.3	7.5	4.7	4.1	4.5	4.6	4.1	4.4
14	9.6	8.4	9.0	8.5	7.6	8.1	4.2	3.8	4.0	4.4	4.0	4.3
15	9.0	7.3	8.2	8.2	7.6	7.9	4.5	4.1	4.3	4.0	3.3	3.6
16	9.4	8.0	8.7	7.9	7.4	7.8	4.9	4.4	4.7	3.3	2.5	2.9
17	8.8	7.0	8.0	7.4	5.9	6.8	4.9	4.4	4.7	3.7	2.8	3.4
18	7.0	5.4	6.3	5.9	4.9	5.5	4.6	4.2	4.4	4.1	3.6	3.8
19	7.9	5.8	6.8	7.2	5.7	6.4	4.9	4.3	4.6	3.7	2.8	3.4
20	8.7	7.6	8.1	7.1	6.8	6.9	4.7	4.2	4.6	3.4	0.9	1.9
21	7.6	6.1	6.7	6.9	6.3	6.5	4.6	4.1	4.3	2.0	0.4	1.3
22	8.0	7.1	7.6	6.6	5.5	6.2	4.2	3.6	3.9	2.4	1.0	1.8
23	7.8	6.7	7.3	6.3	5.6	5.9	4.2	3.4	3.6	3.2	2.3	2.8
24	6.7	6.0	6.4	6.0	5.3	5.8	3.4	2.7	3.1	3.7	3.1	3.4
25	7.9	6.6	7.1	5.3	4.4	4.9	3.7	2.8	3.3	3.2	2.9	3.1
26	7.4	6.0	6.9	5.2	4.4	4.9	3.9	3.0	3.4	3.2	2.7	3.0
27	7.3	6.6	7.0	4.9	4.1	4.4	4.2	3.7	4.0	3.4	2.5	3.0
28	7.1	6.2	6.8	4.7	3.3	3.9	4.6	3.9	4.3	3.3	2.6	3.0
29	7.8	7.0	7.4	5.2	4.6	4.9	4.3	3.5	4.0	3.0	1.6	2.3
30	8.3	7.7	8.0	5.0	4.8	4.9	4.6	4.2	4.4	3.5	2.8	3.2
31	8.1	7.8	8.0	---	---	---	4.9	4.3	4.6	3.7	2.8	3.4
MONTH	10.9	5.4	8.0	8.5	3.3	6.2	5.6	2.5	4.3	5.4	0.4	3.7
	FEBRUARY			MARCH			APRIL			MAY		
1	4.0	2.6	3.3	3.9	2.4	3.2	7.0	3.8	5.3	8.5	5.5	6.6
2	3.6	3.2	3.5	4.2	2.4	3.3	6.9	3.8	5.3	8.6	5.5	6.8
3	4.3	3.5	3.8	4.4	2.6	3.5	7.0	3.9	5.3	7.5	5.1	6.2
4	3.8	2.7	3.2	4.9	2.9	3.9	7.1	4.0	5.4	7.8	4.1	5.8
5	3.8	2.8	3.3	4.5	3.8	4.2	5.3	4.5	4.9	6.5	5.1	5.8
6	4.0	3.4	3.7	4.2	3.5	4.0	6.0	4.7	5.2	5.8	4.8	5.2
7	3.8	3.1	3.6	3.9	3.0	3.5	5.5	4.6	5.0	6.0	4.0	5.0
8	3.5	2.6	3.1	3.9	2.5	3.2	7.1	4.4	5.5	7.6	3.7	5.6
9	3.8	3.0	3.5	4.2	2.9	3.6	5.5	4.6	5.0	6.5	5.1	5.6
10	4.4	3.2	3.8	4.7	3.8	4.2	5.4	4.2	4.6	8.5	4.8	6.3
11	4.4	3.6	4.0	4.7	3.7	4.4	5.5	4.5	4.9	9.0	4.6	6.7
12	4.0	2.8	3.4	3.7	3.3	3.5	5.9	4.5	5.0	9.7	5.2	7.3
13	3.8	2.9	3.4	4.2	3.3	3.7	5.4	4.7	5.0	7.8	5.9	6.3
14	3.7	2.7	3.3	4.7	3.6	4.1	5.0	3.5	4.1	9.0	5.5	6.9
15	4.2	2.8	3.5	4.7	3.6	4.1	4.8	3.8	4.2	8.8	5.0	6.7
16	4.5	3.5	4.0	3.8	2.5	3.3	4.8	3.8	4.2	8.7	4.7	6.7
17	4.5	3.3	3.9	4.1	2.5	3.2	5.1	3.9	4.4	9.7	6.2	7.7
18	5.1	4.0	4.6	3.8	2.8	3.3	6.2	4.1	4.9	8.0	6.2	7.1
19	4.7	4.2	4.4	3.8	2.8	3.4	6.0	4.4	5.1	7.1	6.1	6.6
20	5.0	3.8	4.4	5.5	3.5	4.4	7.4	4.4	5.7	7.6	5.8	6.7
21	5.2	4.4	4.7	5.5	3.6	4.5	7.5	5.0	6.0	7.5	5.7	6.5
22	5.3	4.1	4.7	5.5	3.4	4.4	7.9	4.7	6.2	7.6	5.6	6.4
23	4.9	4.2	4.5	6.0	4.2	5.0	7.2	4.5	5.7	9.5	5.7	7.3
24	4.6	3.8	4.3	5.9	4.4	5.1	7.6	3.7	5.5	9.1	5.6	7.2
25	4.4	3.1	3.7	6.3	4.2	5.1	7.8	4.2	5.9	9.4	6.3	7.6
26	4.5	3.2	3.8	6.0	3.6	4.9	6.2	4.7	5.4	9.4	6.7	7.9
27	4.5	2.9	3.7	6.3	4.4	5.3	6.5	4.7	5.4	8.1	6.6	7.4
28	4.6	3.4	3.9	6.1	4.4	5.1	7.8	3.9	5.6	7.5	6.7	7.2
29	---	---	---	6.8	4.1	5.3	8.2	4.3	6.1	9.3	6.7	7.7
30	---	---	---	6.7	3.6	5.1	7.5	4.8	6.1	10.2	6.4	8.0
31	---	---	---	6.8	3.7	5.1	---	---	---	10.1	6.6	8.1
MONTH	5.3	2.6	3.8	6.8	2.4	4.2	8.2	3.5	5.2	10.2	3.7	6.7

WILLAMETTE RIVER BASIN

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.2	6.9	8.3	13.6	9.6	11.3	14.6	10.4	12.5	13.7	10.4	12.1
2	10.4	6.9	8.4	13.7	9.2	11.3	14.1	10.2	12.1	13.7	10.6	12.3
3	9.6	6.6	8.1	12.3	9.5	10.9	13.8	9.5	11.7	13.0	10.9	12.0
4	10.8	7.5	8.8	12.9	9.3	10.8	12.4	10.5	11.2	11.5	8.7	10.3
5	10.1	7.9	8.9	13.5	8.9	10.9	11.6	9.6	10.6	11.1	8.7	10.0
6	9.8	6.9	8.3	14.2	9.9	11.9	12.2	9.7	10.7	10.4	8.0	9.4
7	9.1	6.1	7.5	13.0	10.5	11.9	13.1	8.5	10.7	11.1	8.8	9.9
8	8.2	6.1	7.1	14.3	10.2	11.9	13.5	9.2	11.3	10.4	7.8	9.2
9	8.2	6.4	7.2	15.0	9.8	12.1	14.4	9.8	12.1	11.5	8.2	9.9
10	11.3	6.9	8.8	15.7	10.7	13.0	14.9	10.7	12.7	12.2	9.0	10.7
11	11.6	7.2	9.3	16.1	11.3	13.6	14.4	10.4	12.5	12.6	9.6	11.2
12	12.4	7.8	9.9	15.1	11.7	13.5	14.8	10.7	12.7	12.9	10.1	11.6
13	12.8	8.3	10.3	16.5	12.3	14.3	15.5	10.9	13.1	12.8	10.2	11.7
14	12.7	8.7	10.5	15.8	12.0	13.8	15.2	11.2	13.2	12.6	10.4	11.6
15	12.4	8.2	10.1	15.1	10.6	12.8	14.9	11.0	13.0	12.3	10.5	11.5
16	11.8	8.8	10.2	15.4	10.9	13.0	14.6	10.7	12.7	11.7	10.5	10.9
17	10.0	8.6	9.1	15.8	11.3	13.4	14.3	11.0	12.8	11.1	10.0	10.5
18	8.9	8.1	8.5	15.8	11.2	13.4	13.9	10.0	12.0	11.5	9.7	10.6
19	11.7	7.6	9.3	15.6	11.4	13.3	13.8	10.5	12.3	11.4	8.7	10.2
20	12.2	8.2	10.0	15.4	10.9	13.0	12.6	10.9	11.8	11.2	9.1	10.4
21	12.9	8.9	10.7	15.6	11.1	13.2	12.9	10.1	11.3	10.7	8.4	9.7
22	13.1	9.2	11.0	15.7	11.5	13.5	13.6	9.6	11.6	10.7	8.0	9.5
23	13.4	9.7	11.3	16.6	12.5	14.4	13.2	10.3	11.9	11.0	8.6	10.0
24	13.4	9.2	11.1	16.4	12.0	14.1	13.9	10.5	12.2	11.0	8.7	10.0
25	14.0	9.4	11.5	16.5	12.1	14.2	14.1	11.0	12.6	10.8	8.7	9.9
26	14.2	10.2	12.1	16.1	12.2	14.0	14.1	11.3	12.7	10.3	8.4	9.5
27	12.6	10.3	11.5	14.9	10.9	12.9	13.8	10.3	12.1	10.6	8.8	9.8
28	11.3	10.1	10.7	15.5	10.7	13.0	14.3	10.9	12.7	10.2	7.9	9.2
29	10.9	10.0	10.4	16.0	11.4	13.6	14.5	11.3	13.0	9.8	8.8	9.2
30	12.0	9.4	10.4	15.7	11.6	13.6	13.8	11.1	12.6	8.8	7.7	8.3
31	---	---	---	15.0	11.4	13.1	13.2	9.9	11.7	---	---	---
MONTH	14.2	6.1	9.6	16.6	8.9	12.9	15.5	8.5	12.1	13.7	7.7	10.4
YEAR	16.6	0.4	7.3									

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	3	<1	1	5	2	2	12	2	5	5	<1	1
2	4	<1	2	3	<1	2	5	2	3	4	1	2
3	2	<1	1	2	<1	1	3	1	2	3	1	2
4	2	<1	1	2	<1	<1	4	1	1	3	<1	<1
5	4	<1	1	2	<1	1	2	<1	1	3	<1	<1
6	5	<1	1	2	<1	<1	8	1	4	7	1	4
7	2	<1	1	3	<1	<1	10	2	3	20	6	9
8	4	<1	1	1	<1	<1	4	1	2	68	14	31
9	5	<1	1	2	<1	<1	3	<1	1	19	5	9
10	4	<1	1	8	<1	<1	3	<1	1	17	2	4
11	15	2	6	2	<1	<1	2	<1	1	3	2	2
12	3	<1	2	2	<1	<1	4	<1	1	4	1	2
13	4	<1	1	10	<1	1	64	1	4	3	1	1
14	3	<1	1	16	6	10	63	7	15	4	<1	1
15	2	<1	1	---	---	---	13	4	5	2	<1	<1
16	4	<1	<1	---	---	---	16	4	10	2	<1	<1
17	2	<1	<1	10	<1	2	22	6	11	2	<1	<1
18	2	<1	<1	2	<1	1	8	3	4	8	<1	<1
19	3	<1	<1	3	<1	1	4	2	3	3	<1	<1
20	2	<1	<1	3	<1	1	4	2	2	1	<1	<1
21	2	<1	<1	6	2	4	3	1	2	2	<1	1
22	23	<1	2	97	6	42	2	<1	1	5	<1	1
23	24	2	4	24	4	8	3	<1	1	2	<1	<1
24	3	<1	1	5	2	3	2	<1	<1	3	<1	<1
25	2	<1	1	4	2	2	1	<1	<1	6	2	3
26	1	<1	<1	3	1	2	4	<1	<1	6	<1	1
27	3	<1	<1	2	<1	1	2	<1	<1	2	<1	<1
28	2	<1	<1	14	<1	3	2	<1	<1	2	<1	<1
29	2	<1	<1	17	3	5	3	<1	<1	<1	<1	<1
30	8	<1	2	9	2	3	6	<1	<1	2	<1	<1
31	11	4	6	---	---	---	4	<1	<1	<1	<1	<1
MAX	24	4	6	---	---	---	64	7	15	68	14	31
MIN	1	<1	<1	---	---	---	1	<1	<1	<1	<1	<1

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	1	<1	<1	1	<1	<1	6	<1	<1	1	<1	<1
2	<1	<1	<1	2	<1	<1	3	<1	<1	2	<1	<1
3	1	<1	<1	<1	<1	<1	3	<1	<1	2	<1	1
4	1	<1	<1	<1	<1	<1	5	<1	1	2	<1	<1
5	<1	<1	<1	3	<1	<1	3	1	2	3	<1	<1
6	2	<1	<1	5	<1	2	3	1	2	2	<1	<1
7	4	<1	<1	2	<1	<1	3	<1	1	<1	<1	<1
8	2	<1	<1	<1	<1	<1	2	<1	1	1	<1	<1
9	<1	<1	<1	3	<1	<1	14	<1	2	2	<1	<1
10	<1	<1	<1	4	<1	<1	28	9	16	1	<1	<1
11	4	<1	<1	33	<1	2	12	6	8	<1	<1	<1
12	<1	<1	<1	26	3	7	10	5	7	2	<1	<1
13	<1	<1	<1	4	2	2	44	5	6	2	<1	<1
14	1	<1	<1	7	1	2	1470	33	86	2	<1	<1
15	2	<1	<1	2	<1	1	37	10	18	1	<1	<1
16	<1	<1	<1	4	<1	<1	11	5	7	2	<1	<1
17	2	<1	<1	2	<1	<1	7	3	4	1	<1	<1
18	2	<1	<1	1	<1	<1	4	2	2	3	<1	<1
19	3	<1	<1	1	<1	<1	4	1	2	1	<1	<1
20	1	<1	<1	6	<1	<1	3	1	1	1	<1	<1
21	2	<1	<1	4	<1	<1	2	<1	1	2	<1	<1
22	7	<1	2	4	<1	<1	4	<1	1	6	<1	<1
23	7	2	4	3	<1	<1	3	<1	<1	1	<1	<1
24	5	<1	2	8	<1	<1	1	<1	<1	2	<1	<1
25	4	<1	<1	<1	<1	<1	1	<1	<1	2	<1	<1
26	5	<1	<1	1	<1	<1	2	<1	<1	7	<1	<1
27	1	<1	<1	<1	<1	<1	2	<1	<1	4	<1	1
28	1	<1	<1	2	<1	<1	1	<1	<1	4	2	2
29	---	---	---	1	<1	<1	2	<1	<1	10	4	8
30	---	---	---	2	<1	<1	2	<1	<1	9	3	4
31	---	---	---	2	<1	<1	---	---	---	4	2	2
MAX	7	2	4	33	3	7	1470	33	86	10	4	8
MIN	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	5	1	2	2	1	2	7	3	4	5	2	3
2	3	1	1	2	<1	1	8	4	5	8	3	5
3	2	<1	1	2	<1	1	6	3	4	10	4	6
4	2	<1	<1	2	<1	<1	7	2	3	6	2	4
5	2	<1	1	3	<1	<1	3	1	2	4	2	2
6	2	<1	1	2	<1	<1	2	<1	1	10	1	2
7	2	<1	<1	3	<1	1	2	<1	1	3	<1	1
8	2	<1	<1	5	<1	2	2	<1	1	3	<1	1
9	<1	<1	<1	13	<1	3	2	<1	1	4	<1	1
10	2	<1	<1	49	2	9	4	1	2	2	<1	1
11	1	<1	<1	221	5	8	6	2	4	3	1	2
12	2	<1	<1	19	6	9	8	2	3	4	2	2
13	2	<1	<1	13	8	10	8	4	5	5	2	3
14	9	1	2	46	9	14	13	5	8	5	2	3
15	8	1	2	10	6	7	10	4	6	6	2	3
16	2	<1	1	12	6	6	8	3	5	8	2	2
17	2	<1	<1	35	7	9	6	3	4	8	2	4
18	5	1	2	12	6	9	6	2	4	6	2	3
19	5	<1	1	10	5	7	6	2	3	7	2	3
20	3	<1	<1	9	4	6	5	2	3	9	2	2
21	4	<1	<1	7	3	5	8	2	3	5	1	2
22	2	<1	1	10	4	6	4	2	2	4	1	2
23	2	<1	1	8	5	7	5	2	3	3	1	2
24	2	<1	<1	9	5	6	5	2	3	3	1	2
25	3	<1	<1	8	4	5	5	2	3	7	1	2
26	3	<1	1	9	4	6	5	2	3	5	1	2
27	20	1	4	11	5	7	5	2	3	4	1	2
28	3	1	2	9	4	5	8	3	6	2	<1	1
29	13	1	7	20	6	9	14	5	8	3	<1	1
30	6	2	2	23	7	9	9	4	6	4	1	2
31	---	---	---	11	5	8	6	2	3	---	---	---
MAX	20	2	7	221	9	14	14	5	8	10	4	6
MIN	<1	<1	<1	2	<1	<1	2	<1	1	2	<1	1

WILLAMETTE RIVER BASIN

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR

LOCATION.--Lat 44°45'10", long 122°07'40", in SE 1/4 NE 1/4 sec.36, T.9 S., R.5 E., Marion County, Hydrologic Unit 17090005, in Willamette National Forest, on left bank 600 ft upstream from Canyon Creek, 1.5 mi northeast of Detroit, and at mile 2.0.

DRAINAGE AREA.--108 mi², at measuring cable 0.2 mi downstream from gage.

WATER-DISCHARGE RECORD

PERIOD OF RECORD.--June 1932 to September 1987, October 1998 to current year. Monthly discharge only June 1932, published in WSP 1318. Published as "above Canyon Creek, near Detroit" from October 1952 to September 1984.

GAGE.--Water-stage recorder. Datum of gage is 1,573.95 ft above NGVD of 1929. Prior to Oct. 1, 1952, at site 0.2 mi downstream at datum 13.46 ft lower.

REMARKS.--Records fair. No regulation or diversion upstream from station. All records given herein are for measuring site 0.2 mi downstream from gage.

AVERAGE DISCHARGE.--59 years, (water years 1933-87, 1999-2002), 574 ft³/s, 72.20 in/yr, 415,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s Dec. 22, 1964, gage height, 14.55 ft; minimum discharge, 87 ft³/s Sept. 2, 1940, Sept. 24, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 13	2300	4,140	7.66	Apr. 14	0500	*6,530	*9.35

Minimum discharge, 87 ft³/s Oct. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	587	1340	518	356	548	708	779	998	457	191	141
2	93	468	1280	758	339	498	767	877	900	418	188	140
3	92	342	923	852	339	464	821	935	822	391	185	140
4	91	277	757	760	337	445	907	832	806	369	184	140
5	90	254	654	673	329	452	1060	777	927	358	185	138
6	90	225	1180	1100	329	690	1030	736	885	353	185	137
7	91	202	1340	2030	424	707	1020	657	713	369	181	136
8	94	187	965	3280	511	573	991	592	599	368	177	136
9	95	175	789	2050	446	506	1240	556	524	349	174	134
10	112	165	690	1380	e420	500	2200	518	487	373	172	132
11	203	158	613	1070	e380	1140	2030	508	535	360	169	131
12	133	163	562	1100	e380	1960	2130	562	634	345	167	130
13	121	324	1780	1030	e360	1250	2370	711	779	345	163	129
14	115	675	2560	864	e360	938	4730	718	868	336	162	128
15	111	392	1410	739	e340	777	2490	709	803	300	160	127
16	107	475	1970	656	355	677	1620	690	721	281	158	128
17	105	477	2380	590	372	591	1250	731	697	277	157	152
18	102	385	1550	533	380	526	1020	800	1030	273	155	144
19	101	359	1180	509	528	525	874	795	697	264	155	136
20	100	407	968	523	599	510	788	788	608	253	161	132
21	101	661	801	523	749	514	754	769	637	242	162	129
22	319	1700	690	464	1060	480	745	746	639	239	157	127
23	504	1470	599	418	1410	476	752	694	631	235	154	125
24	272	923	531	415	1290	534	715	687	583	228	154	124
25	203	702	479	745	974	554	713	738	537	222	156	123
26	191	575	439	677	787	571	736	873	566	219	152	122
27	179	491	416	533	682	609	712	955	579	215	149	122
28	171	987	481	458	613	592	665	1140	527	208	147	121
29	166	1580	456	410	---	577	668	1610	704	205	145	127
30	368	1050	424	382	---	602	741	1390	550	200	143	200
31	707	---	440	368	---	649	---	1150	---	196	142	---
TOTAL	5321	16836	30647	26408	15449	20435	37247	25023	20986	9248	5090	4031
MEAN	172	561	989	852	552	659	1242	807	700	298	164	134
MAX	707	1700	2560	3280	1410	1960	4730	1610	1030	457	191	200
MIN	90	158	416	368	329	445	665	508	487	196	142	121
AC-FT	10550	33390	60790	52380	30640	40530	73880	49630	41630	18340	10100	8000
CFSM	1.59	5.20	9.15	7.89	5.11	6.10	11.5	7.47	6.48	2.76	1.52	1.24
IN.	1.83	5.80	10.56	9.10	5.32	7.04	12.83	8.62	7.23	3.19	1.75	1.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2002, BY WATER YEAR (WY)

	256	662	922	835	801	676	778	785	575	286	171	156
MEAN	256	662	922	835	801	676	778	785	575	286	171	156
MAX	827	1504	2385	2135	1867	1874	1280	1627	1564	532	288	267
(WY)	1948	1943	1965	1953	1982	1972	1949	1949	1933	1933	1999	1971
MIN	104	106	163	142	176	289	295	344	202	129	98.4	97.6
(WY)	1946	1937	1977	1937	1977	1941	1941	1934	1934	1940	1940	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1933 - 2002

ANNUAL TOTAL	136263	216721	
ANNUAL MEAN	373	594	574
HIGHEST ANNUAL MEAN			892
LOWEST ANNUAL MEAN			276
HIGHEST DAILY MEAN	2560	Dec 14	4730
LOWEST DAILY MEAN	90	Sep 24	90
ANNUAL SEVEN-DAY MINIMUM	92	Oct 1	92
ANNUAL RUNOFF (AC-FT)	270300	429900	415800
ANNUAL RUNOFF (CFSM)	3.46	5.50	5.31
ANNUAL RUNOFF (INCHES)	46.94	74.65	72.20
10 PERCENT EXCEEDS	725	1120	1130
50 PERCENT EXCEEDS	272	509	409
90 PERCENT EXCEEDS	102	133	138

e Estimated

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

WATER-QUALITY RECORDS

INSTRUMENTATION.--Water-quality monitor.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1998 to current year.

pH: October 1998 to current year.

WATER TEMPERATURE: December 1950 to July 1961, January 1962 to September 1987, October 1998 to current year.

TURBIDITY: October 1998 to current year.

REMARKS.--Water-quality data for the 2001 water year available in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Record excellent.

pH: Record good.

WATER TEMPERATURE: Record good.

TURBIDITY: Record good

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 100 microsiemens Sept. 28, 2001; minimum, 21 microsiemens Nov. 26, 1999.

pH: Maximum, 8.3 units Sept. 1, 3, 2001; minimum, 6.7 units Nov. 25, 26, 1999.

WATER TEMPERATURE: Maximum, 18.0°C July 27, 1973; minimum, 0.0°C several days in 1972-73, 1977-79, 1985, 1999.

TURBIDITY: Maximum, 1,160 NTU Nov. 25, 1999; minimum, <1 NTU many days during most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 72 microsiemens Oct. 5; minimum, 24 microsiemens Apr. 14,

pH: Maximum, 7.9 Oct. 6, 7, 9, Aug. 7; minimum, 7.2 units Oct. 23, 24, Apr. 14.

WATER TEMPERATURE: Maximum, 15.9°C July 25; minimum, 0.5°C Jan. 22.

TURBIDITY: Maximum, 406 NTU Apr. 14; minimum, <1 NTU many days during year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT					
31...	1710	716	75	3.0	5.8
NOV					
14...	1458	571	70	5.0	7.7
22...	1433	2160	31	107	623
22...	1454	2200	48	62	368
23...	1150	1390	67	9.0	33.8
29...	1450	1460	46	5.0	19.8
29...	1520	1450	8	44	173
DEC					
14...	1242	2310	48	35	218
JAN					
08...	0829	3930	31	320	3390
MAR					
12...	1249	1860	55	14	70.2
APR					
14...	1524	4280	49	355	4100

WILLAMETTE RIVER BASIN

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	68	66	67	43	41	42	42	38	40	48	45	46
2	68	67	67	47	43	45	42	38	40	45	42	44
3	68	66	67	49	46	47	43	42	42	42	41	42
4	68	67	67	51	49	50	44	43	43	44	42	43
5	72	67	69	52	51	51	45	43	44	45	43	44
6	68	67	67	52	51	52	45	37	40	44	37	41
7	68	67	67	54	51	52	41	37	39	37	32	34
8	68	66	67	55	53	54	43	41	42	32	29	30
9	71	67	68	56	54	55	44	43	43	35	32	34
10	68	61	66	56	55	56	45	44	44	41	35	37
11	62	57	59	57	56	56	45	44	45	40	38	39
12	64	60	62	58	56	56	46	44	45	40	38	39
13	65	63	64	58	42	53	44	30	39	40	38	39
14	65	64	64	47	42	44	36	30	34	41	40	41
15	66	65	65	64	47	50	39	36	38	42	41	42
16	67	65	66	52	47	48	39	33	36	43	42	43
17	67	65	66	49	47	48	36	33	34	44	43	43
18	67	66	66	50	48	49	38	36	37	45	44	44
19	67	66	67	50	49	50	41	38	40	45	44	44
20	68	67	67	50	46	48	47	41	42	45	42	43
21	67	65	66	47	44	45	44	42	43	45	42	43
22	65	46	60	44	34	38	44	43	44	45	42	44
23	51	41	46	40	36	39	46	44	45	46	44	45
24	53	51	52	43	40	42	47	45	46	46	44	46
25	55	53	54	44	42	43	47	46	46	44	41	42
26	56	55	55	45	43	44	48	47	47	44	42	43
27	56	55	56	49	45	46	48	47	48	45	44	44
28	58	55	56	46	37	42	47	46	46	46	45	46
29	58	57	57	44	36	39	47	47	47	47	46	46
30	57	46	53	42	40	41	48	47	47	47	46	47
31	46	41	42	--	--	--	48	46	47	47	46	47
MONTH	72	41	62	64	34	48	48	30	42	48	29	42
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	65	46	48	47	46	46	45	44	44	39	38	39
2	64	48	50	48	46	47	44	43	43	42	36	38
3	49	47	48	48	47	48	43	42	43	36	36	36
4	48	48	48	48	47	48	48	41	43	37	36	37
5	49	48	48	48	47	47	41	40	40	38	37	38
6	49	46	48	47	43	45	40	40	40	38	37	37
7	46	44	46	54	44	46	40	40	40	39	37	38
8	57	44	46	47	46	46	40	40	40	40	39	40
9	47	45	46	48	47	47	40	35	39	42	40	40
10	47	46	47	48	47	47	35	33	34	43	40	41
11	47	47	47	47	34	42	35	34	34	43	41	42
12	47	47	47	37	33	35	36	33	34	43	39	41
13	47	47	47	40	37	39	34	29	32	39	37	38
14	49	47	48	42	40	41	29	24	26	38	37	37
15	49	48	49	43	42	43	33	29	31	39	36	36
16	49	48	49	44	43	44	35	33	34	37	36	37
17	49	48	49	46	44	45	37	35	36	37	36	36
18	49	47	48	46	45	46	39	37	38	36	35	36
19	48	45	46	47	45	46	39	38	39	36	35	35
20	46	45	45	47	46	47	40	39	40	36	35	35
21	46	42	44	47	46	47	41	40	40	36	35	35
22	45	40	42	47	46	47	40	40	40	36	35	36
23	40	38	38	48	47	47	40	39	40	37	36	37
24	39	38	38	47	46	46	41	39	40	37	36	37
25	41	39	40	47	46	46	41	40	40	37	35	36
26	42	40	41	46	45	46	40	39	40	35	32	34
27	45	42	43	46	45	45	40	39	40	32	31	32
28	46	45	45	46	45	45	40	40	40	31	28	30
29	---	---	---	46	45	46	40	40	40	28	25	26
30	---	---	---	45	45	45	40	39	39	27	25	26
31	---	---	---	45	45	45	---	---	---	29	27	28
MONTH	65	38	46	54	33	45	48	24	38	43	25	36

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	30	29	29	37	34	36	52	51	51	59	58	59
2	31	30	30	38	36	37	53	51	52	60	58	59
3	32	31	31	38	37	37	53	52	52	60	59	59
4	32	31	32	39	38	38	53	52	52	60	59	59
5	31	28	30	40	38	39	53	52	52	60	59	59
6	31	28	29	41	39	40	54	53	53	60	59	59
7	33	31	32	40	39	39	54	52	53	60	59	59
8	36	33	34	41	38	39	54	53	54	60	59	59
9	38	35	37	41	39	40	55	54	54	61	59	60
10	38	37	38	40	38	39	55	54	55	62	59	61
11	38	36	37	44	38	39	56	54	55	61	60	60
12	36	33	35	46	39	42	56	54	55	61	60	61
13	33	28	31	47	40	40	56	55	56	62	60	61
14	29	27	28	41	38	40	57	55	56	62	60	61
15	30	27	29	43	40	41	57	56	56	62	61	61
16	31	29	30	45	42	43	57	56	56	62	60	61
17	32	30	31	45	43	44	57	56	56	61	58	59
18	31	25	27	46	43	44	58	56	56	60	58	59
19	33	28	30	46	44	45	57	56	56	61	59	60
20	34	32	33	47	45	46	58	55	56	61	59	60
21	33	32	32	48	46	46	57	55	56	62	58	60
22	33	31	32	48	46	47	57	55	56	60	58	59
23	33	31	32	49	47	48	57	56	57	61	59	60
24	34	31	33	49	48	48	57	56	56	60	59	59
25	35	33	34	49	48	49	58	56	57	60	59	60
26	34	32	34	50	49	49	58	57	57	62	60	60
27	33	31	32	50	49	49	59	57	58	61	60	60
28	34	33	33	51	49	50	59	58	58	62	58	60
29	34	29	31	51	50	50	59	58	58	61	57	58
30	35	31	33	52	50	51	59	58	58	57	53	54
31	---	---	---	52	51	51	59	58	58	---	---	---
MONTH	38	25	32	52	34	43	59	51	55	62	53	60
YEAR	72	24	46									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.8	7.5	7.6	7.5	7.3	7.5	7.5	7.5	7.5	7.6	7.5	7.6
2	7.8	7.5	7.6	7.6	7.3	7.4	7.6	7.5	7.5	7.6	7.5	7.6
3	7.8	7.6	7.6	7.6	7.3	7.5	7.6	7.5	7.5	7.6	7.5	7.5
4	7.8	7.5	7.6	7.6	7.4	7.5	7.6	7.4	7.5	7.6	7.5	7.6
5	7.8	7.6	7.6	7.7	7.3	7.5	7.6	7.4	7.5	7.6	7.5	7.6
6	7.9	7.6	7.6	7.7	7.3	7.6	7.6	7.4	7.5	7.6	7.5	7.5
7	7.9	7.5	7.6	7.7	7.3	7.6	7.5	7.4	7.5	7.5	7.4	7.5
8	7.8	7.6	7.6	7.7	7.4	7.6	7.6	7.4	7.5	7.5	7.4	7.4
9	7.9	7.6	7.6	7.7	7.4	7.6	7.6	7.5	7.5	7.5	7.4	7.5
10	7.7	7.5	7.6	7.7	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.5
11	7.7	7.5	7.6	7.7	7.4	7.6	7.6	7.5	7.5	7.5	7.4	7.5
12	7.7	7.5	7.6	7.7	7.5	7.6	7.6	7.4	7.5	---	---	---
13	7.7	7.5	7.5	7.7	7.4	7.6	7.6	7.4	7.5	---	---	---
14	7.7	7.5	7.5	7.6	7.4	7.5	7.5	7.4	7.5	---	---	---
15	7.7	7.5	7.5	7.6	7.4	7.5	7.5	7.4	7.5	---	---	---
16	7.7	7.4	7.5	7.6	7.4	7.5	7.5	7.4	7.5	---	---	---
17	7.7	7.5	7.5	7.6	7.5	7.5	7.5	7.4	7.5	---	---	---
18	7.7	7.5	7.5	7.6	7.4	7.5	7.5	7.4	7.5	---	---	---
19	7.6	7.4	7.5	7.6	7.4	7.5	7.6	7.5	7.5	---	---	---
20	7.6	7.4	7.5	7.6	7.4	7.5	7.6	7.5	7.5	---	---	---
21	7.6	7.5	7.5	7.6	7.5	7.6	7.6	7.5	7.5	---	---	---
22	7.6	7.4	7.5	7.6	7.4	7.5	7.6	7.5	7.5	---	---	---
23	7.5	7.2	7.3	7.6	7.5	7.5	7.6	7.5	7.5	---	---	---
24	7.7	7.2	7.5	7.6	7.5	7.5	7.6	7.5	7.6	---	---	---
25	7.7	7.3	7.6	7.6	7.4	7.5	7.6	7.4	7.6	---	---	---
26	7.7	7.4	7.6	7.6	7.4	7.5	7.6	7.5	7.6	---	---	---
27	7.7	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.6	---	---	---
28	7.7	7.5	7.6	7.6	7.4	7.5	7.6	7.5	7.6	---	---	---
29	7.7	7.4	7.6	7.5	7.4	7.5	7.7	7.5	7.6	---	---	---
30	7.6	7.4	7.5	7.6	7.5	7.5	7.6	7.5	7.6	---	---	---
31	7.6	7.4	7.5	---	---	---	7.6	7.5	7.6	7.8	7.6	7.7
MAX	7.9	7.6	7.6	7.7	7.5	7.6	7.7	7.5	7.6	---	---	---
MIN	7.5	7.2	7.3	7.5	7.3	7.4	7.5	7.4	7.5	---	---	---

WILLAMETTE RIVER BASIN

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.7	7.6	7.7	7.6	7.5	7.6	7.5	7.4	7.5	7.6	7.5	7.5
2	7.7	7.6	7.7	7.6	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.5
3	7.8	7.6	7.7	7.6	7.5	7.6	7.6	7.4	7.5	7.6	7.5	7.5
4	7.7	7.6	7.7	7.7	7.5	7.6	7.6	7.4	7.5	7.6	7.4	7.5
5	7.7	7.6	7.7	7.7	7.5	7.6	7.5	7.5	7.5	7.6	7.4	7.5
6	7.8	7.6	7.7	7.6	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.5
7	7.7	7.6	7.7	7.6	7.5	7.6	7.6	7.5	7.5	7.6	7.4	7.5
8	7.7	7.6	7.7	7.6	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.5
9	7.7	7.6	7.7	7.6	7.5	7.6	7.5	7.5	7.5	7.6	7.5	7.5
10	7.7	7.6	7.7	7.6	7.5	7.6	7.5	7.4	7.4	7.6	7.5	7.5
11	7.8	7.6	7.7	7.6	7.4	7.5	7.5	7.4	7.4	7.6	7.5	7.5
12	7.8	7.6	7.7	7.5	7.4	7.5	7.5	7.4	7.4	7.6	7.5	7.5
13	7.7	7.6	7.7	7.5	7.4	7.5	7.4	7.3	7.4	7.6	7.4	7.5
14	7.8	7.6	7.7	7.6	7.4	7.5	7.3	7.2	7.3	7.6	7.4	7.5
15	7.7	7.6	7.7	7.6	7.4	7.5	7.4	7.3	7.4	7.6	7.5	7.5
16	7.7	7.6	7.7	7.6	7.4	7.5	7.5	7.4	7.4	7.6	7.4	7.5
17	7.8	7.6	7.7	7.6	7.4	7.5	7.5	7.4	7.4	7.6	7.4	7.5
18	7.8	7.6	7.7	7.6	7.4	7.5	7.5	7.4	7.5	7.6	7.5	7.5
19	7.7	7.6	7.7	7.5	7.4	7.5	7.5	7.4	7.5	7.6	7.5	7.5
20	7.8	7.6	7.7	7.6	7.4	7.5	7.5	7.4	7.5	7.6	7.5	7.5
21	7.7	7.6	7.7	7.6	7.5	7.5	7.5	7.4	7.5	7.6	7.5	7.5
22	7.7	7.6	7.7	7.6	7.4	7.5	7.5	7.4	7.5	7.6	7.5	7.5
23	7.7	7.6	7.7	7.6	7.4	7.5	7.5	7.4	7.5	7.6	7.5	7.5
24	7.7	7.6	7.6	7.6	7.4	7.5	7.6	7.4	7.5	7.6	7.5	7.5
25	7.6	7.6	7.6	7.6	7.5	7.5	7.6	7.5	7.5	7.6	7.5	7.5
26	7.7	7.6	7.6	7.6	7.4	7.5	7.6	7.5	7.5	7.6	7.4	7.5
27	7.6	7.5	7.6	7.6	7.4	7.5	7.6	7.5	7.5	7.5	7.4	7.5
28	7.7	7.5	7.6	7.6	7.4	7.5	7.6	7.5	7.5	7.5	7.4	7.5
29	---	---	---	7.6	7.4	7.5	7.6	7.5	7.5	7.4	7.3	7.4
30	---	---	---	7.6	7.4	7.5	7.6	7.5	7.5	7.5	7.3	7.4
31	---	---	---	7.6	7.5	7.5	---	---	---	7.5	7.3	7.5
MAX	7.8	7.6	7.7	7.7	7.5	7.6	7.6	7.5	7.5	7.6	7.5	7.5
MIN	7.6	7.5	7.6	7.5	7.4	7.5	7.3	7.2	7.3	7.4	7.3	7.4
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.6	7.3	7.5	7.5	7.4	7.4	7.8	7.6	7.6	---	---	---
2	7.6	7.4	7.5	7.6	7.4	7.5	7.8	7.5	7.7	---	---	---
3	7.6	7.4	7.5	7.6	7.4	7.5	7.8	7.6	7.7	---	---	---
4	7.6	7.4	7.5	7.6	7.4	7.5	7.8	7.6	7.7	---	---	---
5	7.5	7.4	7.5	7.6	7.4	7.5	7.8	7.5	7.7	---	---	---
6	7.6	7.4	7.5	7.6	7.4	7.5	7.8	7.5	7.7	---	---	---
7	7.6	7.4	7.5	7.6	7.4	7.5	7.9	7.5	7.7	---	---	---
8	7.6	7.5	7.6	7.6	7.4	7.5	7.8	7.6	7.7	---	---	---
9	7.6	7.5	7.6	7.6	7.4	7.5	7.8	7.6	7.7	---	---	---
10	7.7	7.5	7.6	7.6	7.4	7.5	7.8	7.6	7.6	---	---	---
11	7.7	7.5	7.5	7.6	7.4	7.5	7.8	7.6	7.6	---	---	---
12	7.6	7.4	7.5	7.7	7.4	7.5	7.8	7.6	7.6	---	---	---
13	7.5	7.3	7.4	7.7	7.4	7.5	7.8	7.5	7.6	---	---	---
14	7.5	7.3	7.4	7.7	7.5	7.6	7.8	7.5	7.6	---	---	---
15	7.5	7.3	7.4	7.7	7.5	7.6	7.8	7.5	7.6	---	---	---
16	7.5	7.4	7.4	7.8	7.5	7.6	7.8	7.5	7.6	---	---	---
17	7.5	7.4	7.4	7.8	7.5	7.6	7.8	7.5	7.6	---	---	---
18	7.4	7.3	7.4	7.8	7.5	7.6	7.8	7.5	7.6	---	---	---
19	7.5	7.3	7.4	7.8	7.6	7.7	7.8	7.5	7.6	---	---	---
20	7.5	7.3	7.4	7.8	7.6	7.7	7.8	7.5	7.6	---	---	---
21	7.5	7.3	7.4	7.8	7.6	7.7	7.8	7.5	7.6	---	---	---
22	7.5	7.3	7.4	7.8	7.5	7.7	7.8	7.5	7.6	---	---	---
23	7.5	7.3	7.4	7.8	7.5	7.6	7.7	7.4	7.5	---	---	---
24	7.5	7.3	7.4	7.8	7.5	7.6	7.7	7.5	7.5	---	---	---
25	7.5	7.3	7.4	7.8	7.5	7.6	7.7	7.4	7.5	---	---	---
26	7.5	7.3	7.3	7.8	7.5	7.7	7.7	7.4	7.5	---	---	---
27	7.5	7.3	7.4	7.8	7.5	7.7	7.7	7.5	7.5	---	---	---
28	7.5	7.3	7.4	7.8	7.6	7.6	7.7	7.4	7.5	---	---	---
29	7.5	7.3	7.4	7.8	7.5	7.6	---	---	---	---	---	---
30	7.5	7.3	7.4	7.8	7.5	7.6	---	---	---	---	---	---
31	---	---	---	7.8	7.5	7.7	---	---	---	---	---	---
MAX	7.7	7.5	7.6	7.8	7.6	7.7	---	---	---	---	---	---
MIN	7.4	7.3	7.3	7.5	7.4	7.4	---	---	---	---	---	---

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.6	8.9	9.7	8.1	7.5	7.8	6.1	5.5	5.8	4.8	4.3	4.6
2	10.6	9.1	9.8	8.4	7.9	8.1	6.4	5.9	6.1	5.3	4.8	5.0
3	9.9	8.3	9.1	7.9	7.0	7.4	6.1	5.6	5.9	5.1	4.8	4.9
4	10.2	8.6	9.3	7.5	6.8	7.1	5.6	3.6	4.7	5.1	4.5	4.8
5	9.9	8.3	9.1	7.7	6.7	7.3	4.9	3.3	4.2	5.4	4.7	5.0
6	10.2	9.0	9.4	6.7	5.8	6.1	5.7	4.6	5.1	5.5	5.1	5.3
7	9.2	8.0	8.5	5.8	4.5	5.0	5.9	5.5	5.7	5.7	5.5	5.6
8	9.6	8.5	9.0	5.1	4.1	4.6	5.7	5.2	5.5	5.6	5.3	5.5
9	9.2	8.0	8.6	5.6	4.3	4.9	5.7	5.2	5.5	5.4	5.0	5.2
10	8.0	6.9	7.3	6.6	5.0	5.6	5.2	4.4	4.8	5.5	4.8	5.1
11	8.8	7.8	8.3	7.0	6.1	6.5	5.0	4.5	4.8	5.6	4.9	5.2
12	8.5	7.8	8.2	7.7	6.8	7.1	5.0	4.7	4.8	5.5	5.1	5.3
13	9.6	8.5	8.9	7.9	7.5	7.6	5.7	4.8	5.2	5.1	4.5	4.8
14	9.8	8.8	9.2	8.7	7.9	8.4	5.5	5.0	5.2	4.9	4.2	4.7
15	9.1	7.7	8.4	8.4	7.9	8.2	5.3	4.9	5.1	4.2	3.6	3.9
16	9.0	8.2	8.6	8.3	7.7	8.1	5.8	5.1	5.4	3.7	3.0	3.5
17	8.6	6.9	7.9	7.7	6.4	7.2	5.8	5.4	5.6	4.2	3.0	3.7
18	6.9	5.6	6.3	6.4	5.5	5.9	5.4	5.1	5.2	4.4	3.9	4.1
19	7.2	5.9	6.5	7.4	5.9	6.5	5.6	5.2	5.3	4.1	3.3	3.7
20	8.7	7.2	7.8	7.5	7.1	7.3	5.3	4.9	5.1	3.7	1.3	2.2
21	7.5	6.7	7.0	7.4	6.7	7.0	5.2	4.8	5.0	2.7	1.3	1.9
22	8.4	7.0	7.8	7.1	6.5	6.9	4.8	4.1	4.5	2.4	0.5	1.5
23	8.3	6.9	7.4	7.0	6.5	6.7	4.6	3.8	4.1	3.3	2.3	2.9
24	7.0	6.4	6.8	6.5	5.8	6.3	4.1	3.2	3.6	3.8	2.9	3.4
25	8.0	6.8	7.3	6.0	4.7	5.6	4.2	3.2	3.7	3.8	3.0	3.4
26	7.6	6.4	7.0	5.6	4.7	5.3	4.2	3.2	3.7	3.9	3.4	3.6
27	7.6	7.2	7.4	5.4	4.8	5.1	4.3	3.8	4.0	3.9	3.0	3.5
28	7.3	6.2	6.7	5.6	3.4	4.5	4.7	4.1	4.3	3.7	3.0	3.3
29	7.8	7.1	7.4	5.9	5.3	5.6	4.4	3.8	4.1	3.2	1.9	2.6
30	8.3	7.7	8.0	5.8	5.2	5.5	4.5	4.1	4.3	3.8	3.0	3.3
31	8.2	7.7	8.0	---	---	---	4.9	4.3	4.6	3.7	2.9	3.4
MONTH	10.6	5.6	8.1	8.7	3.4	6.5	6.4	3.2	4.9	5.7	0.5	4.0
	FEBRUARY			MARCH			APRIL			MAY		
1	4.1	2.8	3.4	4.3	2.9	3.6	6.7	4.1	5.2	8.8	5.8	6.9
2	3.9	3.6	3.7	4.4	2.8	3.6	6.7	4.1	5.2	8.7	5.7	6.9
3	4.3	3.6	3.9	4.5	3.0	3.7	6.7	4.2	5.2	7.5	5.3	6.3
4	3.8	3.0	3.4	4.9	3.2	4.0	6.9	4.2	5.3	7.7	4.3	5.9
5	4.0	3.2	3.5	4.8	4.0	4.4	5.4	4.7	5.1	6.5	5.4	5.9
6	4.1	3.7	3.9	4.5	3.7	4.1	6.1	4.9	5.4	5.9	4.8	5.3
7	3.9	3.1	3.7	4.4	3.5	4.1	5.8	4.9	5.3	5.9	4.2	5.0
8	4.3	3.0	3.7	4.1	3.1	3.6	7.0	4.8	5.6	7.8	4.2	5.8
9	4.3	3.5	3.9	4.5	3.2	3.9	5.6	4.9	5.2	6.6	5.2	5.8
10	4.4	3.5	4.0	4.9	4.1	4.4	5.8	4.7	5.1	8.1	5.1	6.3
11	4.5	3.8	4.2	5.0	4.4	4.7	5.8	4.9	5.3	9.0	4.5	6.6
12	4.2	3.1	3.6	4.6	4.1	4.4	6.3	5.0	5.4	9.8	5.2	7.3
13	3.9	3.0	3.5	4.4	3.8	4.1	5.7	5.2	5.4	7.9	6.0	6.5
14	3.8	2.9	3.4	5.0	4.1	4.5	5.5	4.0	4.6	8.6	5.5	6.7
15	4.0	3.1	3.5	5.0	4.0	4.5	5.3	4.3	4.6	8.7	4.9	6.6
16	4.4	3.7	4.0	4.2	3.1	3.7	5.3	4.3	4.7	8.7	4.7	6.6
17	4.7	3.5	4.0	4.1	3.1	3.5	5.6	4.2	4.8	9.3	6.2	7.5
18	5.0	4.2	4.6	4.1	2.8	3.5	6.2	4.6	5.3	7.6	6.1	6.8
19	4.9	4.4	4.6	4.0	2.6	3.3	6.4	4.8	5.5	7.1	6.0	6.5
20	5.1	4.4	4.7	5.3	3.8	4.5	7.7	4.9	6.0	7.5	5.7	6.5
21	4.9	4.6	4.8	5.2	3.6	4.4	7.8	5.1	6.3	7.3	5.7	6.4
22	5.4	4.6	4.9	5.1	3.5	4.3	8.0	5.2	6.4	7.4	5.6	6.4
23	5.2	4.4	4.8	5.9	4.2	4.9	7.3	4.6	5.9	9.3	5.7	7.1
24	5.0	4.3	4.7	5.8	4.5	5.1	7.8	4.0	5.7	8.9	5.5	7.1
25	4.8	3.6	4.2	6.1	4.5	5.1	7.9	4.5	6.1	8.9	6.1	7.4
26	4.7	3.5	4.0	6.0	4.0	4.9	6.4	4.9	5.7	8.9	6.4	7.5
27	4.8	3.2	4.0	6.0	4.6	5.2	7.2	5.0	5.8	7.8	6.2	7.0
28	4.8	3.8	4.3	6.1	4.7	5.2	7.9	4.2	5.8	7.3	6.3	6.8
29	---	---	---	6.5	4.4	5.3	8.5	4.5	6.3	8.2	6.2	7.0
30	---	---	---	6.5	4.3	5.2	7.6	5.1	6.4	9.4	5.9	7.3
31	---	---	---	6.6	4.0	5.1	---	---	---	9.5	5.8	7.4
MONTH	5.4	2.8	4.0	6.6	2.6	4.3	8.5	4.0	5.5	9.8	4.2	6.6

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	<1	<1	<1	1	<1	<1	2	<1	<1	5	<1	<1
2	<1	<1	<1	6	<1	<1	3	<1	<1	8	<1	<1
3	<1	<1	<1	2	<1	<1	2	<1	<1	4	<1	<1
4	<1	<1	<1	<1	<1	<1	4	<1	<1	2	<1	<1
5	<1	<1	<1	2	<1	<1	5	<1	1	2	<1	<1
6	<1	<1	<1	10	<1	1	3	<1	1	3	<1	<1
7	<1	<1	<1	2	<1	<1	4	<1	<1	2	<1	<1
8	1	<1	<1	2	<1	<1	2	<1	<1	6	<1	<1
9	<1	<1	<1	2	<1	<1	16	<1	1	3	<1	<1
10	<1	<1	<1	2	<1	<1	59	7	15	2	<1	<1
11	<1	<1	<1	135	<1	2	14	5	8	1	<1	<1
12	<1	<1	<1	98	4	10	43	6	9	3	<1	<1
13	<1	<1	<1	5	1	3	87	7	12	5	<1	<1
14	<1	<1	<1	3	<1	1	406	68	170	1	<1	<1
15	<1	<1	<1	2	<1	<1	80	16	33	1	<1	<1
16	1	<1	<1	2	<1	<1	17	4	8	2	<1	<1
17	<1	<1	<1	4	<1	<1	10	2	4	1	<1	<1
18	<1	<1	<1	<1	<1	<1	8	1	3	2	<1	<1
19	2	<1	<1	2	<1	<1	8	<1	2	2	<1	<1
20	1	<1	<1	<1	<1	<1	3	<1	1	4	<1	<1
21	13	<1	2	<1	<1	<1	2	<1	1	2	<1	<1
22	8	2	3	1	<1	<1	5	<1	<1	5	<1	<1
23	14	4	6	1	<1	<1	3	<1	<1	1	<1	<1
24	9	2	3	3	<1	<1	4	<1	<1	2	<1	<1
25	2	<1	2	2	<1	<1	8	<1	<1	8	<1	<1
26	2	<1	<1	3	<1	<1	8	<1	<1	3	<1	<1
27	5	<1	<1	2	<1	<1	2	<1	<1	8	<1	1
28	2	<1	<1	2	<1	<1	3	<1	<1	16	2	3
29	---	---	---	3	<1	<1	8	<1	<1	27	9	15
30	---	---	---	2	<1	<1	6	<1	<1	23	3	8
31	---	---	---	2	<1	<1	---	---	---	7	2	3
MAX	14	4	6	135	4	10	406	68	170	27	9	15
MIN	<1	<1	<1	<1	<1	<1	2	<1	<1	1	<1	<1

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10	<1	2	2	<1	<1	2	<1	<1	<1	<1	<1
2	8	<1	1	6	<1	<1	<1	<1	<1	2	<1	<1
3	7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
4	2	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
5	8	<1	2	1	<1	<1	<1	<1	<1	4	<1	<1
6	7	<1	2	2	<1	<1	2	<1	<1	<1	<1	<1
7	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
8	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
9	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
10	1	<1	<1	3	<1	<1	<1	<1	<1	<1	<1	<1
11	<1	<1	<1	1	<1	<1	1	<1	<1	<1	<1	<1
12	6	<1	<1	<1	<1	<1	<1	-1	<1	<1	<1	<1
13	6	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
14	7	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1
15	10	<1	1	1	<1	<1	<1	<1	<1	<1	<1	<1
16	7	<1	<1	<1	<1	<1	3	<1	<1	<1	<1	<1
17	3	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
18	19	1	7	2	<1	<1	<1	<1	<1	<1	<1	<1
19	9	<1	1	3	<1	<1	2	<1	<1	<1	<1	<1
20	4	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
21	5	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1
22	2	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
23	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
24	5	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1
25	3	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
26	1	<1	<1	1	<1	<1	2	<1	<1	<1	<1	<1
27	3	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1
28	3	<1	<1	8	<1	<1	1	<1	<1	<1	<1	<1
29	16	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<1
30	4	<1	<1	<1	<1	<1	4	<1	<1	1	<1	<1
31	---	---	---	2	<1	<1	1	<1	<1	---	---	---
MAX	19	1	7	8	<1	<1	4	<1	<1	4	<1	<1
MIN	<1	<1	<1	<1	<1	<1	<1	-1	<1	<1	<1	<1

14179100 FRENCH CREEK, NEAR DETROIT, OR

LOCATION.--Lat 44°45'38", long 122°10'02", in NW 1/4 SW 1/4 sec.26, T.9 S., R.5 E. Marion County, Hydrologic Unit 17090005, on right bank 25 ft upstream of bridge over French Creek, 1.9 northeast of Detroit, and at mile 1.7.

DRAINAGE AREA.--9.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 2001 to September 2002.

GAGE.--Water-stage recorder. Datum of gage is approximately 1,800 ft above NGVD of 1929, from topographic map.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 22	1800	976	4.79	Apr. 10	1230	854	4.65
Dec. 13	2230	949	4.76	Apr. 14	0630	*2,230	*5.76
Jan. 8	0330	730	4.49				

Minimum discharge, 2.1 ft³/s Oct. 2, 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	138	210	71	e28	56	115	112	174	e43	5.5	3.4
2	2.2	121	194	122	e27	47	131	131	156	e38	5.3	3.5
3	2.1	90	153	139	e26	42	150	140	141	34	5.2	3.5
4	2.2	63	125	110	25	41	187	118	139	30	5.3	3.4
5	2.2	53	102	93	25	43	228	106	151	27	5.3	3.4
6	2.2	42	301	155	26	86	205	102	143	24	5.2	3.4
7	2.3	34	308	346	40	90	194	80	113	23	4.9	3.4
8	2.6	29	184	503	55	65	181	65	88	21	4.8	3.4
9	2.8	24	141	242	e48	54	248	58	76	18	4.7	3.3
10	6.5	22	121	145	e42	50	511	53	78	16	4.5	3.2
11	30	19	100	113	e40	168	368	54	98	15	4.3	3.2
12	13	20	88	124	39	389	337	76	124	14	4.3	3.2
13	11	47	388	124	e36	217	440	122	143	13	4.1	3.1
14	11	99	491	103	e36	128	1280	126	143	12	4.0	3.0
15	11	72	184	78	e35	90	335	120	125	11	4.0	3.0
16	8.6	87	327	61	e37	68	181	114	109	9.6	3.9	3.2
17	7.6	86	397	50	e40	54	131	124	103	8.9	3.9	4.7
18	6.7	68	200	42	e50	45	105	137	159	8.5	3.8	4.2
19	6.1	61	128	38	e85	42	87	132	113	8.3	3.8	3.6
20	5.7	66	104	36	e97	39	74	125	93	7.9	3.9	3.4
21	5.8	87	82	34	e140	41	71	123	91	7.6	4.0	3.3
22	147	423	66	42	e180	39	71	135	87	7.2	4.0	3.2
23	184	357	53	38	e240	44	76	128	75	7.0	3.9	3.1
24	107	182	45	36	e200	68	75	128	65	6.7	3.8	3.0
25	75	138	39	77	e130	74	80	144	61	6.6	3.8	2.9
26	59	109	33	68	e100	78	92	174	61	6.5	3.8	2.8
27	46	86	30	52	e80	93	89	188	56	6.3	3.7	2.8
28	38	168	40	43	67	87	78	214	e48	6.1	3.6	2.8
29	32	272	40	e36	---	80	83	296	e75	6.1	3.5	3.9
30	83	183	37	e33	---	84	107	232	e55	5.9	3.5	14
31	136	---	49	e30	---	97	---	193	---	5.6	3.4	---
TOTAL	1050.8	3246	4760	3184	1974	2599	6310	4050	3143	453.8	131.7	110.3
MEAN	33.9	108	154	103	70.5	83.8	210	131	105	14.6	4.25	3.68
MAX	184	423	491	503	240	389	1280	296	174	43	5.5	14
MIN	2.1	19	30	30	25	39	71	53	48	5.6	3.4	2.8
AC-FT	2080	6440	9440	6320	3920	5160	12520	8030	6230	900	261	219
CFSM	3.42	10.9	15.5	10.4	7.12	8.47	21.2	13.2	10.6	1.48	0.43	0.37
IN.	3.95	12.20	17.89	11.96	7.42	9.77	23.71	15.22	11.81	1.71	0.49	0.41

WTR YR 2002 TOTAL 31012.6 MEAN 85.0 MAX 1280 MIN 2.1 AC-FT 61510 CFSM 8.58 IN. 116.53

e Estimated

14179100 FRENCH CREEK NEAR DETROIT, OR--Continued
WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 2001 to current year.
pH: June 2001 to current year.
WATER TEMPERATURE: June 2001 to current year.
TURBIDITY: June 2001 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS: Water-quality data for the 2001 water year available in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Record good
pH: Record good.
WATER TEMPERATURE: Record good.
TURBIDITY: Record fair.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 42 microsiemens Sept. 29, 2002; minimum, 15 microsiemens Apr. 14, 2002.
pH: Maximum, 7.6 units June 18, Aug. 8-11, 2002; minimum, 6.1 units Apr. 15, 2002.
WATER TEMPERATURE: Maximum, 14.5°C July 24, 25, 2002; minimum, 0.1°C Jan. 22, 2002.
TURBIDITY: Maximum, 214 NTU Apr. 14, 2002; minimum, <1 many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 42 microsiemens Sept. 29; minimum, 15 microsiemens Apr. 14.
pH: Maximum, 7.6 units June 18, Aug. 8-11; minimum, 6.1 units Apr. 15.
WATER TEMPERATURE: Maximum, 14.5°C July 24, 25; minimum, 0.1°C Jan. 22.
TURBIDITY: Maximum, 214 NTU Apr. 14; minimum, <1 many days during year.

WATER-QUALITY DATA

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
JUN 2001					
26...	1600	17	33	1.0	.04
JUL					
24...	1511	E4.8	29	<1.0	--
AUG					
16...	1100	E3.8	22	1.0	.01
SEP					
26...	1233	3.3	75	<1.0	--
OCT					
11...	1537	28	30	1.0	.08
23...	1802	150	42	1.0	.41
31...	1214	139	57	1.0	.38
NOV					
06...	1601	41	95	1.0	.11
14...	1608	88	88	1.0	.24
14...	1650	86	63	1.0	.23
22...	1738	812	19	127	278
23...	1053	347	38	4.0	3.7
23...	1108	334	18	11	9.9
23...	1536	278	25	4.0	3.0
29...	1300	261	--	1.0	.70
DEC					
06...	1648	488	57	8.0	10.5
07...	1026	306	28	1.0	.83
07...	1044	298	9	2.0	1.6
14...	0842	544	46	7.0	10.3
19...	1548	114	50	<1.0	--
JAN 2002					
08...	1000	541	28	13	19.0
FEB					
20...	1521	E97	27	2.0	.52
APR					
14...	1700	888	41	31	74.3

< Actual value is known to be less than the value shown.
E Estimated

WILLAMETTE RIVER BASIN

14179100 FRENCH CREEK NEAR DETROIT, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	24	23	24	---	---	---	---	---	---
2	---	---	---	25	23	24	---	---	---	24	22	22
3	---	---	---	25	25	25	---	---	---	22	22	22
4	---	---	---	25	25	25	---	---	---	22	21	22
5	---	---	---	25	25	25	---	---	---	24	22	23
6	---	---	---	26	25	25	---	---	---	24	20	22
7	---	---	---	26	26	26	---	---	---	20	19	20
8	---	---	---	26	25	25	---	---	---	19	17	18
9	---	---	---	26	25	25	---	---	---	21	16	19
10	---	---	---	26	25	26	---	---	---	22	20	21
11	---	---	---	27	25	26	---	---	---	22	21	21
12	---	---	---	27	27	27	---	---	---	21	19	20
13	---	---	---	27	22	26	23	16	20	20	19	19
14	---	---	---	25	23	24	20	16	19	21	19	20
15	---	---	---	25	23	24	21	20	20	22	21	21
16	---	---	---	24	23	23	21	16	19	22	20	22
17	---	---	---	24	22	23	19	18	18	22	22	22
18	---	---	---	25	23	23	21	19	20	22	22	22
19	---	---	---	25	24	24	21	21	21	22	22	22
20	---	---	---	24	24	24	21	21	21	23	21	22
21	---	---	---	24	23	24	21	20	21	23	21	22
22	---	---	---	23	18	21	23	20	22	23	22	22
23	---	---	---	23	20	22	---	---	---	23	22	23
24	---	---	---	23	23	23	---	---	---	24	22	23
25	26	26	26	24	23	24	---	---	---	23	22	23
26	26	26	26	26	24	24	---	---	---	24	22	23
27	26	25	26	26	24	26	---	---	---	24	22	24
28	25	25	25	26	21	24	---	---	---	24	24	24
29	27	25	26	---	---	---	---	---	---	24	24	24
30	26	24	25	---	---	---	---	---	---	24	23	24
31	24	24	24	---	---	---	---	---	---	24	23	23
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	24	23	24	25	24	24	25	24	24	23	21	22
2	25	23	24	24	24	24	25	24	24	22	20	21
3	25	23	25	24	24	24	25	24	24	21	21	21
4	25	25	25	25	24	24	25	22	23	23	21	22
5	25	25	25	25	25	25	22	21	22	22	21	21
6	25	23	24	25	23	24	22	22	22	22	21	22
7	25	23	24	24	23	24	22	22	22	22	21	22
8	25	23	24	24	23	24	22	22	22	23	22	22
9	25	23	25	24	23	24	22	21	21	23	22	23
10	25	25	25	24	24	24	21	18	20	24	22	23
11	25	24	25	24	21	23	21	19	20	24	22	23
12	25	25	25	23	21	22	20	19	19	23	22	23
13	25	25	25	24	23	23	19	16	19	22	21	21
14	25	25	25	24	23	23	18	15	17	21	20	21
15	25	25	25	23	23	23	20	18	20	22	20	21
16	25	24	25	24	23	24	22	20	21	22	20	21
17	25	24	25	24	24	24	22	21	22	21	19	21
18	25	24	24	25	24	24	23	21	22	21	19	20
19	25	23	24	26	24	25	23	22	23	21	19	20
20	24	23	23	26	25	25	23	22	23	21	19	20
21	23	21	22	25	25	25	23	22	23	21	20	21
22	23	21	21	27	24	25	23	22	23	21	19	20
23	21	20	21	27	25	26	23	22	23	21	19	20
24	22	21	22	26	24	25	23	22	23	21	20	21
25	23	22	22	26	24	25	23	22	23	21	20	20
26	24	22	23	26	24	25	23	21	23	21	18	19
27	24	22	24	25	24	24	23	21	22	20	19	19
28	24	24	24	25	24	24	23	22	23	19	19	19
29	---	---	---	26	24	25	23	22	23	19	17	18
30	---	---	---	26	24	25	23	21	22	19	17	18
31	---	---	---	26	24	25	---	---	---	20	18	19
MONTH	25	20	24	27	21	24	25	15	22	24	17	21

14179100 FRENCH CREEK NEAR DETROIT, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20	18	19	23	21	21	31	30	30	35	34	34
2	20	18	19	24	19	23	31	30	31	35	34	35
3	20	19	20	24	17	22	31	30	31	35	34	35
4	20	19	20	24	16	22	32	30	31	35	34	34
5	20	18	19	24	17	22	32	30	31	35	33	34
6	20	18	19	25	17	23	31	30	31	35	34	34
7	21	19	20	25	18	23	32	30	31	35	34	34
8	21	20	21	25	25	25	---	---	---	35	33	34
9	22	20	21	26	25	26	---	---	---	35	34	34
10	22	20	21	27	25	26	---	---	---	35	34	35
11	21	19	20	27	26	27	---	---	---	36	35	35
12	20	18	19	---	---	---	---	---	---	36	34	35
13	19	17	18	---	---	---	---	---	---	35	34	35
14	19	17	18	---	---	---	---	---	---	35	34	35
15	19	17	18	---	---	---	---	---	---	35	34	35
16	19	18	18	---	---	---	---	---	---	34	33	34
17	20	18	19	---	---	---	---	---	---	34	32	32
18	19	17	18	28	26	27	---	---	---	33	32	33
19	19	18	19	28	27	27	---	---	---	37	33	35
20	20	19	19	29	27	28	---	---	---	37	35	36
21	20	19	19	29	27	28	---	---	---	38	36	37
22	20	19	19	29	28	29	---	---	---	39	37	38
23	21	19	20	30	28	29	---	---	---	39	37	38
24	21	20	21	30	28	29	---	---	---	40	38	39
25	21	20	21	30	29	29	---	---	---	40	39	40
26	22	20	21	30	29	29	---	---	---	40	39	40
27	22	21	21	30	29	30	---	---	---	41	40	41
28	23	21	21	31	29	30	---	---	---	41	40	41
29	---	---	---	31	29	30	35	34	34	42	36	40
30	---	---	---	31	30	30	35	34	34	37	33	35
31	---	---	---	31	29	30	35	34	34	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	42	32	36

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	7.0	6.8	7.0	7.0	7.0	7.0	7.0	6.9	6.9
2	---	---	---	7.0	6.8	7.0	7.0	7.0	7.0	6.9	6.8	6.9
3	---	---	---	7.0	7.0	7.0	7.1	7.0	7.0	6.8	6.8	6.8
4	---	---	---	7.0	7.0	7.0	7.1	7.0	7.1	6.9	6.8	6.8
5	---	---	---	7.0	6.9	7.0	7.1	7.0	7.1	6.9	6.8	6.8
6	---	---	---	7.0	6.8	7.0	7.1	6.8	7.0	6.8	6.7	6.8
7	---	---	---	7.0	6.9	7.0	6.9	6.8	6.8	6.7	6.5	6.6
8	---	---	---	7.0	7.0	7.0	7.0	6.9	6.9	6.6	6.5	6.5
9	---	---	---	7.1	7.0	7.0	7.0	7.0	7.0	6.7	6.6	6.7
10	---	---	---	7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.7	6.8
11	---	---	---	7.1	7.0	7.0	7.0	7.0	7.0	6.9	6.7	6.8
12	---	---	---	7.1	7.0	7.0	7.1	6.9	7.0	6.9	6.9	6.9
13	---	---	---	7.2	7.0	7.1	7.0	6.6	6.8	7.0	6.9	6.9
14	---	---	---	7.1	7.0	7.1	6.8	6.6	6.6	7.0	7.0	7.0
15	---	---	---	7.2	7.1	7.1	6.9	6.8	6.9	7.0	7.0	7.0
16	---	---	---	7.2	7.1	7.2	6.9	6.6	6.7	7.1	7.0	7.0
17	---	---	---	7.2	7.2	7.2	6.8	6.5	6.7	7.1	7.0	7.1
18	---	---	---	7.2	7.2	7.2	6.9	6.8	6.8	7.1	7.1	7.1
19	---	---	---	7.2	7.1	7.2	6.9	6.9	6.9	7.1	7.1	7.1
20	---	---	---	7.2	7.2	7.2	7.0	6.9	7.0	7.1	7.1	7.1
21	---	---	---	7.2	7.2	7.2	7.0	7.0	7.0	7.2	7.1	7.1
22	---	---	---	7.2	6.8	7.0	7.0	7.0	7.0	7.1	7.1	7.1
23	---	---	---	7.1	6.9	7.0	7.0	7.0	7.0	7.1	7.1	7.1
24	---	---	---	7.1	7.1	7.1	7.0	7.0	7.0	7.2	7.1	7.1
25	7.0	7.0	7.0	7.1	7.1	7.1	7.0	7.0	7.0	7.2	7.1	7.2
26	7.0	7.0	7.0	7.1	7.1	7.1	7.0	7.0	7.0	7.2	7.2	7.2
27	7.1	7.0	7.0	7.1	7.1	7.1	7.0	7.0	7.0	7.2	7.2	7.2
28	7.1	7.0	7.1	7.1	6.9	7.1	7.0	7.0	7.0	7.3	7.2	7.3
29	7.1	7.0	7.1	7.0	6.9	6.9	7.0	7.0	7.0	7.3	7.2	7.2
30	7.0	6.9	7.0	7.0	7.0	7.0	7.0	6.9	7.0	7.2	7.2	7.2
31	7.0	6.9	7.0	---	---	---	7.0	6.9	6.9	7.2	7.1	7.2
MAX	---	---	---	7.2	7.2	7.2	7.1	7.0	7.1	7.3	7.2	7.3
MIN	---	---	---	7.0	6.8	6.9	6.8	6.5	6.6	6.6	6.5	6.5

14179100 FRENCH CREEK NEAR DETROIT, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.2	7.1	7.2	---	---	---	7.4	7.4	7.4	7.1	7.0	7.1
2	7.2	7.1	7.2	---	---	---	7.4	7.4	7.4	7.1	7.0	7.1
3	7.2	7.1	7.1	---	---	---	7.4	7.4	7.4	7.2	7.0	7.1
4	7.2	7.1	7.2	---	---	---	7.4	7.3	7.3	7.2	7.0	7.1
5	7.2	7.1	7.1	---	---	---	7.3	7.3	7.3	7.1	7.0	7.1
6	7.2	7.1	7.1	---	---	---	7.3	7.3	7.3	7.1	7.1	7.1
7	7.2	7.1	7.1	7.4	7.4	7.4	7.3	7.3	7.3	7.1	7.1	7.1
8	7.1	7.1	7.1	7.4	7.4	7.4	7.4	7.3	7.3	7.1	7.0	7.1
9	7.1	7.1	7.1	7.4	7.4	7.4	7.3	7.2	7.3	7.1	7.1	7.1
10	7.1	7.1	7.1	7.4	7.4	7.4	7.2	7.1	7.2	7.2	7.1	7.1
11	7.1	7.1	7.1	7.4	7.2	7.3	7.2	7.1	7.1	7.2	7.1	7.1
12	7.2	7.0	7.1	7.3	7.2	7.3	7.2	7.1	7.1	7.2	7.1	7.2
13	7.1	7.0	7.0	7.3	7.3	7.3	7.2	7.0	7.1	7.3	7.2	7.3
14	7.1	7.0	7.0	7.4	7.3	7.3	7.0	6.7	6.8	7.3	7.1	7.2
15	7.1	7.0	7.1	7.4	7.3	7.3	6.9	6.1	6.8	7.2	7.1	7.2
16	7.1	7.0	7.1	7.4	7.3	7.3	7.0	6.8	7.0	7.2	7.1	7.2
17	7.1	7.0	7.0	7.4	7.3	7.4	7.1	7.0	7.0	7.2	7.1	7.2
18	7.1	7.0	7.0	7.4	7.3	7.4	7.1	7.1	7.1	7.2	7.1	7.2
19	7.0	6.9	7.0	7.4	7.3	7.4	7.1	6.8	7.0	7.2	7.1	7.2
20	7.0	6.9	---	7.4	7.4	7.4	7.0	6.9	7.0	7.3	7.1	7.2
21	7.2	7.0	---	7.4	7.4	7.4	7.0	6.9	6.9	7.3	7.2	7.3
22	7.1	6.9	7.0	7.4	7.4	7.4	7.0	6.9	6.9	7.3	7.2	7.3
23	7.0	6.9	7.0	7.5	7.4	7.4	7.0	6.9	7.0	7.3	7.1	7.2
24	7.0	6.9	7.0	7.4	7.4	7.4	7.0	7.0	7.0	7.2	7.1	7.2
25	7.0	6.9	7.0	7.4	7.4	7.4	7.0	7.0	7.0	7.3	7.1	7.2
26	7.0	6.9	7.0	7.4	7.4	7.4	7.1	7.0	7.0	7.3	7.1	7.2
27	7.0	6.9	7.0	7.4	7.4	7.4	7.1	7.0	7.0	7.3	7.2	7.2
28	7.0	6.8	6.9	7.4	7.4	7.4	7.1	7.0	7.1	7.4	7.2	7.3
29	---	---	---	7.5	7.4	7.4	7.1	7.0	7.0	7.4	7.2	7.3
30	---	---	---	7.5	7.4	7.4	7.1	7.0	7.1	7.4	7.1	7.2
31	---	---	---	7.4	7.4	7.4	---	---	---	7.3	7.1	7.2
MAX	7.2	7.1	---	---	---	---	7.4	7.4	7.4	7.4	7.2	7.3
MIN	7.0	6.8	---	---	---	---	6.9	6.1	6.8	7.1	7.0	7.1
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.3	7.1	7.2	---	---	---	---	---	---	7.4	7.3	7.4
2	7.3	7.1	7.3	---	---	---	---	---	---	7.4	7.3	7.3
3	7.3	7.1	7.2	---	---	---	---	---	---	7.4	7.3	7.4
4	7.3	7.2	7.3	---	---	---	---	---	---	7.4	7.3	7.4
5	7.3	7.2	7.3	---	---	---	---	---	---	7.4	7.3	7.4
6	7.4	7.2	7.3	---	---	---	---	---	---	7.4	7.3	7.4
7	7.4	7.2	7.3	---	---	---	---	---	---	7.4	7.3	7.4
8	7.3	7.1	7.3	---	---	---	7.6	7.5	7.6	7.5	7.3	7.4
9	7.3	7.2	7.2	---	---	---	7.6	7.5	7.6	7.4	7.3	7.3
10	7.3	7.2	7.2	---	---	---	7.6	7.5	7.5	7.4	7.3	7.3
11	7.4	7.2	7.3	---	---	---	7.6	7.4	7.5	7.4	7.3	7.3
12	7.4	7.3	7.4	---	---	---	7.5	7.4	7.5	7.4	7.3	7.3
13	7.4	7.2	7.4	---	---	---	7.5	7.4	7.5	7.4	7.3	7.3
14	7.5	7.2	7.4	---	---	---	7.5	7.4	7.5	7.4	7.3	7.3
15	7.5	7.3	7.4	---	---	---	7.5	7.3	7.4	7.4	7.3	7.4
16	7.5	7.3	7.4	---	---	---	7.5	7.4	7.4	7.4	7.3	7.3
17	7.5	7.4	7.4	---	---	---	7.5	7.4	7.4	7.4	7.3	7.4
18	7.6	7.5	7.6	---	---	---	7.5	7.4	7.4	7.4	7.3	7.4
19	7.5	7.2	7.4	---	---	---	7.5	7.4	7.4	7.4	7.3	7.3
20	7.4	7.3	7.4	---	---	---	7.5	7.4	7.4	7.4	7.3	7.3
21	7.5	7.3	7.4	---	---	---	7.5	7.3	7.4	7.4	7.3	7.3
22	---	---	---	---	---	---	7.4	7.3	7.3	7.4	7.2	7.3
23	---	---	---	---	---	---	7.4	7.3	7.3	7.3	7.3	7.3
24	---	---	---	---	---	---	7.3	7.2	7.3	7.3	7.2	7.3
25	---	---	---	---	---	---	7.4	7.3	7.3	7.3	7.2	7.3
26	---	---	---	---	---	---	7.4	7.3	7.3	7.3	7.2	7.3
27	---	---	---	---	---	---	7.4	7.3	7.3	7.3	7.2	7.3
28	---	---	---	---	---	---	7.4	7.3	7.3	7.3	7.2	7.3
29	---	---	---	---	---	---	7.4	7.3	7.3	7.3	7.2	7.3
30	---	---	---	---	---	---	7.4	7.3	7.4	7.4	7.2	7.3
31	---	---	---	---	---	---	7.4	7.3	7.4	---	---	---
MAX	---	---	---	---	---	---	---	---	---	7.5	7.3	7.4
MIN	---	---	---	---	---	---	---	---	---	7.3	7.2	7.3

14179100 FRENCH CREEK NEAR DETROIT, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	7.6	7.3	7.4	5.3	5.1	5.2	4.5	4.2	4.3
2	---	---	---	8.0	7.6	7.8	5.8	5.3	5.6	4.9	4.5	4.6
3	---	---	---	7.6	7.2	7.4	5.6	4.9	5.3	4.5	4.5	4.5
4	---	---	---	7.3	7.0	7.2	4.9	3.4	4.3	4.7	4.3	4.5
5	---	---	---	7.3	6.5	7.1	4.3	3.3	4.0	4.9	4.5	4.7
6	---	---	---	6.6	5.8	6.3	5.1	3.8	4.3	5.3	4.8	5.0
7	---	---	---	5.8	5.3	5.5	5.4	5.1	5.2	5.4	5.2	5.3
8	---	---	---	5.7	5.1	5.4	5.4	5.0	5.2	5.4	5.0	5.1
9	---	---	---	6.1	5.3	5.7	5.1	4.7	4.9	5.1	4.7	4.9
10	---	---	---	6.7	5.9	6.3	4.7	3.8	4.2	5.1	4.6	4.8
11	---	---	---	7.2	6.4	6.8	4.3	3.8	4.1	5.1	4.7	4.9
12	---	---	---	7.5	7.0	7.3	4.4	4.1	4.3	5.0	4.5	4.9
13	---	---	---	7.8	7.4	7.5	4.7	4.1	4.4	4.5	4.1	4.3
14	---	---	---	8.4	7.8	8.1	4.5	4.1	4.3	4.3	4.0	4.2
15	---	---	---	8.1	7.8	8.0	4.4	4.2	4.3	4.0	3.5	3.7
16	---	---	---	7.8	7.1	7.6	5.1	4.4	4.7	3.6	2.5	3.2
17	---	---	---	7.1	6.1	6.8	5.0	4.7	4.8	3.6	3.0	3.4
18	---	---	---	6.4	5.8	6.1	4.8	4.5	4.6	3.6	3.1	3.5
19	---	---	---	7.2	6.2	6.7	4.8	4.6	4.7	3.1	2.6	2.8
20	---	---	---	7.1	7.0	7.0	4.7	4.2	4.5	2.7	0.4	1.4
21	---	---	---	7.0	6.3	6.6	4.5	4.2	4.4	2.0	0.8	1.4
22	---	---	---	6.7	5.9	6.4	4.4	3.9	4.2	1.7	0.1	1.1
23	---	---	---	6.5	6.2	6.4	4.3	3.7	4.0	2.4	1.5	2.1
24	---	---	---	6.2	5.5	6.0	3.7	3.4	3.5	2.7	2.3	2.5
25	7.4	6.8	7.0	5.5	4.3	5.1	3.8	3.3	3.5	2.8	2.0	2.4
26	7.6	6.9	7.2	5.1	4.7	5.0	3.8	3.3	3.6	3.0	2.5	2.8
27	7.6	7.0	7.3	5.0	4.8	4.9	4.0	3.7	3.8	3.2	2.0	2.9
28	7.0	6.3	6.7	5.0	3.2	4.3	4.3	3.8	4.0	3.1	2.7	3.0
29	7.3	6.8	7.1	5.2	4.5	5.0	4.2	3.8	4.0	3.1	2.6	2.9
30	8.0	7.3	7.7	5.2	4.8	5.0	4.3	4.0	4.2	3.4	3.0	3.2
31	7.8	7.3	7.6	---	---	---	4.5	4.2	4.3	3.4	2.8	3.2
MONTH	---	---	---	8.4	3.2	6.4	5.8	3.3	4.4	5.4	0.1	3.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	3.3	2.8	3.2	---	3.0	---	5.3	4.1	4.6	6.5	4.8	5.4
2	3.5	3.3	3.4	---	---	---	5.3	4.1	4.6	6.8	4.9	5.5
3	3.7	3.3	3.5	---	---	---	5.4	4.1	4.7	5.5	4.3	4.9
4	3.5	3.0	3.2	---	---	---	5.5	4.2	4.8	5.8	3.7	4.7
5	3.6	3.2	3.4	---	---	---	4.8	4.5	4.6	5.2	4.4	4.8
6	3.8	3.3	3.6	---	---	---	5.2	4.5	4.7	4.5	3.7	4.2
7	3.3	2.4	3.1	3.8	3.0	3.5	4.8	4.4	4.5	4.6	3.4	4.0
8	3.6	2.6	3.3	3.5	3.0	3.3	5.5	4.3	4.8	5.8	3.7	4.6
9	4.0	3.5	3.7	4.0	3.2	3.6	4.8	4.4	4.6	5.4	4.3	4.7
10	4.1	3.6	3.9	4.2	3.8	3.9	4.8	4.3	4.5	6.3	4.3	5.1
11	4.2	3.7	3.9	4.2	3.9	4.0	5.0	4.5	4.7	6.8	4.1	5.4
12	4.1	3.4	3.7	3.9	3.6	3.8	5.4	4.6	4.9	7.5	4.7	5.9
13	3.9	3.4	3.7	3.7	3.3	3.5	5.4	4.9	5.0	5.8	4.9	5.3
14	3.9	3.3	3.6	3.9	3.5	3.6	5.0	3.6	4.0	6.3	4.5	5.2
15	4.0	3.4	3.7	4.0	3.3	3.6	4.3	3.7	3.8	6.4	4.1	5.2
16	4.2	3.8	4.0	3.3	2.1	2.8	4.2	3.6	3.8	6.6	4.1	5.3
17	4.4	3.7	4.0	3.1	2.5	2.8	4.3	3.6	3.9	7.0	5.1	5.8
18	4.6	4.1	4.3	3.3	2.1	2.9	5.0	3.8	4.3	6.0	5.2	5.6
19	4.4	4.2	4.2	2.9	1.4	2.2	5.2	4.1	4.5	5.6	5.0	5.3
20	4.6	4.1	4.3	3.9	2.9	3.4	6.0	4.3	4.9	6.2	4.7	5.4
21	---	---	---	4.2	3.2	3.7	6.2	4.2	5.0	5.9	4.8	5.2
22	4.6	4.2	4.4	4.3	3.2	3.7	6.2	4.5	5.2	5.6	4.7	5.1
23	4.4	3.9	4.2	4.5	3.7	4.0	5.6	4.0	4.8	6.8	4.6	5.5
24	4.3	3.9	4.1	4.8	3.9	4.2	5.9	3.6	4.7	7.0	4.7	5.8
25	4.2	3.6	3.9	4.8	4.0	4.3	6.2	4.1	5.1	7.3	5.2	6.1
26	4.1	3.5	3.8	5.0	3.9	4.4	5.3	4.3	4.7	7.5	5.5	6.3
27	4.1	3.4	3.8	4.8	4.1	4.4	5.1	4.1	4.5	6.6	5.5	6.0
28	4.2	3.5	3.9	4.8	4.2	4.4	6.0	3.9	4.8	6.5	5.7	6.1
29	---	---	---	5.2	4.2	4.6	6.5	4.1	5.2	7.1	5.8	6.3
30	---	---	---	5.2	4.1	4.5	5.8	4.5	5.1	7.9	5.4	6.4
31	---	---	---	5.3	4.1	4.6	---	---	---	7.9	5.3	6.5
MONTH	---	---	---	---	---	---	6.5	3.6	4.6	7.9	3.4	5.4

WILLAMETTE RIVER BASIN

14179100 FRENCH CREEK NEAR DETROIT, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.8	5.6	6.5	---	---	---	13.4	11.6	12.5	13.2	11.9	12.5
2	7.8	5.5	6.5	---	---	---	13.0	11.5	12.2	13.2	11.9	12.5
3	7.6	5.5	6.6	---	---	---	12.6	11.0	11.8	13.1	12.0	12.6
4	7.9	6.2	6.9	---	---	---	11.9	11.3	11.6	12.2	11.0	11.6
5	8.0	6.5	7.1	---	---	---	11.7	10.9	11.3	11.6	10.4	11.1
6	7.3	5.5	6.4	---	---	---	11.7	10.9	11.2	11.2	10.2	10.8
7	6.3	5.0	5.7	---	---	---	11.9	10.2	11.0	11.2	10.5	10.8
8	6.3	5.0	5.5	---	---	---	12.0	10.3	11.2	11.0	9.9	10.5
9	6.6	5.4	5.9	---	---	---	12.5	10.7	11.6	11.3	10.0	10.7
10	8.4	6.0	7.1	---	---	---	12.9	11.3	12.0	11.6	10.3	11.0
11	8.6	6.0	7.4	---	---	---	12.7	10.9	11.8	12.0	10.8	11.4
12	9.1	6.6	7.7	---	---	---	13.0	11.3	12.2	12.2	11.1	11.7
13	9.9	7.0	8.3	---	---	---	13.6	11.7	12.6	12.4	11.3	11.8
14	9.7	7.1	8.3	---	---	---	13.7	12.1	12.8	12.5	11.5	12.0
15	9.5	7.1	8.2	---	---	---	13.6	12.1	12.8	12.3	11.6	11.9
16	9.1	7.5	8.2	---	---	---	13.4	11.8	12.6	11.9	11.6	11.7
17	7.8	7.2	7.5	---	---	---	13.5	12.1	12.7	11.8	11.4	11.6
18	7.5	6.6	7.0	13.5	11.7	12.5	13.3	11.7	12.5	11.6	10.9	11.2
19	8.6	6.1	7.2	13.3	12.0	12.5	13.3	11.9	12.6	11.5	10.4	11.0
20	9.4	6.9	8.2	13.3	11.4	12.4	12.6	12.2	12.4	11.5	10.6	11.1
21	10.2	7.8	8.9	13.5	11.6	12.6	12.3	11.5	11.9	11.3	10.1	10.7
22	10.2	8.4	9.2	13.8	12.0	12.9	12.8	11.2	12.0	11.1	9.9	10.5
23	10.2	8.5	9.3	14.3	12.8	13.5	12.8	11.5	12.2	11.1	10.0	10.6
24	10.3	8.3	9.3	14.5	12.8	13.6	13.1	11.8	12.4	11.1	10.0	10.6
25	10.9	8.7	9.8	14.5	12.9	13.7	13.2	12.1	12.6	11.1	10.1	10.6
26	11.5	9.5	10.5	14.1	13.1	13.5	13.1	12.3	12.6	10.9	10.0	10.5
27	10.8	9.9	10.4	13.6	11.9	12.8	13.2	11.7	12.4	11.0	10.3	10.7
28	---	---	---	13.7	11.8	12.7	13.5	12.1	12.8	10.8	9.8	10.4
29	---	---	---	14.1	12.4	13.2	13.7	12.4	13.0	10.5	9.6	10.2
30	---	---	---	14.1	12.5	13.2	13.4	12.3	12.8	9.6	9.0	9.4
31	---	---	---	13.5	11.9	12.8	13.1	11.7	12.4	---	---	---
MONTH	---	---	---	---	---	---	13.7	10.2	12.2	13.2	9.0	11.1

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	---	---	---	4	<1	<1	4	<1	<1	2	<1	<1
2	---	---	---	3	<1	<1	2	<1	<1	9	<1	1
3	---	---	---	2	<1	<1	2	<1	<1	4	<1	<1
4	---	---	---	2	<1	<1	1	<1	<1	5	<1	<1
5	---	---	---	2	<1	<1	1	<1	<1	2	<1	<1
6	---	---	---	2	<1	<1	35	<1	3	7	<1	2
7	---	---	---	4	<1	<1	27	<1	2	24	4	11
8	---	---	---	1	<1	<1	3	<1	<1	34	8	20
9	---	---	---	1	<1	<1	2	<1	<1	16	<1	2
10	---	---	---	5	<1	<1	1	<1	<1	2	<1	<1
11	---	---	---	4	<1	<1	1	<1	<1	2	<1	<1
12	---	---	---	3	<1	<1	2	<1	<1	1	<1	<1
13	---	---	---	8	<1	<1	102	<1	3	2	<1	<1
14	---	---	---	4	<1	1	68	2	21	2	<1	<1
15	---	---	---	2	<1	<1	9	<1	1	2	<1	<1
16	---	---	---	5	<1	<1	33	<1	14	1	<1	<1
17	---	---	---	4	<1	<1	43	2	12	3	<1	<1
18	---	---	---	<1	<1	<1	7	<1	1	4	<1	<1
19	---	---	---	2	<1	<1	3	<1	<1	4	<1	<1
20	---	---	---	2	<1	<1	2	<1	<1	2	<1	<1
21	---	---	---	2	<1	<1	3	<1	<1	2	<1	<1
22	---	---	---	62	<1	13	1	<1	<1	10	<1	<1
23	---	---	---	33	<1	9	1	<1	<1	2	<1	<1
24	---	---	---	4	<1	<1	9	<1	<1	2	<1	<1
25	1	<1	<1	3	<1	<1	2	<1	<1	2	<1	<1
26	3	<1	<1	2	<1	<1	6	<1	<1	2	<1	<1
27	7	<1	<1	<1	<1	<1	6	<1	<1	<1	<1	<1
28	2	<1	<1	6	<1	<1	6	<1	<1	<1	<1	<1
29	2	<1	<1	12	<1	2	8	<1	<1	<1	<1	<1
30	4	<1	1	1	<1	<1	2	<1	<1	1	<1	<1
31	3	<1	1	---	---	---	3	<1	<1	<1	<1	<1
MAX	---	---	---	62	<1	13	102	2	21	34	8	20
MIN	---	---	---	<1	<1	<1	1	<1	<1	<1	<1	<1

WILLAMETTE RIVER BASIN

14179100 FRENCH CREEK NEAR DETROIT, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
FEBRUARY			MARCH			APRIL			MAY			
1	<1	<1	<1	8	<1	<1	<1	<1	<1	2	<1	<1
2	<1	<1	<1	---	---	---	<1	<1	<1	1	<1	<1
3	<1	<1	<1	---	---	---	9	<1	<1	2	<1	<1
4	<1	<1	<1	---	---	---	2	<1	<1	10	<1	<1
5	<1	<1	<1	---	---	---	<1	<1	<1	2	<1	<1
6	<1	<1	<1	3	<1	<1	<1	<1	<1	5	<1	<1
7	1	<1	<1	<1	<1	<1	<1	<1	<1	3	<1	<1
8	1	<1	<1	<1	<1	<1	1	<1	<1	7	<1	<1
9	1	<1	<1	<1	<1	<1	2	<1	<1	8	<1	<1
10	2	<1	<1	<1	<1	<1	20	1	5	<1	<1	<1
11	<1	<1	<1	11	<1	<1	14	1	3	1	<1	<1
12	<1	<1	<1	8	<1	<1	8	<1	2	4	<1	<1
13	<1	<1	<1	<1	<1	<1	119	<1	8	1	<1	<1
14	<1	<1	<1	<1	<1	<1	214	9	31	4	<1	<1
15	<1	<1	<1	<1	<1	<1	12	2	3	7	<1	<1
16	<1	<1	<1	5	<1	<1	2	<1	1	5	<1	<1
17	<1	<1	<1	<1	<1	<1	2	<1	<1	4	<1	<1
18	2	<1	<1	1	<1	<1	4	<1	<1	1	<1	<1
19	6	<1	<1	<1	<1	<1	5	<1	<1	<1	<1	<1
20	---	---	---	5	<1	<1	2	<1	<1	2	<1	<1
21	7	<1	2	<1	<1	<1	2	<1	<1	7	<1	<1
22	8	<1	2	4	<1	<1	2	<1	<1	1	<1	<1
23	13	<1	2	2	<1	<1	2	<1	<1	<1	<1	<1
24	6	<1	<1	<1	<1	<1	4	<1	<1	2	<1	<1
25	9	<1	<1	3	<1	<1	3	<1	<1	7	<1	<1
26	6	<1	<1	<1	<1	<1	5	<1	<1	10	<1	<1
27	<1	<1	<1	<1	<1	<1	5	<1	<1	12	<1	<1
28	8	<1	<1	2	<1	<1	5	<1	<1	12	<1	1
29	---	---	---	<1	<1	<1	2	<1	<1	49	2	3
30	---	---	---	<1	<1	<1	<1	<1	<1	3	<1	1
31	---	---	---	<1	<1	<1	---	---	---	2	<1	<1
MAX	---	---	---	---	---	---	214	9	31	49	2	3
MIN	---	---	---	---	---	---	<1	<1	<1	<1	<1	<1

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10	<1	<1	8	<1	<1	9	<1	<1	1	<1	<1
2	1	<1	<1	4	<1	<1	3	<1	<1	1	<1	<1
3	2	<1	<1	7	<1	<1	5	<1	<1	<1	<1	<1
4	<1	<1	<1	11	<1	<1	6	<1	<1	2	<1	<1
5	<1	<1	<1	7	<1	<1	8	<1	<1	2	<1	<1
6	5	<1	<1	5	<1	<1	10	<1	<1	1	<1	<1
7	9	<1	<1	10	<1	<1	8	<1	<1	<1	<1	<1
8	4	<1	<1	3	<1	<1	9	<1	<1	<1	<1	<1
9	3	<1	<1	<1	<1	<1	7	<1	<1	<1	<1	<1
10	2	<1	<1	<1	<1	<1	6	<1	<1	<1	<1	<1
11	2	<1	<1	<1	<1	<1	4	<1	<1	<1	<1	<1
12	4	<1	<1	---	---	---	5	<1	<1	<1	<1	<1
13	6	<1	<1	---	---	---	6	<1	<1	<1	<1	<1
14	1	<1	<1	---	---	---	6	<1	<1	<1	<1	<1
15	3	<1	<1	---	---	---	6	<1	<1	<1	<1	<1
16	2	<1	<1	---	---	---	4	<1	<1	<1	<1	<1
17	1	<1	<1	<1	<1	<1	6	<1	<1	2	<1	<1
18	2	<1	<1	8	<1	<1	1	<1	<1	4	<1	<1
19	1	<1	<1	4	<1	<1	<1	<1	<1	3	<1	<1
20	2	<1	<1	3	<1	<1	4	<1	<1	<1	<1	<1
21	7	<1	<1	2	<1	<1	3	<1	<1	<1	<1	<1
22	6	<1	<1	6	<1	<1	2	<1	<1	1	<1	<1
23	6	<1	<1	2	<1	<1	<1	<1	<1	2	<1	<1
24	8	<1	<1	8	<1	<1	2	<1	<1	<1	<1	<1
25	3	<1	<1	8	<1	<1	7	<1	<1	<1	<1	<1
26	2	<1	<1	9	<1	<1	<1	<1	<1	1	<1	<1
27	9	<1	<1	2	<1	<1	2	<1	<1	<1	<1	<1
28	7	<1	<1	7	<1	<1	<1	<1	<1	<1	<1	<1
29	---	---	---	5	<1	<1	3	<1	<1	3	<1	<1
30	---	---	---	5	<1	<1	<1	<1	<1	7	<1	<1
31	---	---	---	4	<1	<1	<1	<1	<1	---	---	---
MAX	---	---	---	---	---	---	10	<1	<1	7	<1	<1
MIN	---	---	---	---	---	---	<1	<1	<1	<1	<1	<1

14180300 BLOWOUT CREEK NEAR DETROIT, OR

LOCATION.--44°39'11", long 122°07'47", in NW 1/4 sec.6, T.11 S., R.6 E., Marion County, Hydrologic Unit 17090005, on left bank, 6.0 mi south of Detroit, and at mile 5.5.

DRAINAGE AREA.--26.0 mi².

WATER-DISCHARGE RECORD

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,840 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those below 10 ft³/s and estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--4 years (water years 1999-2002), 116 ft³/s, 60.47 in/yr, 83,830 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s Dec. 28, 1998, gage height, 7.38 ft; minimum discharge, 3.0 ft³/s Sept. 21-25, 2001, Oct. 5, 2002.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 22	1600	1,480	6.08	Jan. 8	0900	1,320	5.94
Dec. 13	2130	1,490	6.09	Apr. 14	0400	*2,280	*6.71
Dec. 17	0200	1,180	5.80				

Minimum discharge, 3.0 ft³/s Oct. 5.DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	108	452	136	94	130	163	142	142	27	8.6	4.7
2	3.6	74	394	228	86	115	176	155	128	25	8.3	4.6
3	3.4	52	265	264	83	104	193	164	114	24	8.2	4.6
4	3.4	39	201	210	79	97	217	150	106	22	8.2	4.6
5	3.2	35	164	183	76	97	252	139	106	21	8.3	4.6
6	3.2	29	366	404	79	238	253	133	99	20	8.2	4.6
7	3.3	25	413	733	124	250	247	117	86	20	8.0	4.6
8	3.7	23	287	1100	159	185	229	102	78	20	7.7	4.6
9	4.0	21	217	617	137	154	318	94	69	e19	7.5	4.4
10	5.3	19	178	385	120	148	738	88	63	e18	7.3	4.1
11	19	18	151	277	110	445	613	88	63	e17	6.8	4.0
12	11	19	134	273	101	762	593	99	66	16	6.6	4.0
13	7.9	64	545	253	93	419	629	127	71	16	6.4	4.0
14	6.7	170	876	208	88	287	1410	127	72	15	6.2	3.9
15	6.0	102	435	173	84	218	648	127	65	14	6.0	3.9
16	5.5	128	728	150	84	178	402	122	58	14	6.0	4.0
17	5.1	130	868	134	84	148	283	131	58	13	5.9	5.8
18	4.8	95	510	119	87	129	221	139	75	13	5.8	5.4
19	4.7	80	362	113	131	127	183	136	58	13	5.9	4.7
20	4.5	87	294	130	157	121	159	129	50	12	6.2	4.3
21	4.5	205	226	148	211	123	150	127	45	12	6.2	4.1
22	25	799	183	123	313	117	148	127	42	11	6.0	3.9
23	48	529	151	107	478	120	150	118	39	11	5.7	3.8
24	27	277	130	109	403	138	142	116	36	10	5.6	3.7
25	17	187	113	304	286	145	140	123	33	10	5.6	3.7
26	14	143	101	269	218	143	145	140	31	10	5.4	3.6
27	13	117	96	188	176	148	142	148	29	10	5.4	3.6
28	13	427	124	148	150	145	130	165	28	9.9	5.2	3.6
29	13	633	110	125	---	141	127	227	42	9.7	5.1	3.9
30	53	376	102	109	---	142	139	195	31	9.5	5.0	7.7
31	144	---	108	100	---	150	---	162	---	9.1	4.8	---
TOTAL	483.6	5011	9284	7820	4291	5864	9340	4157	1983	471.2	202.1	131.0
MEAN	15.6	167	299	252	153	189	311	134	66.1	15.2	6.52	4.37
MAX	144	799	876	1100	478	762	1410	227	142	27	8.6	7.7
MIN	3.2	18	96	100	76	97	127	88	28	9.1	4.8	3.6
AC-FT	959	9940	18410	15510	8510	11630	18530	8250	3930	935	401	260
CFSM	0.60	6.42	11.5	9.70	5.89	7.28	12.0	5.16	2.54	0.58	0.25	0.17
IN.	0.69	7.17	13.28	11.19	6.14	8.39	13.36	5.95	2.84	0.67	0.29	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	1999	2000	2001	2002
MEAN	11.2	148	262	180
MAX	15.6	226	425	265
(WY)	2002	1999	1999	2000
MIN	7.63	22.6	81.4	53.5
(WY)	2000	2001	2001	2001

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1999 - 2002

ANNUAL TOTAL	28891.3	49037.9		
ANNUAL MEAN	79.2	134	116	
HIGHEST ANNUAL MEAN			162	1999
LOWEST ANNUAL MEAN			48.3	2001
HIGHEST DAILY MEAN	876	Dec 14	1410	Apr 14
LOWEST DAILY MEAN	3.1	Sep 24	3.2	Oct 5
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 18	3.4	Oct 2
ANNUAL RUNOFF (AC-FT)	57310	97270	83830	
ANNUAL RUNOFF (CFSM)	3.04	5.17	4.45	
ANNUAL RUNOFF (INCHES)	41.34	70.16	60.47	
10 PERCENT EXCEEDS	170	298	257	
50 PERCENT EXCEEDS	46	101	68	
90 PERCENT EXCEEDS	4.5	4.7	5.3	

e Estimated

14180300 BLOWOUT CREEK NEAR DETROIT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1998 to current year.
 pH: October 1998 to current year.
 WATER TEMPERATURE: October 1998 to current year.
 TURBIDITY: October 1998 to current year.

INSTRUMENTATION: Water-quality monitor and data logger.

REMARKS.--Water-quality data for the 2001 water year available in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Record good.
 pH: Record excellent.
 WATER TEMPERATURE: Record excellent.
 TURBIDITY: Record good.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 54 microsiemens Sept. 30, 2001; minimum recorded, 17 microsiemens, Dec. 17, 2001.
 pH: Maximum recorded, 8.2 units Aug. 14, 15, 21, 2001; minimum recorded, 6.6 units Dec. 17, 2002.
 WATER TEMPERATURE: Maximum recorded, 21.0°C Aug. 13, 2001, July 23, 24, 2002; minimum recorded, 0.0°C Dec. 20-23, 1998.
 TURBIDITY: Maximum recorded 1,370 NTU Dec. 17, 2001, minimum recorded, <1 many days during most years.

EXTREMES FOR CURRENT YEAR:

SPECIFIC CONDUCTANCE: Maximum recorded, 53 microsiemens Oct. 1, 4; minimum recorded, 17 microsiemens, Dec. 17.
 pH: Maximum recorded, 8.0 units Sept. 14, 15; minimum recorded, 6.6 units Dec. 17.
 WATER TEMPERATURE: Maximum recorded, 21.0°C July 23, 24; minimum recorded, 1.6°C Jan. 22.
 TURBIDITY: Maximum recorded, 1,370 NTU Dec. 17; minimum recorded, <1 NTU many days during year.

WATER-QUALITY DATA

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT					
11...	1412	19	81	2.0	.10
23...	1612	48	75	2.0	.26
31...	1331	160	74	11	4.8
NOV					
14...	1206	160	87	2.0	.86
22...	1620	1340	46	246	890
22...	1633	1270	23	482	1660
23...	1414	460	49	19	23.6
23...	1428	452	52	21	25.6
29...	0800	733	50	31	61.4
29...	1542	586	73	20	31.6
29...	1600	582	53	28	44.0
DEC					
06...	1452	442	63	29	34.6
14...	1015	876	48	67	158
16...	1546	841	51	47	107
16...	1601	826	32	64	143
19...	1400	339	51	63	57.7
19...	1405	340	66	53	48.7
JAN					
03...	1344	258	91	142	98.9
07...	1437	763	39	239	492
08...	1326	1110	47	195	585
FEB					
20...	1043	157	66	2.0	.85
APR					
03...	1311	185	64	5.0	2.5
14...	1355	1280	43	222	765

WILLAMETTE RIVER BASIN

14180300 BLOWOUT CREEK NEAR DETROIT, OR--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	53	49	50	42	40	41	34	32	33	41	39	40
2	51	49	50	43	42	42	35	33	34	39	35	37
3	52	49	50	43	43	43	36	35	35	36	34	35
4	53	49	50	43	42	43	36	35	36	37	36	36
5	50	48	49	42	41	42	37	35	36	37	36	37
6	51	49	49	42	40	41	36	31	33	36	29	32
7	52	48	49	41	40	41	35	32	34	29	27	28
8	50	48	49	41	40	41	36	34	35	---	---	---
9	50	49	50	42	41	41	36	35	36	---	---	---
10	52	45	49	42	41	41	37	36	36	---	---	---
11	47	44	46	42	41	42	37	36	37	---	---	---
12	48	47	47	42	41	42	38	36	37	---	---	---
13	50	47	48	42	35	40	36	26	32	---	---	---
14	48	47	48	38	35	37	32	27	30	---	---	---
15	52	47	48	39	38	39	33	31	32	---	---	---
16	52	48	48	40	38	39	33	28	30	---	---	---
17	49	48	48	40	38	39	31	17	28	---	---	---
18	49	48	48	39	39	39	39	30	31	---	---	---
19	49	47	48	39	38	38	33	32	33	---	---	---
20	49	48	49	39	36	38	34	33	34	---	---	---
21	49	48	48	38	36	37	35	34	35	---	---	---
22	48	42	45	36	29	32	36	35	35	---	---	---
23	47	43	45	34	32	33	37	35	36	---	---	---
24	47	44	46	35	34	35	38	36	37	---	---	---
25	47	46	47	37	35	36	39	38	38	---	---	---
26	48	46	47	38	36	37	40	38	39	---	---	---
27	47	46	47	39	38	38	40	38	39	---	---	---
28	47	46	47	38	30	34	40	38	39	---	---	---
29	47	46	47	34	31	32	40	39	39	---	---	---
30	47	41	45	34	34	34	41	40	40	---	---	---
31	41	39	40	---	---	---	41	40	41	---	---	---
MONTH	53	39	48	43	29	39	41	17	35	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	39	38	38	34	33	34	33	32	32
2	---	---	---	39	38	39	34	33	33	32	31	32
3	---	---	---	39	38	38	34	33	33	32	31	31
4	---	---	---	39	38	39	33	32	33	32	30	32
5	---	---	37	39	38	39	33	32	32	31	30	31
6	38	36	37	39	33	36	32	32	32	32	31	31
7	36	35	35	37	34	36	33	32	32	32	31	32
8	38	35	36	38	37	37	33	32	32	33	32	33
9	39	38	38	39	38	38	33	28	31	33	33	33
10	39	37	38	38	37	38	28	27	27	33	33	33
11	38	37	38	37	25	33	29	28	28	33	32	33
12	39	38	38	29	25	27	29	28	28	33	31	32
13	38	37	38	29	28	29	29	24	28	31	31	31
14	38	38	38	31	29	30	27	21	24	32	31	31
15	38	37	38	32	31	31	29	26	28	32	31	31
16	38	37	37	33	32	32	31	29	29	32	31	32
17	38	37	38	33	32	32	32	30	31	32	31	32
18	38	37	38	33	33	33	33	31	32	32	31	32
19	37	34	36	34	33	33	33	33	33	32	32	32
20	37	35	36	34	34	34	33	33	33	33	32	32
21	37	35	36	35	34	34	34	33	33	33	32	33
22	36	34	35	35	34	35	34	33	33	33	31	32
23	34	31	33	36	35	35	33	33	33	32	32	32
24	33	31	33	35	34	34	34	33	33	33	32	32
25	34	33	33	35	34	34	33	33	33	32	32	32
26	36	34	35	35	34	35	33	33	33	32	31	31
27	37	36	36	35	34	35	33	32	33	31	30	31
28	38	37	37	35	35	35	33	32	32	31	30	30
29	---	---	---	35	35	35	33	32	33	30	27	28
30	---	---	---	35	34	35	32	32	32	28	27	28
31	---	---	---	35	33	34	---	---	---	29	28	28
MONTH	---	---	---	39	25	35	34	21	31	33	27	31

WILLAMETTE RIVER BASIN

14180300 BLOWOUT CREEK NEAR DETROIT, OR--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	29	28	29	38	37	38	42	40	41	47	45	46
2	30	29	29	39	38	38	42	39	41	46	45	45
3	30	30	30	39	38	38	41	39	40	47	45	45
4	31	30	30	39	38	38	42	39	40	47	45	45
5	31	29	30	39	38	38	42	39	41	46	44	45
6	29	28	29	39	38	39	42	42	42	45	44	45
7	29	29	29	40	39	39	42	41	42	46	44	44
8	30	29	30	40	39	39	43	42	42	45	44	44
9	31	30	31	42	38	40	43	42	42	45	43	44
10	32	31	32	41	39	40	44	42	43	45	44	44
11	32	31	32	41	40	40	44	42	43	47	44	45
12	32	31	32	41	40	40	44	42	43	46	44	45
13	32	32	32	41	40	41	45	43	44	48	45	45
14	32	32	32	41	40	40	45	43	44	46	45	45
15	33	32	32	41	40	40	44	43	44	46	45	45
16	33	33	33	41	40	40	44	43	44	46	45	45
17	34	32	33	41	40	41	45	43	44	46	44	45
18	34	33	33	42	41	41	46	44	44	47	45	46
19	35	34	34	42	41	41	45	44	44	46	45	46
20	36	35	35	42	40	41	46	44	44	47	45	46
21	36	36	36	41	40	41	46	44	45	47	45	46
22	37	36	37	41	41	41	45	44	44	48	45	46
23	37	37	37	42	41	42	46	44	45	48	45	46
24	39	36	37	42	41	42	45	44	44	46	45	46
25	38	37	37	44	42	42	46	44	45	48	45	46
26	39	37	38	44	42	42	46	44	45	46	45	46
27	38	37	38	42	40	41	46	44	45	46	45	45
28	38	37	38	41	40	41	47	45	45	47	43	45
29	38	37	37	42	41	41	46	45	45	45	43	43
30	38	37	37	42	41	41	46	45	45	44	41	42
31	---	---	---	42	40	41	46	44	45	---	---	---
MONTH	39	28	33	44	37	40	47	39	43	48	41	45

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.8	7.3	7.4	7.5	7.4	7.5	7.4	7.3	7.4	7.4	7.4	7.4
2	7.8	7.3	7.4	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
3	7.8	7.3	7.4	7.5	7.4	7.4	7.4	7.4	7.4	7.5	7.4	7.4
4	7.8	7.3	7.4	7.5	7.4	7.4	7.4	7.4	7.4	7.5	7.4	7.4
5	7.8	7.3	7.4	7.6	7.4	7.4	7.5	7.4	7.4	7.5	7.4	7.4
6	8.0	7.3	7.4	7.6	7.4	7.4	7.4	7.4	7.4	7.4	7.3	7.4
7	7.8	7.3	7.4	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.3	7.3
8	7.8	7.3	7.4	7.6	7.4	7.4	7.5	7.4	7.4	7.4	7.3	7.3
9	7.8	7.4	7.4	7.6	7.4	7.4	7.5	7.4	7.5	7.4	7.3	7.4
10	7.7	7.4	7.4	7.6	7.4	7.4	7.5	7.4	7.5	7.4	7.4	7.4
11	7.7	7.4	7.5	7.6	7.4	7.4	7.5	7.4	7.4	7.4	7.4	7.4
12	7.7	7.4	7.4	7.5	7.3	7.4	7.5	7.4	7.4	7.4	7.4	7.4
13	7.7	7.3	7.4	7.5	7.4	7.4	7.5	7.3	7.4	7.4	7.4	7.4
14	7.7	7.3	7.4	7.5	7.4	7.4	7.4	7.3	7.4	7.5	7.4	7.4
15	7.7	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
16	7.7	7.3	7.4	7.5	7.4	7.4	7.4	7.3	7.4	7.4	7.4	7.4
17	7.7	7.4	7.4	7.5	7.4	7.4	7.4	6.5	7.3	7.4	7.4	7.4
18	7.6	7.4	7.4	7.5	7.4	7.4	7.3	7.3	7.3	7.4	7.4	7.4
19	7.6	7.3	7.4	7.5	7.3	7.4	7.4	7.3	7.4	7.4	7.4	7.4
20	7.7	7.3	7.4	7.6	7.3	7.5	7.4	7.4	7.4	7.4	7.3	7.4
21	7.7	7.4	7.4	7.5	7.4	7.5	7.4	7.4	7.4	7.4	7.3	7.4
22	7.6	7.3	7.5	7.4	7.3	7.3	7.4	7.4	7.4	7.4	7.3	7.4
23	7.6	7.4	7.5	7.4	7.3	7.4	7.4	7.4	7.4	7.4	7.3	7.4
24	7.6	7.5	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.3	7.4
25	7.6	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.3	7.3
26	7.6	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.3	7.4
27	7.7	7.4	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
28	7.7	7.4	7.5	7.4	7.3	7.4	7.5	7.4	7.4	7.4	7.3	7.4
29	7.6	7.3	7.4	7.4	7.3	7.4	7.4	7.4	7.4	7.4	7.4	7.4
30	7.6	7.3	7.5	7.4	7.4	7.4	7.5	7.4	7.4	7.4	7.4	7.4
31	7.5	7.4	7.5	---	---	---	7.5	7.4	7.4	7.4	7.4	7.4
MAX	8.0	7.5	7.5	7.6	7.4	7.5	7.5	7.4	7.5	7.5	7.4	7.4
MIN	7.5	7.3	7.4	7.4	7.3	7.3	7.3	6.5	7.3	7.4	7.3	7.3

WILLAMETTE RIVER BASIN

14180300 BLOWOUT CREEK NEAR DETROIT, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.4	7.3	7.4	7.4	7.4	7.4	7.5	7.4	7.4	7.5	7.4	7.5
2	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.4	7.5
3	7.4	7.3	7.4	7.4	7.4	7.4	7.5	7.4	7.4	7.5	7.4	7.5
4	7.4	7.4	7.4	7.4	7.4	7.4	7.6	7.5	7.5	7.5	7.4	7.5
5	7.5	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.4	7.5
6	7.5	7.4	7.4	7.4	7.3	7.4	7.5	7.5	7.5	7.5	7.4	7.5
7	7.5	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.4	7.5
8	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.4	7.4
9	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.4	7.5	7.5	7.4	7.4
10	7.4	7.4	7.4	7.4	7.3	7.4	7.5	7.4	7.4	7.5	7.4	7.5
11	7.4	7.4	7.4	7.4	7.2	7.3	7.5	7.4	7.4	7.5	7.4	7.5
12	7.5	7.4	7.4	7.3	7.3	7.3	7.5	7.4	7.4	7.5	7.4	7.4
13	7.4	7.4	7.4	7.4	7.3	7.3	7.4	7.3	7.4	7.5	7.4	7.4
14	7.4	7.4	7.4	7.4	7.3	7.3	7.3	7.3	7.3	7.5	7.4	7.4
15	7.4	7.4	7.4	7.4	7.3	7.4	7.4	7.3	7.4	7.5	7.4	7.5
16	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.4	7.5
17	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.4	7.5
18	7.5	7.4	7.4	7.4	7.3	7.4	7.4	7.4	7.4	7.5	7.4	7.5
19	7.4	7.3	7.4	7.4	7.3	7.3	7.4	7.4	7.4	7.5	7.4	7.5
20	7.5	7.3	7.4	7.4	7.3	7.4	7.4	7.4	7.4	7.5	7.4	7.5
21	7.5	7.4	7.4	7.4	7.3	7.4	7.4	7.4	7.4	7.5	7.4	7.5
22	7.5	7.4	7.4	7.4	7.3	7.4	7.5	7.4	7.4	7.5	7.4	7.5
23	7.4	7.2	7.4	7.4	7.3	7.4	7.5	7.4	7.4	7.5	7.4	7.5
24	7.4	7.3	7.4	7.4	7.3	7.4	7.5	7.3	7.5	7.5	7.4	7.5
25	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.4	7.4
26	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.4	7.4
27	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.4	7.4
28	7.4	7.4	7.4	7.5	7.4	7.4	7.5	7.5	7.5	7.5	7.3	7.4
29	---	---	---	7.5	7.4	7.4	7.5	7.4	7.5	7.5	7.2	7.4
30	---	---	---	7.5	7.4	7.4	7.5	7.4	7.5	7.5	7.4	7.4
31	---	---	---	7.5	7.4	7.4	---	---	---	7.5	7.4	7.4
MAX	7.5	7.4	7.4	7.5	7.4	7.4	7.6	7.5	7.5	7.5	7.4	7.5
MIN	7.4	7.2	7.4	7.3	7.2	7.3	7.3	7.3	7.3	7.5	7.2	7.4
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.5	7.4	7.4	7.6	7.4	7.5	7.7	7.3	7.4	8.0	7.3	7.4
2	7.5	7.4	7.4	7.6	7.4	7.5	7.7	7.3	7.4	7.9	7.3	7.4
3	7.5	7.4	7.4	7.6	7.4	7.5	7.7	7.4	7.4	8.0	7.3	7.4
4	7.5	7.4	7.4	7.6	7.5	7.5	7.8	7.4	7.5	7.9	7.3	7.4
5	7.5	7.3	7.5	7.6	7.4	7.5	7.8	7.3	7.4	7.9	7.3	7.4
6	7.5	7.4	7.5	7.6	7.4	7.5	7.8	7.3	7.4	7.9	7.3	7.4
7	7.5	7.4	7.5	7.6	7.4	7.5	7.7	7.3	7.4	7.9	7.3	7.4
8	7.5	7.4	7.5	7.6	7.4	7.5	7.7	7.3	7.4	7.9	7.3	7.4
9	7.5	7.4	7.5	7.6	7.4	7.5	7.7	7.3	7.4	7.8	7.3	7.3
10	7.5	7.4	7.5	7.6	7.4	7.5	7.7	7.3	7.4	7.9	7.3	7.3
11	7.5	7.4	7.4	7.6	7.3	7.4	7.8	7.3	7.4	7.8	7.3	7.3
12	7.5	7.4	7.4	7.6	7.4	7.4	7.8	7.3	7.4	7.9	7.2	7.3
13	7.5	7.4	7.4	7.7	7.3	7.5	7.8	7.3	7.4	7.9	7.3	7.3
14	7.5	7.4	7.5	7.7	7.4	7.5	7.8	7.3	7.3	8.1	7.2	7.3
15	7.5	7.4	7.5	7.6	7.4	7.5	7.8	7.3	7.4	8.1	7.3	7.3
16	7.5	7.4	7.5	7.7	7.4	7.5	7.8	7.3	7.4	8.0	7.3	7.3
17	7.5	7.4	7.5	7.6	7.4	7.5	7.8	7.3	7.4	7.9	7.3	7.4
18	7.5	7.4	7.5	7.7	7.4	7.5	7.7	7.2	7.3	7.7	7.3	7.3
19	7.5	7.4	7.5	7.7	7.4	7.5	7.8	7.2	7.3	7.7	7.3	7.3
20	7.5	7.4	7.5	7.7	7.4	7.5	7.7	7.2	7.4	7.8	7.3	7.3
21	7.5	7.4	7.5	7.7	7.3	7.4	7.8	7.3	7.4	7.8	7.3	7.3
22	7.6	7.4	7.5	7.8	7.3	7.5	7.7	7.3	7.3	7.7	7.3	7.3
23	7.5	7.4	7.5	7.7	7.3	7.4	7.8	7.2	7.4	7.8	7.3	7.3
24	7.5	7.4	7.5	7.7	7.3	7.4	7.8	7.2	7.3	7.8	7.3	7.3
25	7.5	7.4	7.5	7.7	7.3	7.4	7.9	7.2	7.4	7.8	7.3	7.3
26	7.6	7.4	7.5	7.7	7.3	7.4	7.9	7.2	7.4	7.9	7.3	7.4
27	7.6	7.4	7.5	7.7	7.3	7.4	7.8	7.3	7.3	7.9	7.3	7.4
28	7.6	7.4	7.5	7.7	7.3	7.4	7.9	7.3	7.3	7.8	7.3	7.4
29	7.6	7.4	7.5	7.7	7.3	7.4	8.0	7.3	7.4	7.9	7.3	7.3
30	7.6	7.4	7.5	7.7	7.3	7.4	7.9	7.3	7.4	7.7	7.3	7.4
31	---	---	---	7.7	7.3	7.5	7.9	7.3	7.4	---	---	---
MAX	7.6	7.4	7.5	7.8	7.5	7.5	8.0	7.4	7.5	8.1	7.3	7.4
MIN	7.5	7.3	7.4	7.6	7.3	7.4	7.7	7.2	7.3	7.7	7.2	7.3

14180300 BLOWOUT CREEK NEAR DETROIT, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.1	9.2	11.3	8.5	7.8	8.1	5.9	5.6	5.7	4.6	4.1	4.3
2	13.8	9.3	11.3	8.9	7.9	8.4	6.2	5.6	5.9	5.2	4.5	4.7
3	13.4	8.8	10.7	8.0	7.0	7.6	5.8	5.2	5.4	4.9	4.4	4.6
4	13.3	8.8	10.6	7.7	6.5	7.1	5.2	3.5	4.5	4.7	4.1	4.4
5	12.6	8.0	10.1	7.8	6.0	7.2	4.7	3.4	4.2	5.2	4.2	4.8
6	12.4	9.2	10.3	6.8	5.3	6.0	5.3	4.5	4.8	5.6	5.0	5.3
7	10.6	7.8	9.3	5.3	4.2	4.7	5.4	5.1	5.2	5.8	5.5	5.7
8	11.4	9.3	9.9	5.0	3.7	4.4	5.4	4.9	5.2	5.8	5.5	5.6
9	11.6	8.1	9.5	5.4	3.7	4.6	5.3	4.7	5.0	5.5	4.8	5.2
10	8.5	6.8	7.7	6.3	4.4	5.4	4.7	4.2	4.4	5.6	4.7	5.1
11	9.8	8.3	8.8	7.4	5.6	6.5	4.6	4.4	4.5	5.6	4.8	5.1
12	9.9	8.0	8.8	7.6	6.4	7.0	4.5	4.3	4.4	5.4	4.7	5.2
13	11.8	9.2	10.0	7.9	7.1	7.4	5.2	4.5	4.8	4.7	4.1	4.3
14	11.6	9.0	9.8	8.9	7.9	8.4	5.1	4.7	4.8	4.5	3.9	4.2
15	10.9	8.0	9.4	8.4	7.7	8.0	4.9	4.6	4.8	3.9	3.1	3.6
16	11.5	8.3	9.6	8.1	7.4	7.9	5.6	4.8	5.2	3.3	2.5	3.0
17	10.4	7.3	8.8	7.4	5.8	6.9	5.5	5.0	5.2	3.5	2.9	3.3
18	8.9	5.7	7.1	6.3	5.3	5.8	5.0	4.8	4.9	4.0	3.4	3.6
19	9.1	5.7	7.4	7.6	5.8	6.7	5.3	4.8	5.0	3.5	2.6	3.1
20	10.9	7.8	8.9	7.4	6.9	7.1	5.0	4.5	4.9	3.0	1.9	2.3
21	8.4	7.2	7.8	7.0	6.6	6.8	4.8	4.4	4.6	2.8	1.9	2.4
22	8.8	8.1	8.3	7.1	6.7	6.9	4.6	3.9	4.3	2.8	1.6	2.4
23	8.2	7.1	7.7	6.9	6.5	6.6	4.4	3.4	3.9	3.3	2.5	2.9
24	7.6	6.2	7.0	6.5	5.2	6.2	3.4	2.8	3.2	3.6	3.1	3.3
25	8.8	7.1	7.7	5.8	4.6	5.2	3.9	2.9	3.3	3.7	3.1	3.4
26	8.3	6.3	7.3	5.4	5.0	5.1	3.8	2.9	3.3	3.8	3.1	3.6
27	7.8	6.7	7.2	5.0	4.5	4.7	4.0	3.4	3.7	3.9	3.0	3.4
28	7.8	6.4	7.1	5.6	2.8	4.5	4.4	3.5	4.0	3.5	2.8	3.2
29	8.2	7.3	7.8	5.9	5.4	5.7	4.2	3.4	3.8	3.3	2.4	2.9
30	8.7	8.0	8.3	5.7	5.4	5.5	4.3	3.9	4.1	3.6	2.9	3.2
31	8.4	7.9	8.2	---	---	---	4.8	4.1	4.3	3.6	2.5	3.1
MONTH	14.1	5.7	8.8	8.9	2.8	6.4	6.2	2.8	4.6	5.8	1.6	3.9
	FEBRUARY			MARCH			APRIL			MAY		
1	3.7	2.4	3.1	3.8	2.2	3.0	6.9	3.8	5.0	8.8	5.5	6.6
2	3.6	3.2	3.3	4.0	2.0	2.9	6.8	3.6	4.9	9.3	5.4	6.8
3	4.1	3.1	3.4	4.1	2.1	3.0	6.9	3.7	5.0	7.6	5.0	6.0
4	3.3	2.3	2.8	4.6	2.4	3.3	7.1	3.8	5.2	8.0	3.8	5.6
5	3.5	2.3	3.0	4.2	3.2	3.7	5.3	4.6	4.9	6.7	5.0	5.7
6	3.7	3.1	3.3	4.0	3.3	3.7	6.0	4.6	5.2	6.0	4.1	5.0
7	3.5	2.7	3.2	4.0	2.5	3.3	5.7	4.7	5.1	5.8	3.7	4.6
8	3.7	2.6	3.3	3.9	2.6	3.2	7.1	4.4	5.4	7.9	3.2	5.3
9	4.2	3.2	3.6	4.0	2.7	3.3	5.6	4.7	5.1	5.9	4.7	5.2
10	4.3	3.2	3.7	4.5	3.5	3.9	5.8	4.5	4.9	8.7	4.5	6.2
11	4.3	3.2	3.8	4.6	3.9	4.2	6.0	4.8	5.2	9.5	4.1	6.5
12	4.0	2.6	3.3	4.1	3.8	4.0	6.7	5.0	5.5	10.4	4.9	7.3
13	3.7	2.6	3.1	4.4	3.6	4.0	6.0	5.3	5.6	7.0	5.8	6.3
14	3.6	2.4	3.0	4.8	3.7	4.0	5.8	4.3	4.8	9.3	5.4	6.8
15	4.0	2.5	3.1	4.6	3.5	3.9	5.5	4.2	4.6	9.1	4.6	6.4
16	4.2	3.0	3.5	3.8	2.6	3.0	5.2	4.1	4.5	9.1	4.2	6.5
17	4.4	2.9	3.6	3.5	2.6	2.9	5.5	4.0	4.6	10.0	6.0	7.5
18	4.7	3.6	4.0	3.7	2.5	3.0	6.4	4.2	5.0	8.0	6.2	7.0
19	4.5	3.8	4.0	4.0	2.7	3.3	6.2	4.1	5.1	7.0	6.1	6.5
20	4.9	3.8	4.2	5.3	3.3	4.0	7.5	4.6	5.7	8.1	5.7	6.6
21	4.9	4.1	4.4	5.3	3.2	4.0	7.8	4.8	6.0	7.8	5.3	6.3
22	5.1	4.2	4.5	5.3	3.0	4.0	8.4	4.8	6.2	7.3	5.3	6.2
23	5.1	4.0	4.5	5.5	3.8	4.5	7.4	4.4	5.6	9.7	5.3	7.1
24	4.6	3.7	4.3	5.7	4.0	4.6	7.9	3.3	5.3	9.5	5.3	7.1
25	4.4	3.2	3.7	6.0	3.8	4.6	8.2	4.0	5.8	10.2	6.1	7.8
26	4.4	3.1	3.6	5.9	3.6	4.6	6.1	4.6	5.3	9.2	6.8	7.9
27	4.4	2.8	3.5	6.0	4.1	4.8	6.7	4.2	5.3	8.3	6.7	7.5
28	4.6	3.0	3.7	5.7	4.1	4.7	7.9	4.1	5.6	8.1	6.8	7.4
29	---	---	---	6.6	4.0	4.8	8.7	4.1	6.1	10.0	7.0	8.0
30	---	---	---	6.6	3.6	4.7	7.3	4.8	6.0	10.6	6.5	8.1
31	---	---	---	6.7	3.5	4.7	---	---	---	10.4	6.4	8.1
MONTH	5.1	2.3	3.6	6.7	2.0	3.9	8.7	3.3	5.3	10.6	3.2	6.6

WILLAMETTE RIVER BASIN

14180300 BLOWOUT CREEK NEAR DETROIT, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.3	6.8	8.2	15.8	10.6	12.7	18.7	12.5	15.4	18.4	12.7	15.2
2	10.7	6.9	8.4	16.2	10.0	12.8	18.1	12.1	14.8	18.3	12.6	15.1
3	10.2	6.4	8.1	14.1	10.3	12.1	17.7	11.3	14.2	17.6	12.9	15.0
4	11.2	7.5	8.9	15.0	10.6	12.3	15.6	12.9	13.9	16.0	10.6	13.0
5	11.2	8.1	9.2	16.5	9.8	12.6	15.0	12.0	13.3	14.0	10.0	12.0
6	10.4	7.2	8.5	17.1	11.1	13.6	16.4	11.9	13.5	14.3	9.2	11.6
7	9.0	5.8	7.2	15.9	12.2	13.7	17.0	10.1	13.3	14.3	10.3	12.0
8	9.3	5.7	7.0	17.1	11.9	14.1	17.5	10.7	13.9	14.2	9.0	11.4
9	8.6	6.3	7.3	18.2	11.1	14.3	18.6	11.5	14.8	15.4	9.3	12.1
10	12.1	7.2	9.2	19.3	12.2	15.4	18.9	12.6	15.5	16.1	10.2	12.9
11	12.7	7.1	9.6	19.8	13.4	16.3	18.7	12.0	15.3	16.9	11.0	13.7
12	13.4	7.8	10.2	19.2	13.8	16.2	19.5	12.6	15.7	17.4	11.7	14.2
13	14.1	8.5	11.0	20.1	14.7	17.0	20.2	12.9	16.3	17.5	11.9	14.4
14	13.9	9.5	11.3	19.4	14.1	16.4	20.0	13.5	16.5	17.0	12.3	14.4
15	14.0	9.1	11.1	18.9	12.4	15.4	19.8	13.3	16.3	16.4	12.6	14.1
16	13.1	9.7	10.9	19.1	12.7	15.6	19.2	12.9	15.9	14.8	12.9	13.7
17	10.4	9.1	9.7	19.6	13.2	16.0	19.3	13.5	16.1	14.5	12.7	13.3
18	10.0	8.8	9.3	19.6	13.2	16.0	18.5	12.2	15.3	15.9	12.0	13.4
19	13.1	8.2	10.2	19.2	14.1	16.1	18.5	12.7	15.3	15.5	10.4	12.7
20	13.7	8.5	10.8	19.7	13.2	16.0	15.7	13.4	14.4	15.5	10.8	12.8
21	15.2	9.7	12.0	20.0	13.2	16.3	16.5	12.3	14.0	14.8	9.8	12.0
22	14.8	10.7	12.3	19.9	14.1	16.9	17.8	11.3	14.2	14.6	9.1	11.6
23	15.1	10.9	12.6	21.0	15.5	17.9	17.7	12.1	14.8	14.9	9.7	12.0
24	15.7	10.4	12.7	21.0	15.1	17.8	18.6	13.0	15.6	14.8	9.8	12.0
25	16.5	10.5	13.2	20.8	15.1	17.6	18.2	13.2	15.4	14.7	9.8	11.9
26	16.9	11.6	14.0	19.8	15.4	17.2	18.8	14.1	15.9	13.6	9.4	11.4
27	14.8	12.1	13.4	19.1	13.1	15.9	18.5	12.6	15.3	13.9	10.5	11.9
28	13.9	11.9	12.8	19.9	12.9	16.1	19.4	13.3	15.9	13.7	9.0	11.2
29	12.9	11.6	12.1	20.5	14.0	16.9	19.5	14.0	16.3	12.5	10.2	11.0
30	13.5	10.9	12.0	19.8	14.2	16.7	18.3	13.4	15.5	10.6	8.9	9.8
31	---	---	---	19.1	13.5	16.0	18.0	11.9	14.7	---	---	---
MONTH	16.9	5.7	10.4	21.0	9.8	15.5	20.2	10.1	15.1	18.4	8.9	12.7
YEAR	21.0	1.6	8.1									

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	<1	<1	<1	3	2	2	40	8	13	49	5	11
2	1	<1	<1	3	<1	1	41	7	10	83	12	18
3	<1	<1	<1	2	<1	1	21	5	8	251	21	38
4	4	<1	<1	1	<1	<1	14	5	6	38	13	18
5	1	<1	<1	9	<1	1	24	4	7	71	9	13
6	2	<1	<1	2	<1	<1	23	8	13	241	19	87
7	<1	<1	<1	2	<1	<1	12	4	6	670	57	86
8	1	<1	<1	1	<1	<1	8	4	4	306	30	81
9	<1	<1	<1	2	<1	<1	7	3	4	32	12	18
10	1	<1	<1	<1	<1	<1	6	3	3	29	6	9
11	8	<1	2	<1	<1	<1	6	3	3	7	4	5
12	1	<1	<1	4	<1	<1	6	2	3	21	4	6
13	1	<1	<1	24	<1	2	155	3	7	6	3	4
14	<1	<1	<1	24	2	4	101	12	26	6	3	3
15	1	<1	<1	8	2	2	14	6	8	4	2	3
16	<1	<1	<1	4	2	2	37	8	21	6	2	3
17	<1	<1	<1	4	1	2	1370	20	128	4	2	2
18	<1	<1	<1	3	1	1	446	58	86	4	2	2
19	<1	<1	<1	13	1	2	111	29	42	4	2	2
20	1	<1	<1	13	1	2	34	17	25	11	2	3
21	<1	<1	<1	14	2	5	20	12	14	6	2	3
22	24	<1	<1	85	6	64	13	10	10	3	2	2
23	10	1	3	32	7	12	18	7	9	4	2	2
24	2	<1	<1	9	4	5	8	6	7	8	2	2
25	1	<1	<1	4	3	4	7	6	6	20	7	11
26	<1	<1	<1	7	2	3	6	5	6	12	5	10
27	3	<1	<1	3	2	2	28	5	5	15	3	9
28	1	<1	<1	40	2	19	38	7	9	4	2	3
29	8	<1	<1	22	9	14	9	6	7	3	2	2
30	13	1	6	60	8	10	7	5	6	3	2	2
31	16	2	5	---	---	---	18	6	6	3	2	2
MAX	24	2	6	85	9	64	1370	58	128	670	57	87
MIN	<1	<1	<1	<1	<1	<1	6	2	3	3	2	2

14180500 DETROIT LAKE NEAR DETROIT, OR

LOCATION.--Lat 44°43'20", long 122°14'55", in SW 1/4 NW 1/4 sec.7, T.10 S., R.5 E., Marion County, Hydrologic Unit 17090005, in control house near right abutment of Detroit Dam on North Santiam River, 4.9 mi west of Detroit, and at mile 60.9.

DRAINAGE AREA.--437 mi².

PERIOD OF RECORD.--January 1953 to current year. Prior to October 1971, published as Detroit Reservoir near Detroit.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with six 42-ft by 28-ft control gates. Length of dam is 1,580 ft, built by Corps of Engineers. Storage began in January 1953. Total capacity is 455,100 acre-ft and usable capacity is 340,100 acre-ft between elevations 1,425.0 ft, proposed lower limit of operation, and 1,569.0 ft, top of spillway gates. Reservoir used for flood control, power development, irrigation, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 457,900 acre-ft July 13, 1972, elevation, 1,569.79 ft; minimum contents, 115,500 acre-ft Jan. 30, 1969, elevation, 1,425.37 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 440,300 acre-ft May 31, elevation, 1,564.75 ft; minimum contents, 149,100 acre-ft Dec. 31, elevation, 1,446.92 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,425	115,000	1,480	210,900	1,530	331,500
1,430	122,200	1,490	232,000	1,540	360,200
1,440	137,700	1,500	254,600	1,550	390,900
1,450	154,400	1,510	278,700	1,560	424,000
1,460	172,200	1,520	304,400	1,570	458,600

ELEVATION, in FT (NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1462.20	1460.08	1475.53	1447.30	1452.46	1492.33	1537.84	1563.12	1564.07	1563.38	1560.20	1554.77
2	1461.75	1461.13	1473.92	1448.69	1453.04	1493.27	1539.05	1563.65	1563.70	1563.34	1560.04	1554.56
3	1461.31	1461.64	1469.98	1450.57	1453.65	1494.05	1540.40	1564.15	1563.45	1563.24	1559.86	1554.37
4	1460.83	1461.82	1465.20	1451.78	1454.21	1494.79	1541.94	1564.23	1563.31	1563.18	1559.65	1553.92
5	1460.32	1462.05	1459.73	1452.62	1454.70	1495.58	1543.79	1564.24	1563.29	1563.16	1559.48	1553.37
6	1459.85	1461.95	1457.57	1455.67	1455.28	1497.85	1545.27	1564.20	1563.35	1563.09	1559.34	1552.80
7	1459.37	1461.88	1455.66	1462.67	1456.45	1499.82	1546.43	1563.95	1563.20	1563.06	1559.12	1552.24
8	1458.93	1461.74	1452.64	1474.00	1457.89	1501.17	1547.51	1563.59	1563.25	1563.02	1558.94	1551.69
9	1458.49	1461.68	1449.96	1478.82	1459.01	1502.33	1548.83	1563.31	1563.39	1562.98	1558.72	1551.12
10	1458.15	1461.48	1449.32	1480.00	1459.86	1503.45	1552.00	1563.16	1563.49	1562.88	1558.54	1550.59
11	1458.27	1461.26	1449.56	1479.42	1460.71	1507.22	1553.15	1563.00	1563.43	1562.84	1558.32	1550.02
12	1457.95	1461.20	1449.72	1478.97	1461.39	1513.69	1554.16	1562.94	1563.46	1562.75	1558.15	1549.34
13	1457.60	1461.67	1455.86	1478.41	1462.11	1517.44	1555.66	1563.15	1563.71	1562.70	1558.01	1548.71
14	1457.23	1463.46	1463.54	1477.00	1462.80	1519.94	1562.34	1563.35	1564.05	1562.59	1557.84	1548.06
15	1456.94	1463.80	1465.76	1475.07	1463.32	1521.67	1562.31	1563.28	1564.00	1562.41	1557.68	1547.36
16	1456.49	1463.86	1472.14	1472.80	1463.89	1523.02	1560.47	1563.08	1563.78	1562.34	1557.52	1546.73
17	1456.03	1463.94	1478.67	1470.16	1464.60	1524.13	1557.76	1563.07	1563.58	1562.27	1557.35	1546.16
18	1455.59	1463.61	1479.72	1467.29	1465.49	1525.07	1555.56	1563.29	1563.87	1562.23	1557.18	1545.54
19	1455.21	1463.04	1478.98	1464.25	1466.86	1525.95	1554.25	1563.41	1563.73	1562.14	1557.00	1544.89
20	1454.73	1462.07	1476.49	1461.44	1468.51	1526.77	1554.27	1563.38	1563.41	1562.04	1556.85	1544.23
21	1454.26	1461.51	1472.53	1458.60	1470.74	1527.51	1554.71	1563.33	1563.37	1561.92	1556.70	1543.52
22	1454.76	1467.27	1467.53	1455.98	1474.11	1528.25	1555.51	1563.28	1563.34	1561.84	1556.53	1542.82
23	1456.14	1470.84	1463.18	1453.31	1479.14	1529.02	1556.54	1563.13	1563.29	1561.72	1556.40	1542.12
24	1456.47	1471.55	1459.48	1451.50	1483.32	1530.03	1557.44	1562.95	1563.17	1561.53	1556.24	1541.43
25	1456.50	1471.29	1456.30	1451.91	1486.16	1531.11	1558.32	1562.85	1563.03	1561.43	1556.05	1540.72
26	1456.34	1470.44	1453.82	1451.85	1488.24	1532.07	1559.30	1563.14	1562.95	1561.31	1555.89	1539.98
27	1456.27	1469.25	1451.57	1450.88	1489.87	1533.11	1560.20	1562.97	1563.00	1561.12	1555.70	1539.28
28	1456.09	1471.50	1449.50	1450.01	1491.26	1534.09	1560.97	1563.35	1562.98	1560.94	1555.54	1538.55
29	1455.87	1475.39	1448.24	1450.18	---	1535.03	1561.74	1564.24	1563.31	1560.82	1555.33	1537.87
30	1456.36	1475.79	1447.23	1450.98	---	1535.89	1562.39	1564.68	1563.37	1560.59	1555.15	1537.30
31	1458.49	---	1447.16	1451.77	---	1536.83	---	1564.51	---	1560.41	1554.96	---
MAX	1462.20	1475.79	1479.72	1480.00	1491.26	1536.83	1562.39	1564.68	1564.07	1563.38	1560.20	1554.77
MIN	1454.26	1460.08	1447.16	1447.30	1452.46	1492.33	1537.84	1562.85	1562.95	1560.41	1554.96	1537.30
(†)	169400	202500	149500	157500	234800	351000	432200	439500	435600	425400	407000	352300
(‡)	-7800	+33100	-53000	+8000	+77300	+116200	+81200	+7300	-3900	-10200	-18400	-54700

CAL YR 2001 MAX 1510.72 MIN 1447.16 AC-FT† -12700

WTR YR 2002 MAX 1564.68 MIN 1447.16 AC-FT† +175100

† Contents, in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR

LOCATION.--Lat 44°45'10", long 122°17'50", in NE 1/4 NE 1/4 sec.34, T.9 S., R.4 E., Linn County, Hydrologic Unit 17090005, on left bank 0.1 mi downstream from Little Sardine Creek, 0.8 mi downstream from Big Cliff Dam, 2.1 mi east of Niagara, and at mile 57.3.

DRAINAGE AREA.--453 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1908 to January 1920, October 1921 to March 1922, October 1938 to current year.

Monthly discharge only for some periods, published in WSP 1318. Published as "North Fork of Santiam River near Niagara" prior to October 1913, and as "above Mayflower Creek, near Detroit" October 1938 to September 1952.

REVISED RECORDS.--WSP 1288: 1914-18, 1920. WSP 1718: 1953-54.

GAGE.--Water-stage recorder. Datum of gage is 1,093.78 ft above NGVD of 1929 (Federal Highway Administration bench mark). See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1953 by Detroit Lake (station 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--74 years (water years 1910-19, 1939-2002), 2,322 ft³/s, 69.61 in/yr, 1,682,000 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,200 ft³/s Nov. 22, 1909, gage height, 16.4 ft, from floodmark, site and datum then in use, from rating curve extended above 35,000 ft³/s; minimum discharge, 19 ft³/s Aug. 21, 1963; minimum daily, 395 ft³/s Mar. 25, 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,200 ft³/s Apr. 15, gage height, 7.60 ft; minimum discharge, 801 ft³/s Oct. 31.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	870	859	6390	2130	995	882	1180	1730	4570	1610	1100	979
2	863	864	7120	2090	994	883	1180	2430	4120	1570	1100	980
3	856	864	7870	2140	994	888	1180	2680	3710	1570	1100	982
4	868	858	7870	2120	1040	887	1180	3160	3160	1410	1100	1450
5	864	860	7870	2100	1070	886	1190	3180	3230	1360	1090	1610
6	869	858	7660	2180	1060	890	1660	3200	2990	1350	1090	1620
7	871	852	7820	2380	1070	883	2180	3100	2990	1350	1090	1610
8	868	851	6820	2520	1070	888	2230	3100	2260	1350	1100	1620
9	875	853	5660	3280	1060	886	2890	2770	1850	1340	1100	1620
10	870	852	3550	4210	1050	885	4480	2410	1790	1340	1100	1610
11	863	860	2460	4890	1030	894	6810	2430	2200	1330	1100	1610
12	856	858	2350	4800	990	892	7070	2440	2180	1330	1100	1710
13	869	884	2340	4670	950	890	7200	2470	2150	1340	993	1740
14	858	911	4400	4950	963	889	7610	2500	2120	1340	990	1730
15	853	1370	4110	4940	946	991	10100	3080	2770	1340	985	1730
16	861	1900	3220	4940	909	993	10000	3130	2800	1200	982	1730
17	865	1950	4330	4960	882	988	9990	2980	2820	1120	982	1730
18	858	1950	5770	5010	878	988	8030	2880	2880	1110	979	1730
19	853	1970	5960	5080	884	983	5970	2890	2820	1110	979	1740
20	851	2600	6850	5220	880	988	3350	3120	2780	1110	980	1720
21	851	3250	7490	5240	882	985	2380	3150	2230	1120	981	1720
22	856	3280	7860	4700	902	986	1640	3130	2150	1110	986	1730
23	855	3340	6710	4280	911	985	1330	3150	2160	1130	983	1740
24	857	3250	5670	3450	900	987	1320	3140	2170	1130	980	1720
25	858	3250	4920	3340	900	978	1320	3140	2110	1130	977	1720
26	865	3250	4090	3390	890	978	1330	2840	1990	1140	977	1760
27	856	3250	3730	3310	885	979	1330	3910	1810	1130	976	1810
28	850	2590	3800	2900	876	978	1330	3520	1730	1130	983	1760
29	851	3430	3040	1730	---	978	1320	3930	1730	1130	986	1780
30	854	4320	2630	1070	---	1150	1690	4140	1710	1130	983	1760
31	858	---	2080	1030	---	1180	---	4500	---	1140	979	---
TOTAL	26672	57034	162440	109050	26861	29518	110470	94230	75980	39000	31831	48751
MEAN	860.4	1901	5240	3518	959.3	952.2	3682	3040	2533	1258	1027	1625
MAX	875	4320	7870	5240	1070	1180	10100	4500	4570	1610	1100	1810
MIN	850	851	2080	1030	876	882	1180	1730	1710	1110	976	979
AC-FT	52900	113100	322200	216300	53280	58550	219100	186900	150700	77360	63140	96700
MEAN†	733	2458	4377	3647	2352	2842	5048	3158	2468	1092	727	706
CFSM†	1.62	5.43	9.66	8.05	5.19	6.27	11.1	6.97	5.45	2.41	1.60	1.56
IN.†	1.87	6.05	11.14	9.28	5.40	7.24	12.43	8.04	6.08	2.78	1.85	1.74
AC-FT†	45100	146200	269200	224300	130600	174800	300300	194200	146800	67160	44740	42000

CAL YR 2001 TOTAL 592281 MEAN 1623 MAX 7870 MIN 808 AC-FT 1175000 MEAN† 1605 CFSM† 3.54 IN.† 48.10 AC-FT† 1162000
WTR YR 2002 TOTAL 811837 MEAN 2224 MAX 10100 MIN 850 AC-FT 1610000 MEAN† 2465 CFSM† 5.44 IN.† 73.88 AC-FT† 1785000

† Adjusted for change in contents, in Detroit Lake.

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: April 2000 to current year.
 pH: August 2000 to current year.
 WATER TEMPERATURE: January 1953 to September 1997, October 1999 to current year.
 TURBIDITY: April 2000 to current year.

INSTRUMENTATION.-- Water-quality monitor.

REMARKS.--Water-quality data for the 2001 water year available in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Record good.
 pH: Record good.
 WATER TEMPERATURE: Record excellent.
 TURBIDITY: Record good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 48 microsiemens Oct. 14-21, 2001; minimum, 28 microsiemens Nov. 30, 2001.
 pH: Maximum, 7.7 units Apr. 16, 2001; minimum, 6.8 Sept. 17, 2001.
 WATER TEMPERATURE: Maximum, 19.5°C Aug. 21, 1997; minimum, 1.0°C Jan. 30 to Feb. 4, 1979.
 TURBIDITY: Maximum recorded, 45 NTU Apr. 14, 2002; minimum recorded, <1 many days most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 48 microsiemens Oct. 14-21; minimum, 28 microsiemens Nov. 30.
 pH: Maximum, 7.6 units many days during year, but may have been higher during period of missing record; minimum, 7.0 units many days during November, July and September.
 WATER TEMPERATURE: Maximum, 16.0°C Oct. 1, 2; minimum, 3.8°C Feb. 14, 15.
 TURBIDITY: Maximum recorded, 45 NTU Apr. 14; minimum recorded, <1 many days during year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
NOV					
29...	1328	3490	80	3.0	28.3
DEC					
03...	1310	7860	78	3.0	63.7
03...	1440	7890	54	2.0	42.6
07...	1145	7990	86	4.0	86.3
13...	1546	2370	30	4.0	25.6
14...	1440	6800	64	5.0	91.8
JAN					
08...	1635	2490	71	6.0	40.4
08...	1710	2460	75	6.0	39.9
FEB					
19...	1359	892	98	2.0	4.8
APR					
14...	1907	10100	71	5.0	136
26...	1000	1320	73	4.0	14.3

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	47	47	47	42	41	41	40	30	37	35	35	35
2	47	47	47	43	41	42	40	39	39	35	34	34
3	47	46	47	44	43	43	40	39	39	35	34	34
4	47	46	46	44	43	43	39	39	39	35	34	35
5	47	46	46	44	43	43	39	39	39	35	35	35
6	47	46	47	44	44	44	39	37	38	35	34	35
7	47	47	47	45	44	45	38	37	38	34	32	33
8	47	47	47	45	45	45	39	38	38	33	30	31
9	47	47	47	45	45	45	39	39	39	36	32	34
10	47	47	47	45	45	45	39	38	38	35	33	34
11	47	47	47	45	45	45	38	38	38	34	34	34
12	47	47	47	45	45	45	38	38	38	35	34	34
13	47	47	47	46	45	45	38	34	36	37	35	37
14	48	47	47	46	45	45	39	31	35	37	36	36
15	48	47	47	45	44	44	39	38	38	37	36	37
16	48	48	48	45	44	45	38	34	36	36	35	36
17	48	48	48	45	45	45	36	32	34	35	35	35
18	48	47	47	45	45	45	36	36	36	35	35	35
19	48	47	47	45	44	45	36	35	35	36	35	35
20	48	47	47	45	45	45	35	35	35	37	36	36
21	48	47	47	45	45	45	36	35	36	36	34	35
22	47	44	47	45	39	43	36	36	36	34	34	34
23	44	43	43	43	38	41	36	35	36	34	34	34
24	45	43	44	44	43	43	36	35	36	34	33	33
25	46	45	46	44	43	44	36	36	36	33	33	33
26	47	46	46	43	43	43	36	35	36	33	33	33
27	47	46	46	44	43	43	36	36	36	33	33	33
28	47	46	46	44	37	42	36	35	36	33	33	33
29	47	46	47	37	31	33	36	35	35	33	33	33
30	47	46	47	40	28	32	36	35	35	33	33	33
31	46	42	45	---	---	---	35	35	35	35	33	34
MONTH	48	42	47	46	28	43	40	30	37	37	30	34
	FEBRUARY			MARCH			APRIL			MAY		
1	35	34	35	36	34	35	35	33	34	36	33	34
2	35	34	34	36	35	36	35	33	34	35	32	34
3	35	34	34	36	36	36	34	33	34	34	31	34
4	35	34	34	36	36	36	34	33	33	34	33	34
5	35	33	34	36	36	36	34	33	33	35	33	34
6	34	33	33	36	34	35	34	33	34	35	32	33
7	34	33	33	35	33	34	35	34	35	33	32	33
8	33	32	32	34	33	33	36	35	35	34	33	33
9	33	32	32	35	33	34	35	34	35	34	33	33
10	34	33	33	36	35	35	35	33	34	34	32	33
11	34	33	33	36	34	35	35	32	33	33	32	32
12	34	34	34	34	30	32	35	32	33	33	31	32
13	35	34	34	31	29	30	34	33	34	33	32	33
14	35	34	34	33	30	31	35	29	32	33	31	32
15	35	34	35	35	33	33	36	35	35	33	32	32
16	35	34	35	35	35	35	37	35	36	33	32	33
17	34	34	34	36	35	35	36	35	36	34	32	33
18	34	33	34	36	35	36	36	36	36	34	33	33
19	34	33	34	36	34	35	37	36	37	34	33	33
20	33	33	33	35	34	34	38	35	37	34	33	34
21	34	33	33	35	34	34	38	36	37	34	33	34
22	34	32	33	35	34	34	37	35	37	34	33	33
23	33	30	32	35	34	34	37	35	37	34	33	34
24	31	29	30	35	33	34	36	32	34	34	34	34
25	32	30	31	33	33	33	34	31	33	34	33	34
26	36	32	34	34	33	33	35	32	34	34	33	34
27	36	34	36	34	33	34	35	34	34	34	33	34
28	35	34	35	34	33	34	34	33	34	34	33	34
29	---	---	---	35	33	34	34	31	33	33	33	33
30	---	---	---	35	33	34	35	32	34	33	33	33
31	---	---	---	35	34	34	---	---	---	33	32	33
MONTH	36	29	34	36	29	34	38	29	35	36	31	33

WILLAMETTE RIVER BASIN

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	33	32	33	34	33	33	33	33	33	34	33	34
2	33	32	33	34	34	34	34	33	33	34	34	34
3	33	33	33	34	34	34	33	33	33	34	34	34
4	33	33	33	34	34	34	33	33	33	34	33	34
5	33	32	33	34	34	34	34	33	33	34	33	34
6	33	32	33	34	34	34	34	33	33	34	33	34
7	33	33	33	34	34	34	33	33	33	34	33	33
8	33	33	33	34	34	34	34	32	33	34	33	34
9	33	33	33	34	34	34	34	33	33	34	33	34
10	33	33	33	34	34	34	34	33	33	34	33	34
11	33	33	33	34	34	34	34	33	34	34	33	34
12	33	33	33	34	34	34	34	33	34	34	33	33
13	33	33	33	34	34	34	34	33	34	34	33	33
14	33	33	33	34	34	34	34	34	34	34	33	34
15	33	33	33	34	34	34	34	33	34	34	34	34
16	33	33	33	34	34	34	34	33	34	34	34	34
17	33	33	33	35	34	34	34	34	34	34	34	34
18	33	33	33	34	34	34	34	34	34	34	34	34
19	33	32	33	34	33	34	34	34	34	34	34	34
20	33	33	33	34	33	34	34	33	34	34	34	34
21	33	33	33	34	33	33	34	33	34	34	34	34
22	33	33	33	34	33	34	34	34	34	35	34	35
23	33	33	33	34	34	34	34	34	34	35	34	35
24	33	33	33	34	34	34	34	34	34	35	35	35
25	34	33	33	34	34	34	34	34	34	35	35	35
26	33	33	33	34	33	34	34	34	34	35	35	35
27	33	33	33	34	34	34	34	34	34	36	35	35
28	33	33	33	34	34	34	35	34	34	36	35	36
29	33	33	33	34	32	33	35	33	33	36	35	35
30	33	33	33	33	33	33	34	33	33	36	35	36
31	---	---	---	33	32	33	34	33	34	---	---	---
MONTH	34	32	33	35	32	34	35	32	34	36	33	34
YEAR	48	28	36									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.3	7.2	7.2	7.3	7.3	7.3	7.4	7.3	7.3	7.4	7.3	7.4
2	7.3	7.2	7.2	7.3	7.2	7.3	7.4	7.3	7.4	7.4	7.4	7.4
3	7.2	7.1	7.2	7.4	7.3	7.3	7.5	7.4	7.4	7.4	7.3	7.4
4	7.2	7.1	7.2	7.4	7.3	7.3	7.5	7.4	7.5	7.4	7.4	7.4
5	7.3	7.1	7.2	7.3	7.2	7.3	7.5	7.4	7.5	7.4	7.4	7.4
6	7.3	7.2	7.2	7.3	7.2	7.3	7.5	7.4	7.5	7.4	7.3	7.4
7	7.3	7.2	7.2	---	---	---	7.5	7.4	7.4	7.4	7.3	7.3
8	7.3	7.2	7.2	---	---	---	7.5	7.4	7.4	7.4	7.3	7.3
9	7.3	7.2	7.2	---	---	---	7.4	7.3	7.4	7.4	7.3	7.3
10	7.3	7.2	7.2	---	---	---	7.3	7.3	7.3	7.4	7.4	7.4
11	7.3	7.2	7.3	---	---	---	7.3	7.3	7.3	7.5	7.3	7.4
12	7.3	7.2	7.3	---	---	---	7.3	7.3	7.3	7.4	7.3	7.4
13	7.3	7.2	7.2	---	---	---	7.3	7.3	7.3	7.3	7.3	7.3
14	7.3	7.2	7.2	---	---	---	7.4	7.3	7.3	7.4	7.3	7.3
15	7.2	7.2	7.2	---	---	---	7.3	7.3	7.3	7.4	7.3	7.3
16	7.3	7.2	7.2	---	---	---	7.3	7.2	7.2	7.4	7.4	7.4
17	7.3	7.2	7.3	---	---	---	7.3	7.2	7.2	7.4	7.4	7.4
18	7.3	7.2	7.3	---	---	---	7.4	7.3	7.4	7.4	7.4	7.4
19	7.3	7.2	7.3	---	---	---	7.4	7.3	7.3	7.4	7.4	7.4
20	7.4	7.3	7.3	7.4	7.2	7.3	7.4	7.4	7.4	7.4	7.3	7.3
21	7.4	7.3	7.3	7.3	7.2	7.2	7.4	7.4	7.4	7.4	7.3	7.4
22	7.3	7.2	7.2	7.3	7.2	7.3	7.5	7.4	7.4	7.5	7.4	7.4
23	7.4	7.2	7.2	7.2	7.1	7.2	7.5	7.4	7.4	7.4	7.4	7.4
24	7.4	7.3	7.3	7.2	7.1	7.2	7.5	7.4	7.4	7.4	7.4	7.4
25	7.3	7.2	7.2	7.2	7.0	7.1	7.4	7.4	7.4	7.4	7.4	7.4
26	7.3	7.2	7.2	7.1	7.0	7.0	7.4	7.4	7.4	7.4	7.4	7.4
27	7.3	7.2	7.2	7.2	7.1	7.1	7.4	7.4	7.4	7.4	7.4	7.4
28	7.3	7.2	7.3	7.4	7.2	7.2	7.4	7.4	7.4	7.4	7.4	7.4
29	7.3	7.2	7.2	7.4	7.2	7.3	7.4	7.4	7.4	7.5	7.4	7.4
30	7.4	7.3	7.3	7.3	7.1	7.2	7.4	7.4	7.4	7.5	7.4	7.4
31	7.6	7.3	7.3	---	---	---	7.4	7.4	7.4	---	---	---
MAX	7.6	7.3	7.3	---	---	---	7.5	7.4	7.5	---	---	---
MIN	7.2	7.1	7.2	---	---	---	7.3	7.2	7.2	---	---	---

WILLAMETTE RIVER BASIN

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.0	15.8	15.9	11.7	11.4	11.5	7.9	7.6	7.8	5.2	5.1	5.1
2	16.0	15.7	15.9	11.5	11.4	11.4	7.7	7.4	7.6	5.2	5.1	5.2
3	15.8	15.6	15.7	11.5	11.4	11.4	7.7	7.2	7.4	5.2	5.1	5.1
4	15.8	15.5	15.6	11.5	11.3	11.4	7.2	7.1	7.1	5.1	5.0	5.0
5	15.7	15.5	15.7	11.4	11.2	11.3	7.1	7.0	7.1	5.0	5.0	5.0
6	15.8	15.5	15.7	11.2	10.8	11.1	7.1	6.8	7.0	5.2	5.0	5.1
7	15.5	15.3	15.4	10.8	10.6	10.7	6.9	6.8	6.8	5.4	5.2	5.3
8	15.3	15.2	15.3	10.6	10.4	10.5	7.0	6.9	6.9	5.5	5.3	5.4
9	15.3	15.0	15.1	10.5	10.3	10.4	6.9	6.5	6.7	5.4	5.0	5.1
10	15.0	14.7	14.8	10.6	10.4	10.5	6.5	6.4	6.4	5.2	5.0	5.1
11	14.7	14.6	14.7	10.7	10.6	10.7	6.4	6.3	6.4	5.2	5.1	5.2
12	14.6	14.5	14.6	10.8	10.7	10.7	6.4	6.3	6.3	5.3	5.1	5.2
13	14.6	14.5	14.5	10.7	10.6	10.7	6.5	6.3	6.4	5.1	4.8	4.9
14	14.6	14.3	14.5	10.6	10.5	10.5	6.4	5.8	6.0	4.9	4.9	4.9
15	14.4	14.2	14.3	10.6	10.4	10.5	5.9	5.8	5.9	4.9	4.8	4.9
16	14.4	14.2	14.3	10.4	10.1	10.3	6.1	5.9	6.0	4.9	4.8	4.9
17	14.3	14.0	14.2	10.1	9.9	10.0	6.1	5.8	6.0	4.9	4.8	4.9
18	14.0	13.8	13.9	10	9.7	9.8	5.8	5.7	5.7	4.9	4.9	4.9
19	13.8	13.6	13.7	10.1	9.9	10.0	5.8	5.8	5.8	4.9	4.8	4.9
20	13.8	13.7	13.8	10.1	9.6	9.9	5.8	5.8	5.8	4.8	4.8	4.8
21	13.8	13.6	13.7	9.7	9.6	9.7	5.8	5.7	5.7	4.8	4.6	4.7
22	13.6	13.0	13.4	9.6	9.0	9.5	5.7	5.7	5.7	4.6	4.4	4.5
23	13.0	12.5	12.7	9.0	8.9	9.0	5.7	5.5	5.6	4.6	4.5	4.6
24	12.5	12.4	12.4	9.1	8.9	9.0	5.5	5.3	5.4	4.6	4.5	4.5
25	12.6	12.4	12.5	8.9	8.5	8.8	5.3	5.2	5.3	4.5	4.5	4.5
26	12.6	12.4	12.5	8.5	8.4	8.4	5.2	5.1	5.2	4.5	4.4	4.4
27	12.6	12.4	12.5	8.5	8.3	8.4	5.2	5.1	5.2	4.4	4.3	4.4
28	12.4	12.2	12.3	8.5	8.2	8.4	5.2	5.1	5.2	4.4	4.2	4.3
29	12.2	12.1	12.1	8.2	7.8	8.1	5.1	5.0	5.1	4.2	4.1	4.2
30	12.3	12.1	12.2	7.9	7.7	7.8	5.1	5.0	5.1	4.2	4.2	4.2
31	12.1	11.7	11.9	--	--	--	5.1	5.1	5.1	4.2	4.2	4.2
MONTH	16.0	11.7	14.1	11.7	7.7	10.0	7.9	5.0	6.1	5.5	4.1	4.8
	FEBRUARY			MARCH			APRIL			MAY		
1	4.2	4.1	4.2	4.2	4.0	4.2	5.3	5.1	5.2	5.7	5.5	5.6
2	4.2	4.0	4.1	4.2	4.0	4.1	5.5	5.1	5.3	6.2	5.6	5.8
3	4.3	4.1	4.2	4.2	4.0	4.1	5.6	5.2	5.4	6.2	5.6	5.8
4	4.2	4.0	4.1	4.3	4.0	4.1	5.9	5.4	5.7	6.3	5.4	5.8
5	4.1	4.0	4.1	4.3	4.2	4.3	5.8	5.6	5.7	6.0	5.4	5.5
6	4.1	4.0	4.1	4.3	4.3	4.3	5.6	5.1	5.3	6.1	5.3	5.5
7	4.2	4.1	4.1	4.3	4.1	4.2	5.1	4.9	5.0	6.1	5.6	5.8
8	4.2	4.1	4.2	4.2	4.0	4.1	5.3	4.8	5.0	6.3	5.4	5.8
9	4.2	4.1	4.1	4.1	3.9	4.0	5.8	5.3	5.6	6.3	5.4	5.6
10	4.2	4.0	4.1	4.3	4.1	4.2	6.5	5.6	5.9	6.3	5.3	5.6
11	4.2	4.1	4.2	4.7	4.3	4.5	6.6	6.1	6.4	6.3	6.0	6.2
12	4.2	4.0	4.1	4.7	4.6	4.7	6.4	5.5	5.8	6.4	6.1	6.2
13	4.0	3.8	3.9	4.7	4.5	4.6	6.5	5.7	6.0	6.4	5.6	5.9
14	4.0	3.8	3.9	4.6	4.5	4.5	6.5	5.2	5.9	6.3	5.6	6.0
15	4.0	3.8	3.9	4.6	4.5	4.5	5.3	5.0	5.1	6.4	6.0	6.2
16	4.1	3.9	4.0	4.5	4.2	4.4	5.5	5.3	5.4	6.4	5.8	6.0
17	4.2	4.0	4.0	4.3	4.1	4.2	5.8	5.5	5.6	6.4	5.9	6.1
18	4.2	4.1	4.2	4.3	4.1	4.2	5.7	5.5	5.6	6.4	5.9	6.1
19	4.3	4.2	4.2	4.4	4.3	4.3	5.5	5.3	5.4	6.3	5.8	6.0
20	4.5	4.2	4.3	4.7	4.3	4.5	5.6	5.3	5.5	6.2	5.9	6.0
21	4.6	4.4	4.5	4.8	4.5	4.6	5.6	5.3	5.4	6.6	5.7	6.1
22	4.8	4.5	4.7	4.8	4.5	4.6	5.6	5.4	5.5	6.5	6.0	6.1
23	4.9	4.7	4.8	5.0	4.7	4.8	5.8	5.5	5.7	6.6	5.9	6.2
24	4.8	4.7	4.8	5.0	4.8	4.9	6.1	5.6	5.9	6.7	6.0	6.3
25	4.8	4.5	4.6	5.2	4.8	5.0	6.3	6.0	6.1	6.6	6.3	6.5
26	4.5	4.2	4.3	5.1	4.9	5.0	6.1	5.7	6.0	6.7	6.2	6.5
27	4.3	4.0	4.2	5.2	5.0	5.0	5.7	5.4	5.6	6.7	6.2	6.4
28	4.3	4.2	4.2	5.1	5.0	5.1	5.9	5.5	5.7	6.5	6.2	6.4
29	--	--	--	5.1	4.8	5.0	6.6	5.8	6.2	6.6	6.4	6.5
30	--	--	--	5.2	4.9	5.0	6.2	5.7	6.0	7.5	6.6	7.0
31	--	--	--	5.2	5.0	5.1	--	--	--	7.6	6.3	6.8
MONTH	4.9	3.8	4.2	5.2	3.9	4.5	6.6	4.8	5.6	7.6	5.3	6.1

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.7	6.9	7.3	8.6	8.1	8.3	10.0	9.4	9.7	11.1	10.6	10.9
2	7.6	6.6	7.1	8.9	8.5	8.7	9.7	9.3	9.5	11.2	10.7	10.9
3	7.4	6.6	6.9	8.8	8.4	8.6	9.9	9.4	9.6	10.9	10.6	10.8
4	7.4	6.6	7.0	8.6	8.2	8.4	9.8	9.5	9.6	11.0	10.7	10.8
5	7.6	6.7	7.2	8.8	8.3	8.5	9.5	9.1	9.3	10.8	10.5	10.7
6	7.5	7.0	7.3	8.9	8.5	8.7	9.5	9.4	9.4	10.6	10.3	10.4
7	7.5	6.9	7.2	8.9	8.4	8.6	9.8	9.3	9.6	10.7	10.4	10.5
8	7.5	6.8	7.1	8.6	8.3	8.5	10	9.5	9.7	10.6	10.2	10.5
9	7.5	6.9	7.2	9.2	8.5	8.9	10.1	9.6	9.8	10.9	10.5	10.6
10	7.8	7.3	7.4	9.4	8.9	9.1	10.0	9.6	9.8	11.1	10.8	10.9
11	8.0	7.4	7.8	9.3	8.9	9.1	10.2	9.7	9.9	11.4	11.1	11.1
12	8.0	7.5	7.8	9.4	8.8	9.1	10.3	9.7	10	11.4	11.0	11.2
13	8.0	7.6	7.8	9.2	8.9	9.0	10.5	9.8	10.2	11.4	11.1	11.3
14	8.5	7.9	8.1	9.2	8.8	9.0	10.5	9.9	10.2	11.4	11.1	11.2
15	8.4	7.3	7.7	9.5	9.0	9.3	10.6	10	10.2	11.4	11.2	11.3
16	8.0	7.1	7.7	9.5	9.1	9.2	10.6	10.0	10.3	11.4	11.0	11.2
17	8.0	7.1	7.5	9.2	8.9	9.0	10.5	10.0	10.2	11.5	11.0	11.3
18	7.9	7.0	7.5	9.3	9.1	9.2	10.5	9.9	10.1	11.7	11.4	11.5
19	8.0	7.5	7.8	9.5	9.1	9.3	10.2	9.9	10.1	11.8	11.5	11.6
20	8.6	7.2	7.7	9.7	9.2	9.4	10.1	9.9	10.0	12.0	11.6	11.8
21	8.6	7.6	8.1	10	9.3	9.6	10.2	9.9	10.0	12.0	11.6	11.8
22	8.6	7.6	8.0	9.7	9.2	9.4	10.6	10.1	10.3	12.1	11.6	11.8
23	8.5	7.6	8.0	9.5	9.2	9.4	10.7	10.2	10.4	12.2	11.9	12.1
24	8.5	7.8	8.2	9.6	9.4	9.5	10.8	10.3	10.5	12.2	11.9	12.0
25	8.7	7.7	8.2	9.7	9.5	9.6	10.5	10.3	10.4	12.3	12.0	12.1
26	8.7	7.8	8.3	9.7	9.6	9.7	10.7	10.4	10.5	12.3	11.9	12.1
27	8.6	7.9	8.2	9.8	9.5	9.7	11.0	10.4	10.7	12.6	12.3	12.4
28	8.4	8.1	8.2	9.9	9.3	9.6	11.1	10.5	10.8	12.6	12.2	12.4
29	8.4	8.2	8.3	9.8	9.3	9.6	10.8	10.3	10.6	12.4	12.4	12.4
30	8.4	8.1	8.3	9.9	9.4	9.7	10.7	10.5	10.6	12.6	12.4	12.5
31	--	--	--	9.8	9.5	9.6	11.1	10.6	10.8	--	--	--
MONTH	8.7	6.6	7.7	10.0	8.1	9.1	11.1	9.1	10.1	12.6	10.2	11.4
YEAR	16.0	3.8	7.8									

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	<1	<1	<1	2	<1	<1	10	2	3	8	7	8
2	1	<1	<1	3	<1	<1	3	2	2	8	6	7
3	1	<1	<1	3	<1	<1	4	2	3	7	6	6
4	<1	<1	<1	2	<1	1	4	2	3	6	5	6
5	2	<1	<1	2	<1	1	8	2	3	6	5	6
6	2	<1	<1	2	<1	1	5	2	3	6	5	5
7	1	<1	<1	2	<1	1	5	2	2	6	4	5
8	3	<1	<1	2	<1	1	5	2	2	9	4	6
9	1	<1	<1	1	<1	1	5	2	2	5	3	4
10	3	<1	<1	2	<1	1	3	2	3	4	4	4
11	2	<1	<1	2	<1	1	2	2	2	7	4	4
12	1	<1	<1	7	<1	1	3	2	2	7	6	7
13	2	<1	<1	2	<1	1	5	2	2	7	4	5
14	2	<1	<1	2	<1	<1	9	3	5	6	5	6
15	1	<1	<1	8	<1	1	5	2	3	6	5	6
16	1	<1	<1	4	1	1	6	4	5	9	5	6
17	1	<1	<1	2	<1	1	12	5	6	8	5	6
18	2	<1	<1	4	<1	1	11	6	9	6	5	6
19	2	<1	<1	2	<1	1	11	6	6	6	5	5
20	2	<1	<1	2	<1	<1	9	6	6	5	4	5
21	3	<1	<1	2	<1	<1	13	6	8	5	4	4
22	3	<1	<1	8	<1	1	12	7	8	9	4	4
23	6	1	2	6	1	3	8	6	7	10	4	4
24	2	<1	1	2	<1	1	8	7	7	5	3	4
25	2	<1	<1	2	<1	1	9	8	8	5	4	4
26	2	<1	<1	4	2	2	10	9	9	6	3	4
27	2	<1	<1	5	2	3	9	8	8	5	3	4
28	1	<1	<1	4	1	2	9	8	8	5	3	4
29	1	<1	<1	4	1	2	9	8	8	4	3	3
30	1	<1	<1	7	1	2	8	7	8	4	3	3
31	4	<1	<1	--	--	--	8	7	8	4	2	3
MAX	6	1	2	8	2	3	13	9	9	10	7	8
MIN	<1	<1	<1	1	<1	<1	2	2	2	4	2	3

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: April 2000 to current year.

pH: June 2000 to current year.

WATER TEMPERATURE: July 1985 to November 1986, April 2000 to current year.

TURBIDITY: April 2000 to current year.

INSTRUMENTATION.-- Water-quality monitor.

REMARKS.--Water-quality data for the 2001 water year available in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Records excellent.

pH: Records good.

WATER TEMPERATURE: Records excellent.

TURBIDITY: Records good.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 52 microsiemens Aug. 30, Sept. 12, 14, 17, 2001; minimum, 14 microsiemens

Nov. 14, 2001, Apr. 14, 2002.

pH: Maximum, 8.6 units Aug. 15, 2001; minimum, 6.8 units Apr. 14, 2002.

WATER TEMPERATURE: Maximum, 27.3°C Aug. 8, 1986; minimum, 0.8°C Dec. 1, 2, 1985.

TURBIDITY: Maximum, 301 NTU Apr. 14, 2002; minimum, <1 many days many years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 51 microsiemens several days in October and September; minimum, 14 microsiemens

Nov. 14, Apr. 14.

pH: Maximum, 8.3 units Oct. 6; minimum, 6.8 units Apr. 14.

WATER TEMPERATURE: Maximum, 25.5°C Aug. 14; minimum, 3.2°C Mar. 2.

TURBIDITY: Maximum, 301 NTU Apr. 14; minimum, <1 many days during period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT					
11...	1129	207	94	9.0	5.0
23...	1206	1240	43	2.0	6.7
31...	1924	2440	62	14	92.2
NOV					
14...	1155	2270	55	18	110
14...	1250	2140	52	15	86.8
22...	1845	5860	43	227	3590
23...	0931	3240	62	23	201
23...	0946	3210	54	29	252
29...	1156	3780	63	25	255
29...	1219	3730	51	30	302
DEC					
06...	1215	3100	52	29	243
13...	1358	4270	56	58	669
14...	1155	4560	44	59	727
14...	1244	4430	46	75	897
16...	1345	5940	38	135	2170
16...	1352	5980	48	107	1730
JAN					
08...	1215	3560	41	29	279
08...	1255	3540	43	31	297
25...	1058	2470	56	33	220
25...	1433	2820	44	42	320
FEB					
19...	1116	782	71	2.0	4.2
MAR					
12...	1410	2970	51	20	160
12...	1505	2940	49	18	143
APR					
14...	1130	5920	53	193	3080

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	51	49	50	26	23	25	26	22	25	26	25	26
2	51	50	50	27	25	26	26	23	24	25	23	24
3	51	50	50	28	27	27	28	26	27	23	22	23
4	51	50	51	29	28	28	29	28	29	25	23	24
5	51	50	51	30	29	30	30	29	29	26	25	25
6	51	50	51	31	30	31	30	20	25	26	21	24
7	51	50	51	32	31	31	26	20	23	21	19	20
8	51	50	50	32	32	32	26	25	26	20	17	19
9	51	49	50	33	32	33	28	26	27	22	20	21
10	51	47	49	34	33	33	28	28	28	25	22	24
11	48	42	45	35	34	34	28	28	28	26	25	26
12	42	40	41	35	33	34	29	28	28	26	22	25
13	43	41	42	35	22	33	28	19	23	24	22	23
14	44	42	43	25	14	22	25	19	22	26	24	25
15	44	42	43	28	25	27	28	25	27	27	26	26
16	44	42	43	28	27	27	27	20	23	28	27	27
17	44	43	43	29	27	28	25	21	23	28	28	28
18	45	43	44	30	29	29	27	25	26	28	28	28
19	45	43	44	31	30	30	27	26	27	30	28	29
20	45	43	44	30	29	29	27	27	27	30	26	29
21	45	44	44	29	27	28	28	27	28	28	25	27
22	44	25	42	27	21	24	28	28	28	29	28	28
23	26	24	25	26	21	24	29	28	28	30	29	30
24	29	26	27	29	26	28	29	29	29	30	29	30
25	31	29	30	29	28	29	30	29	30	29	22	25
26	32	31	31	31	29	30	31	30	30	28	24	26
27	32	31	31	32	31	31	31	31	31	28	28	28
28	32	32	32	32	21	28	31	28	29	29	28	29
29	33	32	32	25	21	23	28	28	28	30	29	29
30	33	25	31	26	25	26	28	28	28	30	30	30
31	25	23	24	---	---	---	28	26	27	30	29	30
MONTH	51	23	41	35	14	29	31	19	27	30	17	26
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	31	30	30	28	28	28	26	25	25	26	26	26
2	31	31	31	29	28	29	25	24	25	26	26	26
3	31	30	31	29	29	29	24	23	23	26	25	25
4	30	29	30	30	29	30	23	22	22	25	24	25
5	30	29	30	30	29	30	22	21	21	25	25	25
6	30	29	29	29	20	25	22	22	22	25	24	24
7	29	25	27	24	20	23	23	22	22	25	24	25
8	26	25	25	26	24	25	23	23	23	26	25	26
9	28	26	27	27	26	27	24	20	23	27	26	26
10	29	28	29	28	27	28	20	17	18	27	27	27
11	29	28	29	28	16	23	20	19	20	28	27	27
12	29	29	29	21	16	19	20	19	19	28	27	27
13	30	29	30	24	21	23	20	19	19	27	23	25
14	30	30	30	26	24	25	19	14	17	24	23	24
15	31	30	30	27	26	27	22	19	21	25	24	24
16	31	30	30	28	26	27	24	22	23	25	25	25
17	30	29	29	28	27	27	25	24	24	25	25	25
18	29	29	29	28	28	28	27	25	26	25	24	24
19	29	26	28	28	27	27	28	27	27	25	24	24
20	26	25	25	27	27	27	28	28	28	25	24	25
21	26	22	24	27	26	27	28	28	28	25	25	25
22	22	22	22	27	27	27	28	28	28	26	23	24
23	22	20	21	27	27	27	28	27	28	24	23	24
24	23	20	22	27	24	25	28	28	28	24	24	24
25	25	23	24	25	24	24	28	28	28	25	24	24
26	26	25	26	26	25	25	28	26	27	24	22	23
27	27	26	27	26	25	25	27	27	27	22	22	22
28	28	27	27	26	25	25	27	27	27	22	21	22
29	---	---	---	26	26	26	28	27	27	22	18	19
30	---	---	---	26	26	26	28	26	27	21	19	20
31	---	---	---	26	25	26	---	---	---	22	21	21
MONTH	31	20	28	30	16	26	28	14	24	28	18	24

WILLAMETTE RIVER BASIN

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23	22	22	26	24	25	43	42	43	47	47	47
2	23	23	23	28	26	27	44	42	43	48	47	47
3	24	23	23	28	27	28	43	42	43	49	47	48
4	24	23	24	29	28	29	44	42	43	47	47	47
5	23	22	23	30	29	29	43	42	42	47	47	47
6	23	22	22	31	30	30	43	42	42	47	47	47
7	24	23	23	31	31	31	43	42	42	47	46	47
8	26	24	25	32	31	31	44	43	43	47	46	47
9	26	25	25	33	32	32	44	43	43	47	46	47
10	28	26	27	33	33	33	45	43	44	47	46	47
11	27	26	26	33	33	33	45	44	44	48	47	47
12	26	24	25	33	33	33	45	44	44	48	47	48
13	25	23	24	33	33	33	46	44	45	48	47	48
14	23	22	23	34	33	33	47	45	46	48	47	48
15	24	23	23	34	34	34	46	45	46	48	47	48
16	24	24	24	35	34	34	46	45	46	48	47	48
17	26	24	25	35	35	35	46	45	46	49	46	47
18	26	20	22	36	35	35	46	45	46	48	47	47
19	23	21	22	36	36	36	46	45	46	47	47	47
20	25	23	24	37	36	36	46	45	46	48	47	47
21	26	24	25	37	36	37	46	45	45	48	47	48
22	25	24	24	38	37	37	46	45	45	51	47	48
23	25	24	25	39	38	38	47	45	46	48	47	48
24	26	25	26	39	38	39	47	46	47	48	47	48
25	27	26	27	40	39	39	47	46	47	48	47	48
26	27	27	27	40	39	40	47	46	47	48	47	48
27	28	27	27	41	40	40	47	46	47	48	48	48
28	28	27	27	40	40	40	47	46	47	48	48	48
29	28	22	25	42	40	41	47	47	47	48	47	48
30	24	22	23	42	42	42	47	47	47	48	46	47
31	---	---	---	43	42	42	47	47	47	---	---	---
MONTH	28	20	24	43	24	35	47	42	45	51	46	48
YEAR	51	14	31									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.1	7.4	7.5	7.3	7.2	7.3	7.3	7.2	7.3	7.3	7.2	7.2
2	8.1	7.4	7.5	7.4	7.2	7.3	7.3	7.2	7.2	7.3	7.1	7.2
3	8.1	7.4	7.5	7.4	7.2	7.3	7.3	7.3	7.3	7.2	7.1	7.2
4	8.1	7.4	7.5	7.5	7.2	7.3	7.3	7.3	7.3	7.3	7.2	7.2
5	8.1	7.5	7.6	7.6	7.2	7.4	7.3	7.3	7.3	7.3	7.2	7.2
6	8.3	7.4	7.6	7.6	7.3	7.4	7.3	7.1	7.2	7.2	7.1	7.2
7	8.2	7.5	7.6	7.6	7.3	7.4	7.2	7.1	7.2	7.1	7.1	7.1
8	8.1	7.5	7.5	7.6	7.3	7.4	7.3	7.2	7.3	7.1	7.0	7.1
9	8.0	7.5	7.6	7.7	7.4	7.4	7.4	7.3	7.3	7.2	7.1	7.1
10	7.7	7.5	7.5	7.8	7.3	7.4	7.3	7.3	7.3	7.3	7.1	7.2
11	7.7	7.4	7.5	7.9	7.4	7.4	7.3	7.3	7.3	7.4	7.2	7.3
12	7.7	7.4	7.5	7.8	7.4	7.4	7.4	7.3	7.3	7.4	7.2	7.3
13	7.8	7.4	7.5	7.6	7.2	7.4	7.3	7.0	7.1	7.3	7.2	7.2
14	7.8	7.4	7.5	7.3	7.1	7.2	7.1	7.0	7.1	7.4	7.2	7.3
15	7.9	7.4	7.5	7.4	7.2	7.3	7.2	7.1	7.2	7.4	7.3	7.3
16	7.8	7.4	7.5	7.4	7.3	7.3	7.2	7.0	7.1	7.4	7.3	7.3
17	7.9	7.4	7.5	7.4	7.3	7.3	7.2	7.0	7.1	7.4	7.3	7.3
18	7.8	7.4	7.5	7.5	7.3	7.3	7.2	7.1	7.2	7.4	7.3	7.3
19	7.8	7.4	7.5	7.5	7.3	7.4	7.3	7.2	7.2	7.4	7.3	7.3
20	8.0	7.4	7.5	7.5	7.4	7.4	7.3	7.2	7.2	7.3	7.2	7.3
21	7.8	7.5	7.5	7.5	7.4	7.4	7.3	7.2	7.2	7.3	7.2	7.2
22	7.7	7.4	7.5	7.4	7.0	7.4	7.3	7.2	7.3	7.3	7.2	7.3
23	7.4	7.3	7.3	7.2	7.1	7.2	7.3	7.2	7.3	7.4	7.3	7.3
24	7.4	7.3	7.3	7.3	7.2	7.3	7.3	7.2	7.3	7.4	7.3	7.3
25	7.5	7.3	7.3	7.4	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.2
26	7.5	7.3	7.3	7.4	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.2
27	7.5	7.3	7.4	7.4	7.3	7.3	7.4	7.3	7.3	7.3	7.2	7.3
28	7.5	7.3	7.4	7.4	7.1	7.3	7.4	7.2	7.3	7.4	7.3	7.3
29	7.5	7.3	7.3	7.2	7.1	7.2	7.3	7.2	7.3	7.4	7.3	7.3
30	7.4	7.3	7.3	7.3	7.2	7.3	7.4	7.2	7.3	7.4	7.3	7.3
31	7.3	7.2	7.3	---	---	---	7.3	7.2	7.3	7.3	7.0	7.2
MAX	8.3	7.5	7.6	7.9	7.4	7.4	7.4	7.3	7.3	7.4	7.3	7.3
MIN	7.3	7.2	7.3	7.2	7.0	7.2	7.1	7.0	7.1	7.1	7.0	7.1

WILLAMETTE RIVER BASIN

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.4	7.2	7.3	7.5	7.4	7.4	7.5	7.3	7.4	7.4	7.2	7.3
2	7.4	7.3	7.3	7.5	7.3	7.4	7.5	7.2	7.3	7.4	7.2	7.3
3	7.4	7.2	7.3	7.5	7.4	7.4	7.4	7.2	7.3	7.4	7.2	7.3
4	7.4	7.2	7.3	7.6	7.4	7.4	7.4	7.2	7.2	7.4	7.2	7.3
5	7.4	7.2	7.3	7.5	7.4	7.4	7.3	7.2	7.2	7.4	7.2	7.3
6	7.4	7.2	7.3	7.4	7.1	7.4	7.3	7.2	7.2	7.4	7.2	7.3
7	7.3	7.2	7.2	7.3	7.2	7.3	7.4	7.2	7.3	7.4	7.2	7.3
8	7.3	7.2	7.2	7.4	7.3	7.3	7.4	7.2	7.2	7.4	7.2	7.3
9	7.4	7.2	7.2	7.5	7.3	7.4	7.3	7.1	7.2	7.4	7.2	7.3
10	7.4	7.2	7.3	7.5	7.3	7.4	7.1	7.0	7.1	7.5	7.2	7.3
11	7.4	7.3	7.3	7.3	7.0	7.3	7.2	7.0	7.1	7.5	7.2	7.3
12	7.4	7.2	7.3	7.2	7.0	7.1	7.2	7.0	7.1	7.5	7.2	7.3
13	7.4	7.3	7.3	7.3	7.2	7.2	7.1	7.0	7.1	7.4	7.2	7.3
14	7.5	7.3	7.3	7.4	7.2	7.3	7.1	6.8	7.0	7.4	7.2	7.3
15	7.5	7.3	7.3	7.4	7.3	7.3	7.2	7.0	7.1	7.5	7.2	7.3
16	7.5	7.3	7.3	7.4	7.3	7.3	7.2	7.1	7.2	7.5	7.3	7.4
17	7.5	7.3	7.3	7.5	7.3	7.4	7.3	7.2	7.2	7.5	7.3	7.4
18	7.5	7.3	7.3	7.5	7.3	7.4	7.3	7.2	7.2	7.5	7.2	7.3
19	7.5	7.3	7.4	7.4	7.3	7.4	7.3	7.2	7.2	7.5	7.2	7.3
20	7.6	7.4	7.4	7.5	7.3	7.4	7.3	7.2	7.3	7.5	7.3	7.3
21	7.5	7.3	7.4	7.5	7.3	7.4	7.3	7.2	7.3	7.5	7.2	7.3
22	7.5	7.3	7.3	7.5	7.3	7.4	7.4	7.2	7.3	7.5	7.2	7.3
23	7.3	7.3	7.3	7.5	7.3	7.4	7.4	7.2	7.3	7.5	7.2	7.3
24	7.4	7.2	7.3	7.4	7.3	7.3	7.4	7.3	7.3	7.5	7.2	7.3
25	7.4	7.3	7.3	7.4	7.3	7.3	7.4	7.3	7.3	7.5	7.2	7.3
26	7.5	7.3	7.4	7.5	7.3	7.4	7.4	7.2	7.3	7.5	7.2	7.3
27	7.5	7.3	7.3	7.5	7.3	7.4	7.4	7.3	7.3	7.4	7.1	7.3
28	7.5	7.3	7.4	7.5	7.3	7.4	7.4	7.2	7.3	7.4	7.1	7.2
29	---	---	---	7.5	7.3	7.4	7.4	7.2	7.3	7.3	7.1	7.2
30	---	---	---	7.5	7.3	7.4	7.5	7.2	7.3	7.4	7.1	7.2
31	---	---	---	7.5	7.3	7.4	---	---	---	7.4	7.2	7.3
MAX	7.6	7.4	7.4	7.6	7.4	7.4	7.5	7.3	7.4	7.5	7.3	7.4
MIN	7.3	7.2	7.2	7.2	7.0	7.1	7.1	6.8	7.0	7.3	7.1	7.2

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.4	7.2	7.3	7.5	7.2	7.3	7.9	7.3	7.5	7.9	7.4	7.5
2	7.4	7.2	7.3	7.5	7.3	7.4	7.9	7.4	7.5	7.9	7.4	7.5
3	7.5	7.2	7.3	7.6	7.3	7.4	7.9	7.4	7.5	7.9	7.4	7.5
4	7.4	7.2	7.3	7.5	7.3	7.4	7.9	7.3	7.5	7.9	7.4	7.5
5	7.4	7.2	7.3	7.5	7.3	7.4	7.9	7.4	7.6	7.8	7.4	7.5
6	7.4	7.2	7.3	7.6	7.3	7.4	7.8	7.4	7.6	7.8	7.4	7.5
7	7.4	7.2	7.3	7.6	7.2	7.4	7.8	7.4	7.5	7.9	7.4	7.5
8	7.4	7.2	7.3	7.6	7.3	7.4	7.8	7.4	7.5	7.9	7.4	7.5
9	7.4	7.2	7.3	7.6	7.3	7.4	7.8	7.4	7.5	7.8	7.4	7.5
10	7.4	7.2	7.3	7.5	7.3	7.3	7.9	7.4	7.5	7.8	7.4	7.5
11	7.4	7.2	7.3	7.6	7.3	7.4	7.9	7.4	7.5	7.8	7.4	7.5
12	7.4	7.2	7.3	7.7	7.3	7.4	7.9	7.4	7.5	7.8	7.4	7.5
13	7.4	7.2	7.3	7.7	7.3	7.4	8.0	7.3	7.5	7.9	7.4	7.5
14	7.4	7.2	7.3	7.6	7.3	7.4	8.0	7.3	7.5	8.1	7.4	7.5
15	7.4	7.2	7.3	7.6	7.3	7.4	8.0	7.3	7.5	8.1	7.4	7.6
16	7.4	7.2	7.3	7.6	7.3	7.4	8.1	7.3	7.5	7.9	7.4	7.5
17	7.4	7.2	7.3	7.6	7.3	7.4	8.0	7.3	7.5	7.9	7.4	7.5
18	7.3	7.2	7.3	7.7	7.3	7.5	7.9	7.3	7.5	7.8	7.4	7.5
19	7.4	7.2	7.3	7.7	7.3	7.5	8.1	7.3	7.5	7.9	7.4	7.5
20	7.4	7.2	7.2	7.7	7.3	7.4	7.9	7.3	7.5	8.0	7.4	7.5
21	7.4	7.2	7.3	7.7	7.3	7.4	7.9	7.3	7.5	7.9	7.4	7.5
22	7.5	7.2	7.3	7.9	7.3	7.5	7.8	7.3	7.4	7.9	7.4	7.5
23	7.5	7.2	7.3	8.0	7.4	7.5	7.8	7.3	7.4	7.9	7.4	7.5
24	7.5	7.2	7.3	7.9	7.4	7.5	7.8	7.3	7.4	7.9	7.4	7.5
25	7.5	7.2	7.3	8.0	7.4	7.5	7.9	7.3	7.4	8.0	7.4	7.5
26	7.5	7.2	7.3	8.0	7.4	7.5	7.9	7.2	7.4	8.1	7.4	7.5
27	7.5	7.2	7.3	7.9	7.4	7.5	7.8	7.2	7.4	8.0	7.3	7.5
28	7.5	7.3	7.4	7.9	7.4	7.5	7.9	7.4	7.5	7.9	7.4	7.5
29	7.5	7.2	7.3	7.9	7.3	7.5	8.0	7.4	7.5	7.9	7.4	7.5
30	7.5	7.2	7.3	8.0	7.4	7.5	7.9	7.4	7.5	7.7	7.4	7.5
31	---	---	---	8.0	7.3	7.6	7.9	7.4	7.5	---	---	---
MAX	7.5	7.3	7.4	8.0	7.4	7.6	8.1	7.4	7.6	8.1	7.4	7.6
MIN	7.3	7.2	7.2	7.5	7.2	7.3	7.8	7.2	7.4	7.7	7.3	7.5

WILLAMETTE RIVER BASIN

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	16.8	12.4	14.4	9.2	8.8	8.9	7.2	6.9	7.1	6.5	5.6	6.0
2	16.3	12.7	14.4	9.9	9.2	9.5	7.5	6.8	7.2	6.8	6.3	6.6
3	15.5	11.9	13.7	9.5	8.6	9.1	7.4	6.7	7.0	6.3	5.8	6.0
4	15.4	11.7	13.5	9.3	9.0	9.2	6.7	5.0	5.9	5.9	5.2	5.6
5	14.9	11.9	13.4	9.3	8.5	8.9	6.0	4.8	5.3	6.7	5.7	6.1
6	14.8	12.8	13.6	8.5	7.2	7.7	6.7	6.0	6.3	7.2	6.7	6.9
7	13.3	11.7	12.5	7.2	5.9	6.3	7.1	6.6	6.8	7.3	7.0	7.2
8	13.4	12.2	12.7	6.2	5.3	5.9	7.0	6.3	6.6	7.2	6.6	6.8
9	12.6	10.6	11.6	6.4	5.7	6.1	6.8	6.3	6.5	6.6	5.8	6.1
10	11.3	10.0	10.4	7.6	6.4	7.2	6.3	5.2	5.7	6.6	5.6	6.1
11	11.4	10.3	10.7	8.8	7.5	8.3	6.1	5.4	5.8	6.7	6.0	6.4
12	11.1	10.1	10.6	9.3	8.6	9.0	6.5	6.0	6.2	6.8	5.9	6.6
13	12.9	10.7	11.5	9.5	9.3	9.4	7.0	6.5	6.7	5.9	5.2	5.4
14	13.0	11.5	12.0	10.1	9.3	9.7	6.5	5.6	5.9	5.3	5.0	5.1
15	12.7	10.5	11.5	9.8	9.4	9.6	6.2	5.6	5.9	5.0	4.4	4.8
16	12.0	11.0	11.4	9.5	9.0	9.3	7.0	6.2	6.6	4.4	3.5	3.8
17	12.1	10.0	10.8	9.0	7.6	8.5	7.0	6.2	6.4	4.4	3.4	3.9
18	10.8	8.6	9.5	7.8	6.9	7.4	6.6	6.1	6.3	4.7	4.1	4.4
19	10.9	8.4	9.4	9.1	7.6	8.3	6.6	6.1	6.4	4.7	4.2	4.5
20	10.5	9.1	9.7	9.1	8.7	8.8	6.6	5.9	6.5	4.8	3.6	4.2
21	9.9	8.9	9.4	8.8	8.2	8.4	5.9	5.3	5.6	5.0	4.6	4.8
22	10.4	9.6	10.0	8.3	8.0	8.2	6.2	5.0	5.5	4.7	3.4	4.0
23	9.8	8.2	8.9	8.1	7.7	7.9	5.7	4.9	5.2	4.8	4.1	4.5
24	8.4	7.5	8.0	7.8	7.2	7.6	5.0	4.3	4.6	5.1	4.7	4.9
25	9.2	8.1	8.6	7.2	6.2	6.8	5.1	4.4	4.8	5.1	4.4	4.9
26	9.1	8.1	8.7	6.6	6.0	6.3	5.2	4.3	4.8	5.2	4.7	4.9
27	9.1	8.4	8.8	6.2	5.4	5.8	5.7	5.0	5.3	4.9	4.2	4.5
28	8.4	7.6	8.0	7.0	6.0	6.5	6.1	5.6	5.9	4.9	4.5	4.7
29	8.5	7.9	8.2	7.1	6.8	7.0	5.6	4.9	5.2	4.6	3.6	4.1
30	9.5	8.5	9.0	7.1	6.9	7.0	6.1	5.1	5.5	4.6	4.1	4.3
31	9.5	8.9	9.3	---	---	---	6.4	5.8	6.2	4.7	4.4	4.5
MONTH	16.8	7.5	10.8	10.1	5.3	8.0	7.5	4.3	6.0	7.3	3.4	5.2
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.2	4.3	4.7	5.0	3.6	4.4	8.1	5.4	6.8	8.8	7.3	7.9
2	5.3	4.2	4.7	5.2	3.2	4.2	8.1	5.3	6.8	8.7	7.6	8.1
3	5.6	4.9	5.2	5.6	3.6	4.7	8.3	5.3	6.9	8.9	7.0	7.9
4	5.0	3.9	4.5	6.0	3.9	5.0	8.6	5.4	7.0	8.6	5.8	7.3
5	4.9	4.1	4.5	6.0	5.2	5.5	7.2	6.0	6.3	8.1	6.8	7.2
6	5.3	4.5	4.9	5.6	4.8	5.4	7.0	5.9	6.4	7.1	6.1	6.6
7	5.3	4.4	5.1	4.8	4.0	4.5	6.5	5.9	6.2	6.7	5.1	5.9
8	5.7	4.3	5.0	4.5	3.6	4.0	8.3	5.3	6.7	8.9	4.9	6.9
9	5.9	4.6	5.2	5.3	3.9	4.5	7.7	6.0	6.6	8.7	6.8	7.3
10	6.3	4.9	5.5	5.8	5.0	5.3	6.3	5.7	5.9	9.4	6.2	7.7
11	5.9	5.0	5.5	6.1	5.2	5.8	6.6	5.7	6.1	10.7	6.8	8.9
12	5.8	4.3	5.0	5.3	4.9	5.1	7.5	5.9	6.5	12.0	8.1	10.2
13	5.4	4.2	4.8	5.0	4.3	4.6	6.9	6.4	6.6	11.6	7.5	8.7
14	5.6	3.8	4.7	5.3	4.3	4.7	7.2	5.1	5.8	9.4	6.8	8.0
15	5.8	4.2	5.0	5.5	4.5	5.0	5.7	5.2	5.4	10.1	6.7	8.5
16	6.2	4.8	5.5	5.0	3.8	4.3	5.7	5.1	5.4	10.1	6.9	8.7
17	5.9	4.5	5.2	4.8	3.6	4.1	6.3	5.1	5.6	11.2	8.2	9.7
18	6.7	5.4	6.0	4.8	4.0	4.4	7.2	5.5	6.2	10.4	8.4	9.0
19	6.4	5.8	6.1	4.8	3.9	4.3	7.7	5.9	6.6	8.4	7.7	8.0
20	6.6	5.1	5.8	6.9	4.5	5.6	8.5	6.4	7.4	8.5	7.2	7.9
21	6.3	5.7	6.0	6.7	5.0	5.8	8.5	6.0	7.2	8.4	7.2	7.8
22	6.8	5.4	6.0	6.7	4.7	5.7	9.7	6.7	8.1	8.5	7.0	7.7
23	5.9	5.6	5.7	7.3	5.7	6.5	8.9	6.3	7.7	10.6	6.6	8.5
24	5.6	4.8	5.2	6.7	5.7	6.2	9.4	5.5	7.5	10.6	7.7	9.2
25	5.6	4.2	4.8	7.4	4.8	6.1	9.6	6.6	8.2	10.4	8.4	9.4
26	5.7	4.1	4.8	7.3	5.0	6.2	8.9	6.8	7.3	11.2	8.8	9.9
27	5.7	3.7	4.7	7.3	5.8	6.6	8.2	5.9	6.9	10.2	8.7	9.0
28	5.6	4.4	5.0	6.7	5.8	6.2	9.2	5.4	7.3	8.9	8.3	8.6
29	---	---	---	7.7	5.7	6.7	10.0	6.3	8.2	8.8	8.1	8.5
30	---	---	---	7.8	5.0	6.5	9.3	7.3	8.2	11.2	7.6	9.2
31	---	---	---	8.0	5.2	6.7	---	---	---	11.2	8.2	9.8
MONTH	6.8	3.7	5.2	8.0	3.2	5.3	10.0	5.1	6.8	12.0	4.9	8.3

WILLAMETTE RIVER BASIN

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	11.6	8.9	10.2	15.3	11.0	13.1	22.9	17.8	20.1	22.0	17.1	19.4
2	12.1	8.8	10.5	16.0	12.2	14.3	22.3	17.5	19.6	22.2	17.2	19.5
3	11.6	9.1	10.4	15.2	12.9	14.2	21.8	16.6	19.0	21.5	18.0	19.6
4	12.3	9.7	11.0	15.8	13.3	14.5	19.1	17.4	18.3	19.7	15.6	17.6
5	11.9	10.3	11.2	16.8	13.0	14.9	19.2	15.8	17.3	18.7	14.2	16.4
6	11.7	9.3	10.7	18.4	14.8	16.4	18.5	16.3	17.3	18.0	13.6	15.7
7	10.6	8.4	9.6	17.2	15.3	16.2	20.5	15.1	17.4	18.0	14.2	16.0
8	9.6	7.9	8.9	17.9	14.4	16.0	21.4	15.9	18.3	17.3	13.5	15.4
9	10.9	8.4	9.5	20.1	15.5	17.6	22.7	16.7	19.4	18.8	13.4	15.9
10	13.4	8.8	11.0	21.9	17.2	19.4	23.6	18.2	20.5	19.5	14.3	16.7
11	14.5	10.6	12.7	22.8	18.5	20.4	23.3	17.7	20.2	20.2	15.1	17.5
12	15.0	11.2	13.4	22.8	18.7	20.6	24.0	18.0	20.6	20.7	15.9	18.2
13	15.3	11.6	13.6	22.6	19.4	20.7	25.2	18.8	21.6	20.7	15.9	18.2
14	14.8	11.9	13.5	22.5	18.2	20.1	25.5	20.0	22.4	18.9	16.3	17.7
15	14.6	11.6	13.2	22.1	17.4	19.6	25.0	19.6	22.0	17.8	16.6	17.0
16	13.9	12.0	12.7	22.6	17.7	20.0	23.9	18.5	21.0	16.7	15.8	16.3
17	12.2	10.9	11.3	22.9	18.2	20.4	23.7	18.6	20.8	16.9	15.5	16.1
18	11.1	9.3	10.0	22.5	18.5	20.2	22.9	17.5	20.0	17.8	14.0	15.5
19	12.7	8.5	10.5	21.1	19.0	19.9	21.7	17.6	19.6	18.3	13.7	15.6
20	13.9	10.1	12.1	22.6	17.0	19.6	19.8	17.8	18.8	18.2	14.0	15.8
21	15.0	11.5	13.2	23.6	18.1	20.7	18.7	16.1	17.3	17.9	12.9	15.2
22	14.7	12.5	13.1	24.3	19.3	21.7	20.9	15.0	17.6	17.8	13.0	15.2
23	15.5	11.7	13.5	24.5	20.2	22.1	22.0	16.3	18.8	17.7	13.3	15.3
24	16.5	12.6	14.7	24.8	20.1	22.3	22.9	17.3	19.7	17.6	13.3	15.3
25	17.3	13.5	15.6	24.5	20.2	22.1	20.4	18.0	19.0	17.4	13.2	15.2
26	17.4	14.7	16.2	23.4	20.6	21.7	22.0	17.7	19.4	16.6	13.3	14.9
27	16.5	15.1	15.5	23.0	18.5	20.6	22.4	16.9	19.3	16.8	13.6	15.1
28	15.1	13.6	14.2	23.8	18.1	20.7	23.5	17.9	20.4	16.5	13.0	14.7
29	13.6	12.0	12.8	24.8	19.5	21.8	23.3	18.7	20.8	15.0	13.4	14.1
30	13.0	11.0	12.0	24.8	20.0	22.0	22.0	17.5	19.7	14.2	12.5	13.3
31	---	---	---	23.3	18.6	20.7	21.6	16.8	19.1	---	---	---
MONTH	17.4	7.9	12.2	24.8	11.0	19.2	25.5	15.0	19.5	22.2	12.5	16.3
YEAR	25.5	3.2	10.3									

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	<1	<1	<1	5	2	2	12	4	6	4	<1	1
2	<1	<1	<1	4	<1	1	9	3	5	7	2	3
3	2	<1	<1	2	<1	<1	5	3	4	4	2	2
4	<1	<1	<1	<1	<1	<1	5	2	3	2	1	1
5	<1	<1	<1	1	<1	<1	10	2	3	3	<1	1
6	<1	<1	<1	<1	<1	<1	36	3	17	7	1	4
7	<1	<1	<1	<1	<1	<1	25	5	9	12	5	7
8	<1	<1	<1	<1	<1	<1	9	3	4	35	6	13
9	<1	<1	<1	<1	<1	<1	4	2	2	9	3	4
10	1	<1	<1	<1	<1	<1	4	2	2	6	2	2
11	9	<1	3	<1	<1	<1	3	2	2	2	1	1
12	2	<1	<1	1	<1	<1	4	2	2	13	1	2
13	<1	<1	<1	50	<1	1	166	4	33	3	1	2
14	1	<1	<1	143	4	13	167	15	38	2	1	1
15	<1	<1	<1	9	2	2	15	7	9	2	<1	1
16	<1	<1	<1	3	1	2	55	7	27	4	<1	1
17	2	<1	<1	4	1	2	28	8	14	2	<1	<1
18	<1	<1	<1	4	<1	1	11	5	6	2	<1	<1
19	2	<1	<1	1	<1	1	7	4	4	6	2	3
20	2	<1	<1	2	<1	1	8	3	4	43	2	4
21	1	<1	<1	2	<1	1	3	2	3	46	4	9
22	73	<1	1	104	1	6	3	2	2	7	3	4
23	38	2	4	64	6	13	3	2	2	5	2	3
24	3	<1	1	8	3	4	2	1	2	5	2	2
25	2	<1	<1	4	2	3	2	1	1	23	5	10
26	<1	<1	<1	6	2	2	2	<1	1	8	3	4
27	1	<1	<1	2	1	2	2	<1	1	8	2	2
28	<1	<1	<1	28	2	5	5	1	2	4	2	2
29	<1	<1	<1	37	8	15	2	<1	1	2	1	2
30	10	<1	1	8	4	5	1	<1	<1	2	1	1
31	15	3	5	---	---	---	3	<1	1	5	1	2
MAX	73	3	5	143	8	15	167	15	38	46	6	13
MIN	<1	<1	<1	<1	<1	<1	1	<1	<1	2	<1	<1

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: April 2000 to current year.
 pH: June 2000 to current year.
 WATER TEMPERATURE: September 1985 to October 1986, April 2000 to current year.
 TURBIDITY: April 2000 to current year.

INSTRUMENTATION: Water-quality monitor since April 2000.

REMARKS.--Water-quality data for the 2001 water year available in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Record excellent.
 pH: Record good.
 TEMPERATURE: Record good.
 TURBIDITY: Record good.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 52 microsiemens Oct. 22, 2001; minimum, 15 microsiemens Apr. 14, 2002.
 pH: Maximum, 8.3 units Sept. 1-4, 14, 2001, Oct. 20, 2001; minimum, 6.3 units April 14, 2002.
 WATER TEMPERATURE: Maximum, 19.9°C Aug. 10, 2001; minimum, 3.4°C Mar. 2, 2002.
 TURBIDITY: Maximum, 296 NTU Apr. 14, 2002; minimum <1 many days during period.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 52 microsiemens Oct. 22; minimum, 15 microsiemens Apr. 14.
 pH: Maximum, 8.3 units Oct. 20; minimum, 6.3 units Apr. 14.
 WATER TEMPERATURE: Maximum, 18.0°C Oct. 1; minimum, 3.4°C Mar. 2.
 TURBIDITY: Maximum, 296 NTU Apr. 14; minimum; <1 many days during period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDEDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80155)
OCT					
11...	1029	1350	98	4.0	14.6
23...	1101	2560	80	5.0	34.5
31...	2034	3980	71	10	108
NOV					
14...	1345	3750	63	9.0	91.1
14...	1450	3630	48	10	98.1
22...	1911	12100	49	162	5300
23...	0834	8520	70	20	460
23...	0851	8450	53	25	570
29...	1043	10100	64	25	679
29...	1109	9940	61	26	698
DEC					
03...	1547	10600	47	12	343
03...	1640	10600	29	22	630
06...	1110	12600	67	14	476
13...	1128	8090	63	29	634
13...	1202	8120	54	35	768
14...	1340	10700	69	38	1100
14...	1355	10900	53	36	1060
14...	1415	11400	48	35	1080
14...	1510	12500	42	61	2060
16...	1238	12200	50	59	1940
16...	1246	12200	45	71	2340
JAN					
08...	1415	7560	53	17	347
08...	1501	7430	27	30	602
25...	1258	8980	64	25	606
25...	1400	9130	61	30	740
FEB					
19...	1221	2320	81	1.0	6.3
MAR					
12...	1610	5610	53	24	364
12...	1657	5520	21	33	492
APR					
14...	1112	14900	58	148	5950

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	50	49	49	32	27	30	30	24	27	30	28	29
2	50	48	49	35	32	33	29	24	26	28	26	27
3	50	48	49	39	35	37	31	29	30	28	26	27
4	50	49	50	40	39	39	32	31	32	29	28	28
5	50	49	50	41	40	40	34	32	33	30	28	29
6	51	48	50	42	41	41	34	21	27	30	24	27
7	50	49	50	44	42	43	29	23	27	24	22	23
8	50	49	50	44	43	43	31	29	30	23	19	21
9	51	49	50	45	44	44	32	31	31	27	22	25
10	51	48	50	46	44	45	33	32	32	28	27	28
11	49	48	49	46	45	46	34	32	33	29	28	29
12	49	48	49	46	44	45	34	33	33	30	26	28
13	50	48	49	45	25	42	33	18	24	28	26	27
14	50	48	49	32	20	26	26	18	22	30	28	29
15	50	48	49	35	32	34	29	26	28	32	30	31
16	49	48	49	34	33	33	29	20	23	32	31	32
17	49	48	48	35	33	34	26	21	23	32	32	32
18	49	48	48	38	35	36	29	26	28	33	32	32
19	50	48	49	39	37	38	30	28	29	33	32	32
20	50	49	50	38	37	37	31	30	30	33	28	32
21	50	49	50	37	35	36	33	31	32	30	26	28
22	52	32	49	35	22	28	34	33	33	31	29	30
23	34	29	32	30	22	26	34	33	34	32	31	32
24	40	34	37	34	30	32	34	34	34	32	30	32
25	43	40	41	36	34	35	35	34	34	30	23	26
26	45	43	44	37	35	37	35	33	34	28	25	27
27	45	43	44	39	37	38	34	34	34	30	28	29
28	46	44	45	39	23	33	34	31	33	31	30	31
29	46	45	46	29	23	25	32	31	31	33	31	32
30	46	31	42	31	29	30	32	31	32	34	33	33
31	31	25	28	---	---	---	32	29	31	34	33	34
MONTH	52	25	47	46	20	36	35	18	30	34	19	29
	FEBRUARY			MARCH			APRIL			MAY		
1	35	33	34	34	33	34	31	29	30	32	30	31
2	35	34	35	35	34	35	31	29	30	32	29	30
3	35	34	34	36	35	35	31	29	30	30	28	29
4	34	33	34	36	35	36	30	28	29	31	29	30
5	34	33	34	37	36	36	28	28	28	31	30	31
6	34	33	34	36	21	29	28	28	28	31	30	30
7	33	28	30	29	23	27	28	28	28	31	30	30
8	29	27	28	32	29	30	28	28	28	32	31	32
9	31	29	30	34	32	33	28	22	27	32	31	32
10	31	30	31	34	34	34	22	18	20	33	32	32
11	31	30	31	34	17	28	23	20	22	33	32	32
12	33	31	31	24	17	20	23	21	22	33	31	32
13	34	33	33	28	24	26	23	20	21	32	29	30
14	34	33	34	29	28	28	22	15	18	30	29	29
15	34	34	34	31	29	30	27	22	25	30	29	29
16	35	34	34	32	31	31	30	27	28	32	29	31
17	35	33	34	33	32	32	32	29	30	30	29	30
18	34	33	33	34	33	33	32	29	30	30	28	29
19	33	30	32	33	31	32	30	29	30	29	29	29
20	31	30	30	32	31	32	32	30	30	31	29	29
21	31	25	29	32	31	31	33	30	31	30	29	29
22	26	25	26	32	32	32	33	31	32	30	28	29
23	25	22	23	32	31	31	34	32	33	30	28	29
24	26	22	23	31	28	29	33	32	32	30	29	29
25	28	26	27	29	28	28	33	32	32	30	29	29
26	31	28	29	29	28	29	32	31	32	29	28	28
27	33	30	32	30	29	29	33	31	32	28	27	28
28	34	33	33	31	29	30	34	32	33	28	27	28
29	---	---	---	32	30	31	33	32	32	27	24	25
30	---	---	---	32	30	31	32	30	31	28	25	26
31	---	---	---	31	29	30	---	---	---	30	27	28
MONTH	35	22	31	37	17	31	34	15	28	33	24	30

WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	31	28	29	33	32	33	36	35	35	38	37	37
2	31	28	29	34	33	33	36	35	36	40	37	37
3	31	29	29	34	34	34	36	35	35	38	37	38
4	31	29	29	35	34	34	36	34	35	39	35	36
5	33	29	30	35	34	35	36	35	35	36	35	35
6	31	29	30	35	34	34	36	35	35	36	35	35
7	35	30	31	35	33	34	36	35	35	36	35	35
8	36	32	34	35	34	34	36	34	35	36	35	35
9	35	32	35	35	34	34	35	35	35	36	35	35
10	36	33	35	35	35	35	36	35	35	36	35	35
11	34	33	33	35	35	35	36	35	36	36	35	35
12	---	---	---	36	35	35	36	35	36	36	35	35
13	---	---	---	37	36	36	37	35	36	36	35	35
14	32	31	31	36	36	36	35	34	35	36	35	35
15	32	31	31	36	36	36	36	35	35	36	35	35
16	32	31	32	37	36	36	36	35	35	36	35	35
17	32	31	31	37	35	36	36	35	35	36	35	35
18	31	25	27	36	34	35	36	35	35	36	35	35
19	30	27	28	34	33	34	36	34	35	36	35	35
20	31	29	30	34	34	34	36	34	35	36	35	35
21	32	30	32	35	34	34	36	35	35	36	35	35
22	32	31	32	35	35	35	36	35	35	36	35	36
23	33	32	32	36	35	35	36	35	36	36	35	36
24	34	32	33	36	35	36	36	35	36	37	36	36
25	34	33	33	35	35	35	36	34	35	37	36	36
26	34	33	34	36	35	35	36	34	35	37	36	36
27	34	33	33	36	35	36	36	34	35	37	36	36
28	34	33	33	36	35	36	36	35	35	37	36	36
29	33	29	31	36	35	36	37	36	36	37	36	36
30	32	29	31	36	35	35	37	36	37	38	36	37
31	---	---	---	36	35	35	38	36	37	---	---	---
MONTH	---	---	---	37	32	35	38	34	35	40	35	36

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.0	7.3	7.4	7.3	7.0	7.2	7.0	6.8	6.9	7.1	7.0	7.1
2	8.0	7.3	7.4	7.6	7.1	7.3	7.0	6.8	6.9	7.1	7.0	7.0
3	7.9	7.3	7.4	7.8	7.3	7.4	7.0	7.0	7.0	7.1	7.0	7.0
4	7.9	7.3	7.4	7.9	7.3	7.4	7.0	7.0	7.0	7.1	7.0	7.0
5	8.0	7.3	7.4	7.8	7.2	7.4	7.1	7.0	7.0	7.2	7.0	7.1
6	8.0	7.3	7.4	7.8	7.2	7.3	7.0	6.7	6.9	7.1	6.9	7.0
7	8.0	7.3	7.4	7.7	7.2	7.3	6.9	6.7	6.9	7.0	6.9	6.9
8	8.0	7.3	7.4	7.8	7.2	7.3	7.0	6.9	7.0	6.9	6.8	6.9
9	8.0	7.3	7.5	7.9	7.2	7.3	7.0	6.9	7.0	7.1	6.9	7.0
10	7.6	7.3	7.4	8.0	7.2	7.3	7.0	6.9	7.0	7.1	7.0	7.0
11	7.8	7.3	7.5	8.0	7.2	7.3	7.0	6.9	7.0	7.1	7.0	7.1
12	7.9	7.3	7.4	7.7	7.2	7.3	7.1	7.0	7.0	7.1	7.0	7.1
13	8.0	7.3	7.5	7.5	6.9	7.3	7.0	6.7	6.8	7.1	7.0	7.0
14	8.0	7.4	7.5	7.1	6.8	7.0	6.9	6.7	6.8	7.2	7.0	7.1
15	8.0	7.4	7.5	7.2	7.0	7.1	7.0	6.9	6.9	7.2	7.1	7.1
16	7.9	7.4	7.5	7.2	7.1	7.1	7.0	6.8	6.8	7.2	7.1	7.1
17	8.2	7.4	7.5	7.2	7.0	7.1	6.9	6.8	6.8	7.2	7.1	7.1
18	8.1	7.3	7.5	7.3	7.1	7.1	7.0	6.9	7.0	7.2	7.1	7.2
19	8.2	7.3	7.5	7.3	7.1	7.1	7.0	7.0	7.0	7.2	7.1	7.2
20	8.3	7.3	7.5	7.3	7.1	7.2	7.1	7.0	7.0	7.1	7.0	7.1
21	7.9	7.3	7.4	7.2	7.1	7.1	7.1	7.0	7.0	7.0	6.9	7.0
22	7.8	7.1	7.4	7.1	6.7	7.1	7.1	7.0	7.1	7.1	7.0	7.1
23	7.3	7.0	7.2	7.0	6.7	6.9	7.1	7.1	7.1	7.2	7.1	7.1
24	7.7	7.2	7.3	7.0	6.9	7.0	7.1	7.1	7.1	7.2	7.1	7.1
25	8.0	7.3	7.4	7.1	7.0	7.0	7.2	7.1	7.1	7.1	6.9	6.9
26	8.2	7.3	7.4	7.1	7.0	7.0	7.2	7.1	7.1	7.0	6.9	7.0
27	7.7	7.3	7.4	7.1	7.0	7.1	7.2	7.1	7.1	7.1	7.0	7.0
28	8.2	7.4	7.5	7.1	6.8	7.0	7.2	7.1	7.1	7.2	7.0	7.1
29	7.8	7.3	7.4	6.8	6.8	6.8	7.1	7.0	7.1	7.2	7.0	7.1
30	7.7	7.2	7.4	7.0	6.8	6.9	7.2	7.1	7.1	7.2	7.1	7.1
31	7.3	7.0	7.2	---	---	---	7.2	7.0	7.1	7.2	7.1	7.1
MAX	8.3	7.4	7.5	8.0	7.3	7.4	7.2	7.1	7.1	7.2	7.1	7.2
MIN	7.3	7.0	7.2	6.8	6.7	6.8	6.9	6.7	6.8	6.9	6.8	6.9

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.2	7.1	7.1	7.3	7.1	7.2	7.2	6.9	7.0	7.2	6.9	7.0
2	7.2	7.1	7.1	7.3	7.1	7.2	7.2	6.9	7.0	7.2	6.9	7.0
3	7.2	7.1	7.1	7.4	7.1	7.2	7.2	6.9	7.0	7.1	6.9	7.0
4	7.2	7.1	7.1	7.4	7.1	7.2	7.2	6.9	7.0	7.1	6.9	7.0
5	7.2	7.1	7.1	7.4	7.1	7.2	7.1	6.9	6.9	7.1	6.9	7.0
6	7.2	7.0	7.1	7.2	6.8	7.1	7.1	6.9	7.0	7.1	6.9	7.0
7	7.1	6.9	7.0	7.0	6.8	6.9	7.1	6.9	6.9	7.1	6.9	7.0
8	7.0	6.9	6.9	7.1	6.9	7.0	7.2	6.8	6.9	7.1	6.8	7.0
9	7.1	6.9	7.0	7.2	7.0	7.1	7.0	6.8	6.9	7.1	6.9	7.0
10	7.2	7.0	7.0	7.3	7.0	7.1	6.8	6.7	6.7	7.2	6.9	7.0
11	7.2	7.0	7.0	7.1	6.6	7.0	6.9	6.7	6.8	7.2	6.9	7.0
12	7.2	7.0	7.0	6.9	6.6	6.8	6.9	6.7	6.7	7.2	6.9	7.0
13	7.2	7.0	7.1	7.0	6.8	6.9	6.8	6.6	6.7	7.1	6.8	6.9
14	7.2	7.0	7.1	7.0	6.9	6.9	6.7	6.3	6.6	7.3	6.8	7.0
15	7.3	7.0	7.1	7.1	6.9	7.0	6.8	6.6	6.8	7.3	7.0	7.1
16	7.3	7.0	7.1	7.1	7.0	7.0	6.9	6.8	6.8	7.3	7.0	7.1
17	7.3	7.0	7.1	7.2	7.0	7.0	6.9	6.8	6.9	7.3	7.0	7.1
18	7.3	7.0	7.1	7.2	7.0	7.1	6.9	6.8	6.9	7.2	6.9	7.1
19	7.3	7.0	7.1	7.1	7.0	7.0	6.9	6.8	6.9	7.2	6.9	7.0
20	7.3	7.0	7.1	7.2	6.9	7.0	6.9	6.8	6.9	7.2	7.0	7.0
21	7.2	6.9	7.1	7.2	7.0	7.0	7.0	6.8	6.9	7.2	6.9	7.0
22	7.1	6.9	6.9	7.2	6.9	7.0	7.0	6.8	6.9	7.2	6.9	7.0
23	6.9	6.8	6.9	7.2	6.9	7.0	7.2	6.9	7.0	7.2	6.9	7.0
24	7.0	6.8	6.9	7.1	6.9	6.9	7.2	7.0	7.1	7.2	6.9	7.0
25	7.1	6.9	7.0	7.1	6.9	6.9	7.3	7.0	7.2	7.2	6.9	7.0
26	7.2	7.0	7.0	7.1	6.9	7.0	7.3	7.0	7.1	7.2	6.8	7.0
27	7.3	7.0	7.1	7.2	6.9	7.0	7.3	7.0	7.1	7.1	6.8	7.0
28	7.3	7.1	7.1	7.2	6.9	7.0	7.3	7.0	7.1	7.1	6.8	6.9
29	---	---	---	7.2	6.9	7.0	7.3	7.0	7.1	7.0	6.8	6.8
30	---	---	---	7.2	6.9	7.0	7.2	7.0	7.1	7.1	6.8	6.9
31	---	---	---	7.2	6.9	7.0	---	---	---	7.1	6.8	7.0
MAX	7.3	7.1	7.1	7.4	7.1	7.2	7.3	7.0	7.2	7.3	7.0	7.1
MIN	6.9	6.8	6.9	6.9	6.6	6.8	6.7	6.3	6.6	7.0	6.8	6.8
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.1	6.8	7.0	7.4	7.0	7.2	7.5	7.1	7.2	7.7	7.1	7.3
2	7.1	6.9	7.0	7.4	7.0	7.2	7.5	7.1	7.2	7.6	7.1	7.2
3	7.2	6.8	7.0	7.4	7.1	7.2	7.5	7.1	7.2	7.7	7.2	7.3
4	7.1	6.9	7.0	7.4	7.1	7.2	7.5	7.1	7.2	7.7	7.1	7.2
5	7.1	6.8	7.0	7.4	7.1	7.2	7.7	7.0	7.3	7.6	7.1	7.2
6	7.1	6.9	7.0	7.5	7.0	7.2	7.7	7.2	7.3	7.7	7.1	7.2
7	7.1	6.9	7.0	7.4	7.0	7.2	7.7	7.2	7.3	7.7	7.1	7.2
8	7.1	6.9	7.0	7.4	7.1	7.2	7.7	7.2	7.3	7.8	7.1	7.2
9	7.2	6.9	7.1	7.4	7.0	7.2	7.7	7.1	7.3	7.7	7.1	7.2
10	7.2	6.9	7.1	7.4	7.0	7.1	7.6	7.1	7.3	7.8	7.1	7.2
11	---	6.9	---	7.4	7.0	7.2	7.6	7.1	7.3	7.8	7.0	7.2
12	---	---	---	7.4	7.0	7.2	7.6	7.1	7.3	7.8	7.0	7.2
13	---	---	---	7.4	7.0	7.2	7.6	7.1	7.2	7.9	7.0	7.2
14	7.4	---	---	7.4	7.1	7.2	7.6	7.1	7.2	8.0	7.0	7.2
15	7.4	7.1	7.2	7.4	7.0	7.2	7.6	7.1	7.2	7.8	7.0	7.2
16	7.4	7.1	7.2	7.4	7.0	7.1	7.6	7.1	7.2	7.8	7.0	7.2
17	7.3	7.1	7.2	7.4	7.0	7.2	7.6	7.1	7.2	8.1	7.0	7.2
18	7.1	7.0	7.1	7.5	7.0	7.2	7.6	7.1	7.2	8.1	7.1	7.3
19	7.3	7.0	7.1	7.5	7.1	7.2	7.6	7.1	7.2	8.1	7.1	7.2
20	7.3	7.0	7.2	7.5	7.0	7.2	7.5	7.1	7.2	8.1	7.1	7.2
21	7.4	7.0	7.2	7.5	7.0	7.1	7.6	7.0	7.2	8.1	7.1	7.2
22	7.4	7.1	7.2	7.7	7.0	7.3	7.6	7.0	7.2	8.1	7.1	7.2
23	7.4	7.1	7.2	7.7	7.2	7.4	7.6	7.0	7.2	8.1	7.1	7.2
24	7.4	7.0	7.2	7.7	7.1	7.3	7.5	7.0	7.2	8.1	7.1	7.2
25	7.4	7.1	7.2	7.7	7.2	7.3	7.5	7.0	7.1	8.1	7.1	7.2
26	7.4	7.0	7.2	7.7	7.1	7.3	7.5	7.0	7.1	8.1	7.1	7.2
27	7.4	7.1	7.2	7.7	7.1	7.3	7.7	7.0	7.2	8.1	7.1	7.2
28	7.4	7.1	7.2	7.6	7.1	7.2	7.7	7.1	7.3	8.1	7.1	7.2
29	7.3	7.0	7.2	7.6	7.1	7.2	7.7	7.1	7.3	7.9	7.1	7.2
30	7.4	7.0	7.2	7.6	7.0	7.2	7.7	7.2	7.3	7.9	7.1	7.2
31	---	---	---	7.6	7.1	7.3	7.7	7.1	7.3	---	---	---
MAX	---	---	---	7.7	7.2	7.4	7.7	7.2	7.3	8.1	7.2	7.3
MIN	---	---	---	7.4	7.0	7.1	7.5	7.0	7.1	7.6	7.0	7.2

WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	18.0	14.6	16.4	10.1	9.5	9.8	7.4	7.1	7.3	6.5	5.7	6.1
2	17.6	14.5	16.1	11.2	10.1	10.6	7.6	6.9	7.2	6.9	6.3	6.6
3	17.1	13.8	15.5	10.9	9.6	10.3	7.6	7.0	7.2	6.3	5.8	6.0
4	17.1	13.9	15.5	11.0	10.4	10.7	7.0	6.0	6.5	5.8	5.3	5.6
5	16.7	14.0	15.4	11.0	9.8	10.5	6.7	5.9	6.3	6.5	5.7	6.0
6	16.5	14.8	15.4	10.1	9.0	9.5	6.7	6.3	6.6	7.2	6.5	6.8
7	15.3	13.5	14.5	9.4	8.0	8.7	7.0	6.7	6.8	7.4	7.2	7.3
8	15.6	14.3	14.9	9.4	7.9	8.6	7.1	6.4	6.7	7.2	6.7	6.9
9	15.5	13.4	14.4	9.7	8.2	8.9	6.9	6.4	6.6	6.7	6.0	6.2
10	14.2	12.9	13.4	10.6	9.1	9.7	6.4	5.6	5.9	6.5	5.7	6.1
11	14.0	13.0	13.5	11.1	9.7	10.3	6.3	5.7	6.0	6.3	6.0	6.2
12	14.2	12.7	13.4	10.8	10.2	10.5	6.6	6.1	6.3	6.7	6.0	6.4
13	15.4	13.8	14.4	10.7	9.4	10.4	7.0	6.5	6.7	6.0	5.3	5.5
14	15.4	13.8	14.4	10.5	9.4	10.0	6.5	5.6	5.9	5.5	5.1	5.3
15	15.2	12.6	14.0	10.3	10.0	10.1	6.2	5.6	5.9	5.3	4.8	5.0
16	14.8	13.2	14.0	10.0	9.5	9.8	7.0	6.2	6.6	4.8	4.3	4.5
17	14.5	12.8	13.5	9.5	8.4	9.2	7.0	6.2	6.4	5.0	4.4	4.7
18	13.8	11.5	12.7	8.8	7.9	8.4	6.5	6.1	6.3	5.2	4.9	5.0
19	14.3	11.6	13.0	9.9	8.7	9.3	6.5	6.1	6.3	5.1	4.9	5.0
20	13.7	12.6	13.1	9.8	9.3	9.5	6.5	6.0	6.3	5.0	4.5	4.8
21	13.0	12.3	12.6	9.3	8.9	9.0	6.0	5.6	5.7	5.2	4.8	5.0
22	13.0	10.2	12.6	8.9	8.0	8.5	6.0	5.4	5.7	4.9	4.0	4.5
23	10.3	9.7	10.1	8.3	7.8	8.0	5.8	5.3	5.5	5.1	4.6	4.9
24	10.6	9.1	9.9	8.1	7.7	7.9	5.4	4.9	5.1	5.3	5.0	5.1
25	12.2	10.5	11.2	7.7	7.0	7.5	5.4	5.0	5.1	5.3	4.7	5.1
26	12.3	10.6	11.4	7.4	6.8	7.0	5.4	4.9	5.2	5.3	4.8	5.1
27	11.6	10.9	11.1	7.1	6.4	6.8	5.8	5.4	5.5	5.0	4.4	4.7
28	11.2	10.1	10.7	7.3	6.7	7.1	6.2	5.6	5.9	5.1	4.6	4.8
29	11.2	10.6	11.0	7.2	6.9	7.1	5.6	5.2	5.4	4.7	4.0	4.4
30	11.4	10.3	11.0	7.3	7.1	7.2	5.9	5.3	5.6	4.9	4.3	4.6
31	10.3	9.5	10.0	---	---	---	6.5	5.8	6.1	5.0	4.6	4.8
MONTH	18.0	9.1	13.2	11.2	6.4	9.0	7.6	4.9	6.1	7.4	4.0	5.5
	FEBRUARY			MARCH			APRIL			MAY		
1	5.6	4.6	5.0	5.7	3.6	4.6	8.7	5.4	7.0	8.7	6.9	7.6
2	5.5	4.5	5.0	5.9	3.4	4.6	8.7	5.4	7.1	7.9	7.1	7.5
3	6.0	5.0	5.4	6.3	3.6	4.9	8.9	5.6	7.3	8.9	6.8	7.7
4	5.2	4.1	4.7	6.3	4.0	5.2	9.2	5.8	7.5	8.6	5.9	7.3
5	5.1	4.2	4.7	5.6	5.1	5.3	7.7	6.4	6.7	7.6	6.7	7.1
6	5.4	4.6	5.0	5.5	5.0	5.4	7.2	6.2	6.6	6.9	6.2	6.5
7	5.4	4.8	5.2	5.0	4.3	4.7	6.6	6.1	6.3	7.2	5.8	6.4
8	5.9	4.6	5.2	4.8	3.8	4.4	8.4	5.4	6.8	8.8	5.3	7.0
9	5.9	4.7	5.3	5.4	4.0	4.7	7.5	6.2	6.7	7.6	6.5	7.0
10	6.3	4.9	5.6	6.0	5.0	5.5	6.4	5.9	6.1	9.2	6.1	7.4
11	6.1	5.1	5.6	6.3	5.3	6.0	6.8	6.0	6.4	10.5	6.5	8.3
12	5.8	4.2	5.0	5.6	5.0	5.2	7.5	6.1	6.7	11.1	7.3	9.0
13	5.6	4.2	4.9	5.1	4.7	4.9	6.9	6.4	6.6	9.2	7.1	8.0
14	5.6	3.8	4.7	5.6	4.6	5.1	7.3	5.2	5.9	9.5	6.7	7.9
15	5.9	4.1	5.0	5.7	4.7	5.2	5.7	5.3	5.5	9.9	6.7	8.2
16	6.5	4.7	5.5	5.3	4.1	4.7	5.8	5.3	5.6	9.5	6.8	8.2
17	5.8	4.4	5.2	5.2	4.0	4.5	6.4	5.5	5.9	10.5	7.7	8.9
18	6.5	5.3	5.9	5.1	4.2	4.7	6.8	5.7	6.2	8.9	7.9	8.3
19	6.4	5.8	6.0	5.3	4.5	4.9	7.3	5.8	6.4	8.0	7.4	7.7
20	6.6	5.1	5.9	7.1	4.8	5.9	8.0	6.3	7.1	8.5	7.1	7.7
21	6.7	6.0	6.3	7.0	5.2	6.1	8.3	5.9	7.0	8.2	6.9	7.5
22	7.0	5.6	6.2	6.8	4.8	5.9	9.7	6.4	7.9	8.2	7.1	7.7
23	6.2	5.8	6.0	7.5	5.7	6.6	9.4	6.0	7.7	10.3	6.6	8.3
24	5.8	5.0	5.5	6.9	5.9	6.4	9.9	5.4	7.7	10.2	7.5	8.7
25	6.0	4.3	5.1	7.9	5.0	6.4	10.0	6.4	8.3	10.1	8.0	8.9
26	6.0	4.3	5.1	7.4	5.2	6.4	8.5	6.4	7.3	11.0	8.2	9.4
27	5.8	3.8	4.9	7.9	5.8	6.8	8.9	6.2	7.3	9.4	8.2	8.7
28	6.1	4.3	5.1	7.2	5.8	6.4	9.9	5.4	7.6	8.8	7.9	8.4
29	---	---	---	8.3	5.7	6.9	10.6	6.1	8.4	8.8	8.2	8.5
30	---	---	---	8.3	5.0	6.7	9.1	7.0	8.0	10.9	7.7	9.1
31	---	---	---	8.5	5.3	6.9	---	---	---	10.4	8.2	9.3
MONTH	7.0	3.8	5.3	8.5	3.4	5.5	10.6	5.2	6.9	11.1	5.3	8.0

WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10.6	8.7	9.6	14.2	9.4	11.6	15.7	10.1	13.0	15.9	11.2	13.6
2	11.1	8.5	9.7	14.8	9.5	12.0	15.2	10.0	12.7	16.1	11.2	13.8
3	10.7	8.5	9.5	12.9	9.9	11.4	15.2	9.7	12.5	15.3	12.0	13.7
4	11.5	8.9	10.0	13.6	10.0	11.6	13.3	10.6	11.9	14.2	10.2	12.3
5	11.5	9.4	10.2	15.0	9.4	12.0	13.1	10.1	11.7	13.8	10.0	11.8
6	11.1	8.7	9.9	15.6	10.0	12.7	13.6	10.2	11.8	13.7	10.1	11.8
7	10.2	8.0	9.0	13.0	10.7	11.6	15.2	9.5	12.3	13.3	10.5	11.8
8	9.6	7.9	8.6	14.9	10.2	12.2	15.4	9.8	12.7	13.1	10.1	11.5
9	10.8	8.1	9.0	16.4	9.9	13.0	16.2	10.2	13.2	14.1	10.1	11.9
10	12.9	7.8	10.0	16.8	10.6	13.6	16.1	10.6	13.5	14.5	10.6	12.4
11	---	8.7	---	16.7	10.9	13.7	15.9	10.1	13.1	14.9	10.9	12.7
12	---	---	---	16.0	10.9	13.5	16.4	10.5	13.4	15.0	11.2	12.9
13	---	---	---	15.3	11.1	13.1	17.1	10.8	14.0	14.9	11.2	12.8
14	13.6	---	---	15.7	10.6	13.1	16.9	11.3	14.2	13.7	11.3	12.4
15	12.7	10.0	11.1	16.0	10.1	13.0	16.4	11.0	13.9	12.7	11.5	12.0
16	11.1	9.8	10.4	16.4	10.4	13.3	16.1	10.6	13.5	12.5	11.6	12.0
17	9.9	9.3	9.5	16.5	10.8	13.7	16.1	11.1	13.7	12.8	11.6	12.1
18	9.8	9.0	9.6	16.0	10.7	13.3	15.6	10.5	13.2	14.3	11.2	12.6
19	12.4	8.5	10.2	14.9	11.3	13.1	15.0	10.7	13.1	14.6	11.1	12.7
20	12.6	9.1	10.7	16.5	10.5	13.4	13.7	11.1	12.4	14.4	11.5	12.7
21	13.3	10.0	11.3	16.9	10.7	13.8	13.6	10.3	11.9	14.4	11.1	12.6
22	11.2	10.0	10.7	16.6	11.2	14.0	15.6	10.1	12.9	14.3	11.3	12.6
23	13.3	9.7	11.2	16.6	11.4	14.0	16.0	10.8	13.5	14.7	11.6	13.0
24	14.1	9.9	11.7	16.7	11.1	13.9	16.1	11.1	13.7	14.6	11.5	12.9
25	14.5	10.0	11.9	16.5	11.2	13.8	14.3	11.3	12.8	14.7	11.5	12.9
26	14.0	10.3	11.9	15.4	11.6	13.4	15.4	11.4	13.2	14.1	11.7	12.8
27	12.2	10.3	11.1	15.8	10.6	13.3	16.1	10.9	13.5	14.7	12.1	13.2
28	10.9	10.0	10.4	16.7	10.7	13.7	16.7	11.5	14.1	14.6	11.9	13.1
29	12.3	10.2	11.2	16.6	10.9	13.9	16.0	11.7	14.0	13.4	12.1	12.7
30	12.1	9.9	10.9	16.7	10.8	13.7	15.3	10.9	13.3	13.5	12.2	12.6
31	---	---	---	15.6	10.3	13.1	15.7	10.8	13.3	---	---	---
MONTH	---	---	---	16.9	9.4	13.1	17.1	9.5	13.1	16.1	10.0	12.6

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	2	<1	<1	6	2	3	11	5	8	5	3	4
2	3	<1	<1	4	1	2	12	5	6	6	3	4
3	2	<1	<1	3	1	1	7	5	6	9	3	3
4	2	<1	<1	2	<1	1	6	4	5	3	2	3
5	2	<1	<1	3	<1	1	8	4	5	3	3	3
6	2	<1	<1	2	<1	1	35	4	16	10	3	5
7	3	<1	<1	3	<1	1	33	6	9	12	5	7
8	3	<1	<1	3	<1	1	6	4	4	36	6	13
9	2	<1	<1	2	<1	1	4	3	3	8	3	5
10	5	<1	1	2	<1	1	5	3	3	4	3	3
11	6	1	2	2	<1	1	4	2	3	6	3	3
12	2	<1	1	6	<1	1	6	2	2	10	3	4
13	2	<1	1	36	1	2	170	4	32	5	2	3
14	3	<1	1	70	4	13	230	16	44	4	3	3
15	3	<1	1	5	3	4	17	7	8	5	3	4
16	2	<1	1	6	2	3	55	7	26	5	4	4
17	2	<1	1	4	2	3	30	8	16	5	4	4
18	3	<1	<1	3	1	2	9	6	7	5	4	4
19	2	<1	<1	6	1	2	8	4	6	6	4	5
20	3	<1	<1	5	2	2	8	5	5	36	4	5
21	3	<1	1	8	2	3	7	5	6	41	6	9
22	60	<1	2	111	2	7	9	6	7	7	4	5
23	47	2	4	70	7	15	8	5	5	4	3	4
24	4	1	2	8	4	5	7	5	5	5	3	4
25	2	<1	1	4	3	3	7	5	6	22	5	10
26	2	<1	1	5	3	3	7	5	6	8	4	5
27	3	<1	1	4	2	3	8	5	6	6	3	3
28	3	<1	1	29	2	4	6	4	5	3	2	3
29	2	<1	1	34	8	18	5	4	4	3	2	3
30	9	1	2	8	5	6	5	4	4	4	2	3
31	14	3	5	---	---	---	7	4	4	5	2	3
MAX	60	3	5	111	8	18	230	16	44	41	6	13
MIN	2	<1	<1	2	<1	1	4	2	2	3	2	3

WILLAMETTE RIVER BASIN

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	4	3	3	2	1	2	2	<1	<1	3	2	2
2	4	2	3	2	1	2	2	<1	<1	3	2	2
3	5	2	3	2	1	2	3	<1	<1	3	2	2
4	3	2	2	2	1	2	2	<1	<1	4	2	2
5	4	2	2	3	1	2	2	<1	1	2	2	2
6	7	2	2	23	2	7	2	<1	1	2	2	2
7	14	3	6	8	3	4	3	<1	1	2	1	2
8	11	3	5	4	2	2	2	<1	<1	3	2	2
9	4	2	3	3	2	2	10	<1	2	4	2	2
10	3	2	2	3	2	2	26	5	10	3	2	2
11	3	2	2	63	2	4	8	4	5	2	1	2
12	3	2	2	66	6	17	6	3	3	3	1	2
13	3	2	2	6	3	3	13	2	5	2	1	2
14	2	2	2	6	2	2	296	13	84	3	1	1
15	3	2	2	5	1	2	31	10	13	2	1	1
16	2	2	2	2	1	2	15	6	8	2	1	2
17	3	2	2	2	1	1	8	4	6	4	1	1
18	2	2	2	3	1	1	7	4	5	2	1	1
19	2	2	2	4	2	3	10	3	4	3	<1	1
20	3	1	2	7	2	2	8	2	3	2	<1	1
21	6	1	3	3	1	2	4	2	3	3	<1	1
22	7	2	3	2	1	1	6	2	3	2	<1	1
23	18	3	8	3	<1	1	3	2	3	2	<1	1
24	9	3	4	4	1	2	5	2	3	2	<1	1
25	4	2	2	2	<1	1	4	2	3	2	<1	<1
26	4	2	2	2	<1	1	4	2	2	2	<1	1
27	4	1	2	2	<1	1	4	2	3	2	<1	1
28	2	1	2	2	<1	1	4	2	2	3	1	1
29	---	---	---	1	<1	<1	3	2	2	11	2	5
30	---	---	---	2	<1	1	3	2	2	4	1	2
31	---	---	---	2	<1	1	---	---	---	4	1	2
MAX	18	3	8	66	6	17	296	13	84	11	2	5
MIN	2	1	2	1	<1	<1	2	<1	<1	2	<1	<1
	JUNE			JULY			AUGUST			SEPTEMBER		
1	5	1	1	2	<1	<1	3	<1	<1	1	<1	<1
2	2	<1	1	1	<1	<1	1	<1	<1	1	<1	<1
3	2	<1	1	<1	<1	<1	2	<1	<1	2	<1	<1
4	2	<1	<1	2	<1	<1	2	<1	<1	3	<1	1
5	2	<1	<1	3	<1	<1	2	<1	<1	5	<1	1
6	1	<1	<1	1	<1	<1	1	<1	<1	2	<1	<1
7	2	<1	<1	2	<1	<1	2	<1	<1	2	<1	<1
8	1	<1	<1	1	<1	<1	1	<1	<1	3	<1	<1
9	2	<1	<1	1	<1	<1	2	<1	<1	2	<1	<1
10	1	<1	<1	1	<1	<1	2	<1	<1	2	<1	<1
11	---	---	---	2	<1	<1	2	<1	<1	4	<1	<1
12	---	---	---	3	<1	<1	2	<1	<1	2	<1	<1
13	---	---	---	1	<1	<1	4	<1	<1	2	<1	<1
14	---	<1	---	2	<1	<1	2	<1	<1	1	<1	<1
15	3	<1	<1	2	<1	<1	1	<1	<1	1	<1	<1
16	2	<1	<1	<1	<1	<1	2	<1	<1	2	<1	<1
17	2	<1	<1	2	<1	<1	4	<1	<1	1	<1	<1
18	6	1	2	2	<1	<1	2	<1	<1	2	<1	<1
19	2	<1	<1	<1	<1	<1	1	<1	<1	2	<1	<1
20	3	<1	<1	1	<1	<1	1	<1	<1	2	<1	<1
21	2	<1	<1	4	<1	<1	1	<1	<1	3	<1	<1
22	2	<1	<1	2	<1	<1	2	<1	<1	2	<1	<1
23	4	<1	<1	2	<1	<1	2	<1	<1	2	<1	<1
24	1	<1	<1	2	<1	<1	2	<1	<1	3	<1	<1
25	1	<1	<1	3	<1	<1	3	<1	<1	2	<1	<1
26	2	<1	<1	1	<1	<1	2	<1	<1	4	<1	<1
27	1	<1	<1	2	<1	<1	1	<1	<1	2	<1	<1
28	2	<1	<1	2	<1	<1	2	<1	<1	2	<1	<1
29	4	<1	1	2	<1	<1	5	<1	<1	1	<1	<1
30	1	<1	<1	2	<1	<1	2	<1	<1	4	<1	<1
31	---	---	---	2	<1	<1	2	<1	<1	---	---	---
MAX	---	---	---	4	<1	<1	5	<1	<1	5	<1	1
MIN	---	---	---	<1	<1	<1	1	<1	<1	1	<1	<1

444728122450000--NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, NEAR STAYTON, OR

LOCATION.--Lat 44°47'28", long 122°45'00", Marion County, Hydrologic Unit 17090005, at the water treatment plant water intake, on Geren Island which is located approximately 5 mi east of Stayton and at mile 30.5.

DRAINAGE AREA.--667.01 mi².

PERIOD OF DAILY RECORD.--
 SPECIFIC CONDUCTANCE: March 2001 to current year.
 pH: March 2001 to current year.
 WATER TEMPERATURE: March 2001 to current year.
 TURBIDITY: March 2001 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Records for the period March to September 2001, may be found in the files of the Portland field office.
 SPECIFIC CONDUCTANCE: Record excellent.
 pH: Record excellent.
 WATER TEMPERATURE: Record excellent.
 TURBIDITY: Record good.

EXTREMES FOR PERIOD OF RECORD.--
 SPECIFIC CONDUCTANCE: Maximum, 51 microsiemens Sept, 21, 2001; minimum, 21 microsiemens Mar. 12, 2002.
 pH: Maximum, 8.7 units Sept. 17-28, 2002; minimum, 7.1 units Dec. 14, Mar. 12, Apr. 14, 2002.
 WATER TEMPERATURE: Maximum, 20.4°C Aug. 7, 10, 13, 2001; minimum, 3.4° Mar. 2, 2002.
 TURBIDITY: Maximum, 135 NTU Apr.14, 2002; minimum, <1 NTU many days most years.

EXTREMES FOR CURRENT YEAR.--
 SPECIFIC CONDUCTANCE: Maximum, 50 microsiemens Oct. 20-22; minimum, 21 microsiemens Mar. 12.
 pH: Maximum, 8.7 units Sept. 17-28; minimum, 7.1 units Dec. 14, Mar. 12, Apr. 14.
 WATER TEMPERATURE: Maximum, 18.0°C Oct. 1; minimum, 3.4°C Mar. 2.
 TURBIDITY: Maximum, 135 NTU Apr. 14; minimum, <1 NTU on many days.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	48	47	48	38	30	35	36	33	35	33	32	33
2	48	48	48	36	34	34	36	33	35	33	30	31
3	48	48	48	40	36	37	37	36	37	31	29	30
4	48	48	48	41	40	40	37	37	37	32	31	31
5	48	48	48	41	41	41	38	37	38	33	32	33
6	48	48	48	42	41	42	38	31	35	33	29	31
7	49	48	48	43	42	43	35	31	33	---	---	---
8	49	48	48	44	43	44	36	35	36	---	---	---
9	49	48	48	45	44	44	37	36	36	---	---	---
10	49	47	48	45	44	45	37	36	36	---	---	---
11	48	47	48	46	45	45	36	35	36	---	---	---
12	48	47	48	46	45	45	36	36	36	---	---	---
13	48	47	48	45	41	45	36	24	30	---	---	---
14	49	48	48	41	27	30	33	23	27	---	---	---
15	49	48	48	39	33	36	34	33	33	---	---	---
16	49	48	48	39	37	38	34	27	30	---	---	---
17	49	48	49	39	38	38	32	27	29	---	---	---
18	49	48	49	41	39	40	33	32	33	---	---	---
19	49	49	49	41	41	41	34	33	33	---	---	---
20	50	49	49	41	40	41	34	33	34	---	---	---
21	50	49	49	41	40	41	35	34	34	---	---	---
22	50	48	49	41	28	36	35	35	35	---	---	---
23	48	33	35	35	28	32	35	35	35	---	---	---
24	39	34	36	38	35	36	35	34	35	---	---	---
25	42	39	40	39	38	39	34	34	34	---	---	---
26	44	42	43	39	39	39	35	34	34	---	---	---
27	44	43	44	40	39	39	35	34	34	---	---	---
28	45	44	44	40	30	37	34	34	34	---	---	---
29	46	45	45	33	29	31	34	33	34	---	---	---
30	45	36	43	36	33	35	34	33	34	---	---	---
31	36	30	32	---	---	---	34	33	33	---	---	---
MONTH	50	30	46	46	27	39	38	23	34	---	---	---

WILLAMETTE RIVER BASIN

444728122450000 NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	35	35	35	34	34	34	33	32	33	33	33	33
2	36	35	35	34	33	34	33	31	32	33	33	33
3	35	35	35	35	34	34	32	31	31	33	31	32
4	35	34	35	35	34	35	31	30	31	33	33	33
5	35	34	34	35	34	35	31	29	30	33	33	33
6	35	34	34	34	26	31	31	30	31	33	33	33
7	34	31	32	29	26	28	32	31	32	33	32	33
8	32	31	31	31	29	31	33	32	33	33	33	33
9	33	32	32	32	31	32	34	31	33	33	33	33
10	33	32	33	33	32	33	31	28	29	33	33	33
11	33	33	33	33	23	30	32	29	31	36	33	33
12	34	33	33	27	21	24	32	31	32	34	33	33
13	34	34	34	28	27	27	32	30	31	34	32	33
14	35	34	35	30	28	29	30	22	25	32	32	32
15	35	35	35	32	30	31	34	29	33	33	32	32
16	35	34	35	33	32	33	34	33	33	33	32	33
17	35	34	34	34	33	34	33	33	33	33	32	33
18	34	34	34	35	34	34	34	33	34	33	32	32
19	34	32	33	35	33	34	34	34	34	32	32	32
20	32	31	31	34	33	33	34	33	34	33	32	32
21	32	27	30	34	33	33	34	33	33	33	32	33
22	27	27	27	34	33	33	34	33	33	33	32	32
23	27	25	26	34	33	33	33	33	33	34	32	32
24	27	25	26	33	31	32	33	33	33	33	32	33
25	29	27	28	32	31	31	33	33	33	33	32	33
26	31	29	30	32	31	32	33	32	33	33	31	32
27	33	31	32	33	32	32	33	32	33	32	32	32
28	34	33	33	32	32	32	34	33	33	32	30	31
29	---	---	---	33	32	32	33	33	33	30	28	29
30	---	---	---	34	33	33	33	32	33	32	29	30
31	---	---	---	34	32	33	---	---	---	32	30	31
MONTH	36	25	32	35	21	32	34	22	32	36	28	32
	JUNE			JULY			AUGUST			SEPTEMBER		
1	32	31	31	34	33	33	35	34	35	34	34	34
2	32	31	32	34	33	34	35	34	35	34	34	34
3	32	32	32	34	34	34	36	35	35	34	34	34
4	32	31	32	34	34	34	35	35	35	34	33	34
5	32	31	32	35	34	34	35	35	35	34	33	33
6	32	31	31	35	34	35	35	35	35	34	33	33
7	34	32	32	35	34	35	35	35	35	34	32	33
8	32	32	32	35	34	35	35	35	35	---	---	---
9	33	32	32	35	34	34	35	35	35	---	---	---
10	33	33	33	34	34	34	35	35	35	---	---	---
11	34	33	33	34	34	34	35	35	35	---	---	---
12	34	33	33	36	34	34	35	35	35	---	---	---
13	34	32	33	34	34	34	36	35	35	---	---	---
14	33	32	32	34	34	34	36	35	35	---	---	---
15	33	32	33	35	34	34	36	35	35	---	---	---
16	34	33	33	34	34	34	36	35	35	---	---	---
17	34	33	33	34	34	34	36	35	35	---	---	---
18	33	30	32	35	34	34	36	35	35	36	35	35
19	33	31	32	35	34	34	36	35	35	36	35	35
20	34	33	33	35	34	34	36	35	35	36	35	35
21	33	33	33	34	34	34	37	35	35	36	35	35
22	34	33	33	35	34	34	36	35	35	36	35	35
23	34	33	34	35	34	34	36	35	35	36	35	35
24	34	34	34	35	34	34	36	35	35	36	35	36
25	34	34	34	34	34	34	36	35	35	36	35	36
26	35	34	34	34	34	34	36	35	35	36	35	36
27	35	34	34	34	34	34	35	35	35	36	34	35
28	35	34	34	34	34	34	36	35	35	36	35	35
29	34	31	33	35	34	34	35	35	35	36	34	35
30	33	31	32	35	34	35	35	35	35	36	35	35
31	---	---	---	35	34	34	35	34	34	---	---	---
MONTH	35	30	33	36	33	34	37	34	35	---	---	---

WILLAMETTE RIVER BASIN

444728122450000 NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.2	7.5	7.6	7.6	7.3	7.4	7.4	7.3	7.3	7.4	7.3	7.4
2	8.2	7.5	7.6	7.7	7.3	7.4	7.4	7.3	7.3	7.5	7.3	7.3
3	8.2	7.5	7.6	7.9	7.3	7.4	7.4	7.3	7.4	7.4	7.3	7.3
4	8.2	7.5	7.7	8.0	7.4	7.5	7.4	7.3	7.4	7.4	7.3	7.3
5	8.3	7.5	7.7	8.1	7.4	7.5	7.4	7.3	7.4	7.5	7.3	7.4
6	8.4	7.5	7.7	8.0	7.5	7.5	7.4	7.2	7.3	7.4	7.3	7.3
7	8.4	7.5	7.7	7.9	7.5	7.5	7.3	7.2	7.3	---	---	---
8	8.3	7.5	7.7	8.0	7.5	7.5	7.4	7.3	7.3	---	---	---
9	8.4	7.5	7.7	8.1	7.5	7.5	7.4	7.3	7.3	---	---	---
10	7.9	7.5	7.6	8.2	7.5	7.6	7.4	7.3	7.3	---	---	---
11	8.2	7.5	7.6	8.3	7.5	7.6	7.4	7.3	7.3	---	---	---
12	8.3	7.5	7.6	8.0	7.5	7.5	7.4	7.3	7.4	---	---	---
13	8.4	7.5	7.7	7.9	7.5	7.5	7.4	7.2	7.3	---	---	---
14	8.4	7.5	7.6	7.5	7.2	7.3	7.3	7.1	7.2	---	---	---
15	8.4	7.5	7.7	7.5	7.3	7.4	7.3	7.3	7.3	---	---	---
16	8.2	7.5	7.6	7.6	7.4	7.4	7.3	7.2	7.3	---	---	---
17	8.4	7.5	7.7	7.7	7.4	7.4	7.3	7.2	7.2	---	---	---
18	8.4	7.5	7.7	7.7	7.4	7.5	7.4	7.3	7.3	---	---	---
19	8.4	7.5	7.7	7.7	7.4	7.5	7.4	7.3	7.3	---	---	---
20	8.6	7.5	7.7	7.6	7.5	7.5	7.4	7.3	7.4	---	---	---
21	8.2	7.5	7.6	7.6	7.5	7.5	7.4	7.3	7.4	---	---	---
22	8.1	7.5	7.6	7.5	7.2	7.5	7.4	7.4	7.4	---	---	---
23	7.7	7.3	7.4	7.3	7.2	7.3	7.4	7.4	7.4	---	---	---
24	7.9	7.3	7.5	7.5	7.3	7.4	7.4	7.3	7.4	---	---	---
25	8.1	7.4	7.5	7.5	7.4	7.4	7.5	7.3	7.4	---	---	---
26	8.3	7.4	7.6	7.6	7.4	7.4	7.5	7.3	7.4	---	---	---
27	7.8	7.4	7.5	7.6	7.4	7.5	7.5	7.4	7.4	---	---	---
28	8.3	7.5	7.6	7.5	7.3	7.5	7.5	7.4	7.4	---	---	---
29	8.0	7.5	7.5	7.3	7.2	7.3	7.5	7.3	7.4	---	---	---
30	7.9	7.4	7.5	7.4	7.3	7.3	7.5	7.3	7.4	---	---	---
31	7.6	7.3	7.4	---	---	---	7.5	7.3	7.4	---	---	---
MAX	8.6	7.5	7.7	8.3	7.5	7.6	7.5	7.4	7.4	---	---	---
MIN	7.6	7.3	7.4	7.3	7.2	7.3	7.3	7.1	7.2	---	---	---

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.5	7.3	7.4	7.8	7.3	7.4	7.7	7.2	7.3	7.7	7.3	7.4
2	7.5	7.3	7.4	7.8	7.3	7.4	7.7	7.2	7.3	7.6	7.3	7.4
3	7.6	7.3	7.4	7.8	7.3	7.4	7.7	7.2	7.3	7.7	7.3	7.5
4	7.6	7.3	7.4	7.9	7.4	7.5	7.7	7.2	7.3	7.7	7.3	7.5
5	7.6	7.3	7.4	7.8	7.3	7.4	7.5	7.2	7.3	7.7	7.3	7.4
6	7.5	7.3	7.4	7.5	7.2	7.4	7.6	7.2	7.4	7.6	7.3	7.4
7	7.4	7.2	7.3	7.5	7.2	7.3	7.6	7.3	7.4	7.7	7.3	7.5
8	7.4	7.2	7.2	7.6	7.3	7.4	7.7	7.3	7.4	7.8	7.3	7.5
9	7.5	7.2	7.3	7.7	7.3	7.4	7.6	7.3	7.4	7.7	7.3	7.4
10	7.5	7.2	7.3	7.7	7.3	7.4	7.4	7.2	7.3	7.8	7.3	7.5
11	7.6	7.2	7.3	7.6	7.2	7.4	7.5	7.2	7.4	7.9	7.3	7.5
12	7.6	7.2	7.3	7.3	7.1	7.2	7.5	7.3	7.4	7.9	7.3	7.5
13	7.6	7.2	7.3	7.5	7.2	7.3	7.4	7.3	7.3	7.7	7.3	7.4
14	7.6	7.3	7.3	7.5	7.2	7.3	7.3	7.1	7.2	7.9	7.3	7.5
15	7.6	7.3	7.3	7.5	7.2	7.3	7.4	7.2	7.4	7.9	7.3	7.5
16	7.7	7.3	7.3	7.5	7.3	7.4	7.4	7.3	7.4	7.8	7.3	7.5
17	7.7	7.3	7.3	7.6	7.3	7.4	7.4	7.3	7.4	7.9	7.3	7.5
18	7.8	7.3	7.3	7.6	7.3	7.4	7.4	7.3	7.4	7.8	7.3	7.5
19	7.8	7.3	7.3	7.5	7.3	7.3	7.4	7.3	7.4	7.7	7.3	7.5
20	7.8	7.3	7.4	7.6	7.3	7.4	7.4	7.3	7.4	7.8	7.3	7.5
21	7.8	7.2	7.3	7.6	7.3	7.4	7.4	7.3	7.3	7.8	7.3	7.5
22	7.7	7.2	7.3	7.6	7.3	7.4	7.5	7.3	7.3	7.8	7.3	7.5
23	7.4	7.2	7.2	7.7	7.3	7.3	7.5	7.3	7.4	7.9	7.3	7.5
24	7.5	7.2	7.3	7.6	7.2	7.3	7.5	7.4	7.4	7.8	7.3	7.5
25	7.6	7.2	7.3	7.6	7.2	7.3	7.5	7.3	7.4	7.8	7.3	7.5
26	7.6	7.2	7.3	7.7	7.2	7.3	7.6	7.4	7.4	7.8	7.3	7.4
27	7.7	7.3	7.4	7.7	7.2	7.3	7.6	7.3	7.4	7.6	7.2	7.4
28	7.8	7.3	7.4	7.7	7.2	7.3	7.6	7.3	7.4	7.6	7.3	7.4
29	---	---	---	7.7	7.2	7.3	7.6	7.3	7.5	7.5	7.2	7.3
30	---	---	---	7.7	7.2	7.4	7.6	7.3	7.4	7.7	7.2	7.4
31	---	---	---	7.7	7.2	7.4	---	---	---	7.7	7.3	7.4
MAX	7.8	7.3	7.4	7.9	7.4	7.5	7.7	7.4	7.5	7.9	7.3	7.5
MIN	7.4	7.2	7.2	7.3	7.1	7.2	7.3	7.1	7.2	7.5	7.2	7.3

WILLAMETTE RIVER BASIN

444728122450000 NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.6	7.3	7.4	7.7	7.3	7.4	7.7	7.3	7.4	8.0	7.3	7.5
2	7.6	7.3	7.4	7.7	7.3	7.4	7.7	7.3	7.4	8.0	7.3	7.5
3	7.6	7.3	7.4	7.8	7.3	7.5	7.7	7.3	7.4	8.1	7.3	7.5
4	7.6	7.3	7.4	7.8	7.3	7.5	7.7	7.3	7.4	8.0	7.3	7.5
5	7.6	7.3	7.4	7.7	7.3	7.4	7.8	7.2	7.5	8.0	7.3	7.5
6	7.6	7.3	7.4	7.8	7.3	7.4	7.8	7.3	7.5	8.1	7.3	7.5
7	7.6	7.3	7.4	7.8	7.2	7.5	7.8	7.3	7.5	8.2	7.3	7.5
8	7.6	7.3	7.4	7.8	7.3	7.5	7.8	7.3	7.5	8.3	7.3	7.5
9	7.6	7.3	7.4	7.8	7.3	7.4	7.8	7.3	7.4	8.3	7.3	7.5
10	7.6	7.2	7.4	7.8	7.2	7.4	7.8	7.3	7.4	8.4	7.3	7.5
11	7.7	7.2	7.4	7.8	7.3	7.4	7.8	7.3	7.4	8.4	7.3	7.5
12	7.6	7.3	7.4	7.8	7.2	7.4	7.8	7.3	7.4	8.5	7.3	7.5
13	7.6	7.3	7.4	7.8	7.3	7.5	7.8	7.2	7.4	8.5	7.3	7.5
14	7.6	7.3	7.5	7.9	7.3	7.5	7.8	7.2	7.4	8.6	7.2	7.5
15	7.6	7.3	7.5	7.8	7.3	7.5	7.8	7.2	7.4	8.5	7.3	7.5
16	7.6	7.3	7.5	7.9	7.3	7.4	7.9	7.2	7.4	8.5	7.3	7.5
17	7.6	7.3	7.4	7.9	7.3	7.5	7.9	7.2	7.4	8.7	7.3	7.5
18	7.5	7.3	7.4	8.0	7.3	7.5	7.9	7.2	7.4	8.7	7.3	7.6
19	7.6	7.3	7.4	8.1	7.3	7.5	8.0	7.2	7.4	8.7	7.3	7.5
20	7.7	7.3	7.4	8.1	7.3	7.4	8.0	7.2	7.4	8.7	7.3	7.5
21	7.7	7.3	7.4	8.2	7.2	7.4	7.9	7.2	7.4	8.7	7.3	7.5
22	7.6	7.3	7.4	7.8	7.2	7.5	7.9	7.2	7.4	8.7	7.3	7.5
23	7.7	7.3	7.5	7.8	7.3	7.5	7.9	7.2	7.4	8.7	7.3	7.5
24	7.7	7.3	7.4	7.8	7.3	7.5	7.9	7.2	7.4	8.7	7.3	7.5
25	7.7	7.3	7.4	7.8	7.3	7.5	8.0	7.2	7.4	8.7	7.3	7.5
26	7.7	7.2	7.4	7.7	7.3	7.5	8.0	7.2	7.4	8.7	7.3	7.5
27	7.6	7.3	7.4	7.7	7.3	7.5	7.9	7.2	7.4	8.7	7.3	7.5
28	7.6	7.3	7.5	7.7	7.3	7.4	8.0	7.3	7.5	8.7	7.3	7.5
29	7.7	7.3	7.4	7.7	7.2	7.4	8.0	7.3	7.5	8.5	7.3	7.4
30	7.7	7.3	7.4	7.7	7.2	7.4	8.0	7.3	7.5	8.4	7.3	7.5
31	---	---	---	7.7	7.3	7.5	8.0	7.3	7.5	---	---	---
MAX	7.7	7.3	7.5	8.2	7.3	7.5	8.0	7.3	7.5	8.7	7.3	7.6
MIN	7.5	7.2	7.4	7.7	7.2	7.4	7.7	7.2	7.4	8.0	7.2	7.4

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.0	14.9	16.6	10.4	9.8	10.1	8.1	7.8	7.9	6.4	5.7	6.0
2	17.4	14.7	16.3	11.4	10.3	10.8	8.0	7.5	7.8	6.9	6.3	6.5
3	16.7	14.0	15.6	11.1	9.8	10.5	8.0	7.4	7.8	6.4	5.8	6.1
4	17.0	14.0	15.6	11.1	10.5	10.8	7.4	7.0	7.2	5.8	5.4	5.6
5	16.4	14.0	15.3	11.0	10.0	10.7	7.4	6.8	7.1	6.4	5.6	6.0
6	16.2	14.8	15.5	10.2	9.1	9.6	7.4	7.3	7.4	7.1	6.4	6.7
7	15.1	13.5	14.3	9.2	7.9	8.6	7.4	7.2	7.3	---	---	---
8	15.6	14.3	14.8	9.2	7.5	8.4	7.5	7.0	7.2	---	---	---
9	15.2	13.1	14.1	9.5	7.7	8.6	7.4	6.8	7.1	---	---	---
10	14.1	12.6	13.1	10.4	8.6	9.5	6.8	6.3	6.5	---	---	---
11	14.1	13.2	13.6	10.9	9.6	10.3	6.7	6.3	6.6	---	---	---
12	14.0	12.4	13.2	10.9	10.2	10.6	7.0	6.5	6.7	---	---	---
13	15.4	13.8	14.4	10.9	10.6	10.8	7.5	7.0	7.2	---	---	---
14	15.1	13.8	14.4	10.9	10.0	10.5	7.2	6.1	6.5	---	---	---
15	14.9	12.7	13.9	10.7	10.4	10.5	6.6	6.0	6.3	---	---	---
16	14.5	13.3	13.9	10.5	10.1	10.3	7.3	6.6	6.9	---	---	---
17	14.2	12.6	13.4	10.2	9.0	9.8	7.3	6.4	6.8	---	---	---
18	13.4	11.1	12.4	9.4	8.3	8.9	6.6	6.3	6.4	---	---	---
19	14.2	11.4	12.8	10.3	9.1	9.7	6.5	6.3	6.4	---	---	---
20	13.9	12.5	13.0	10.3	9.8	10.0	6.7	6.2	6.5	---	---	---
21	12.7	11.9	12.3	9.9	9.5	9.6	6.2	5.9	6.0	---	---	---
22	13.1	12.5	12.9	9.6	8.6	9.3	6.4	5.8	6.1	---	---	---
23	12.5	9.8	10.5	8.9	8.5	8.7	6.1	5.6	5.8	---	---	---
24	10.7	9.0	9.9	8.7	8.5	8.6	5.8	5.3	5.5	---	---	---
25	12.2	10.5	11.2	8.6	8.1	8.4	5.8	5.2	5.5	---	---	---
26	12.4	10.5	11.5	8.3	7.6	7.9	5.6	5.2	5.4	---	---	---
27	11.9	10.8	11.1	7.8	7.3	7.6	5.8	5.4	5.6	---	---	---
28	11.0	10.0	10.5	8.3	7.7	7.9	6.2	5.6	5.9	---	---	---
29	11.2	10.5	10.8	7.9	7.7	7.8	5.7	5.4	5.5	---	---	---
30	11.7	10.7	11.2	7.9	7.6	7.8	5.9	5.3	5.6	---	---	---
31	10.7	9.9	10.4	---	---	---	6.5	5.8	6.1	---	---	---
MONTH	18.0	9.0	13.2	11.4	7.3	9.4	8.1	5.2	6.5	---	---	---

WILLAMETTE RIVER BASIN

444728122450000 NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.8	4.8	5.2	5.8	3.7	4.8	9.2	5.7	7.5	9.0	7.1	8.0
2	5.8	4.5	5.2	6.0	3.4	4.8	9.2	5.7	7.6	8.4	7.0	7.5
3	6.3	5.3	5.7	6.4	3.8	5.1	9.4	5.9	7.8	9.4	6.7	7.8
4	5.4	4.1	4.8	6.7	4.2	5.5	9.8	6.1	8.1	9.0	5.9	7.4
5	5.3	4.3	4.8	5.8	5.3	5.6	8.6	6.9	7.3	7.7	6.7	7.2
6	5.5	4.7	5.1	5.8	5.3	5.6	7.5	6.6	7.0	7.1	6.1	6.6
7	5.5	5.1	5.3	5.3	4.5	4.9	7.0	6.3	6.5	8.0	5.8	6.8
8	6.2	4.8	5.5	5.1	3.9	4.5	8.9	5.4	7.0	9.3	5.5	7.3
9	6.0	4.6	5.3	5.5	4.1	4.8	7.7	6.5	6.9	7.6	6.6	7.1
10	6.4	4.9	5.7	6.2	5.2	5.7	7.0	6.3	6.6	9.7	6.1	7.6
11	6.3	5.3	5.8	6.6	6.1	6.3	7.4	6.7	7.0	11.1	6.3	8.6
12	5.8	4.0	5.0	6.2	5.4	5.7	7.6	6.7	7.1	11.7	7.0	9.2
13	5.7	4.2	5.0	5.7	5.1	5.4	7.3	6.7	6.9	9.6	7.1	8.0
14	5.8	3.8	4.9	5.9	4.9	5.4	7.5	6.1	6.7	10.2	6.6	8.1
15	6.1	4.1	5.2	5.9	4.8	5.4	6.1	5.5	5.7	10.4	6.6	8.4
16	6.8	4.9	5.8	5.5	4.4	5.0	6.2	5.5	5.8	9.9	6.6	8.2
17	5.9	4.7	5.4	5.3	4.1	4.6	6.7	5.8	6.1	10.6	7.3	8.6
18	6.8	5.6	6.2	5.2	4.3	4.8	7.0	5.9	6.4	8.8	7.4	8.0
19	6.7	6.0	6.4	5.8	4.8	5.2	7.2	5.8	6.4	7.9	7.4	7.6
20	6.9	5.4	6.2	7.5	5.0	6.2	8.7	6.2	7.1	8.8	6.9	7.7
21	7.2	6.4	6.8	7.4	5.5	6.5	8.4	5.9	7.0	8.2	6.7	7.4
22	7.3	5.8	6.6	7.0	5.0	6.1	10.1	6.4	8.0	8.7	7.3	7.8
23	6.8	6.1	6.4	8.4	6.0	7.0	9.8	6.3	8.2	10.6	6.6	8.4
24	6.2	5.3	5.8	7.3	6.3	6.8	10.4	5.8	8.2	10.5	7.2	8.7
25	6.2	4.2	5.2	8.3	5.2	6.8	10.6	6.8	8.8	10.3	7.7	8.8
26	6.2	4.3	5.3	7.7	5.5	6.8	9.3	6.8	7.8	11.4	7.9	9.4
27	6.0	3.8	5.0	8.4	6.1	7.2	9.2	6.5	7.8	9.2	7.8	8.5
28	6.3	4.4	5.3	7.7	6.1	6.8	10.5	5.8	8.1	8.9	7.5	8.2
29	---	---	---	8.8	5.9	7.2	11.3	6.6	9.0	9.0	7.9	8.4
30	---	---	---	8.8	5.3	7.1	10.1	7.4	8.6	11.1	7.6	9.1
31	---	---	---	9.0	5.6	7.4	---	---	---	10.4	8.1	9.1
MONTH	7.3	3.8	5.5	9.0	3.4	5.8	11.3	5.4	7.3	11.7	5.5	8.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10.8	8.2	9.3	15.0	9.7	12.2	16.5	11.5	14.2	16.5	12.7	14.8
2	11.2	8.2	9.5	15.5	10.0	12.8	16.0	11.7	14.0	16.7	12.8	14.9
3	10.6	8.1	9.2	13.8	10.3	12.2	15.8	11.1	13.7	16.1	13.5	15.0
4	11.5	8.5	9.7	14.5	10.3	12.4	14.8	12.1	13.2	14.6	11.3	13.2
5	11.5	8.6	9.8	15.7	9.9	12.8	14.6	10.9	12.7	14.3	10.3	12.4
6	11.4	8.1	9.6	16.4	10.8	13.7	14.5	11.4	12.9	14.4	10.4	12.4
7	10.6	7.7	9.1	15.1	11.3	12.6	15.9	10.6	13.3	14.0	10.7	12.4
8	10.4	7.7	8.9	15.8	10.8	13.0	16.1	11.4	13.9	13.6	10.3	12.0
9	11.5	7.9	9.6	17.3	10.8	14.0	16.9	11.8	14.5	14.8	10.2	12.5
10	13.6	7.9	10.6	17.7	11.7	14.9	16.9	12.5	15.0	15.2	10.8	13.1
11	14.1	8.7	11.4	17.6	12.0	15.0	16.6	11.8	14.5	15.6	11.1	13.5
12	14.6	9.1	11.8	17.0	12.0	14.8	17.2	12.1	14.8	15.8	11.5	13.7
13	14.7	9.5	12.0	15.9	12.1	14.3	17.9	12.6	15.5	15.7	11.4	13.6
14	14.2	9.8	12.0	16.6	11.6	14.2	17.6	13.5	15.8	14.2	11.5	13.1
15	12.9	9.8	11.2	16.8	11.0	14.1	17.1	13.1	15.3	13.3	11.8	12.5
16	10.9	9.6	10.1	17.1	11.5	14.5	16.7	12.5	14.8	13.0	11.8	12.4
17	9.8	9.0	9.3	17.4	12.3	15.0	16.9	13.0	15.1	13.3	12.0	12.5
18	9.8	8.7	9.2	16.7	11.9	14.4	16.3	12.2	14.5	14.7	11.4	13.0
19	12.9	8.6	10.4	16.0	12.5	14.4	15.8	12.4	14.4	15.2	11.2	13.2
20	12.9	8.7	10.7	17.3	11.8	14.6	14.7	12.4	13.6	14.8	11.7	13.4
21	13.8	9.7	11.3	17.7	12.4	15.2	14.7	11.0	12.8	15.0	11.0	13.0
22	11.9	10.2	10.7	17.6	13.0	15.5	16.1	11.4	13.7	14.8	11.2	13.1
23	13.9	9.6	11.4	17.6	13.2	15.3	16.6	12.5	14.7	15.2	11.5	13.4
24	14.7	9.7	12.1	17.6	12.6	15.5	16.8	12.9	15.0	15.2	11.5	13.4
25	15.3	9.7	12.4	17.4	12.4	15.1	15.9	12.7	14.1	15.2	11.5	13.4
26	14.8	10.1	12.5	16.3	12.7	14.6	16.0	12.5	14.3	14.7	11.7	13.2
27	12.8	10.3	11.6	16.6	11.9	14.4	16.8	12.3	14.6	15.2	12.0	13.6
28	11.4	10.2	10.8	17.5	12.0	14.9	17.4	13.3	15.5	14.9	11.7	13.4
29	12.9	10.4	11.4	17.7	12.8	15.4	16.9	13.5	15.4	13.8	12.1	13.0
30	12.6	10.2	11.4	17.3	12.7	15.3	15.9	12.5	14.5	13.4	12.1	12.7
31	---	---	---	16.3	11.9	14.3	16.3	12.1	14.4	---	---	---
MONTH	15.3	7.7	10.6	17.7	9.7	14.2	17.9	10.6	14.3	16.7	10.2	13.2

444728122450000 NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	2	<1	<1	7	2	3	17	5	12	7	4	4
2	4	<1	<1	5	1	2	16	7	9	6	4	5
3	3	<1	<1	2	<1	1	11	6	8	6	4	4
4	3	<1	<1	4	<1	<1	8	6	6	5	3	4
5	2	<1	<1	4	<1	1	8	5	6	5	3	3
6	2	<1	<1	2	<1	<1	26	5	11	6	3	4
7	2	<1	<1	2	<1	<1	22	7	10	---	---	---
8	2	<1	<1	2	<1	<1	8	4	5	---	---	---
9	2	<1	<1	6	<1	<1	11	3	4	---	---	---
10	2	<1	<1	1	<1	<1	5	3	4	---	---	---
11	6	<1	2	1	<1	<1	4	<1	3	---	---	---
12	5	<1	1	2	<1	<1	4	2	3	---	---	---
13	2	<1	<1	8	<1	1	88	2	15	---	---	---
14	4	<1	<1	40	3	10	107	11	33	---	---	---
15	2	<1	<1	5	2	3	12	5	7	---	---	---
16	5	<1	<1	6	2	3	34	6	16	---	---	---
17	2	<1	<1	7	2	3	24	9	14	---	---	---
18	1	<1	<1	4	1	2	13	7	9	---	---	---
19	3	<1	<1	4	1	2	10	5	7	---	---	---
20	2	<1	<1	5	2	2	9	6	7	---	---	---
21	2	<1	<1	5	2	3	10	6	7	---	---	---
22	22	<1	1	70	3	5	10	7	9	---	---	---
23	38	2	5	58	6	13	10	6	7	---	---	---
24	4	<1	2	9	3	4	7	6	6	---	---	---
25	3	<1	1	5	2	3	8	6	7	---	---	---
26	3	<1	<1	5	<1	3	9	6	7	---	---	---
27	3	<1	<1	4	2	3	7	6	6	---	---	---
28	3	<1	<1	20	2	3	8	6	6	---	---	---
29	4	<1	<1	50	7	13	7	5	6	---	---	---
30	6	<1	1	11	4	6	7	5	6	---	---	---
31	11	2	5	---	---	---	7	4	5	---	---	---
MAX	38	2	5	70	7	13	107	11	33	---	---	---
MIN	1	<1	<1	1	<1	<1	4	<1	3	---	---	---

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	9	2	3	2	<1	1	6	<1	1	9	2	3
2	4	2	2	2	<1	1	3	<1	1	5	2	3
3	3	2	2	2	<1	1	5	<1	1	4	3	3
4	3	2	2	2	<1	1	8	<1	1	5	3	4
5	7	2	2	2	<1	1	3	1	2	5	3	3
6	3	2	2	14	1	3	3	1	2	4	3	3
7	10	2	5	9	3	4	4	1	2	6	2	3
8	11	4	5	4	2	2	5	1	2	4	3	3
9	4	2	3	4	1	2	9	1	3	7	2	3
10	4	2	2	4	1	2	20	4	7	8	2	3
11	4	2	2	20	1	2	12	5	6	4	2	2
12	4	1	2	30	5	14	7	3	5	4	2	2
13	2	1	2	6	3	4	7	3	5	8	2	2
14	3	1	2	5	3	3	135	7	55	5	2	2
15	3	1	1	4	2	2	42	10	14	4	2	2
16	6	1	1	4	2	2	16	8	10	3	2	2
17	3	1	1	5	2	2	11	7	8	4	2	2
18	2	1	1	4	2	2	11	5	7	3	2	2
19	2	1	1	5	2	3	7	4	5	6	2	2
20	2	<1	1	5	2	3	6	3	4	3	2	2
21	5	1	1	6	2	2	6	3	4	3	2	2
22	3	2	2	5	1	2	5	3	3	4	2	2
23	14	2	6	3	1	2	4	2	3	6	2	2
24	8	2	4	6	2	2	6	2	3	4	2	2
25	11	1	2	3	1	2	4	3	3	5	1	2
26	5	1	2	3	1	2	4	2	3	5	1	2
27	4	<1	1	3	<1	2	6	2	3	6	2	2
28	6	<1	1	3	1	1	4	2	2	3	2	2
29	---	---	---	2	<1	1	6	2	2	7	2	3
30	---	---	---	3	1	1	3	2	2	9	2	2
31	---	---	---	3	<1	1	---	---	---	3	2	2
MAX	14	4	6	30	5	14	135	10	55	9	3	4
MIN	2	<1	1	2	<1	1	3	<1	1	3	1	2

444728122450000 NORTH SANTIAM RIVER AT GEREN ISLAND WATER TREATMENT PLANT, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	3	2	2	1	<1	<1	3	<1	<1	3	<1	<1
2	2	1	2	3	<1	<1	3	<1	<1	2	<1	<1
3	4	1	2	2	<1	<1	3	<1	<1	2	<1	<1
4	3	1	2	3	<1	<1	1	<1	<1	2	<1	1
5	6	<1	1	2	<1	<1	3	<1	<1	3	<1	1
6	4	<1	1	1	<1	<1	2	<1	<1	2	<1	1
7	2	1	1	2	<1	<1	2	<1	<1	3	<1	<1
8	3	<1	1	2	<1	<1	2	<1	<1	2	<1	<1
9	6	<1	1	2	<1	<1	3	<1	<1	4	<1	<1
10	3	<1	1	4	<1	<1	2	<1	<1	3	<1	<1
11	3	<1	1	2	<1	<1	2	<1	<1	3	<1	<1
12	2	<1	1	1	<1	<1	4	<1	<1	4	<1	<1
13	4	<1	<1	2	<1	<1	3	<1	<1	3	<1	<1
14	4	<1	<1	4	<1	<1	2	<1	<1	3	<1	<1
15	3	<1	1	2	<1	<1	2	<1	<1	3	<1	<1
16	3	<1	1	2	<1	<1	2	<1	<1	6	<1	<1
17	3	<1	1	2	<1	<1	3	<1	<1	2	<1	<1
18	5	2	2	2	<1	<1	3	<1	<1	2	<1	<1
19	2	<1	1	2	<1	<1	2	<1	<1	4	<1	<1
20	2	1	1	3	<1	<1	4	<1	<1	3	<1	<1
21	3	<1	1	2	<1	<1	5	<1	<1	7	<1	<1
22	3	<1	1	1	<1	<1	4	<1	<1	2	<1	<1
23	3	<1	1	1	<1	<1	1	<1	<1	2	<1	<1
24	2	<1	1	2	<1	<1	2	<1	<1	10	<1	<1
25	2	<1	1	1	<1	<1	3	<1	<1	2	<1	<1
26	3	<1	<1	2	<1	<1	3	<1	<1	7	<1	<1
27	2	<1	<1	1	<1	<1	2	<1	<1	2	<1	<1
28	4	<1	<1	3	<1	<1	2	<1	<1	4	<1	<1
29	3	1	2	1	<1	<1	3	<1	<1	5	<1	<1
30	3	<1	1	1	<1	<1	2	<1	<1	3	<1	1
31	---	---	---	2	<1	<1	3	<1	<1	---	---	---
MAX	6	2	2	4	<1	<1	5	<1	<1	10	<1	1
MIN	2	<1	<1	1	<1	<1	1	<1	<1	2	<1	<1

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR

LOCATION.--Lat 44°32'25", long 122°26'05", in NW 1/4 sec.10, T.12 S., R.3 E., Linn County, Hydrologic Unit 17090006, on Bureau of Land Management land, on right bank 80 ft downstream from Panther Creek, 10 mi north of Cascadia, and at mile 6.6.

DRAINAGE AREA.--99.2 mi².

PERIOD OF RECORD.--August 1963 to November 1964 (destroyed by flood of December 1964); October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,050 ft above NGVD of 1929, from topographic map. Aug. 13, 1963, to Dec. 22, 1964, water-stage recorder on left bank at present datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station. Continuous water-quality records for the period August 1963 to September 1987 have been collected at this location.

AVERAGE DISCHARGE.--38 years (water years 1964, 1966-2002), 654 ft³/s, 89.53 in/yr, 473,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s Feb. 7, 1996, gage height, 20.54 ft, from rating curve extended above 8,000 ft³/s on the basis of slope-area measurement of peak flow; minimum discharge, 14 ft³/s Aug. 19-23, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 36,500 ft³/s Dec. 22, 1964, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 22	1800	6,700	11.36	Jan. 8	0730	5,400	10.48
Nov. 28	1630	5,380	10.47	Mar. 11	2330	6,440	11.19
Dec. 13	1900	*9,980	*13.35	Apr. 14	0400	8,820	12.67
Dec. 16	1300	5,710	10.70				

Minimum discharge, 23 ft³/s Sept. 28, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	1160	2600	958	332	532	977	608	539	195	55	31
2	31	726	2270	1430	310	468	1020	651	474	166	54	30
3	30	444	1510	1290	356	423	1150	690	426	148	52	30
4	30	315	1150	1010	384	409	1280	599	398	137	52	30
5	29	285	950	778	364	452	1410	561	400	128	51	29
6	29	235	2960	2180	386	2110	1270	579	367	119	51	28
7	29	196	2750	3240	995	1670	1210	509	311	115	50	28
8	31	171	1620	4270	1140	934	1070	446	273	110	49	28
9	32	151	1300	2120	766	693	1440	420	254	105	47	27
10	55	137	1030	1270	595	678	3300	386	235	100	46	26
11	252	125	893	916	598	2990	2540	378	245	96	45	26
12	101	137	888	1080	525	3950	2510	441	254	93	44	25
13	69	751	5120	1040	464	1930	2950	586	259	90	43	25
14	59	1770	4600	785	438	1350	5660	542	256	86	41	25
15	54	728	1990	622	447	1030	2240	526	229	83	40	24
16	48	867	4360	521	513	845	1510	492	209	81	40	25
17	45	788	4050	451	582	701	1240	522	223	79	39	39
18	43	553	2090	403	562	606	1050	560	523	77	39	39
19	41	471	1590	418	939	652	902	524	319	75	38	31
20	39	526	1370	521	1020	702	784	502	250	74	39	27
21	39	1140	1030	748	1620	831	724	496	221	72	40	26
22	595	4390	802	508	2040	820	692	527	200	70	39	25
23	791	3020	641	407	3050	915	696	490	183	69	37	25
24	375	1530	536	422	2180	1130	644	475	165	66	37	24
25	210	1090	462	2110	1290	1050	638	500	154	64	36	24
26	157	886	402	1350	907	954	665	562	144	62	35	24
27	131	739	371	758	722	973	660	577	136	61	34	24
28	138	2830	598	551	622	859	588	663	134	60	33	23
29	127	3820	555	442	---	784	570	1090	346	59	33	24
30	643	1980	513	379	---	804	634	791	259	58	32	41
31	1820	---	744	352	---	896	---	630	---	56	31	---
TOTAL	6105	31961	51745	33330	24147	33141	42024	17323	8386	2854	1302	833
MEAN	197	1065	1669	1075	862	1069	1401	559	280	92.1	42.0	27.8
MAX	1820	4390	5120	4270	3050	3950	5660	1090	539	195	55	41
MIN	29	125	371	352	310	409	570	378	134	56	31	23
AC-FT	12110	63390	102600	66110	47900	65740	83350	34360	16630	5660	2580	1650
CFSM	1.99	10.7	16.8	10.8	8.69	10.8	14.1	5.63	2.82	0.93	0.42	0.28
IN.	2.29	11.99	19.40	12.50	9.06	12.43	15.76	6.50	3.14	1.07	0.49	0.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

	255	1006	1287	1250	1098	944	853	613	319	101	57.1	82.8
MEAN	255	1006	1287	1250	1098	944	853	613	319	101	57.1	82.8
MAX	786	2224	2897	2450	2441	2018	1600	1147	817	336	240	268
(WY)	1998	1974	1974	1970	1982	1972	1993	1999	1984	1983	1968	1971
MIN	20.8	57.6	110	157	208	204	382	182	63.1	36.8	20.9	27.8
(WY)	1988	1994	1977	1977	1977	1992	1968	1992	1992	1992	1992	2002

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1964 - 2002

ANNUAL TOTAL	180248	253151	
ANNUAL MEAN	494	694	654
HIGHEST ANNUAL MEAN			1113
LOWEST ANNUAL MEAN			311
HIGHEST DAILY MEAN	5120	Dec 13	5660
LOWEST DAILY MEAN	29	Sep 21	23
ANNUAL SEVEN-DAY MINIMUM	30	Sep 18	24
ANNUAL RUNOFF (AC-FT)	357500	502100	473600
ANNUAL RUNOFF (CFSM)	4.98	6.99	6.59
ANNUAL RUNOFF (INCHES)	67.59	94.93	89.53
10 PERCENT EXCEEDS	1080	1640	1510
50 PERCENT EXCEEDS	299	462	367
90 PERCENT EXCEEDS	36	32	39

14186100 GREEN PETER LAKE NEAR FOSTER, OR

LOCATION.--Lat 44°27'10", long 122°32'40", in NE 1/4 SE 1/4 sec.10, T.13 S., R.2 E., Linn County, Hydrologic Unit 17090006, in Green Peter Dam on Middle Santiam River, 7.0 mi northeast of Foster, and at mile 5.7.

DRAINAGE AREA.--273 mi².

PERIOD OF RECORD.--October 1966 to current year. Prior to October 1971, published as Green Peter Reservoir near Foster.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with ogee spillway completed in 1966 by Corps of Engineers; controlled storage began Oct. 6, 1966. Total capacity, 428,100 acre-ft, usable capacity 330,800 acre-ft between elevations 887.0 ft, proposed lower limit of operation, and 1,015.0 ft, top of spillway gates. Reservoir used for flood control, power development, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 426,700 acre-ft April 29, 1990, elevation, 1,014.61 ft; minimum contents, 116,900 acre-ft Dec. 15, 1972, elevation, 899.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 412,500 acre-ft Apr. 15, elevation, 1,010.74 ft; minimum contents, 159,600 acre-ft Dec. 31, elevation, 921.86 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

899	116,600	960	251,100
900	118,300	980	309,700
920	155,700	1,000	374,800
940	199,900	1,015	428,100

ELEVATION, in FT (NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	939.43	945.61	951.87	922.58	926.03	974.10	990.88	1005.35	1001.99	992.90	984.27	973.20
2	938.92	946.87	950.64	923.87	927.08	974.94	991.15	1005.68	1002.14	992.72	983.94	972.81
3	938.38	947.41	947.46	924.53	928.31	975.72	991.57	1006.04	1002.17	992.54	983.55	972.42
4	937.87	947.71	943.56	925.13	929.45	976.44	991.93	1006.31	1002.05	992.36	983.22	971.97
5	937.33	948.01	939.15	924.93	930.53	977.28	992.47	1006.55	1001.72	992.18	982.92	971.55
6	936.82	948.19	940.80	926.61	931.73	980.13	992.92	1006.82	1001.87	991.97	982.56	971.14
7	936.28	948.28	942.60	930.03	934.28	982.47	993.25	1006.64	1001.24	991.76	982.21	970.72
8	935.80	948.34	941.07	935.85	937.04	982.83	993.46	1006.40	1000.52	991.61	981.88	970.27
9	935.29	948.31	938.40	937.20	939.05	982.44	993.85	1006.28	999.65	991.40	981.49	969.85
10	935.02	948.16	936.24	936.33	940.64	982.14	997.15	1005.80	998.54	991.13	981.13	969.40
11	935.02	948.01	935.32	934.74	942.11	984.69	999.52	1005.32	996.98	990.86	980.80	968.89
12	934.66	947.80	934.84	933.36	943.40	988.71	1000.87	1004.84	995.45	990.59	980.44	968.44
13	934.24	948.49	942.28	931.83	944.51	989.31	1003.00	1004.57	994.82	990.32	980.11	968.02
14	933.79	950.56	950.98	929.85	945.59	988.32	1009.90	1004.27	994.67	990.05	979.69	967.57
15	933.88	950.53	951.22	928.41	946.58	987.54	1010.02	1003.91	994.58	989.75	979.36	967.12
16	933.91	950.68	956.11	926.82	947.66	986.58	1007.53	1003.22	994.46	989.45	978.97	966.73
17	933.97	950.73	960.40	924.96	948.83	985.32	1004.14	1002.47	994.49	989.15	978.59	966.37
18	934.00	950.43	960.25	923.86	949.94	984.06	1001.95	1001.15	994.76	988.85	978.23	965.98
19	934.03	950.04	959.11	922.96	951.59	984.09	1000.93	999.80	994.73	988.55	977.81	965.56
20	934.06	948.39	956.86	923.14	953.43	984.07	1001.08	998.42	994.61	988.22	977.48	965.11
21	934.15	946.98	953.50	924.64	955.83	984.70	1001.62	997.91	994.49	987.92	977.15	964.66
22	935.47	951.60	949.30	924.55	958.89	985.36	1002.13	998.06	994.43	987.62	976.82	964.21
23	937.15	953.94	944.32	923.98	963.45	986.11	1002.61	998.12	994.25	987.29	976.46	963.76
24	937.90	953.70	940.16	922.57	966.90	987.07	1003.00	998.18	994.01	986.96	976.10	963.40
25	938.32	952.71	936.59	925.15	969.09	987.91	1003.33	998.27	993.80	986.60	975.74	963.01
26	938.62	951.27	933.86	926.11	970.71	988.63	1003.75	998.42	993.53	986.27	975.38	962.65
27	938.92	949.50	931.55	925.54	972.00	989.38	1004.20	998.69	993.29	985.91	975.06	962.26
28	939.19	950.70	928.22	924.25	973.14	989.95	1004.50	999.17	993.17	985.59	974.67	961.84
29	939.43	953.46	924.50	923.80	---	990.46	1004.77	1000.07	993.17	985.26	974.31	961.51
30	940.69	952.77	922.07	924.01	---	990.52	1005.07	1000.85	993.05	984.90	973.92	961.21
31	943.63	---	922.10	924.80	---	990.67	---	1001.45	---	984.60	973.56	---
MAX	943.63	953.94	960.40	937.20	973.14	990.67	1010.02	1006.82	1002.17	992.90	984.27	973.20
MIN	933.79	945.61	922.07	922.57	926.03	974.10	990.88	997.91	993.05	984.60	973.56	961.21
(†)	208600	231700	160100	165700	288900	343600	392300	379700	351500	324100	290100	254500
(‡)	+8900	+23100	-71600	+5600	+123200	+54700	+48700	-12600	-28200	-27400	-34000	-35600

CAL YR 2001 MAX 993.58 MIN 922.07 AC-FT† -17300

WTR YR 2002 MAX 1010.02 MIN 922.07 AC-FT† +54800

† Contents, in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

WILLAMETTE RIVER BASIN

14186600 FOSTER LAKE AT FOSTER, OR

LOCATION.--Lat 44°25'00", long 122°40'25", in NW 1/4 NE 1/4 sec.27, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, in Foster Dam on South Santiam River, 0.3 mi above Wiley Creek, 0.5 mi north of Foster, and at mile 37.7.

DRAINAGE AREA.--492 mi².

PERIOD OF RECORD.--December 1966 to current year. Prior to October 1971, published as Foster Reservoir at Foster.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by rockfill embankment with an impervious core and ogee spillway completed in 1966 by Corps of Engineers; controlled storage began in November 1966. Total capacity, 60,780 acre-ft and usable capacity 33,210 acre-ft between elevations 609.0 ft, proposed lower limit of operation, and 641.0 ft, top of spillway gates. Lake used for reregulation of water released from Green Peter Lake, flood control, power development, pollution abatement, and other purposes. Elevations for the period Oct. 28 to Feb. 19 computed from data obtained through U.S. Army Corps of Engineers Columbia River Operational Hydromet System(CROHMS) database. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 60,350 acre-ft Apr. 28, 1990, elevation, 640.66 ft; minimum contents, 26,590 acre-ft Nov. 15, 16, 1971, elevation, 607.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 56,910 acre-ft Oct. 1, elevation, 637.86 ft; minimum contents, 30,150 acre-ft Nov. 13, elevation, 611.97 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

607	25,880	630	47,860
610	28,430	635	53,510
615	32,870	640	59,530
620	37,570	641	60,780
625	42,550		

ELEVATION, in FT (NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	637.68	617.54	613.99	614.34	614.33	622.70	627.01	614.05	636.26	636.88	636.53	636.95
2	637.53	616.56	613.84	615.38	614.55	622.40	625.96	613.96	636.08	637.00	636.62	636.89
3	637.41	616.65	613.99	616.06	614.77	622.53	624.49	614.17	635.93	637.06	636.71	636.95
4	637.26	616.46	613.99	614.79	614.92	622.50	623.50	614.11	635.93	637.12	636.71	636.92
5	637.17	616.33	614.24	614.71	615.12	622.38	622.87	614.14	636.86	637.15	636.68	636.92
6	637.05	615.99	614.45	615.45	615.34	623.67	622.15	614.29	635.96	637.15	636.80	636.92
7	636.96	615.57	614.15	616.07	616.83	624.24	621.49	613.93	637.11	637.18	636.92	636.92
8	636.84	615.09	613.80	619.95	616.95	624.39	620.14	614.38	636.87	637.00	636.92	636.92
9	636.78	614.63	613.50	623.35	616.99	625.02	619.02	614.08	636.57	637.00	637.01	636.92
10	636.75	613.82	613.41	622.90	617.17	625.20	618.99	614.05	636.36	637.06	637.13	636.92
11	637.11	612.93	614.14	621.37	617.38	627.09	616.53	613.99	636.51	637.06	637.10	636.95
12	637.17	612.51	614.97	619.60	617.57	628.32	616.35	613.98	636.78	637.06	637.16	636.95
13	637.21	612.74	616.86	617.76	617.70	625.11	615.30	614.16	636.90	637.06	637.13	636.95
14	637.21	613.64	614.59	615.43	617.80	625.44	616.32	613.95	636.78	637.07	637.19	636.95
15	636.07	614.05	614.34	614.53	617.95	625.86	614.04	614.07	636.66	637.04	637.16	636.97
16	634.93	615.31	614.19	614.27	618.17	626.43	614.10	616.71	636.48	637.01	637.22	637.06
17	633.76	615.31	614.05	614.35	618.43	626.61	614.16	620.25	636.42	637.01	637.31	637.21
18	632.56	614.55	614.02	613.64	618.63	626.70	614.16	625.29	636.84	636.98	637.28	637.33
19	631.33	614.05	614.05	613.61	618.98	626.31	614.19	630.06	637.02	636.95	637.37	637.42
20	630.10	613.72	614.04	615.68	619.22	626.25	614.12	634.71	637.05	636.98	637.37	637.51
21	628.90	614.39	614.05	615.17	619.43	625.86	614.06	636.72	637.17	636.95	637.34	637.57
22	628.30	614.87	614.06	614.02	619.91	626.04	614.00	637.05	636.90	636.89	637.31	637.66
23	628.09	613.39	614.17	613.98	622.70	626.35	614.12	637.04	636.96	636.89	637.28	637.74
24	626.77	613.43	614.12	614.05	624.59	626.86	614.03	637.01	637.02	636.89	637.25	637.50
25	625.03	613.91	614.27	614.65	625.04	627.22	613.91	636.83	637.02	636.86	637.22	637.44
26	623.17	613.81	614.20	613.73	625.22	627.16	614.27	636.89	637.06	636.83	637.19	637.20
27	622.03	613.31	614.45	614.49	624.89	627.16	614.30	636.98	636.94	636.80	637.13	637.14
28	620.83	614.76	613.86	614.55	623.93	627.43	614.24	636.77	636.58	636.74	637.10	637.08
29	619.68	614.21	613.97	614.50	---	627.31	614.12	636.86	636.97	636.68	637.04	637.05
30	618.94	613.87	614.25	613.21	---	627.52	614.09	636.47	637.06	636.65	637.07	637.08
31	618.40	---	614.17	614.05	---	627.25	---	636.50	---	636.65	637.01	---
MEAN	631.58	614.58	614.20	615.79	618.73	625.66	617.20	623.98	636.70	636.96	637.07	637.13
MAX	637.68	617.54	616.86	623.35	625.22	628.32	627.01	637.05	637.17	637.18	637.37	637.74
MIN	618.40	612.51	613.41	613.21	614.33	622.38	613.91	613.93	635.93	636.65	636.53	636.89
(†)	36040	31850	32120	32010	41460	44900	32050	55280	55940	55460	55880	55970
(‡)	-20760	-4190	+270	-110	+9450	+3440	-12850	+23230	+660	-480	+420	+90
CAL YR 2001	MEAN 624.68	MAX 637.80	MIN 612.51	AC-FT† +50								
WTR YR 2002	MEAN 625.85	MAX 637.74	MIN 612.51	AC-FT† -830								

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

WILLAMETTE RIVER BASIN

14187000 WILEY CREEK NEAR FOSTER, OR

LOCATION.--Lat 44°22'20", long 122°37'20", in NE 1/4 NE 1/4 sec.12, T.14 S., R.1 E., Linn County, Hydrologic Unit 17090006, on right bank 0.5 mi downstream from Little Wiley Creek, 3.5 mi southeast of Foster, and at mile 4.4.

DRAINAGE AREA.--51.8 mi².

PERIOD OF RECORD.--October 1947 to July 1973, July 1988 to current year.

REVISED RECORDS.--WDR OR-90-2: 1989 (M), WDR OR-93-1: 1992.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 720 ft above NGVD of 1929, from topographic map. Prior to April 6, 1965, water-stage recorder at present site at datum of 718.08 ft above sea level (Corps of Engineers bench mark). Apr. 6, 1965, to July 1973, water-stage recorder at present site at datum 2.00 ft lower than previous datum.

REMARKS.--Records good except those below 20 ft³/s and estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--39 years (water years 1948-72, 1989-2002), 215 ft³/s, 56.31 in/yr, 155,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,640 ft³/s Jan. 21, 1972, gage height, 9.28 ft, datum then in use, from rating curve extended above 3,700 ft³/s; maximum gage height, 9.80 ft, Dec. 21, 1964 (backwater from debris), datum then in use; minimum discharge, 2.9 ft³/s August 28-31, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 13	2230	*2,300	*5.82				
Minimum discharge, 3.6 ft ³ /s Sept. 26-28.							

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e6.5	178	1010	217	300	187	189	125	48	26	6.8	4.1
2	6.0	109	948	306	267	163	184	118	45	23	6.5	3.9
3	5.7	75	590	296	265	145	184	115	42	20	6.4	4.0
4	5.6	56	457	230	243	132	190	105	39	20	6.5	4.1
5	5.4	57	500	196	225	132	205	100	38	19	7.1	4.1
6	5.2	48	929	314	254	443	205	106	36	17	7.5	4.2
7	5.5	40	944	490	751	541	193	100	34	17	6.9	4.2
8	6.2	35	631	900	838	352	174	90	34	17	6.5	4.3
9	8.0	31	532	569	559	276	219	84	40	15	6.1	4.1
10	12	28	444	379	431	270	524	80	34	14	5.9	3.9
11	58	26	419	276	382	696	481	75	30	13	5.6	3.7
12	22	35	413	252	319	1220	417	72	28	13	5.3	3.7
13	17	66	989	223	272	786	469	76	25	12	5.1	3.6
14	14	130	1510	193	235	604	1400	74	24	11	4.7	3.5
15	12	90	861	167	213	486	812	70	23	11	4.5	3.6
16	11	167	1210	153	205	400	587	66	23	11	4.4	4.0
17	12	179	1410	146	200	319	506	65	28	11	4.4	10
18	11	122	967	134	197	262	452	63	59	10	4.5	11
19	9.7	114	806	172	260	306	385	63	38	10	4.5	7.1
20	9.1	139	660	514	288	310	323	73	31	10	5.6	5.8
21	9.0	299	499	1130	332	341	271	78	27	9.7	6.9	5.2
22	94	1150	383	572	413	347	233	81	26	9.2	6.0	4.7
23	135	878	290	399	792	354	205	71	25	8.8	5.5	4.3
24	57	465	227	376	631	436	181	63	23	8.4	5.0	4.1
25	34	396	191	1280	455	397	165	58	21	8.2	4.8	3.9
26	e25	300	167	1020	344	334	156	54	20	8.3	5.2	3.8
27	e22	213	158	617	269	300	193	54	19	8.2	5.0	3.7
28	e20	677	180	441	222	260	160	60	20	7.7	4.7	3.8
29	e25	1140	164	333	---	232	144	70	45	7.5	4.4	4.8
30	100	727	156	265	---	211	135	61	34	7.2	4.1	6.9
31	233	---	191	240	---	198	---	53	---	6.9	4.1	---
TOTAL	995.9	7970	18836	12800	10162	11440	9942	2423	959	390.1	170.5	142.1
MEAN	32.13	265.7	607.6	412.9	362.9	369.0	331.4	78.16	31.97	12.58	5.500	4.737
MAX	233	1150	1510	1280	838	1220	1400	125	59	26	7.5	11
MIN	5.2	26	156	134	197	132	135	53	19	6.9	4.1	3.5
AC-FT	1980	15810	37360	25390	20160	22690	19720	4810	1900	774	338	282
CFSM	0.62	5.13	11.7	7.97	7.01	7.12	6.40	1.51	0.62	0.24	0.11	0.09
IN.	0.72	5.72	13.53	9.19	7.30	8.22	7.14	1.74	0.69	0.28	0.12	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2002, BY WATER YEAR (WY)

	MEAN	79.18	272.9	416.0	447.4	389.1	340.5	268.2	191.6	86.55	31.24	16.16	17.63
MAX	397	620	1107	842	944	625	490	353	286	75.9	53.4	67.8	
(WY)	1951	1951	1965	1953	1961	1972	1955	1963	1993	1969	1968	1968	
MIN	8.08	15.7	109	82.1	92.5	85.0	133	62.8	20.2	11.8	4.40	4.74	
(WY)	1989	1953	1960	1963	2001	1992	1968	1973	1992	1992	1992	2002	

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1948 - 2002

ANNUAL TOTAL		50936.3		76230.6								
ANNUAL MEAN		139.6		208.9						214.7		
HIGHEST ANNUAL MEAN										318		1956
LOWEST ANNUAL MEAN										80.3		2001
HIGHEST DAILY MEAN			1510		Dec 14		1510		Dec 14	6410		Dec 22 1964
LOWEST DAILY MEAN			4.9		Sep 24		3.5		Sep 14	2.9		Aug 28 1992
ANNUAL SEVEN-DAY MINIMUM			5.3		Sep 18		3.7		Sep 10	3.0		Aug 26 1992
ANNUAL RUNOFF (AC-FT)			101000				151200			155500		
ANNUAL RUNOFF (CFSM)			2.69				4.03			4.14		
ANNUAL RUNOFF (INCHES)			36.58				54.74			56.31		
10 PERCENT EXCEEDS			325				570			501		
50 PERCENT EXCEEDS			69				84			119		
90 PERCENT EXCEEDS			7.2				5.0			12		

e Estimated

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR

LOCATION.--Lat 44°24'45", long 122°41'15", in SE 1/4 NE 1/4 sec.28, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, on left bank 0.6 mi downstream from Wiley Creek and at mile 37.0.

DRAINAGE AREA.--557 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year. Records for October 1966 to July 1973 (published as South Santiam River at Foster, station 14186700) at site 0.5 mi upstream not equivalent owing to inflow between sites.

GAGE.--Water-stage recorder. Elevation of gage is 530 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since October 1966 by Green Peter Lake (station 14186100) and since December 1966 by Foster Lake (station 14186600). No diversion upstream from station. Continuous water-quality records for the period July 1973 to September 1997 have been collected at this location.

AVERAGE DISCHARGE.--29 years (water years 1974-2002), 2,851 ft³/s, 69.51 in/yr, 2,066,000 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,700 ft³/s Feb. 7, 1996, gage height, 18.74 ft, from rating curve extended above 16,000 ft³/s; minimum discharge, 343 ft³/s July 18, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,600 ft³/s Apr. 14, gage height, 15.89 ft; minimum discharge, 390 ft³/s July 31.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	739	1650	11000	3130	1450	1810	3350	1920	1210	1090	757	714
2	760	1290	10900	3290	1400	1180	3810	1960	1680	860	714	714
3	752	882	10600	4050	1370	899	4100	1870	1690	842	713	718
4	746	867	10500	4140	1330	888	4230	1900	1700	842	717	769
5	749	857	10600	3810	1260	908	4230	1820	1690	844	715	768
6	743	859	11000	4200	1280	1250	4220	1760	1680	839	711	760
7	743	851	10900	5390	2140	2360	4260	2560	1670	835	711	762
8	748	844	10100	6450	3480	3590	4360	2060	2630	838	710	762
9	749	836	9750	5620	2470	3770	5070	1990	2770	833	708	764
10	757	1120	8070	7070	1890	3780	6380	2470	3050	814	710	765
11	817	1120	5940	7260	1730	4410	7040	2450	3590	819	708	764
12	773	1120	5440	7280	1490	7990	7130	2430	3550	832	726	770
13	763	1040	6770	7230	1330	9880	8030	2490	2070	835	720	772
14	763	1530	11200	7170	1230	8350	12800	2670	1350	816	716	774
15	759	2340	10600	5350	1110	6660	12800	2520	1190	823	718	762
16	755	2290	11200	4710	1080	6040	12800	1820	1190	826	721	756
17	752	3040	12100	4490	1090	5910	12800	1640	1200	813	719	766
18	758	3080	11400	3810	1080	5510	9610	1820	1230	810	702	767
19	772	2840	10300	3780	1290	4160	6540	1820	1200	810	711	766
20	759	4470	10600	4300	1680	3910	3710	1800	1190	810	699	765
21	751	5280	10500	8580	1680	3280	2510	1800	1100	811	714	765
22	833	9100	10500	6200	2050	2990	2370	1790	1090	811	718	766
23	1390	9680	10300	4610	2530	2940	2170	1840	1080	813	717	763
24	1290	6790	8650	5410	2440	3040	2170	1810	1080	812	715	765
25	1280	6180	7250	7940	2220	2980	2110	1810	1080	815	711	762
26	1240	6130	5810	8620	1820	2960	1910	1680	1070	816	710	763
27	848	5870	5160	6020	1740	2830	2100	1670	1070	817	711	762
28	809	6730	6700	5540	1830	2620	2060	1770	1080	818	710	765
29	815	10000	6760	3940	---	2590	2010	1820	1110	817	712	766
30	889	9190	5290	3180	---	3080	1960	1630	1100	815	715	773
31	1650	---	3250	1540	---	3360	---	1240	---	689	715	---
TOTAL	26952	107876	279140	164110	47490	115925	158640	60630	48390	25665	22154	22808
MEAN	869.4	3596	9005	5294	1696	3740	5288	1956	1613	827.9	714.6	760.3
MAX	1650	10000	12100	8620	3480	9880	12800	2670	3590	1090	757	774
MIN	739	836	3250	1540	1080	888	1910	1240	1070	689	699	714
AC-FT	53460	214000	553700	325500	94200	229900	314700	120300	95980	50910	43940	45240
MEAN†	676	3914	7845	5383	4085	4684	5891	2129	1150	374	168	164
CFSM†	1.22	7.03	14.1	9.66	7.33	8.41	10.6	3.82	2.06	0.67	0.30	0.29
IN.†	1.40	7.84	16.24	11.14	7.64	9.70	11.80	4.41	2.30	0.78	0.35	0.33
AC-FT†	41600	232900	482400	331000	226800	288000	350600	130900	68440	23030	10360	9730

CAL YR 2001 TOTAL 754892 MEAN 2068 MAX 12100 MIN 600 AC-FT 1497000 MEAN† 2044 CFSM† 3.67 IN.† 49.82 AC-FT† 1480000
WTR YR 2002 TOTAL 1079780 MEAN 2958 MAX 12800 MIN 689 AC-FT 2142000 MEAN† 3033 CFSM† 5.45 IN.† 73.94 AC-FT† 2196000

† Adjusted for change in contents in Green Peter Lake and Foster Lake.

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--July 1973 to September 1997. August 2001 to current year.

INSTRUMENTATION.--Water-temperature probe and data logger.

REMARKS.--Records fair, except those for the period May 5-23, which are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum, 15.5°C at times in 1975, 1978, 1981, 1987, 1990, 1993; minimum, 2.5°C Dec. 30, 31, 1978, Feb. 1, 1980, Feb. 7, 1985.

EXTREMES FOR CURENT YEAR.--Maximum, 13.6°C Oct. 10; minimum, 4.4°C Feb. 04.

WATER TEMPERATURE, in (DEGREES C), AUGUST TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	13.2	12.1	12.7
2	---	---	---	---	---	---	---	---	---	13.1	12.0	12.6
3	---	---	---	---	---	---	---	---	---	13.0	12.0	12.6
4	---	---	---	---	---	---	---	---	---	13.0	12.0	12.6
5	---	---	---	---	---	---	---	---	---	13.1	12.1	12.5
6	---	---	---	---	---	---	---	---	---	12.9	12.0	12.4
7	---	---	---	---	---	---	---	---	---	12.8	11.9	12.4
8	---	---	---	---	---	---	---	---	---	13.0	11.9	12.5
9	---	---	---	---	---	---	---	---	---	13.0	12.1	12.5
10	---	---	---	---	---	---	---	---	---	12.9	12.1	12.6
11	---	---	---	---	---	---	---	---	---	13.0	12.0	12.6
12	---	---	---	---	---	---	---	---	---	13.1	12.1	12.6
13	---	---	---	---	---	---	---	---	---	13.1	12.1	12.6
14	---	---	---	---	---	---	---	---	---	13.1	12.1	12.6
15	---	---	---	---	---	---	---	---	---	13.1	12.3	12.7
16	---	---	---	---	---	---	---	---	---	13.3	12.2	12.7
17	---	---	---	---	---	---	---	---	---	13.0	12.1	12.5
18	---	---	---	---	---	---	---	---	---	13.0	12.0	12.5
19	---	---	---	---	---	---	---	---	---	12.9	12.1	12.5
20	---	---	---	---	---	---	---	---	---	12.9	12.0	12.5
21	---	---	---	---	---	---	---	---	---	12.9	12.1	12.5
22	---	---	---	---	---	---	---	---	---	12.9	12.1	12.6
23	---	---	---	---	---	---	13.0	12.1	12.6	12.9	12.2	12.6
24	---	---	---	---	---	---	---	---	---	13.1	12.2	12.6
25	---	---	---	---	---	---	13.1	11.9	12.5	12.8	12.3	12.5
26	---	---	---	---	---	---	13.3	11.8	12.6	13.1	12.3	12.7
27	---	---	---	---	---	---	13.3	12.0	12.6	12.9	12.3	12.6
28	---	---	---	---	---	---	13.2	11.9	12.7	13.1	12.1	12.6
29	---	---	---	---	---	---	13.3	12.0	12.6	13.1	12.2	12.8
30	---	---	---	---	---	---	13.2	11.9	12.7	13.1	12.3	12.7
31	---	---	---	---	---	---	13.1	12.1	12.6	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	13.3	11.9	12.6

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.2	12.5	12.8	11.5	11.0	11.2	8.5	8.2	8.3	7.4	6.7	7.0
2	13.1	12.4	12.7	11.6	11.0	11.2	8.6	8.0	8.3	7.7	7.2	7.4
3	13.1	12.4	12.7	11.3	10.7	10.9	8.5	8.2	8.4	7.3	6.8	7.0
4	13.2	12.4	12.8	11.7	10.8	11.2	8.3	8.0	8.2	6.9	6.4	6.7
5	13.2	12.3	12.7	11.2	10.7	10.9	8.5	8.0	8.2	7.2	6.6	6.9
6	13.1	12.5	12.9	11.1	10.6	10.8	8.5	8.2	8.4	7.8	7.2	7.5
7	13.1	12.6	12.8	10.9	10.0	10.5	8.2	7.7	8.0	8.0	7.7	7.8
8	13.0	12.6	12.8	10.5	9.8	10.1	8.2	7.6	7.8	8.1	7.6	7.9
9	13.1	12.3	12.7	10.3	9.8	10.1	7.8	7.5	7.6	7.7	6.8	7.2
10	13.6	12.6	13.1	10.4	9.9	10.2	7.5	7.3	7.4	7.3	6.8	7.0
11	13.1	12.0	12.6	10.6	10.0	10.3	7.5	7.2	7.4	7.1	6.8	7.0
12	13.3	12.4	12.8	10.8	10.3	10.5	7.5	7.2	7.3	7.2	6.8	7.0
13	13.1	12.2	12.7	10.8	10.4	10.6	8.0	7.5	7.7	6.8	6.5	6.6
14	13.0	12.2	12.7	11.2	10.6	10.8	7.7	6.9	7.2	6.6	6.3	6.5
15	12.8	12.3	12.5	11.0	10.6	10.8	7.1	6.8	6.9	6.4	6.0	6.2
16	13.2	12.0	12.6	10.9	10.4	10.8	8.0	7.1	7.6	6.1	5.8	5.9
17	12.9	12.0	12.5	10.6	10.2	10.4	7.8	7.0	7.3	6.2	5.8	6.0
18	12.9	12.2	12.6	10.3	9.8	10.1	7.2	7.0	7.1	6.1	5.8	6.0
19	13.0	12.2	12.6	10.7	10.2	10.4	7.3	6.8	7.1	6.2	5.8	6.0
20	12.8	12.3	12.6	10.5	10.2	10.3	7.4	6.9	7.2	6.5	5.8	5.9
21	13.0	12.6	12.7	10.4	10.1	10.2	7.0	6.7	6.8	6.5	5.7	6.0
22	12.9	11.5	12.5	10.4	9.4	9.8	7.1	6.6	6.8	5.9	5.5	5.7
23	12.3	11.4	11.9	9.7	9.3	9.5	6.9	6.6	6.7	5.9	5.5	5.6
24	12.5	11.6	12.0	9.5	9.0	9.3	6.7	6.4	6.5	5.9	5.6	5.7
25	12.7	11.9	12.3	9.2	8.8	8.9	6.6	6.3	6.4	6.4	5.9	6.2
26	12.7	11.8	12.2	9.2	8.7	8.9	6.5	6.2	6.4	6.1	5.4	5.8
27	12.2	11.3	11.8	8.8	8.3	8.6	6.6	6.4	6.5	5.8	5.3	5.5
28	11.8	11.2	11.5	8.7	8.3	8.6	6.8	6.5	6.7	5.5	5.1	5.2
29	11.8	11.2	11.5	8.6	8.0	8.3	6.7	6.4	6.6	5.1	4.6	4.9
30	11.9	11.1	11.5	8.4	8.0	8.2	6.8	6.5	6.7	5.3	4.8	5.0
31	11.2	10.8	11.0	---	---	---	7.2	6.8	7.0	5.3	4.9	5.1
MONTH	13.6	10.8	12.4	11.7	8.0	10.1	8.6	6.2	7.3	8.1	4.6	6.3

14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--October 1963 to September 1987, August, 2001 to current year.

INSTRUMENTATION.--Temperature probe and data logger.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum, 26.0°C Aug. 4, 1966; minimum, 1.5°C Dec. 18-20, 1965, Feb. 1, 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum, 17.9°C Aug. 13; minimum, 4.6°C Feb. 5, 14, 15.

WATER TEMPERATURE, in (DEGREES C), AUGUST TO SEPTEMBER 2001												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	---	---	---	16.3	14.2	15.5
2	---	---	---	---	---	---	---	---	---	16.7	14.3	15.6
3	---	---	---	---	---	---	---	---	---	16.2	13.6	15.0
4	---	---	---	---	---	---	---	---	---	16.1	13.7	15.1
5	---	---	---	---	---	---	---	---	---	15.2	13.3	14.2
6	---	---	---	---	---	---	---	---	---	15.2	12.4	13.8
7	---	---	---	---	---	---	---	---	---	15.6	12.8	14.3
8	---	---	---	---	---	---	---	---	---	15.9	13.0	14.6
9	---	---	---	---	---	---	---	---	---	16.1	13.3	14.8
10	---	---	---	---	---	---	---	---	---	16.0	13.4	14.8
11	---	---	---	---	---	---	---	---	---	15.9	13.3	14.7
12	---	---	---	---	---	---	---	---	---	16.2	13.8	15.1
13	---	---	---	---	---	---	---	---	---	16.1	13.9	15.1
14	---	---	---	---	---	---	---	---	---	15.9	13.8	14.9
15	---	---	---	---	---	---	---	---	---	15.7	14.1	15.1
16	---	---	---	---	---	---	---	---	---	16.1	14.1	15.1
17	---	---	---	---	---	---	---	---	---	15.4	13.0	14.2
18	---	---	---	---	---	---	---	---	---	15.3	12.9	14.2
19	---	---	---	---	---	---	---	---	---	15.2	12.8	14.1
20	---	---	---	---	---	---	---	---	---	15.3	12.7	14.0
21	---	---	---	---	---	---	---	---	---	15.0	12.8	14.0
22	---	---	---	---	---	---	---	---	---	15.5	12.9	14.2
23	---	---	---	---	---	---	---	---	---	15.6	13.4	14.5
24	---	---	---	---	---	---	---	---	---	15.4	13.5	14.6
25	---	---	---	---	---	---	16.7	14.0	15.4	15.0	13.1	13.8
26	---	---	---	---	---	---	17.0	14.4	15.7	13.5	12.8	13.1
27	---	---	---	---	---	---	16.9	14.6	15.8	13.7	12.1	12.9
28	---	---	---	---	---	---	17.2	14.5	15.9	14.7	12.1	13.4
29	---	---	---	---	---	---	16.6	14.2	15.5	15.1	12.3	13.8
30	---	---	---	---	---	---	17.1	14.4	15.6	15.2	12.4	14.0
31	---	---	---	---	---	---	16.9	14.3	15.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	16.7	12.1	14.4

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15.4	12.8	14.2	11.9	11.3	11.6	9.0	8.7	8.9	7.2	6.9	7.0
2	15.0	12.5	14.0	12.7	11.7	12.1	9.0	8.6	8.8	7.7	7.1	7.3
3	14.7	11.9	13.5	11.9	10.9	11.5	9.1	8.8	8.9	7.3	6.8	7.1
4	14.8	12.1	13.6	12.0	11.1	11.6	8.9	8.7	8.8	7.0	6.6	6.8
5	14.4	12.1	13.5	12.0	11.0	11.7	8.9	8.6	8.8	7.1	6.8	7.0
6	14.1	12.9	13.6	11.6	10.3	10.9	9.1	8.7	8.9	7.6	7.1	7.4
7	13.4	11.7	12.7	10.7	9.1	10.0	8.7	8.3	8.6	7.9	7.6	7.7
8	13.9	12.7	13.3	10.3	9.0	9.8	8.5	8.1	8.3	8.2	7.7	7.9
9	13.9	11.9	13.0	10.4	8.9	9.7	8.3	8.0	8.1	7.7	7.3	7.5
10	13.2	11.5	12.2	11.0	9.5	10.3	---	---	---	7.5	7.1	7.3
11	13.4	12.6	12.9	11.3	10.0	10.7	---	---	---	7.3	7.0	7.1
12	13.6	11.8	12.6	11.1	10.4	10.8	---	---	---	7.4	7.0	7.1
13	14.6	13.0	13.7	11.1	10.8	10.9	8.1	7.8	8.0	7.0	6.8	6.9
14	13.8	12.5	13.2	12.1	11.1	11.5	8.0	7.3	7.6	6.9	6.5	6.8
15	13.7	12.2	13.0	11.4	10.8	11.1	7.3	7.1	7.2	6.9	6.2	6.5
16	13.5	12.2	13.1	11.2	10.9	11.1	8.0	7.2	7.6	6.4	6.0	6.2
17	13.4	11.8	12.7	11.1	10.6	10.8	7.7	7.3	7.5	6.6	6.2	6.3
18	13.2	10.8	12.1	10.8	10.2	10.4	7.4	7.2	7.3	6.5	6.2	6.3
19	13.7	11.2	12.5	11.1	10.1	10.7	7.4	7.1	7.2	6.6	6.2	6.4
20	13.4	11.9	12.4	10.8	10.4	10.6	7.5	7.3	7.4	6.4	6.0	6.2
21	12.6	11.8	12.2	10.8	10.5	10.7	7.4	7.0	7.2	6.4	5.9	6.2
22	12.9	12.6	12.7	10.8	10.2	10.6	7.3	6.9	7.1	6.2	5.8	5.9
23	12.8	11.6	12.3	10.4	10.1	10.2	7.3	6.9	7.0	6.1	5.8	5.9
24	13.0	11.0	12.0	10.1	9.8	10	7.1	6.7	6.9	6.0	5.8	5.9
25	13.5	12.0	12.7	10.0	9.6	9.7	7.0	6.6	6.7	6.4	6.0	6.2
26	13.4	11.7	12.6	9.9	9.4	9.6	6.8	6.5	6.6	6.1	5.7	5.9
27	13.2	11.6	11.9	9.4	9.1	9.2	6.7	6.6	6.6	6.0	5.6	5.8
28	11.6	10.8	11.2	9.3	9.1	9.2	7.0	6.7	6.8	6.0	5.4	5.7
29	11.6	11.1	11.3	9.2	8.7	9.0	6.9	6.8	6.9	5.6	5.2	5.4
30	12.1	11.4	11.7	8.9	8.7	8.8	7.1	6.7	6.9	5.7	5.2	5.4
31	12.1	11.3	11.6	---	---	---	7.4	6.8	7.1	5.8	5.4	5.6
MONTH	15.4	10.8	12.7	12.7	8.7	10.5	---	---	---	8.2	5.2	6.5

WILLAMETTE RIVER BASIN

141878500 SOUTH SANTIAM RIVER AT WATERLOO, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.4	5.5	5.8	7.2	5.1	6.1	9.8	6.5	8.0	10.9	8.6	9.6
2	6.3	4.9	5.6	7.2	4.8	6.0	9.5	6.8	7.9	10.2	9.1	9.6
3	6.9	5.9	6.3	7.4	4.8	6.2	10.0	6.9	8.2	11.6	8.0	9.6
4	6.1	4.7	5.4	7.9	5.5	6.8	10.6	7.2	8.6	12.4	7.8	10.1
5	5.8	4.6	5.2	7.4	6.5	6.8	8.4	7.4	8.0	10.6	8.4	9.5
6	5.9	5.2	5.5	7.1	6.7	6.8	8.8	7.2	8.1	10.2	8.0	9.1
7	6.0	5.8	5.9	6.7	5.8	6.3	8.4	7.2	7.7	11.0	7.8	9.2
8	6.6	5.5	6.0	6.6	5.5	6.0	10.3	7.5	8.4	12.3	7.6	9.7
9	6.5	5.1	5.7	6.4	5.6	6.0	9.0	7.5	8.1	10.1	7.8	8.8
10	6.8	5.3	6.1	6.6	6.0	6.2	8.7	7.3	8.1	11.0	8.0	9.3
11	6.7	5.8	6.2	6.8	6.3	6.5	8.6	7.3	7.9	12.5	7.1	9.6
12	6.3	5.3	5.8	6.5	6.0	6.2	8.9	7.3	7.9	13.1	7.8	10.2
13	6.5	4.9	5.7	6.3	5.9	6.1	8.4	7.6	8.0	10.4	8.4	9.2
14	6.4	4.6	5.5	6.3	5.8	6.0	8.2	7.3	7.7	11.8	8.7	10.0
15	6.9	4.6	5.8	6.2	5.6	5.9	7.3	6.7	7.1	12.2	7.2	9.6
16	7.4	5.8	6.6	6.3	5.5	5.7	6.9	6.3	6.7	13.2	7.6	10.3
17	7.4	5.9	6.7	6.2	5.3	5.7	6.9	6.2	6.5	12.9	8.6	10.6
18	8.0	6.6	7.3	5.9	5.3	5.6	7.1	6.2	6.5	11.2	8.2	9.7
19	7.7	7.1	7.4	6.4	5.6	5.9	7.6	6.3	6.8	9.9	8.6	9.4
20	7.9	6.3	7.1	7.2	5.6	6.3	8.7	6.6	7.3	11.3	8.1	9.6
21	8.3	7.2	7.8	7.3	5.9	6.5	9.3	6.4	7.7	10.4	8.0	9.1
22	8.6	7.2	7.9	6.8	5.4	6.1	10.3	6.8	8.4	10.5	7.8	8.9
23	8.1	7.5	7.8	8.1	6.2	7.0	10.1	6.7	8.4	12.2	7.6	9.7
24	7.5	6.5	7.0	8.0	6.7	7.4	10.9	6.6	8.6	12.4	7.7	9.9
25	7.5	5.8	6.6	8.8	6.1	7.3	11.6	7.3	9.4	12.2	8.2	10.1
26	7.4	5.6	6.5	8.5	6.3	7.3	10.0	7.6	8.7	12.8	8.5	10.6
27	7.3	5.1	6.2	8.7	6.8	7.6	11.0	8.4	9.5	11.2	9.0	10.1
28	7.3	5.4	6.3	8.2	6.6	7.3	12.2	7.9	9.9	10.4	8.9	9.6
29	---	---	---	9.5	6.9	8.0	12.6	7.6	10	11.0	9.3	10.1
30	---	---	---	9.3	6.2	7.6	10.7	7.9	9.3	13.2	9.3	10.8
31	---	---	---	9.2	6.8	7.8	---	---	---	13.5	9.4	11.4
MONTH	8.6	4.6	6.3	9.5	4.8	6.5	12.6	6.2	8.1	13.5	7.1	9.8
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13.8	9.6	11.8	15.4	11.3	13.5	16.7	13.2	15.1	16.7	13.9	15.4
2	13.4	9.4	11.4	16.0	11.4	13.8	16.3	13.9	15.2	16.7	14.1	15.4
3	12.9	9.2	11.0	15.2	12.2	13.7	16.4	13.4	15.0	16.3	14.6	15.6
4	13.6	10.0	11.6	15.5	12.1	13.6	15.9	13.9	14.7	15.4	12.9	14.3
5	12.7	10.2	11.4	16.0	12.0	14.0	15.2	12.7	14.1	15.2	12.5	13.9
6	13.2	9.4	11.2	16.5	12.7	14.6	16.2	13.4	14.7	15.4	12.5	13.9
7	11.9	9.5	10.7	15.8	12.8	13.8	16.5	13.4	15.0	15.3	12.8	14.1
8	11.8	9.3	10.4	16.6	12.8	14.3	16.7	13.8	15.3	14.7	12.3	13.6
9	12.1	9.5	10.9	17.3	12.9	15.1	17.3	14.0	15.6	15.6	12.5	14.1
10	13.3	9.4	11.0	17.4	14.0	15.8	17.4	14.8	16.1	15.8	13.0	14.5
11	12.4	9.7	11.0	17.3	13.9	15.7	17.0	14.3	15.7	16.1	13.2	14.7
12	12.6	9.8	10.9	16.8	13.8	15.4	17.3	14.2	15.7	16.1	13.3	14.8
13	13.9	9.8	11.5	16.2	13.8	15.2	17.9	14.6	16.3	16.0	13.3	14.8
14	14.2	9.5	11.7	16.6	13.0	15.0	17.5	15.1	16.4	15.4	13.2	14.2
15	13.1	10.0	11.5	16.8	13.2	15.1	17.2	14.5	15.9	14.2	12.8	13.4
16	12.7	10.2	11.5	17.1	13.6	15.4	16.6	13.9	15.3	13.4	12.7	13.1
17	11.9	9.9	10.7	17.1	13.6	15.5	16.6	14.0	15.3	13.8	12.6	13.2
18	12.6	10.3	11.3	16.6	13.3	15.1	16.3	13.7	15.1	15.2	12.6	13.8
19	14.7	9.9	12.1	16.1	13.7	15.1	15.8	13.7	14.9	15.2	12.3	13.8
20	14.9	10.6	12.8	17.3	13.5	15.4	15.2	13.8	14.4	14.9	12.6	13.9
21	13.8	10.8	12.3	17.4	14.0	15.8	15.6	12.9	14.1	14.6	11.8	13.3
22	13.0	10.9	11.8	17.5	14.4	16.1	16.5	13.2	14.8	14.5	12.0	13.3
23	15.1	10.7	12.7	17.6	14.6	16.2	16.8	13.9	15.4	14.7	12.2	13.6
24	15.1	11.2	13.2	17.5	14.0	16.0	16.9	14.3	15.6	14.6	12.2	13.5
25	15.8	11.3	13.6	17.0	13.6	15.5	16.3	13.8	14.7	14.6	12.0	13.4
26	15.9	11.9	14.0	16.5	13.8	15.2	16.5	13.7	14.9	14.0	11.9	13.1
27	14.7	11.9	12.8	16.7	13.5	15.1	16.7	13.8	15.3	14.8	12.6	13.6
28	12.7	11.7	12.0	17.5	13.5	15.6	17.3	14.6	15.9	14.2	11.9	13.2
29	13.5	11.5	12.4	17.8	14.3	16.2	16.7	14.7	15.9	13.6	12.1	13.0
30	15.1	11.5	13.2	17.6	14.4	16.2	16.1	13.8	15.1	13.2	11.8	12.5
31	---	---	---	16.9	13.7	15.5	16.3	13.6	15.0	---	---	---
MONTH	15.9	9.2	11.8	17.8	11.3	15.1	17.9	12.7	15.2	16.7	11.8	13.9

WILLAMETTE RIVER BASIN

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14187600 LEBANON SANTIAM CANAL NEAR LEBANON, OR

LOCATION.--Lat 44°30'54", long 122°51'49", in SW 1/4 NW 1/4 sec.19, T.12 S., R.1 W., Linn County, Hydrologic Unit 17090006, near right bank, on downstream side of bridge on Headgate Road, 2.2 mi east of Lebanon.

PERIOD OF RECORD.--May 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 370 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 191 ft³/s Mar. 8, 1994; minimum daily discharge, 25 ft³/s Jan. 18, 1994.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	89	66	73	54	42	85	83	74	90	101	98
2	102	87	43	73	67	47	88	83	82	81	93	98
3	101	80	57	77	64	41	91	82	85	77	93	96
4	101	80	64	79	63	46	87	82	85	77	92	96
5	102	86	65	77	61	56	80	81	85	77	92	96
6	102	90	65	80	60	59	80	79	85	77	93	96
7	102	89	65	74	65	64	80	90	85	77	92	96
8	103	71	64	65	59	61	80	86	96	77	92	96
9	100	76	64	63	45	52	81	83	93	76	92	96
10	96	89	70	70	41	52	78	91	94	82	91	96
11	99	90	79	76	50	54	80	90	101	84	90	96
12	97	91	77	76	63	59	75	90	101	85	90	96
13	97	87	64	75	63	59	78	91	85	85	89	95
14	96	81	35	78	65	55	94	94	78	84	88	96
15	96	84	58	82	62	51	87	91	77	84	88	96
16	96	81	60	85	60	48	74	83	77	85	88	91
17	96	83	61	84	59	47	74	77	77	85	88	90
18	96	82	60	80	60	50	77	80	81	85	88	89
19	96	80	57	80	60	56	82	80	83	85	88	88
20	96	82	58	73	69	61	68	80	81	85	89	89
21	96	80	56	61	67	57	60	81	81	85	90	90
22	97	75	56	52	74	55	80	80	83	85	89	91
23	94	69	55	52	74	54	87	81	83	85	88	90
24	88	71	70	61	63	55	86	80	82	86	88	89
25	87	69	82	56	58	63	85	80	82	86	90	88
26	86	78	76	48	61	79	79	79	84	87	94	88
27	83	85	72	42	59	84	73	78	87	87	98	88
28	82	73	78	41	40	80	72	80	88	87	97	90
29	86	77	79	36	---	80	77	86	92	87	97	90
30	94	69	75	43	---	82	84	86	91	86	98	91
31	93	---	69	43	---	86	---	77	---	98	98	---
TOTAL	2960	2424	2000	2055	1686	1835	2402	2584	2558	2597	2844	2785
MEAN	95.48	80.80	64.52	66.29	60.21	59.19	80.07	83.35	85.27	83.77	91.74	92.83
MAX	103	91	82	85	74	86	94	94	101	98	101	98
MIN	82	69	35	36	40	41	60	77	74	76	88	88
AC-FT	5870	4810	3970	4080	3340	3640	4760	5130	5070	5150	5640	5520
CAL YR 2001	TOTAL 31051	MEAN 85.07	MAX 111	MIN 35	AC-FT 61590							
WTR YR 2002	TOTAL 28730	MEAN 78.71	MAX 103	MIN 35	AC-FT 56990							

WILLAMETTE RIVER BASIN

14188610 SCHAFFER CREEK NEAR LACOMB, OR

LOCATION.--Lat 44°37'11", long 122°27'53", in NE 1/4 SE 1/4 sec.8, T.11 S., R.3 E., Linn County, Hydrologic Unit 17090006, on right bank, 40 ft upstream from Crabtree Creek, and 8.0 mi east of LaComb.

DRAINAGE AREA.--1.03 mi².

PERIOD OF RECORD.--July 1993 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,900 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair except those below 2.0 ft³/s, which are poor.

AVERAGE DISCHARGE.--9 years (water years 1994-2002), 7.66 ft³/s, 101.03 in/yr, 5,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 400 ft³/s Feb. 7, 1996, gage height, 7.93 ft, from rating curve extended above 110 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 0.01 ft³/s Sept. 30, Oct. 1-5, 1999, Sept. 24, 25, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 14	0100	*153	*6.48	No other peak greater than base discharge.			
Minimum discharge, 0.02 ft ³ /s Oct. 7.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	25	27	15	2.9	4.8	8.3	9.3	10	3.3	0.29	0.12
2	0.04	16	19	24	2.7	4.2	9.5	10	9.2	2.9	0.27	0.12
3	0.04	11	12	20	2.8	3.8	12	11	8.5	2.5	0.25	0.12
4	0.03	7.2	8.9	13	2.9	3.6	16	9.2	8.9	2.2	0.26	0.12
5	0.03	7.5	6.7	10	2.8	3.6	19	8.3	9.4	2.0	0.25	0.11
6	0.03	5.8	37	28	3.1	20	17	9.1	8.0	1.8	0.24	0.11
7	0.03	4.5	32	41	6.6	18	16	7.2	6.1	1.6	0.23	0.11
8	0.04	3.6	16	49	7.2	11	13	6.0	4.9	1.5	0.22	0.11
9	0.04	3.0	11	23	5.4	7.8	23	5.5	4.3	1.4	0.21	0.10
10	1.4	2.5	8.7	13	5.1	7.0	51	5.0	4.8	1.3	0.20	0.10
11	5.2	2.1	6.9	9.6	4.7	30	37	5.1	5.8	1.2	0.19	0.10
12	1.8	2.4	7.2	14	4.3	45	31	7.6	6.6	1.1	0.18	0.10
13	1.3	11	52	14	3.8	17	57	11	7.1	1.0	0.18	0.09
14	1.1	18	42	10	3.5	10	87	10	6.3	0.94	0.18	0.10
15	1.0	13	17	7.8	3.2	7.7	24	9.2	5.2	0.87	0.17	0.10
16	0.82	17	52	6.1	3.2	6.2	12	8.6	4.5	0.79	0.16	0.11
17	0.76	14	46	5.0	3.5	5.1	8.0	10	6.4	0.75	0.15	0.79
18	0.62	10	18	4.3	3.9	4.5	6.2	11	17	0.69	0.15	0.32
19	0.52	9.7	12	3.9	6.1	4.6	5.6	10	7.8	0.65	0.15	0.24
20	0.45	12	11	5.6	8.0	5.1	5.1	10	5.5	0.59	0.24	0.20
21	0.44	14	8.8	6.1	11	5.4	5.1	11	4.8	0.55	0.22	0.18
22	20	55	7.1	4.4	19	5.9	5.3	11	4.2	0.53	0.18	0.18
23	26	35	5.7	3.8	43	7.6	6.2	9.5	3.5	0.47	0.18	0.16
24	13	16	4.8	4.3	30	12	6.2	9.3	3.1	0.44	0.16	0.15
25	8.8	11	4.1	13	15	11	6.7	11	2.9	0.41	0.15	0.14
26	6.1	7.7	3.8	9.3	9.6	9.0	7.9	13	2.7	0.39	0.15	0.14
27	4.5	5.7	3.7	6.3	7.1	8.7	8.4	13	2.4	0.38	0.14	0.13
28	4.0	22	6.3	4.9	5.8	7.9	7.5	16	2.2	0.35	0.14	0.13
29	3.9	35	6.9	4.0	---	7.0	7.6	25	5.9	0.33	0.13	0.16
30	16	17	7.4	3.5	---	6.5	9.6	16	4.1	0.31	0.13	1.0
31	30	---	12	3.3	---	7.0	---	12	---	0.29	0.13	---
TOTAL	148.03	413.7	513.0	379.2	226.2	307.0	528.2	319.9	182.1	33.53	5.88	5.64
MEAN	4.78	13.8	16.5	12.2	8.08	9.90	17.6	10.3	6.07	1.08	0.19	0.19
MAX	30	55	52	49	43	45	87	25	17	3.3	0.29	1.0
MIN	0.03	2.1	3.7	3.3	2.7	3.6	5.1	5.0	2.2	0.29	0.13	0.09
AC-FT	294	821	1020	752	449	609	1050	635	361	67	12	11
CFSM	4.64	13.4	16.1	11.9	7.84	9.61	17.1	10.0	5.89	1.05	0.18	0.18
IN.	5.35	14.94	18.53	13.70	8.17	11.09	19.08	11.55	6.58	1.21	0.21	0.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	4.95	12.2	14.8	12.7	12.0	9.94	11.0	8.38	4.49
MAX	9.18	28.8	24.2	20.5	23.7	14.7	17.6	16.4	7.78
(WY)	1997	1996	1997	1995	1996	1997	2002	1999	1999
MIN	0.33	0.97	4.44	4.42	4.33	7.25	5.95	3.84	1.41
(WY)	1994	1994	1998	2001	2001	1996	1998	1994	1996

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	2164.39	3062.38		
ANNUAL MEAN	5.93	8.39	7.66	
HIGHEST ANNUAL MEAN			10.5	1996
LOWEST ANNUAL MEAN			4.20	2001
HIGHEST DAILY MEAN	55	87	152	Feb 7 1996
LOWEST DAILY MEAN	0.02	0.03	0.01	Oct 3 1999
ANNUAL SEVEN-DAY MINIMUM	0.02	0.03	0.02	Oct 3 1999
ANNUAL RUNOFF (AC-FT)	4290	6070	5550	2001
ANNUAL RUNOFF (CFSM)	5.76	8.15	7.44	1996
ANNUAL RUNOFF (INCHES)	78.17	110.60	101.03	1996
10 PERCENT EXCEEDS	15	19	18	1996
50 PERCENT EXCEEDS	3.3	5.5	3.8	1996
90 PERCENT EXCEEDS	0.06	0.15	0.16	1996

14189000 SANTIAM RIVER AT JEFFERSON, OR

LOCATION.--Lat 44°42'55", long 123°00'40", in SE 1/4 sec.11, T.10 S., R.3 W., Marion County, Hydrologic Unit 17090005, on right bank 350 ft upstream from Southern Pacific railroad bridge at Jefferson, 2.1 mi downstream from confluence of North and South Santiam Rivers, and at mile 9.62.

DRAINAGE AREA.--1,790 mi², approximately.

PERIOD OF RECORD.--October 1905 to June 1906 (gage heights and discharge measurements only), October 1907 to September 1916, October 1939 to current year. Gage-height records collected at same site since 1907 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 904: Drainage area. WSP 1094: 1908, 1910, 1912, 1943. WSP 1248: 1911, 1915-16(M). WSP 1935: 1909, WDR OR-93-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 199.63 ft above NGVD of 1929. Prior to Sept. 22, 1940, nonrecording gages at sites within 350 ft downstream at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1953 by Detroit Lake (station 14180500), since 1966 by Green Peter Lake (station 14186100) and by Foster Lake (station 14186600). Salem Canal diverts from North Santiam River at Stayton for irrigation and power; most of this water reaches Willamette River by way of Mill Creek at Salem. Stayton Canal diverts from North Santiam River at Stayton for irrigation of lands near town of West Stayton; some return flow reaches North Santiam River upstream from station. Albany power canal diverts from South Santiam River at Lebanon; return flow reaches Willamette River at Albany. Continuous water-quality records for the period October 1963 to September 1987 have been collected at this location. Water temperature data for the period October 2000 to June 2001 available in the files of the Portland Field Office. Periodic suspended sediment data are available for the period October 1991 to September 1993.

AVERAGE DISCHARGE.--22 years (water years 1908-16, 1940-1952), 7,587 ft³/s, 5,497,000 acre-ft/yr.
50 years (water years 1953-2002), 7,815 ft³/s, 5,662,000 acre-ft/yr (regulated period).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 197,000 ft³/s Dec. 22, 1964, gage height, 24.22 ft; minimum discharge observed, 260 ft³/s Aug. 15-22, Aug. 24 to Sept. 2, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood stage of 25.0 ft was reached in December 1861, and 23.4 ft in February 1890 (information from Corps of Engineers). On Nov. 21, 1921, the stage reached 19.5 ft at gage on railroad bridge 350 ft downstream, corresponding gage height at present site and datum, 24.4 ft, from curve of relation, discharge, 202,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38,600 ft³/s Apr. 14, gage height, 13.33 ft; minimum discharge, 1,150 ft³/s Aug. 28.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1490	6250	23800	8390	7780	5160	7190	5670	7330	3490	1470	1220
2	1530	5150	29000	9310	6820	4680	7330	5920	6840	3130	1430	1220
3	1530	3770	28300	10100	6380	3900	7870	6420	6800	2830	1420	1220
4	1530	3120	26800	10100	6160	3650	8120	6640	5880	2710	1440	1350
5	1530	2930	28300	9040	5820	3580	8520	6650	5890	2500	1450	1820
6	1540	2810	28800	10700	5730	6850	8670	6670	5780	2400	1430	1920
7	1540	2620	32100	14200	8990	11500	9060	6930	5500	2360	1390	1950
8	1580	2490	26400	18400	14200	9370	9180	6890	5480	2340	1390	1970
9	1580	2400	23000	16200	11200	8650	10100	6290	5570	2270	1380	1980
10	1620	2430	19300	15300	8870	8340	14500	6050	5240	2180	1370	1970
11	1940	2510	15100	15700	7830	9620	19000	5970	6030	2110	1370	1960
12	1940	2540	13500	15600	6940	19900	18400	5940	6330	2090	1370	1990
13	1760	2780	17300	15600	6090	19800	19800	6240	5620	2070	1320	2060
14	1730	6410	33300	15200	5530	16900	31800	6620	4500	2050	1230	2070
15	1710	5750	26500	13700	5110	14000	31700	6700	4230	2030	1240	2110
16	1690	6540	27900	12300	4870	12600	27900	6570	4470	1970	1210	2130
17	1680	7400	31800	11900	4710	11600	27200	5940	4480	1790	1210	2240
18	1680	7280	28800	11300	4630	10700	24000	5990	5450	1730	1200	2270
19	1700	6780	23200	11700	4720	10400	18300	6070	5360	1690	1200	2230
20	1690	7850	24100	13900	5620	9830	12400	6210	4840	1690	1220	2200
21	1680	9620	23000	26400	5730	8890	9220	6310	4340	1680	1270	2160
22	1800	14200	22700	22200	7440	8140	7670	6480	3910	1660	1280	2140
23	4320	26000	21200	15900	11000	7790	6530	6430	3770	1640	1260	2140
24	3840	17100	18600	14600	10900	9050	6160	6270	3690	1630	1250	2090
25	3060	14500	15800	24100	8480	8740	5920	6180	3560	1630	1250	2070
26	2780	13700	13500	28400	6880	7990	5640	5970	3430	1640	1250	2070
27	2500	12700	11500	19000	5860	7670	6190	6550	3200	1640	1210	2160
28	2280	12500	12600	16100	5540	7130	5910	6970	3130	1660	1200	2160
29	2210	25100	12700	11800	---	6680	5580	7740	3760	1640	1210	2190
30	2450	22000	11200	9510	---	6650	5560	8210	3990	1600	1200	2320
31	5320	---	8950	7420	---	7190	---	7390	---	1520	1200	---
TOTAL	65230	257230	679050	454070	199830	286950	385420	200880	148400	63370	40320	59380
MEAN	2104	8574	21900	14650	7137	9256	12850	6480	4947	2044	1301	1979
MAX	5320	26000	33300	28400	14200	19900	31800	8210	7330	3490	1470	2320
MIN	1490	2400	8950	7420	4630	3580	5560	5670	3130	1520	1200	1220
AC-FT	129400	510200	1347000	900600	396400	569200	764500	398400	294400	125700	79970	117800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)

	4794	11520	16100	14910	11440	9238	8344	7139	4493	1867	1441	2684
MEAN	4794	11520	16100	14910	11440	9238	8344	7139	4493	1867	1441	2684
MAX	11890	26850	37880	30310	32350	25700	16150	14180	11150	4825	2883	5325
(WY)	1969	1974	1965	1953	1996	1972	1993	1960	1984	1983	1968	1968
MIN	432	622	2420	2178	1897	3245	3874	2115	1287	944	747	887
(WY)	1953	1953	1977	1977	1977	1925	1968	1973	1992	1965	1966	1953

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1953 - 2002
ANNUAL TOTAL	1991020	2840130	
ANNUAL MEAN	5455	7781	7815
HIGHEST ANNUAL MEAN			12310
LOWEST ANNUAL MEAN			3512
HIGHEST DAILY MEAN	33300	Dec 14	143000
LOWEST DAILY MEAN	1190	Aug 10	396
ANNUAL SEVEN-DAY MINIMUM	1200	Aug 10	406
ANNUAL RUNOFF (AC-FT)	3949000	5633000	5662000
10 PERCENT EXCEEDS	12500	19000	17600
50 PERCENT EXCEEDS	3330	5910	5120
90 PERCENT EXCEEDS	1320	1510	1440

WILLAMETTE RIVER BASIN

14189050 SANTIAM RIVER NEAR JEFFERSON, OR

WATER-QUALITY RECORDS

LOCATION.--Lat. 44°44'20", long 123°02'55", in SW 1/4 sec. 34, T.9 S., R.3 W., Marion County, Hydrologic Unit 17090005, on right bank 0.1 mi upstream from Interstate 5 bridge in east side of Santiam Safety Rest Area, and at mile 6.2.

DRAINAGE AREA.--1,790 mi² approximately, at site (14189000) 3.4 mi upstream.

PERIOD OF DAILY RECORD.--May 2001 to current year.

INSTRUMENTATION.--Water-temperature recorder.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded, 22.5°C Aug. 10, 2001; minimum recorded, 4.8°C Jan. 27, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum recorded, 22.0°C July 22, Aug. 14; minimum recorded, 4.8°C Jan. 27.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.3	15.3	16.4	11.0	10.5	10.8	8.3	8.1	8.2	6.9	6.5	6.6
2	17.2	15.7	16.5	12.2	11.0	11.5	8.2	7.8	8.0	7.4	6.6	7.0
3	16.7	15.0	15.8	11.9	11.5	11.7	8.3	8.0	8.2	7.1	6.5	6.8
4	16.2	14.5	15.5	12.0	11.3	11.6	8.0	7.6	7.7	6.6	6.0	6.2
5	16.1	14.4	15.3	11.9	11.1	11.5	8.0	7.3	7.6	6.8	6.2	6.4
6	15.6	14.7	15.1	11.1	10.1	10.6	8.3	8.0	8.1	8.1	6.8	7.4
7	15.1	13.8	14.2	10.1	8.8	9.3	8.0	7.8	7.9	8.2	8.1	8.2
8	14.6	13.6	14.1	8.9	8.0	8.5	7.9	7.3	7.6	8.2	7.8	8.1
9	14.3	12.9	13.7	8.9	8.0	8.4	7.8	7.4	7.6	7.8	7.1	7.4
10	13.9	12.5	12.8	9.7	8.3	9.0	7.4	7.1	7.3	7.1	6.7	6.9
11	13.9	12.4	13.1	10.6	9.4	10	7.4	7.1	7.3	6.9	6.6	6.7
12	13.7	12.6	13.2	10.9	10.3	10.6	7.5	7.2	7.3	7.1	6.6	6.8
13	14.9	13.3	14.0	11.1	10.5	10.8	7.9	7.5	7.8	6.7	6.0	6.2
14	15.2	13.9	14.6	11.8	10.9	11.4	7.8	6.7	7.1	6.2	5.8	6.0
15	14.9	13.4	14.2	11.6	11.0	11.4	7.0	6.6	6.7	5.9	5.4	5.6
16	14.5	13.4	13.7	11.0	10.6	10.8	7.8	7.0	7.4	5.5	5.0	5.2
17	13.5	12.4	13.0	10.6	9.9	10.3	7.8	6.9	7.3	5.8	5.3	5.5
18	13.1	11.8	12.6	9.9	9.4	9.6	6.9	6.7	6.8	5.8	5.5	5.7
19	13.6	11.6	12.6	10.2	9.4	9.7	6.9	6.6	6.8	6.1	5.6	5.9
20	13.5	12.4	12.8	10.4	10.2	10.3	7.2	6.8	7.0	5.8	5.5	5.7
21	12.6	11.5	11.8	10.3	10.0	10.1	7.0	6.4	6.7	5.8	5.5	5.7
22	12.8	11.9	12.3	10.2	9.4	10	6.6	6.1	6.3	5.6	5.1	5.4
23	12.7	11.3	11.9	9.6	9.0	9.3	6.5	5.9	6.2	5.8	5.3	5.5
24	11.3	10.2	10.8	9.5	9.1	9.2	6.1	5.7	5.9	6.0	5.6	5.8
25	12.8	11.0	11.7	9.1	8.8	8.9	6.0	5.4	5.7	6.2	6.0	6.1
26	12.8	11.6	12.2	8.8	8.4	8.6	5.9	5.3	5.6	6.0	5.5	5.7
27	12.5	11.4	11.9	8.6	8.0	8.1	6.0	5.7	5.8	5.5	4.8	5.1
28	11.4	10.3	10.7	8.6	7.9	8.3	6.5	5.9	6.2	5.5	5.0	5.3
29	10.8	10.4	10.6	8.5	8.2	8.3	6.5	5.9	6.2	5.4	5.0	5.2
30	11.4	10.7	11.0	8.2	7.9	8.1	6.4	5.8	6.1	5.5	4.9	5.2
31	11.5	11.0	11.3	--	--	--	7.0	6.3	6.6	5.8	5.4	5.6
MONTH	17.3	10.2	13.2	12.2	7.9	9.9	8.3	5.3	7.0	8.2	4.8	6.2

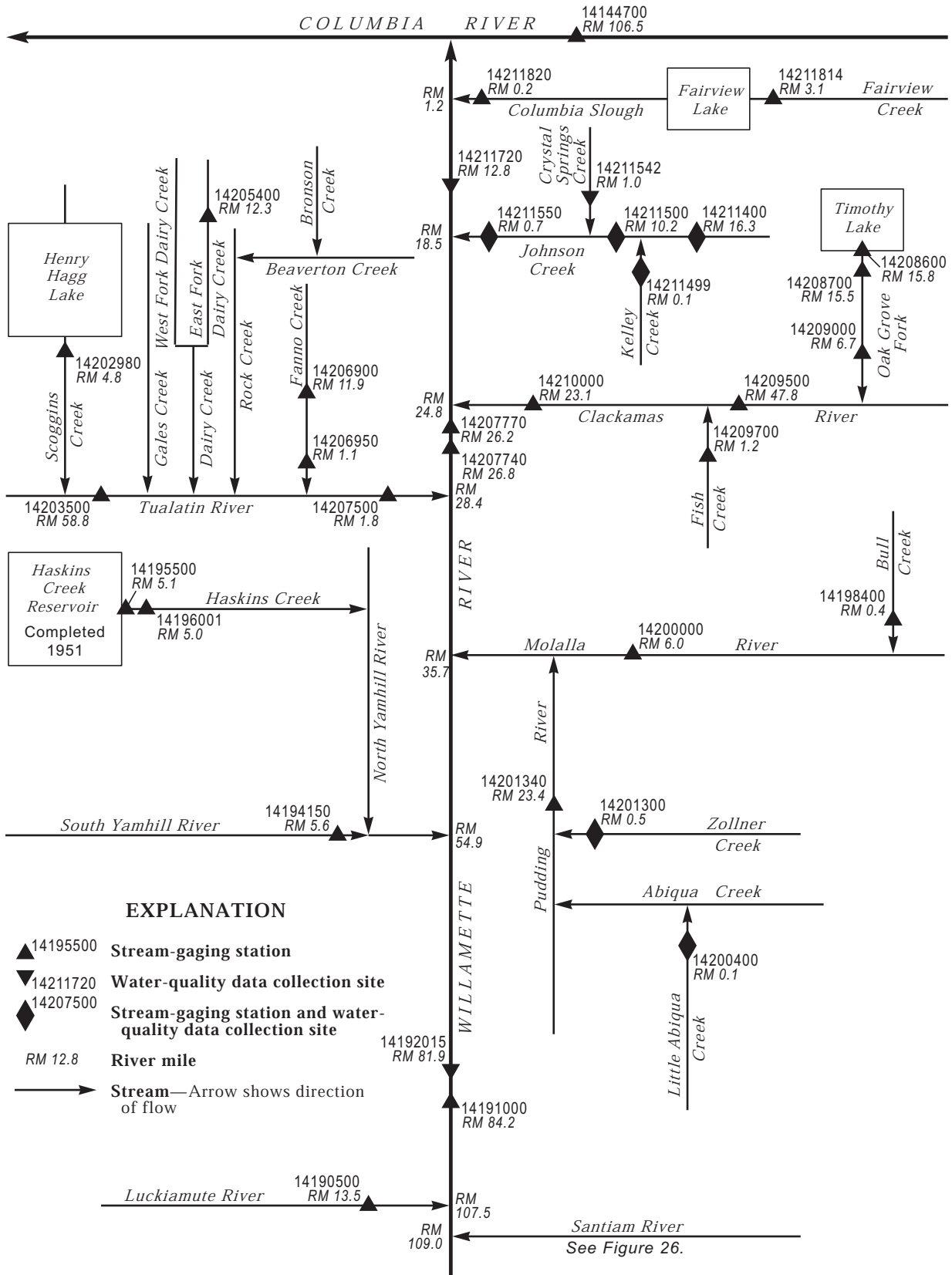


Figure 27. Schematic diagram showing gaging stations in the Willamette River Basin, from the Luckiamute River downstream to the mouth.

14191000 WILLAMETTE RIVER AT SALEM, OR

LOCATION.--Lat 44°56'40", long 123°02'30", in SE 1/4 SW 1/4 sec. 22, T.7 S., R.3 W., Marion County, Hydrologic Unit 17090007, on right bank 300 ft upstream from Center Street Bridge in Salem and at mile 84.16.

DRAINAGE AREA.--7,280 mi², approximately.

PERIOD OF RECORD.--October 1909 to December 1916, January 1923 to current year. Monthly discharge only January 1923 to September 1927, published in WSP 1318. Gage-height records collected at about the same site since 1892 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1318: 1915 (M).

GAGE.--Water-stage recorder. Datum of gage is 106.14 ft above NGVD of 1929. Oct. 1, 1909, to Dec. 31, 1916, nonrecording gage at site 0.5 mi upstream at datum 8.00 ft higher. Jan. 1, 1923, to Nov. 26, 1934, nonrecording gage at Center Street Bridge at datum 8.00 ft higher. Nov. 27, 1934, to Sept. 30, 1962, water-stage recorder at present site at datum 8.00 ft higher.

REMARKS.--Records good. Flow regulated by 12 reservoirs upstream from station (see elsewhere in this report). Many small diversions for irrigation upstream from station; part of flow of Salem Canal, which diverts water from North Santiam River, returns to Willamette River downstream from station, through Mill Creek at Salem. Periodic suspended sediment data are available for the period October 1991 to September 1993.

AVERAGE DISCHARGE.--36 years (water years 1910-16, 1924-1952), 22,590 ft³/s, 42.14 in/yr, 16,370,000 acre-ft/yr.
50 years (water years 1953-2002) 24,000 ft³/s, 44.80 in/yr, 17,390,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 348,000 ft³/s Jan. 8, 1923, gage height, 38.3 ft, present datum; minimum discharge, 2,470 ft³/s Aug. 27, 1940, gage height, 3.55 ft, present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 500,000 ft³/s Dec. 4, 1861, gage height, about 47 ft present datum, from rating curve extended above 250,000 ft³/s in 1916. Floods of Jan. 16, 1881, and Feb. 5, 1890, reached stages of 44.3 ft, discharge, 428,000 ft³/s, and 45.1 ft, discharge, 448,000 ft³/s, respectively, from floodmarks and information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 87,100 ft³/s Jan. 27, gage height, 20.83 ft; minimum discharge, 6,410 ft³/s July 12.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6780	13200	64300	27000	36200	17000	20800	15500	16100	8700	6580	6580
2	6730	12700	75000	31300	36200	15900	20600	15300	14800	8100	6580	6610
3	6670	11100	76500	33000	32200	14600	20500	15700	14400	7550	6550	6590
4	6540	9640	68100	33800	29500	13700	20500	15800	13700	7300	6610	6560
5	6530	9000	66700	30900	26400	13200	21000	15800	13400	7080	6690	6830
6	6520	8660	68400	32900	24400	15700	21500	15500	13200	6880	6700	7020
7	6540	8400	73900	46700	27300	29700	21200	15500	12800	6800	6630	7080
8	6580	8010	75000	57900	47400	29300	21100	16600	12800	6780	6600	7050
9	6620	7740	65600	62600	52300	24900	21200	16100	13100	6680	6540	7110
10	6670	7350	55400	57100	43400	22500	25300	15000	12500	6630	6540	7110
11	6860	7320	45300	49900	35400	24500	34900	15400	12600	6580	6640	7070
12	7620	7270	39400	45100	30400	43300	36500	15300	12900	6440	6680	7050
13	7310	7620	40300	43400	26700	55200	36900	15200	12600	6610	6650	7150
14	7000	10700	65600	41300	23900	54300	45400	15500	11100	6660	6530	7150
15	6810	13400	82100	38600	21500	47100	61800	15800	10200	6660	6470	7180
16	6750	e13200	82900	34700	19800	42000	64100	15800	9990	6620	6440	7290
17	6640	13800	85500	32400	19100	39600	61600	15300	9720	6750	6450	7480
18	6590	15200	85800	30800	18100	35600	57000	15100	10100	6660	6460	7770
19	6600	14900	82300	29800	17700	33700	49400	15400	11200	6740	6460	8040
20	6630	14400	79100	33700	18500	34200	40800	15700	10800	6800	6470	7820
21	6810	16500	75900	53300	19800	e29800	31900	15800	10000	6780	6630	7460
22	6950	21500	70200	72500	21200	27800	26900	15900	9210	6790	6780	7260
23	8640	43600	64200	71200	27300	26100	23200	16000	8910	6710	6800	7310
24	11200	45300	55300	58700	32900	28400	20700	15600	8690	6660	6710	7340
25	10200	36800	45200	62000	28400	30400	19000	15200	8390	6610	6680	7340
26	9220	34700	38000	81500	23500	28400	17700	15000	8280	6600	6710	7440
27	8750	32700	32600	86100	20300	25800	17400	15100	8140	6610	6690	7570
28	8150	31400	30000	76200	18300	23300	17200	16000	8260	6630	6640	7620
29	7890	47700	30200	58600	---	21300	16200	16600	8600	6650	6600	7710
30	8240	61600	28000	45700	---	19900	15500	18400	9230	6590	6540	7920
31	9990	---	25700	38100	---	20200	---	17600	---	6600	6530	---
TOTAL	231030	585410	1872500	1496800	778100	887400	907800	488500	335720	212250	204580	217510
MEAN	7453	19510	60400	48280	27790	28630	30260	15760	11190	6847	6599	7250
MAX	11200	61600	85800	86100	52300	55200	64100	18400	16100	8700	6800	8040
MIN	6520	7270	25700	27000	17700	13200	15500	15000	8140	6440	6440	6560
AC-FT	458200	1161000	3714000	2969000	1543000	1760000	1801000	968900	665900	421000	405800	431400
CFSM	1.02	2.68	8.30	6.63	3.82	3.93	4.16	2.16	1.54	0.94	0.91	1.00
IN.	1.18	2.99	9.57	7.65	3.98	4.53	4.64	2.50	1.72	1.08	1.05	1.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)

	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002										
MEAN	13060	29100	47910	48430	38160	30300	24530	20060	13650	7457	6927	9105	24390	70400	116700	95930	91350	73670	46440	38610	30910	12410	9540	13340	1969	1974	1965	1965	1961	1972	1993	1963	1984	1983	1971	1978	4422	3993	6780	6377	5313	11180	10260	7701	5657	5415	5342	5958	1953	1953	1977	1977	1977	2001	1977	1973	1992	1966	1966	1953

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1953 - 2002
ANNUAL TOTAL	5481000	8217600	
ANNUAL MEAN	15020	22510	24000
HIGHEST ANNUAL MEAN			37960
LOWEST ANNUAL MEAN			9792
HIGHEST DAILY MEAN	85800	Dec 18	86100
LOWEST DAILY MEAN	5110	Jul 28	6440
ANNUAL SEVEN-DAY MINIMUM	5180	Jul 23	6470
ANNUAL RUNOFF (AC-FT)	10870000		16300000
ANNUAL RUNOFF (CFSM)	2.06		3.09
ANNUAL RUNOFF (INCHES)	28.01		41.99
10 PERCENT EXCEEDS	30100		55300
50 PERCENT EXCEEDS	9840		15300
90 PERCENT EXCEEDS	5560		6620

e Estimated

WILLAMETTE RIVER BASIN

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14192015 WILLAMETTE RIVER AT KEIZER, OR

WATER-QUALITY RECORDS

LOCATION.--Lat. 44°58'26", long 123°02'10", Marion County, Hydrologic Unit 17090007, downstream of Mill Creek, and approximately at mile 82.2.

DRAINAGE AREA.--Approximately 7,390 mi².

PERIOD OF DAILY RECORD.--October 2000 to current year.

INSTRUMENTATION.--Temperature probe and data logger.

REMARKS.--Records fair except for the periods Feb. 4 to Mar. 1 and July 1-8, which are poor. Additional temperature data is available in the files of the Portland Field Office for the Willamette River at Salem site, approximately 2 miles upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum, 24.5°C Aug. 12, 2001, but may have been higher during period of missing record; minimum, 5.4°C Jan. 18, 2001, Jan. 27, 28, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum, 23.8°C July 11; minimum, 5.4°C Jan. 27, 28.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.4	16.1	16.8	11.9	11.2	11.6	8.7	8.2	8.4	7.5	---	7.1
2	17.7	16.5	17.1	12.1	11.3	11.7	8.6	8.1	8.4	7.6	7.1	7.3
3	17.5	16.6	17.0	12.5	11.8	12.2	8.6	8.1	8.4	7.9	7.2	7.5
4	17.1	16.2	16.7	13.0	12.0	12.5	8.4	7.7	8.1	7.6	6.9	7.3
5	16.7	15.7	16.2	12.8	12.0	12.5	8.1	7.4	7.7	7.3	6.8	7.0
6	16.4	15.8	16.0	12.1	11.2	11.7	8.4	7.6	8.0	8.4	7.1	7.6
7	15.9	15.0	15.4	11.2	10.3	10.8	8.6	8.0	8.3	9.5	8.2	8.9
8	15.4	14.5	14.9	10.3	9.2	9.8	8.5	7.8	8.1	9.6	9.0	9.4
9	15.0	13.8	14.4	9.3	8.6	9.0	8.0	7.5	7.9	9.4	8.6	9.0
10	14.3	13.2	13.7	9.0	8.2	8.8	8.0	7.3	7.7	8.8	8.0	8.4
11	13.9	13.0	13.4	9.7	8.8	9.3	7.8	7.3	7.5	8.2	7.7	8.0
12	14.0	13.2	13.5	10.6	9.7	10.1	7.8	7.3	7.5	8.0	7.5	7.8
13	14.8	13.6	14.1	11.1	10.4	10.7	8.6	7.4	8.0	8.0	7.1	7.5
14	15.2	14.2	14.7	12.1	10.9	11.6	8.5	7.6	8.1	7.4	6.8	7.1
15	15.2	14.5	14.8	12.2	11.6	11.9	7.8	7.1	7.5	7.0	6.3	6.6
16	14.9	14.0	14.5	12.0	11.3	11.7	8.3	7.2	7.7	6.6	5.8	6.2
17	14.2	13.1	13.7	11.5	10.5	11.0	8.4	7.9	8.2	6.4	5.8	6.0
18	13.6	12.6	13.1	10.5	9.9	10.2	8.2	7.4	7.8	6.7	6.0	6.3
19	13.5	12.4	13.0	10.4	9.8	10.0	7.7	7.1	7.4	7.0	6.4	6.6
20	13.4	12.6	13.0	10.5	9.8	10.2	7.7	7.2	7.4	6.9	6.2	6.6
21	13.0	12.2	12.6	10.4	9.9	10.2	7.8	7.2	7.6	6.7	6.2	6.4
22	12.8	12.1	12.5	10.6	10.1	10.3	7.6	6.8	7.2	6.4	5.6	6.0
23	12.8	12.0	12.4	10.2	9.4	9.8	7.2	6.6	6.9	6.1	5.6	5.9
24	12.4	11.8	12.1	9.8	9.2	9.5	7.0	6.2	6.6	6.6	5.9	6.2
25	12.6	11.5	12.1	9.5	8.9	9.2	6.5	5.9	6.2	7.1	6.4	6.7
26	13.1	11.9	12.5	9.1	8.6	8.9	6.3	5.8	6.1	6.9	6.2	6.6
27	12.9	12.1	12.6	8.8	8.2	8.6	6.3	5.9	6.1	6.6	5.4	6.0
28	12.3	11.3	11.7	8.5	7.9	8.3	6.7	6.1	6.3	6.0	5.4	5.7
29	11.5	10.6	11.0	8.8	8.3	8.5	6.9	6.4	6.6	6.2	5.5	5.8
30	11.2	10.7	10.9	8.6	8.1	8.4	6.9	6.3	6.5	6.1	5.6	5.8
31	11.9	11.0	11.4	---	---	---	7.2	6.4	6.9	6.4	5.6	6.1
MONTH	17.7	10.6	13.8	13.0	7.9	10.3	8.7	5.8	7.5	9.6	---	6.9

WILLAMETTE RIVER BASIN

14192015 WILLAMETTE RIVER AT KEIZER, OR--Contineud

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.8	6.1	6.4	7.8	6.9	7.4	10.9	9.8	10.2	12.8	11.7	12.2
2	6.9	6.4	6.6	7.7	6.8	7.3	11.0	9.9	10.4	12.4	11.1	11.7
3	7.4	6.7	7.0	7.8	6.9	7.3	11.2	10.0	10.6	11.6	10.5	11.0
4	7.8	6.1	7.1	8.1	7.1	7.6	11.5	10.3	10.9	12.4	10.8	11.5
5	7.5	5.5	6.5	8.3	7.8	8.0	11.3	10.2	10.9	12.2	11.5	11.9
6	7.7	5.7	6.6	8.4	7.5	8.0	10.4	9.6	10.1	11.9	11.0	11.4
7	7.7	5.9	6.9	7.7	6.9	7.3	10.4	9.3	9.6	11.1	10.3	10.7
8	7.5	5.8	6.5	7.3	6.6	7.0	10.3	8.8	9.6	11.6	10.1	10.9
9	7.7	6.2	6.8	6.9	6.3	6.5	11.0	10.1	10.5	11.8	11.0	11.4
10	7.6	6.1	6.8	7.4	6.3	6.8	10.5	9.8	10.1	11.9	10.6	11.2
11	8.1	6.4	7.1	8.5	7.3	7.8	10.0	9.4	9.7	12.9	11.1	11.9
12	7.7	5.9	6.9	8.5	7.7	8.1	10.0	9.4	9.7	14.0	12.1	13.0
13	7.5	5.8	6.6	8.0	7.3	7.6	10.3	9.5	9.9	13.8	12.8	13.5
14	7.9	5.8	6.8	7.6	7.0	7.2	10.1	9.1	9.7	13.2	12.0	12.6
15	7.8	6.3	6.9	7.4	6.8	7.1	9.3	8.4	8.7	13.3	11.8	12.7
16	8.1	6.5	7.4	7.3	6.7	7.0	8.6	7.8	8.0	13.8	12.5	13.0
17	8.4	7.1	7.7	7.0	6.4	6.7	8.0	7.5	7.9	14.0	12.5	13.3
18	9.2	7.3	8.0	6.7	6.0	6.4	8.4	7.7	8.0	14.1	13.2	13.6
19	9.2	7.8	8.6	7.2	6.1	6.5	9.1	8.0	8.5	13.8	12.3	13.0
20	9.5	8.0	8.8	8.1	7.0	7.5	9.7	8.5	9.1	12.6	11.8	12.2
21	9.9	8.4	9.2	8.6	7.8	8.0	10.0	9.3	9.5	12.6	11.7	12.1
22	10.7	9.2	9.7	8.4	7.8	8.1	10.7	9.2	10.0	12.6	11.9	12.1
23	10.8	9.2	9.9	9.1	7.8	8.3	11.4	10.1	10.7	13.2	11.5	12.2
24	10.0	7.9	9.2	9.3	8.4	8.9	11.7	10.4	11.1	13.9	12.3	13.1
25	8.8	7.0	8.0	9.1	8.3	8.6	12.1	10.7	11.4	14.6	13.3	14.0
26	8.2	6.6	7.5	9.0	8.4	8.7	11.9	11.2	11.5	15.3	13.9	14.6
27	8.4	6.8	7.4	9.3	8.5	8.9	11.6	10.6	11.1	15.4	14.5	15.0
28	7.9	6.5	7.5	9.7	9.0	9.3	12.2	10.6	11.4	14.9	13.6	14.3
29	---	---	---	9.7	8.7	9.3	13.0	11.3	12.0	14.1	13.0	13.5
30	---	---	---	10.5	9.2	9.7	13.0	12.2	12.6	14.2	12.7	13.5
31	---	---	---	10.5	9.5	10	---	---	---	14.9	13.6	14.3
MONTH	10.8	5.5	7.5	10.5	6.0	7.8	13.0	7.5	10.1	15.4	10.1	12.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.5	14.2	14.8	20.1	17.2	18.1	21.8	20.2	21.0	20.6	19.3	20.0
2	15.8	14.3	15.0	20.9	17.3	18.7	20.8	19.7	20.3	20.9	19.7	20.3
3	15.9	14.9	15.2	20.6	18.0	19.1	20.8	19.3	19.9	20.6	19.7	20.2
4	16.2	14.7	15.3	20.5	17.5	19.0	19.8	19.1	19.4	19.9	18.8	19.5
5	16.9	15.3	16.1	20.5	17.3	19.1	19.5	18.4	19.0	19.2	18.1	18.7
6	16.5	15.6	16.0	22.1	18.1	20.0	19.4	18.0	18.7	18.3	17.1	17.7
7	15.7	14.8	15.3	21.3	19.7	20.5	19.9	18.3	19.0	17.5	16.6	17.1
8	14.9	13.8	14.4	20.9	19.0	20.1	20.5	18.6	19.4	17.3	16.3	16.9
9	14.8	13.2	13.9	21.7	19.4	20.4	21.0	19.2	20.1	17.9	16.4	17.1
10	16.0	13.5	14.6	23.0	20.5	21.7	21.8	20.3	20.9	18.4	16.9	17.7
11	16.9	14.7	15.8	23.8	21.8	22.7	21.8	20.2	21.1	19.3	17.7	18.4
12	18.1	15.7	16.9	23.7	22.2	23.0	22.2	20.8	21.4	19.9	18.2	19.0
13	19.0	16.7	17.8	23.4	22.1	22.7	22.6	21.1	21.8	19.8	18.6	19.2
14	19.5	17.3	18.3	22.7	21.3	21.9	23.2	21.7	22.4	19.5	18.7	19.1
15	18.6	17.2	17.7	22.1	20.5	21.3	23.1	21.6	22.3	18.9	17.7	18.2
16	17.3	16.2	16.6	22.6	20.6	21.5	22.2	21.2	21.8	17.7	16.7	17.1
17	16.3	15.4	15.8	22.8	21.0	21.8	22.0	20.9	21.4	17.0	16.1	16.5
18	15.4	14.4	15.0	22.4	21.1	21.7	21.3	20.0	20.7	17.0	15.7	16.3
19	16.1	14.5	15.3	21.6	20.8	21.2	20.9	19.7	20.2	17.5	15.8	16.7
20	18.0	15.4	16.5	21.8	20.0	20.9	20.3	19.4	19.9	17.6	16.3	17.0
21	19.1	16.5	17.7	22.3	20.5	21.4	19.6	18.4	19.0	17.2	16.2	16.8
22	18.6	17.4	18.0	23.4	21.4	22.3	19.7	18.2	18.8	17.0	15.8	16.5
23	18.3	16.6	17.5	23.7	22.2	22.8	20.3	18.5	19.5	17.2	15.7	16.5
24	19.2	16.8	17.9	23.5	21.8	22.7	21.1	19.4	20.1	17.5	16.4	16.9
25	20.6	17.9	19.1	22.8	21.5	22.1	20.5	19.8	20.1	17.6	16.6	17.1
26	21.8	19.0	20.3	22.4	21.2	21.8	20.5	19.3	20.0	17.2	16.3	16.9
27	21.3	19.7	20.4	21.9	20.5	21.3	20.8	19.3	20.0	17.0	16.1	16.6
28	19.7	17.6	18.6	22.2	20.4	21.3	21.6	20.0	20.7	16.9	15.8	16.5
29	18.0	16.9	17.4	22.8	20.9	21.8	21.8	20.3	21.1	16.8	15.9	16.3
30	18.0	16.6	17.3	22.7	21.8	22.2	21.1	19.9	20.5	16.1	15.0	15.5
31	---	---	---	22.1	20.9	21.5	20.7	19.5	20.1	---	---	---
MONTH	21.8	13.2	16.7	23.8	17.2	21.2	23.2	18.0	20.3	20.9	15.0	17.6

14194150 SOUTH YAMHILL RIVER AT MCMINNVILLE, OR

LOCATION.--Lat 45°12'21", long 123°10'53", in SE 1/4 sec. 21, T.4 S., R.4 W., Yamhill County, Hydrologic Unit 17090008, on left bank 0.3 mi downstream from Cozine Creek, at Highway 18 McMinnville Spur bridge, in McMinnville, and at mile 5.6.

DRAINAGE AREA.--528 mi².

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for the periods Oct. 3-10, Nov. 28 to Feb. 26, which are poor. Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--8 years (water years 1995-2002), 2,004 ft³/s, 51.58 in/yr, 1,452,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,100 ft³/s Feb. 9, 1996, gage height, 59.33; minimum discharge, 12 ft³/s Oct. 12, 1994, but may have been lower during period of missing record Oct. 5-12, 1994.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 3	0315	13,200	43.81	Jan. 9	0315	*17,100	*48.08

Minimum discharge, 14 ft³/s Sept. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	377	e9000	1630	3410	1410	1190	681	305	271	31	18
2	39	305	11800	2430	3170	1290	1110	643	286	218	31	16
3	39	237	12600	2630	2950	1190	1040	611	271	189	29	18
4	35	192	9950	2740	3000	1110	975	584	260	167	33	17
5	35	160	8530	2410	2740	1040	931	553	252	150	37	18
6	35	152	8370	2990	2630	1340	923	562	244	138	34	15
7	35	140	8090	7510	3320	2170	895	585	237	129	37	17
8	35	121	6980	13600	5820	1840	831	525	234	116	41	20
9	35	108	5130	15700	6590	1650	801	485	238	106	39	21
10	49	100	3920	10800	5430	1830	1050	457	240	97	35	24
11	46	94	3750	6450	4150	3710	1670	435	219	84	34	25
12	47	93	3650	4070	3340	6790	1510	416	205	63	29	20
13	71	109	3910	3750	2810	7880	1410	402	195	54	24	19
14	54	1480	7140	3140	2410	6840	2110	390	187	58	23	19
15	51	4050	9630	2710	2120	5260	2870	389	181	64	20	19
16	52	2240	9220	2370	1900	4160	2520	376	188	59	18	18
17	54	1520	9990	2150	1750	3750	2360	370	190	53	18	31
18	42	1110	10900	1940	1610	3260	2130	357	199	49	22	29
19	37	921	9550	1950	1730	4550	1870	347	244	47	36	60
20	35	1490	7440	2900	2260	6820	1650	348	223	47	36	62
21	34	2260	5550	6150	2000	5760	1470	361	196	50	33	45
22	41	3520	4260	7540	2240	4190	1330	343	180	45	28	34
23	50	6260	3410	7230	2400	3230	1210	336	176	37	30	33
24	242	6130	2770	5870	2750	2720	1100	320	173	31	33	26
25	160	4160	2330	7320	2370	2370	1010	305	165	32	35	24
26	114	3110	2000	11400	1990	2090	935	297	159	34	35	26
27	98	2550	1800	12000	1740	1850	892	289	150	55	33	26
28	85	e2600	1800	9310	1560	1670	854	294	160	59	31	22
29	82	e7500	1840	6050	---	1520	769	341	193	54	27	25
30	97	e9000	1670	4080	---	1390	722	422	421	38	27	30
31	119	---	1600	3260	---	1280	---	346	---	34	22	---
TOTAL	1990	62089	188580	174080	80190	95960	40138	13170	6571	2628	941	777
MEAN	64.2	2070	6083	5615	2864	3095	1338	425	219	84.8	30.4	25.9
MAX	242	9000	12600	15700	6590	7880	2870	681	421	271	41	62
MIN	34	93	1600	1630	1560	1040	722	289	150	31	18	15
AC-FT	3950	123200	374000	345300	159100	190300	79610	26120	13030	5210	1870	1540
CFSM	0.12	3.92	11.5	10.6	5.42	5.86	2.53	0.80	0.41	0.16	0.06	0.05
IN.	0.14	4.37	13.29	12.26	5.65	6.76	2.83	0.93	0.46	0.19	0.07	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	391	2686	5607	4966	4693	2812	1588	843
MAX	1491	3683	9904	6162	9541	4229	3832	1669
(WY)	1998	1997	1997	1999	1996	1997	1996	1997
MIN	64.2	222	1250	784	1082	854	660	425
(WY)	2002	2001	2001	2001	2001	2001	2000	2002

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1995 - 2002

ANNUAL TOTAL	391955	667114						
ANNUAL MEAN	1074	1828						2004
HIGHEST ANNUAL MEAN								2796
LOWEST ANNUAL MEAN								515
HIGHEST DAILY MEAN	12600	Dec 3	15700	Jan 9	40300	Feb 9	1996	2001
LOWEST DAILY MEAN	23	Sep 14	15	Sep 6	12	Oct 8	1994	1994
ANNUAL SEVEN-DAY MINIMUM	28	Sep 19	17	Sep 1	16	Oct 5	1994	1994
ANNUAL RUNOFF (AC-FT)	777400		1323000		1452000			
ANNUAL RUNOFF (CFSM)	2.03		3.46		3.80			
ANNUAL RUNOFF (INCHES)	27.62		47.00		51.58			
10 PERCENT EXCEEDS	2250		6080		5770			
50 PERCENT EXCEEDS	535		402		722			
90 PERCENT EXCEEDS	39		30		39			

e Estimated

WILLAMETTE RIVER BASIN

14195500 HASKINS CREEK RESERVOIR NEAR MCMINNVILLE, OR

LOCATION.--Lat 45°18'43", long 123°21'23", in SW 1/4 NW 1/4 sec.18, T.3 S., R.5 W., Yamhill County, Hydrologic Unit 17090008, on control tower 250 ft upstream from dam on Haskins Creek, 11 mi northwest of McMinnville, and at mile 5.1.

DRAINAGE AREA.--6.88 mi².

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. WDR OR-79-1: 1978 (maximum contents).

GAGE.--Nonrecording gage. Datum of gage is NGVD of 1929 (levels by city of McMinnville). Prior to February 1981, at datum 20.0 ft lower.

REMARKS.--Reservoir is formed by earthfill dam equipped with five siphon spillways which act as overflow weirs until priming occurs, approximately 815.0 ft elevation. Capacity of reservoir (based on May 1992 resurvey, new capacity table put into use Oct. 1, 1991), 721 acre-ft between elevations 741.5 ft, invert of outlet tunnel, and 815.0 ft, crest of siphon spillways. Dead storage negligible. Rated capacity of three siphons is 700 ft³/s each and remaining two siphons 350 ft³/s each. Water is used for municipal supply of City of McMinnville.

COOPERATION.--Elevation and capacity table furnished by City of McMinnville Water and Light Department. Elevations based on once-daily staff gage readings.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed contents, 748 acre-ft Nov. 17, 1954, elevation, 815.65 ft, present datum; no contents at times during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum observed contents, 729 acre-ft Apr. 10, 14, 17, 18, elevation, 815.3 ft; no contents, Jan. 1-7, 9-24, Jan. 27 to Feb. 8.

MONTHEND ELEVATIONS AND CONTENTS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	801.4	446	
Oct. 31.....	814.7	711	+265
Nov. 30.....	801.4	446	-265
Dec. 31.....	763.0	36	-410
CAL YR 2001.....	-	-	+36
Jan. 31.....	748.0	0	-36
Feb. 28.....	804.3	497	+497
Mar. 31.....	815.2	727	+230
Apr. 30.....	815.0	721	-6
May 31.....	814.8	714	-7
June 30.....	806.1	530	-184
July 31.....	806.9	545	+15
Aug. 31.....	805.9	526	-19
Sept. 30.....	808.7	580	+54
WTR YR 2002.....	-	-	+134

WILLAMETTE RIVER BASIN

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14196001 HASKINS CREEK BELOW RESERVOIR, NEAR MCMINNVILLE, OR

LOCATION.--Lat 45°18'39", long 123°21'06", in SE 1/4 NW 1/4 sec.18, T.3 S., R.5 W., Yamhill County, Hydrologic Unit 17090008, on right bank 800 ft downstream from Haskins Creek Reservoir, 11 mi northwest of McMinnville, and at mile 5.0.

DRAINAGE AREA.--6.90 mi².

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. Maximum discharge for water year 1957, published in WSP 1518, has been found to be unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 707 ft above NGVD of 1929, topographic survey of 1955. Prior to Aug. 5, 1952, water-stage recorder at site 600 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair except for the periods Oct. 1-11, Aug. 1-3, which are poor. All records given herein include flow in pipeline which diverts 600 ft upstream from station for municipal supply of McMinnville. Flow regulated by Haskins Creek Reservoir (station 14195500). Water from McGuire Lake (station 14302800) on the Nestucca River is diverted through a tunnel to Haskins Creek Reservoir to augment summer flows.

COOPERATION.--Meter readings for diversion and elevations of Haskins Creek Reservoir furnished by city of McMinnville.

AVERAGE DISCHARGE.--51 years (water years 1952-2002), 31.1 ft³/s, 61.21 in/yr, 22,530 acre-ft/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s Feb. 8, 1996, gage height, 6.01 ft, from floodmark, from rating curve extended above 140 ft³/s on basis of slope-area measurement of peak flow; maximum daily discharge, 615 ft³/s Feb. 8, 1996; minimum daily, 0.10 ft³/s Oct. 27, 28, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 305 ft³/s Jan. 8; minimum daily, 4.2 ft³/s Oct. 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	23	235	40	56	29	27	21	8.8	8.7	14	12
2	7.1	12	230	40	50	27	25	20	8.7	9.9	13	11
3	7.3	11	165	39	51	25	24	19	9.5	11	12	11
4	7.3	8.1	137	36	48	25	22	19	10	12	12	13
5	7.2	6.5	132	40	46	25	22	20	10	11	11	12
6	7.2	5.8	136	102	50	30	21	21	10	11	11	11
7	7.3	5.0	157	250	68	28	19	18	9.6	12	11	9.8
8	7.1	5.0	146	308	71	26	19	16	8.4	10	13	9.8
9	7.1	5.2	111	166	40	26	22	16	8.3	11	14	10
10	5.6	5.1	98	140	39	32	31	15	9.2	14	15	12
11	4.2	4.4	108	110	38	41	31	14	11	16	15	12
12	4.2	4.5	108	101	36	97	27	14	12	16	15	12
13	4.4	5.6	148	89	35	109	29	14	13	13	16	11
14	4.8	99	230	91	34	80	39	13	12	12	16	11
15	5.0	77	223	74	33	55	36	13	12	13	15	9.8
16	4.8	35	208	69	32	42	43	12	11	13	13	8.3
17	5.3	34	230	65	32	36	44	12	9.8	13	13	8.7
18	6.2	25	230	61	32	36	43	11	8.5	13	13	8.7
19	6.9	37	196	66	32	43	42	12	8.4	13	13	8.8
20	6.4	60	157	133	32	47	40	12	9.7	12	10	8.6
21	5.0	67	125	157	35	49	37	12	11	14	10	8.3
22	5.0	140	109	131	41	52	36	12	12	14	11	9.0
23	5.1	151	90	112	41	51	35	11	11	14	10	11
24	5.1	124	76	133	37	45	33	11	11	14	14	11
25	5.1	98	66	297	32	34	31	10	12	14	14	11
26	5.0	79	63	221	30	29	29	10	13	13	12	10
27	5.0	74	62	141	32	17	28	11	13	13	12	10
28	5.0	100	62	103	32	25	25	12	8.8	13	14	9.8
29	5.3	131	59	82	---	31	24	12	7.1	14	13	8.8
30	5.3	167	53	66	---	30	22	10	8.3	14	11	7.4
31	20	---	51	64	---	29	---	8.7	---	15	12	---
TOTAL	193.4	1599.2	4201	3527	1135	1251	906	431.7	307.1	396.6	398	306.8
MEAN	6.24	53.3	136	114	40.5	40.4	30.2	13.9	10.2	12.8	12.8	10.2
MAX	20	167	235	308	71	109	44	21	13	16	16	13
MIN	4.2	4.4	51	36	30	17	19	8.7	7.1	8.7	10	7.4
AC-FT	384	3170	8330	7000	2250	2480	1800	856	609	787	789	609
MEAN†	1.97	48.3	129	113	49.5	44.1	30.1	13.8	6.47	5.40	2.47	1.14
CFSM†	0.28	7.00	18.7	16.4	7.17	6.39	4.37	2.00	0.94	0.78	0.36	0.17
IN.†	0.33	7.81	21.53	18.93	7.47	7.37	4.88	2.31	1.05	0.90	0.41	0.18
AC-FT†	121	2875	7920	6964	2747	2710	1794	849	385	332	152	68

CAL YR 2001 TOTAL 9350.4 MEAN 25.6 MAX 235 MIN 4.2 AC-FT 18550 MEAN† 23.3 CFSM† 3.38 IN.† 45.87 AC-FT† 16880
WTR YR 2002 TOTAL 14652.8 MEAN 40.1 MAX 308 MIN 4.2 AC-FT 29060 MEAN† 37.2 CFSM† 5.39 IN.† 73.15 AC-FT† 26910

† Adjusted for change in contents in Haskins Creek Reservoir and diversion from McGuire Lake.

WILLAMETTE RIVER BASIN

14197900 WILLAMETTE RIVER AT NEWBERG, OR

LOCATION.--45°17'01", long 122°57'38", in sec.68, T.3 S., R.2 W., Yamhill County, Hydrologic Unit 17090007, on left bank at Newberg, and at mile 50.

DRAINAGE AREA.--Unknown.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 2001 to September 2002.

GAGE.--Water-stage. Datum of gage is NGVD of 1929.

REMARKS.--Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 99,600 ft³/s Jan. 28, gage height, 74.78 ft; minimum discharge, 6,440 ft³/s July 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e6900	13600	73000	28900	42400	21000	22800	17200	17400	10400	6990	7160
2	e6800	14800	83100	33100	41700	19500	22800	16900	16000	9630	7010	7190
3	e6700	13300	88300	36300	38800	18100	22500	16800	15000	8960	6920	7220
4	e6600	11400	85000	37300	35800	16600	22400	17000	14400	e8450	6920	7160
5	e6600	10300	78900	35800	33100	15900	22500	17000	13800	e8200	7050	7200
6	e6600	9830	78100	35500	30400	17500	23000	16800	13700	e7870	7140	7440
7	e6600	9560	80500	53100	31300	29100	22900	16700	13400	e7670	7150	7360
8	e6650	9090	82200	73000	48600	33900	22700	17100	13100	e7490	7060	7390
9	e6700	8650	76900	81000	61500	30300	22600	e17300	13300	e7280	7040	7480
10	e6800	8330	66400	75700	56300	26900	24900	16400	13200	e7100	6970	7530
11	e7000	8160	56100	63700	45400	29100	e31500	15900	12900	e6900	6990	7550
12	e7700	8200	48200	53700	38600	46500	36700	16200	13200	6930	7120	7540
13	e7400	9150	45600	e50000	33800	62400	36300	15900	13100	6720	7210	7480
14	e7100	11200	64900	e47500	30200	65400	41600	16100	12200	6880	7090	7350
15	e6900	e18800	83600	e43500	27400	58300	56800	16500	11100	6950	6940	7370
16	e6800	17600	91400	39100	24900	50100	62800	16500	10600	6870	6900	7550
17	e6700	16900	96100	35900	23400	45500	62300	16300	10500	6870	6770	8030
18	e6700	17400	97500	33800	22300	41900	58900	15900	10500	6880	6770	8310
19	e6700	17700	95600	32200	21700	40000	52900	16000	11500	6800	6830	8750
20	6620	17400	89500	34300	22500	44300	44900	16200	11800	6940	7060	8860
21	6740	19800	84400	49000	23600	41700	36000	16500	11100	7010	7230	8490
22	7070	25300	77800	70900	25200	36400	e30700	16500	10200	7040	7470	8000
23	7800	42300	71200	79500	29400	32700	26300	16600	9690	6930	7490	7960
24	10600	54200	63300	72000	36800	31500	23700	16300	9440	6760	7350	7930
25	11300	46300	53400	69800	35600	33400	21700	15800	9200	6630	7310	7880
26	10000	40600	44200	87000	30100	32200	20100	15500	8960	6610	7400	e7900
27	9330	37800	38000	e97500	25900	29700	e19300	15300	8880	7010	7600	e8100
28	8910	35900	33800	95300	23000	27200	19300	16100	8860	7150	7580	8130
29	8510	49400	33600	79000	---	25000	18500	16900	9500	e7200	7460	8210
30	8770	66600	31800	59500	---	23300	17500	18600	10200	e7160	7210	8460
31	10300	---	29500	47600	---	22300	---	18800	---	7000	7140	---
TOTAL	235900	669570	2121900	1730500	939700	1047700	946900	513600	356730	228290	221170	232980
MEAN	7610	22320	68450	55820	33560	33800	31560	16570	11890	7364	7135	7766
MAX	11300	66600	97500	97500	61500	65400	62800	18800	17400	10400	7600	8860
MIN	6600	8160	29500	28900	21700	15900	17500	15300	8860	6610	6770	7160
AC-FT	467900	1328000	4209000	3432000	1864000	2078000	1878000	1019000	707600	452800	438700	462100

WTR YR 2002 TOTAL 9244940 MEAN 25330 MAX 97500 MIN 6600 AC-FT 18340000

e Estimated

WILLAMETTE RIVER BASIN

14197900 WILLAMETTE RIVER AT NEWBERG, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.6	5.1	5.4	6.8	6.0	6.4	10.3	9.4	9.8	12.8	12.0	12.4
2	5.7	5.3	5.5	6.7	6.0	6.4	10.5	9.6	10.0	12.7	11.7	12.0
3	6.0	5.6	5.8	6.8	5.9	6.4	10.8	9.9	10.3	11.7	10.6	11.1
4	6.2	5.8	6.0	7.1	6.3	6.7	11.3	10.1	10.6	11.7	10.5	11.0
5	6.0	5.5	5.7	7.2	7.0	7.1	11.2	10.4	10.7	11.7	11.2	11.5
6	5.6	5.3	5.5	7.2	7.0	7.1	10.6	9.7	10.1	11.6	11.0	11.3
7	5.9	5.6	5.7	7.0	6.3	6.6	9.8	9.5	9.7	11.3	10.4	10.8
8	5.8	5.5	5.7	6.3	5.8	6.1	9.8	8.7	9.2	11.2	9.8	10.4
9	5.8	5.3	5.6	6.0	5.5	5.6	10.4	9.5	9.8	11.2	10.3	---
10	5.9	5.5	5.7	6.0	5.3	5.6	10.4	9.8	10.1	11.5	10.5	10.9
11	6.1	5.7	5.9	6.9	6.0	6.4	10.2	---	---	12.3	10.7	11.4
12	6.0	5.7	5.8	7.5	6.9	7.2	9.7	9.0	9.4	13.5	11.8	12.5
13	5.8	5.3	5.6	7.1	6.7	6.8	9.9	9.4	9.6	13.5	12.8	13.1
14	5.8	5.3	5.6	6.7	6.3	6.5	9.9	9.2	9.5	13.1	12.6	12.9
15	6.2	5.5	5.8	6.4	6.2	6.3	9.5	8.1	8.7	13.4	11.9	12.6
16	6.5	5.9	6.1	6.3	6.0	6.1	8.2	7.2	7.6	13.6	12.3	13.0
17	6.8	6.2	6.4	6.1	5.8	5.9	7.6	7.1	7.3	14.0	12.9	13.4
18	7.3	6.6	6.9	5.9	5.4	5.6	7.7	7.1	7.4	14.1	13.2	13.7
19	7.8	7.2	7.5	5.8	5.3	5.5	8.2	7.3	7.7	14.1	13.0	13.5
20	8.3	7.5	7.9	6.9	5.8	6.3	9.1	7.9	8.4	13.0	12.4	12.7
21	8.6	8.1	8.3	7.4	6.7	7.0	9.4	8.6	8.9	12.6	11.7	12.2
22	9.0	8.3	8.6	7.6	7.0	7.3	---	8.8	---	12.6	11.8	12.3
23	9.3	8.9	9.0	7.9	7.3	7.5	10.8	9.4	9.9	13.1	11.8	12.4
24	9.1	8.3	8.7	8.6	7.7	8.1	11.3	10.0	10.6	14.0	12.2	12.9
25	8.3	7.2	7.6	8.7	8.1	8.4	11.6	10.5	11.0	14.6	13.5	13.9
26	7.2	6.4	6.7	8.4	7.8	8.2	11.6	10.8	11.0	15.6	14.2	14.8
27	6.6	6.0	6.4	8.7	7.8	8.2	---	10.5	---	15.7	15.0	15.3
28	6.8	6.2	6.5	9.0	8.3	8.6	---	10.4	---	15.5	14.7	15.0
29	---	---	---	9.2	8.6	8.9	12.3	10.9	11.6	14.7	14.0	14.2
30	---	---	---	9.7	8.6	9.1	12.7	11.7	12.2	14.5	13.3	13.9
31	---	---	---	10.0	9.2	9.6	---	---	---	15.1	13.5	14.2
MONTH	9.3	5.1	6.5	10.0	5.3	7.0	---	---	---	15.7	9.8	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.6	14.3	14.9	18.9	17.6	18.1	22.1	21.6	21.9	21.4	21.0	21.2
2	15.8	14.4	15.1	19.3	18.4	18.8	21.8	20.9	21.4	21.3	21.0	21.2
3	16.1	14.9	15.4	19.5	19.2	19.3	21.0	20.4	20.7	21.4	20.9	21.2
4	16.1	15.1	15.6	19.6	19.2	19.4	20.6	19.7	20.3	21.1	20.3	20.8
5	16.8	15.7	16.1	19.8	18.9	19.3	19.7	19.4	19.6	20.5	19.6	20.1
6	16.8	15.9	16.3	20.6	19.8	20.1	19.7	19.3	19.5	19.8	18.9	19.4
7	16.4	15.3	15.7	20.9	20.3	20.6	---	19.1	---	19.0	18.0	18.5
8	15.8	14.7	15.0	20.8	20.1	20.4	19.9	---	---	18.0	17.4	17.7
9	14.8	13.9	14.4	21.2	20.6	20.8	20.7	19.9	20.4	17.9	17.5	17.6
10	15.4	14.0	14.6	22.2	21.2	21.7	21.4	20.7	21.2	18.4	17.8	18.1
11	16.7	15.2	15.7	23.0	22.2	22.7	21.6	21.4	21.6	19.1	18.4	18.8
12	17.8	16.3	16.9	23.8	23.0	23.5	22.1	21.6	21.9	19.7	19.1	19.4
13	18.7	17.5	18.0	24.0	23.5	23.8	22.5	22.1	22.4	20.1	19.7	20.0
14	18.9	18.2	18.6	23.6	22.6	23.1	23.2	22.5	22.9	20.4	19.9	20.1
15	19.0	18.2	18.5	22.6	22.2	22.4	23.2	22.7	23.0	20.2	19.2	19.7
16	18.3	17.0	17.5	22.6	22.2	22.3	22.8	22.2	22.6	19.4	18.2	18.8
17	17.0	15.7	16.2	22.5	22.0	22.3	22.6	22.2	22.4	18.2	17.4	17.7
18	15.7	15.2	15.4	22.5	22.1	22.3	22.3	21.4	21.9	17.4	16.8	17.1
19	16.1	14.6	15.2	22.5	21.7	22.2	21.4	20.8	21.2	17.7	17.0	17.2
20	17.2	15.6	16.1	21.8	21.4	21.6	21.0	20.2	20.8	17.8	17.3	17.6
21	18.5	17.1	17.6	22.1	21.8	21.9	20.3	19.4	19.9	17.8	17.1	17.4
22	18.6	18.0	18.3	22.8	22.0	22.5	19.5	19.1	19.3	17.5	17.0	17.2
23	18.4	17.8	18.1	23.2	22.8	23.0	20.1	19.4	19.8	17.5	17.1	17.3
24	18.9	17.8	18.2	23.6	23.1	23.3	20.6	20.0	20.4	17.7	17.3	17.5
25	20.0	18.6	19.0	23.4	22.6	23.1	21.0	20.4	20.8	18.0	17.7	17.8
26	21.2	19.8	20.2	23.0	22.5	22.8	20.6	20.3	20.5	18.1	17.6	17.8
27	21.4	20.5	20.9	22.6	21.9	22.2	20.6	20.3	20.4	17.9	17.4	17.7
28	20.6	18.9	19.9	22.2	21.8	22.0	21.3	20.6	21.1	17.8	17.1	17.4
29	18.9	18.1	18.5	22.5	21.9	22.3	22.1	21.3	21.7	17.5	16.8	17.2
30	18.6	17.8	18.1	22.7	---	---	21.9	21.1	21.6	16.9	16.2	16.5
31	---	---	---	---	21.7	---	21.4	21.1	21.3	---	---	---
MONTH	21.4	13.9	17.0	---	---	---	---	---	---	21.4	16.2	18.5

14198400 BULL CREEK NEAR WILHOIT, OR

LOCATION.--Lat 44°57'42", long 122°22'59", in NW 1/4 SE 1/4 sec.13, T.7 S., R.3 E., Clackamas County, Hydrologic Unit 17090009, on left bank 0.5 mi upstream from mouth, 11 mi southeast of Wilhoit and at mile 0.43.

DRAINAGE AREA.--0.66 mi².

PERIOD OF RECORD.--April 1993 to current year.

REVISED RECORDS.--WDR OR-97-1. Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,680 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. No regulation or diversion.

AVERAGE DISCHARGE.--9 years (water years 1994-2002), 2.11 ft³/s, 43.36 in/yr, 1,530 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250 ft³/s Feb. 7, 1996, gage height, 7.55 ft, from rating curve extended above 70 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 0.02 ft³/s Sept. 25-28, 1994, Sept. 21-24, 1995, Sept. 28-30, 1996, Oct. 1-4, 7-12, 1996, Sept. 15-17, 1998, Oct. 4, 21-23, 1999, Oct. 4-6, 2001.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	0830	28	5.56	Dec. 17	0630	51	6.23
Dec. 1	2300	32	5.68	Jan. 25	1400	53	6.27
Dec. 6	2045	34	5.77	Feb. 8	0000	33	5.72
Dec. 13	2330	*61	*6.42	Mar. 12	0130	42	5.98

Minimum discharge, 0.02 ft³/s Oct. 4-6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	0.80	23	2.0	2.0	1.5	1.5	1.2	0.35	0.36	0.09	0.06
2	0.03	0.57	18	2.6	2.1	1.4	1.4	1.1	0.34	0.31	0.10	0.06
3	0.03	0.42	7.7	2.6	2.5	1.3	1.4	1.0	0.32	0.28	0.10	0.06
4	0.03	0.38	4.4	2.3	2.8	1.3	1.3	0.96	0.30	0.25	0.10	0.06
5	0.02	0.41	3.1	2.1	3.1	1.2	1.3	0.92	0.29	0.24	0.11	0.06
6	0.03	0.35	16	2.5	5.3	3.2	1.2	0.88	0.27	0.22	0.10	0.06
7	0.03	0.32	21	4.1	21	4.4	1.1	0.82	0.27	0.24	0.10	0.06
8	0.06	0.29	8.5	10	23	3.0	1.1	0.77	0.32	0.23	0.09	0.06
9	0.05	0.27	5.7	6.6	11	2.5	1.2	0.73	0.34	0.21	0.08	0.06
10	0.11	0.25	4.0	3.6	5.1	2.6	1.4	0.73	0.29	0.20	0.08	0.06
11	0.18	0.23	3.7	2.7	4.5	10	1.4	0.66	0.27	0.18	0.08	0.05
12	0.08	0.30	3.7	2.6	3.8	27	1.4	0.62	0.24	0.17	0.08	0.05
13	0.10	0.53	15	2.7	3.0	8.6	1.6	0.60	0.22	0.16	0.08	0.05
14	0.08	0.88	40	2.7	2.5	4.3	6.9	0.59	0.22	0.17	0.07	0.04
15	0.07	0.74	10	2.4	2.2	3.2	5.1	0.52	0.21	0.16	0.07	0.05
16	0.07	0.91	27	2.1	2.3	2.7	3.4	0.48	0.22	0.15	0.07	0.06
17	0.07	1.3	37	1.9	2.6	2.2	3.0	0.49	0.29	0.15	0.07	0.12
18	0.06	0.98	12	1.9	2.6	1.9	3.0	0.45	0.38	0.15	0.07	0.08
19	0.06	1.0	6.8	2.2	3.1	2.3	2.9	0.45	0.27	0.15	0.08	0.07
20	0.06	1.2	4.7	4.6	3.5	3.0	2.8	0.43	0.24	0.14	0.11	0.06
21	0.08	1.4	3.7	10	3.6	4.4	2.5	0.41	0.22	0.15	0.10	0.06
22	0.33	6.3	3.1	5.3	4.2	3.8	2.1	0.43	0.21	0.13	0.09	0.06
23	0.40	8.8	2.7	3.2	4.3	3.4	1.8	0.39	0.22	0.13	0.08	0.05
24	0.25	4.2	2.3	4.0	3.4	3.9	1.6	0.36	0.21	0.12	0.07	0.05
25	0.18	2.7	2.0	37	2.7	3.5	1.5	0.33	0.20	0.11	0.07	0.05
26	0.15	1.9	1.9	22	2.2	2.8	1.4	0.34	0.19	0.12	0.08	0.05
27	0.19	1.6	1.8	7.8	1.9	2.4	1.5	0.35	0.18	0.11	0.07	0.05
28	0.20	8.3	2.0	3.7	1.7	2.1	1.4	0.41	0.24	0.10	0.06	0.05
29	0.18	22	1.9	2.6	---	1.9	1.4	0.55	0.83	0.10	0.06	0.08
30	0.67	9.9	1.8	2.2	---	1.7	1.3	0.45	0.44	0.10	0.06	0.12
31	0.94	---	1.8	2.1	---	1.6	---	0.39	---	0.10	0.06	---
TOTAL	4.82	79.23	296.3	164.1	132.0	119.1	60.9	18.81	8.59	5.39	2.53	1.85
MEAN	0.16	2.64	9.56	5.29	4.71	3.84	2.03	0.61	0.29	0.17	0.082	0.062
MAX	0.94	22	40	37	23	27	6.9	1.2	0.83	0.36	0.11	0.12
MIN	0.02	0.23	1.8	1.9	1.7	1.2	1.1	0.33	0.18	0.10	0.06	0.04
AC-FT	9.6	157	588	325	262	236	121	37	17	11	5.0	3.7
CFSM	0.24	4.00	14.5	8.02	7.14	5.82	3.08	0.92	0.43	0.26	0.12	0.09
IN.	0.27	4.47	16.70	9.25	7.44	6.71	3.43	1.06	0.48	0.30	0.14	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	0.51	2.97	5.50	4.39	4.84	2.88	1.86	1.54	0.55
MAX	1.73	5.85	12.0	6.28	10.8	6.49	3.11	3.63	0.96
(WY)	1998	1997	1997	1998	1996	1997	1998	1998	1998
MIN	0.087	0.13	0.91	0.48	0.53	0.87	0.78	0.32	0.29
(WY)	1994	1994	1994	2001	2001	2001	2000	1994	2002

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	529.81	893.62										
ANNUAL MEAN	1.45	2.45								2.11		
HIGHEST ANNUAL MEAN										3.10		1996
LOWEST ANNUAL MEAN										0.53		2001
HIGHEST DAILY MEAN	40	Dec 14				40	Dec 14			100	Feb 7	1996
LOWEST DAILY MEAN	0.02	Oct 5				0.02	Oct 5			0.02	Sep 26	1994
ANNUAL SEVEN-DAY MINIMUM	0.03	Oct 1				0.03	Oct 1			0.02	Sep 27	1996
ANNUAL RUNOFF (AC-FT)	1050					1770				1530		
ANNUAL RUNOFF (CFSM)	2.20					3.71				3.19		
ANNUAL RUNOFF (INCHES)	29.86					50.37				43.36		
10 PERCENT EXCEEDS	2.1					4.9				4.8		
50 PERCENT EXCEEDS	0.43					0.66				0.64		
90 PERCENT EXCEEDS	0.05					0.06				0.06		

14200400 LITTLE ABIQUA CREEK NEAR SCOTTS MILLS, OR

LOCATION.--Lat 44°57'21", long 122°37'38", in SW 1/4 SE 1/4 sec.13, T.7 S., R.1 E, Marion County, Hydrologic Unit 17090009, on left bank, 4 mi south of Scotts Mills, and 0.1 mi upstream from mouth.

DRAINAGE AREA.--9.81 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 800 ft above NGVD of 1929, from topographic map.

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

AVERAGE DISCHARGE.--9 years (water years 1994-2002), 37.4 ft³/s, 51.82 in/yr, 27,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft³/s Feb. 7, 1996, gage height, 6.19 ft from rating curve extended above 340 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 6.57 ft Feb. 7, 1996; minimum discharge, 1.3 ft³/s Sept. 26, 2002.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 06	1230	266	3.80	Jan. 25	1000	*417	*4.35
Dec. 13	1830	260	3.89				

Minimum discharge, 1.3 ft³/s Sept. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	21	208	32	72	48	31	22	11	11	3.5	2.3
2	2.5	16	211	33	66	44	28	21	11	10	3.4	2.3
3	2.4	12	211	27	69	38	25	20	10	9.4	3.4	2.5
4	2.5	10	196	24	64	33	24	18	9.6	8.9	3.5	2.5
5	2.5	13	191	23	62	32	23	19	9.8	8.3	3.8	2.3
6	2.5	10	233	36	71	86	22	19	9.2	7.9	3.6	2.2
7	2.6	9.0	224	40	158	72	22	18	8.7	7.8	3.4	2.2
8	3.0	8.3	190	71	196	58	20	16	8.8	7.6	3.3	2.2
9	2.9	7.7	164	59	173	53	26	16	8.8	6.9	3.1	2.0
10	4.2	7.3	142	51	140	55	31	15	8.1	6.4	3.1	2.0
11	7.6	6.9	125	45	119	97	29	14	7.7	6.0	3.1	2.0
12	3.6	9.4	110	45	102	144	26	13	7.4	5.8	3.0	1.8
13	3.9	16	174	39	91	132	35	14	7.0	5.6	2.8	1.7
14	3.7	23	209	35	77	141	103	14	6.8	5.5	2.7	1.7
15	3.6	20	175	33	71	127	84	12	6.8	5.3	2.6	1.8
16	3.4	31	200	30	70	111	84	11	6.9	5.2	2.6	2.0
17	4.1	46	195	29	68	94	84	12	9.0	5.0	2.6	5.1
18	3.3	31	164	28	63	82	74	11	17	4.9	2.6	2.9
19	3.1	32	133	43	76	113	66	12	10	5.0	2.7	2.0
20	3.0	34	113	78	69	107	59	13	8.4	4.9	2.9	1.9
21	3.1	35	90	140	77	101	52	12	7.5	4.6	3.1	1.7
22	12	121	77	108	73	90	46	12	7.2	4.4	3.0	1.6
23	20	124	62	89	121	81	41	11	7.0	4.2	2.7	1.5
24	8.3	90	52	113	99	77	37	10	6.6	4.1	2.6	1.5
25	5.5	79	44	293	79	68	33	10	6.1	4.0	2.6	1.5
26	4.7	73	38	265	70	61	32	9.9	5.8	4.1	2.8	1.4
27	5.5	63	39	184	68	56	43	9.9	5.8	4.0	2.6	1.4
28	7.0	103	43	130	59	49	30	12	7.8	3.9	2.5	1.4
29	5.7	184	35	96	---	44	27	22	35	3.7	2.4	2.0
30	20	181	31	77	---	39	24	15	14	3.7	2.4	3.0
31	33	---	30	72	---	34	---	13	---	3.6	2.4	---
TOTAL	191.7	1416.6	4109	2368	2523	2367	1261	446.8	284.8	181.7	90.8	62.4
MEAN	6.18	47.2	133	76.4	90.1	76.4	42.0	14.4	9.49	5.86	2.93	2.08
MAX	33	184	233	293	196	144	103	22	35	11	3.8	5.1
MIN	2.4	6.9	30	23	59	32	20	9.9	5.8	3.6	2.4	1.4
AC-FT	380	2810	8150	4700	5000	4690	2500	886	565	360	180	124
CFSM	0.63	4.81	13.5	7.79	9.19	7.78	4.28	1.47	0.97	0.60	0.30	0.21
IN.	0.73	5.37	15.58	8.98	9.57	8.98	4.78	1.69	1.08	0.69	0.34	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
MEAN	14.7	50.5	82.2	73.1	76.9	57.3	39.3	29.8	14.2	6.10	3.50	3.73
MAX	43.0	89.1	141	94.3	143	95.7	51.3	46.1	19.5	7.34	4.61	7.18
(WY)	1998	1996	1997	1998	1996	1997	1996	1998	1998	1999	1999	1997
MIN	3.06	5.09	27.4	23.1	21.6	29.3	20.1	12.7	9.49	4.99	2.57	2.08
(WY)	1994	1994	1994	2001	2001	2001	2000	1994	2002	2001	1994	2002

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	10758.9	15302.8										
ANNUAL MEAN	29.5	41.9										
HIGHEST ANNUAL MEAN									37.4			
LOWEST ANNUAL MEAN									50.5		1996	
HIGHEST DAILY MEAN	233	Dec 6				293	Jan 25		850	Feb 7	1996	
LOWEST DAILY MEAN	2.3	Sep 21				1.4	Sep 26		1.4	Sep 26	2002	
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 18				1.5	Sep 22		1.5	Sep 22	2002	
ANNUAL RUNOFF (AC-FT)	21340					30350			27100			
ANNUAL RUNOFF (CFSM)	3.00					4.27			3.81			
ANNUAL RUNOFF (INCHES)	40.80					58.03			51.82			
10 PERCENT EXCEEDS	61					120			96			
50 PERCENT EXCEEDS	16					16			20			
90 PERCENT EXCEEDS	2.8					2.5			3.0			

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1993 to Sept. 1997, January to September 2002.
 WATER TEMPERATURE: July 1993 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--

SPECIFIC CONDUCTANCE: Records poor.
 WATER TEMPERATURE: Records fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 63 microsiemens Sept. 29, 30, 1993; minimum recorded, 8 microsiemens Feb. 5-7, 1996.
 WATER TEMPERATURE: Maximum, 19.0°C July 23, 1994, minimum, 0.0°C Nov. 24-26, 1993.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 60 microsiemens Sept. 14, 23-25, but may have been greater during periods of missing record; minimum, 18 microsiemens Mar. 19, but may have been less during periods of missing record.
 WATER TEMPERATURE: Maximum, 17.5°C July 23, 24; minimum, 3.1°C Mar. 2.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	36	33	36
9	---	---	---	---	---	---	---	---	---	38	32	35
10	---	---	---	---	---	---	---	---	---	36	32	33
11	---	---	---	---	---	---	---	---	---	34	29	32
12	---	---	---	---	---	---	---	---	---	33	27	29
13	---	---	---	---	---	---	---	---	---	33	25	30
14	---	---	---	---	---	---	---	---	---	33	31	32
15	---	---	---	---	---	---	---	---	---	34	32	33
16	---	---	---	---	---	---	---	---	---	38	32	34
17	---	---	---	---	---	---	---	---	---	36	33	34
18	---	---	---	---	---	---	---	---	---	33	29	32
19	---	---	---	---	---	---	---	---	---	33	28	30
20	---	---	---	---	---	---	---	---	---	34	25	29
21	---	---	---	---	---	---	---	---	---	36	30	32
22	---	---	---	---	---	---	---	---	---	37	31	34
23	---	---	---	---	---	---	---	---	---	33	29	33
24	---	---	---	---	---	---	---	---	---	35	32	33
25	---	---	---	---	---	---	---	---	---	37	26	31
26	---	---	---	---	---	---	---	---	---	37	30	34
27	---	---	---	---	---	---	---	---	---	47	32	41
28	---	---	---	---	---	---	---	---	---	44	36	39
29	---	---	---	---	---	---	---	---	---	40	36	39
30	---	---	---	---	---	---	---	---	---	42	37	40
31	---	---	---	---	---	---	---	---	---	46	33	42
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	44	33	38	32	28	29	29	27	28	32	30	31
2	37	31	33	30	29	30	31	28	29	34	31	31
3	35	27	32	33	29	31	32	28	29	33	31	32
4	36	27	32	34	29	31	30	28	29	33	31	32
5	36	31	33	33	29	32	32	28	30	35	31	32
6	34	28	32	32	25	28	31	29	30	34	31	32
7	30	28	29	32	28	30	31	28	30	34	31	32
8	35	27	30	32	28	30	31	29	30	34	31	32
9	31	28	30	32	27	30	32	28	30	34	32	34
10	34	29	31	30	25	28	31	26	28	34	31	33
11	37	29	31	30	21	26	30	27	28	34	30	33
12	36	29	33	28	23	25	32	27	29	---	---	32
13	35	31	32	29	23	26	32	25	30	---	---	---
14	---	---	---	26	21	23	29	22	25	---	---	---
15	---	---	---	24	20	22	29	22	25	---	---	---
16	30	29	29	24	19	22	29	23	25	---	---	---
17	31	29	30	29	22	26	27	22	24	---	---	---
18	30	29	30	29	21	25	28	20	25	---	---	---
19	29	26	28	25	18	22	28	23	25	---	---	---
20	29	27	28	---	---	---	28	23	26	---	---	---
21	29	26	27	---	---	---	27	24	25	---	---	---
22	28	25	26	---	---	---	30	24	25	---	---	---
23	25	19	23	---	---	---	34	25	31	---	---	---
24	23	20	22	---	---	---	36	27	32	---	---	---
25	29	22	25	---	---	---	34	30	30	---	---	---
26	26	22	23	---	---	---	31	29	30	---	---	---
27	29	21	25	27	26	26	30	27	28	---	---	---
28	29	25	28	28	26	27	31	29	30	---	---	---
29	---	---	---	28	27	27	32	30	30	---	---	---
30	---	---	---	28	27	27	31	30	31	---	---	---
31	---	---	---	29	27	28	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	36	20	28	---	---	---

14200400 LITTLE ABIQUA CREEK NEAR SCOTTS MILLS, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	50	46	48	55	54	54
2	---	---	---	---	---	---	49	46	47	55	54	55
3	---	---	---	---	---	---	49	46	47	56	55	55
4	---	---	---	---	---	---	49	45	47	55	50	53
5	---	---	---	---	---	---	46	46	46	55	52	53
6	---	---	---	---	---	---	48	46	46	54	52	54
7	---	---	---	---	---	---	48	46	47	55	54	54
8	---	---	---	---	---	---	48	44	47	58	52	54
9	---	---	---	---	---	---	52	48	49	54	52	53
10	---	---	---	---	---	---	52	48	49	56	54	55
11	---	---	---	---	---	---	49	48	49	57	55	56
12	---	---	---	---	---	---	50	49	50	58	55	56
13	---	---	---	---	---	---	51	50	50	58	56	57
14	---	---	---	---	---	---	51	50	50	60	57	58
15	---	---	---	---	---	---	51	50	50	58	55	56
16	---	---	---	---	---	---	51	50	51	57	55	56
17	---	---	---	---	---	---	52	51	51	58	50	52
18	---	---	---	---	---	---	51	50	51	54	51	52
19	---	---	---	44	43	44	51	50	51	55	52	54
20	---	---	---	45	44	44	51	49	50	56	55	55
21	---	---	---	46	44	45	51	50	50	56	55	56
22	---	---	---	46	45	46	51	50	50	58	56	57
23	---	---	---	46	44	46	51	50	50	60	56	57
24	---	---	---	48	46	46	51	50	51	60	57	58
25	---	---	---	48	46	46	52	51	51	60	57	58
26	---	---	---	48	46	47	52	51	51	57	55	56
27	---	---	---	48	46	46	52	51	52	56	54	55
28	---	---	---	48	46	47	54	52	53	56	55	55
29	---	---	---	48	46	48	54	54	54	57	52	55
30	---	---	---	49	46	48	54	54	54	54	50	51
31	---	---	---	48	42	46	58	54	55	---	---	---
MONTH	---	---	---	---	---	---	58	44	50	60	50	55

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.8	10.6	11.6	9.4	8.6	9.1	7.8	7.4	7.5	7.7	6.2	6.8
2	12.4	10.4	11.4	10.3	9.4	9.8	8.0	7.0	7.6	8.2	6.7	7.6
3	11.7	9.5	10.6	9.4	8.0	8.9	7.4	7.0	7.2	7.1	6.0	6.5
4	12.2	9.5	10.8	9.6	8.8	9.2	7.0	5.9	6.3	6.4	5.2	5.8
5	11.7	9.5	10.7	9.4	7.5	8.8	7.2	5.8	6.5	7.9	6.0	7.0
6	12.1	10.4	11.1	7.7	6.2	7.1	7.8	7.0	7.3	9.0	7.9	8.4
7	10.8	9.1	10.0	6.2	5.2	5.7	8.0	6.8	7.4	9.2	8.7	9.0
8	11.2	10.2	10.7	6.4	4.7	5.5	7.7	6.7	7.1	8.7	7.8	8.3
9	10.2	8.7	9.5	6.4	4.9	5.7	7.1	6.4	6.7	7.8	6.1	7.0
10	9.7	8.1	8.9	7.5	5.9	6.7	6.7	6.2	6.5	7.8	6.3	7.0
11	10.4	9.1	9.8	8.4	6.9	7.6	6.9	6.6	6.8	7.6	6.5	7.0
12	10.4	8.5	9.5	8.7	8.0	8.3	7.5	6.2	6.8	7.6	6.1	7.1
13	11.0	10.2	10.4	9.6	8.5	8.9	8.1	7.3	7.8	6.1	5.2	5.6
14	11.5	9.9	10.6	10.8	9.6	10.2	7.3	6.2	6.6	5.9	5.1	5.6
15	10.5	8.7	9.6	10.2	9.3	9.9	7.5	6.2	6.7	5.3	4.1	4.9
16	10.5	9.2	9.8	9.3	8.5	9.1	8.1	7.5	7.9	4.8	3.8	4.3
17	9.4	7.5	8.3	8.5	7.0	8.1	7.7	6.4	6.9	5.5	4.6	5.0
18	8.5	6.4	7.5	7.8	5.9	6.8	7.1	6.6	6.9	5.6	4.8	5.2
19	9.0	6.9	8.0	9.5	7.2	8.6	7.3	6.4	7.0	5.5	5.0	5.3
20	9.0	7.5	8.3	9.1	8.5	8.7	7.3	6.4	7.0	5.8	4.6	5.2
21	8.6	6.6	7.6	8.7	8.3	8.4	6.6	5.7	6.1	5.5	4.5	5.3
22	9.7	8.6	9.0	8.5	8.3	8.5	6.9	5.5	6.2	5.1	3.2	4.5
23	9.0	7.5	8.4	8.5	7.9	8.2	6.0	5.3	5.6	5.5	5.0	5.4
24	7.9	6.2	7.2	8.0	7.0	7.8	5.3	4.8	5.1	5.8	5.5	5.6
25	9.4	7.7	8.5	7.2	6.3	6.8	5.7	4.8	5.1	5.8	5.0	5.5
26	9.5	7.7	8.5	7.4	5.9	6.8	5.8	4.8	5.3	5.8	5.3	5.5
27	8.6	7.5	8.4	6.3	5.4	5.9	6.6	5.7	6.0	5.5	4.0	5.0
28	7.5	5.9	6.6	7.8	5.9	7.1	7.1	5.7	6.7	5.3	4.8	5.1
29	7.7	6.6	7.1	7.6	7.0	7.3	6.2	5.5	5.9	5.1	4.3	4.7
30	9.4	7.7	8.6	7.6	7.0	7.3	6.7	5.7	6.2	5.5	4.8	5.1
31	9.4	8.8	9.2	---	---	---	7.7	6.4	7.0	5.5	4.9	5.2
MONTH	12.8	5.9	9.2	10.8	4.7	7.9	8.1	4.8	6.6	9.2	3.2	6.0

14201300 ZOLLNER CREEK NEAR MOUNT ANGEL, OR

LOCATION.--Lat 45°06'02", long 122°49'14", in SW 1/4 SW 1/4 sec. 28, T.5 S., R.1 W., Marion County, Hydrologic Unit 17090009, on left bank downstream corner of Monitor-McKee Road bridge, 2.3 mi north-northwest of Mount Angel and at mile 0.4.

DRAINAGE AREA.--15.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1993 to current year.

REVISED RECORD.--WDR OR-96-1: 1994 (M).

GAGE.--Water-stage recorder and velocity meter. Elevation of gage is 120 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. Flows subject to backwater from the Pudding River. Many diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--9 years (water years 1994-2002), 24.9 ft³/s, 22.59 in/yr, 18,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft³/s Nov. 19, 1996, gage height 16.93 ft; maximum gage height, 21.33 ft, Feb. 8, 1996, from floodmark (backwater from Pudding River); minimum discharge, 0.02 ft³/s Sept. 22, 1994.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 25	1500	*426	12.32	Jan. 27	1830	(a)	*15.21

Minimum discharge, 0.07 ft³/s Aug. 11-13, Sept. 12, 28.
 (a) Backwater from Pudding River.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.45	9.1	e230	17	55	10	8.7	3.4	1.2	1.1	0.73	0.53
2	0.33	6.9	e230	39	42	9.4	10	4.2	2.3	1.1	0.37	0.50
3	0.25	4.3	e230	27	36	8.5	4.0	3.4	2.3	1.1	0.14	0.59
4	0.65	2.5	e220	20	e28	8.0	3.3	3.4	1.4	1.1	0.22	0.42
5	1.3	2.7	e220	16	e24	7.9	3.2	3.3	0.81	0.97	0.31	0.36
6	0.44	2.2	e240	85	e30	96	3.1	2.8	0.51	0.93	0.16	0.33
7	0.30	1.8	e220	125	e90	90	2.8	2.2	0.49	1.0	0.11	0.32
8	0.32	1.3	e190	173	e170	e40	2.5	2.4	0.61	1.2	0.09	0.38
9	0.31	1.1	e140	87	82	e26	2.7	2.3	0.78	0.92	0.10	0.19
10	0.60	1.4	e100	52	56	e20	4.5	2.7	0.85	1.0	0.09	0.13
11	0.69	1.0	e65	37	43	36	5.5	2.6	0.68	1.0	0.09	0.10
12	0.60	1.2	e30	e28	37	e170	5.0	2.0	0.87	0.88	0.08	0.08
13	0.58	2.6	42	e22	e25	e110	5.6	2.1	0.79	0.67	0.08	0.10
14	0.44	4.5	112	17	e20	69	e22	2.8	0.60	0.21	0.16	0.16
15	0.40	4.4	79	14	e15	46	e16	2.2	0.57	0.15	0.38	0.27
16	0.37	6.4	69	13	12	35	9.9	1.6	0.64	0.51	0.47	0.44
17	0.33	15	110	12	12	31	7.5	2.4	0.74	0.73	0.17	1.7
18	2.1	9.2	89	12	12	e25	8.0	3.4	1.4	0.41	0.13	0.77
19	1.7	8.5	73	13	13	e70	7.2	3.4	1.4	0.36	0.12	0.60
20	1.5	14	64	34	11	52	6.8	3.3	1.3	0.27	0.36	0.48
21	0.77	14	75	118	6.4	e34	6.3	3.4	1.0	0.38	0.59	0.46
22	0.72	55	54	157	6.2	e22	5.7	4.5	0.94	0.65	0.38	0.48
23	1.1	131	35	97	e95	e16	5.0	4.1	1.0	0.67	0.42	0.41
24	0.88	97	e26	55	48	14	4.3	3.3	0.59	0.74	0.44	0.35
25	1.00	49	e18	209	27	12	4.6	2.7	0.46	0.40	0.47	0.35
26	0.73	25	10	134	e18	11	4.5	1.8	0.29	0.18	0.55	0.26
27	1.2	16	10	140	e14	11	5.2	2.1	0.22	0.77	0.41	0.13
28	1.9	e100	11	130	12	9.4	4.0	2.6	0.36	0.63	0.39	0.27
29	1.2	e210	12	77	---	8.6	3.5	3.6	2.2	0.58	0.28	0.99
30	2.5	e210	11	54	---	8.2	3.2	2.8	1.2	0.73	0.14	0.86
31	4.6	---	11	48	---	7.8	---	2.4	---	0.73	0.18	---
TOTAL	30.26	1007.1	3026	2062	1040.6	1113.8	184.6	89.2	28.50	22.07	8.61	13.01
MEAN	0.98	33.6	97.6	66.5	37.2	35.9	6.15	2.88	0.95	0.71	0.28	0.43
MAX	4.6	210	240	209	171	170	22	4.5	2.3	1.2	0.73	1.7
MIN	0.25	1.0	10	12	6.2	7.8	2.5	1.6	0.22	0.15	0.08	0.08
AC-FT	60	2000	6000	4090	2060	2210	366	177	57	44	17	26
CFSM	0.07	2.24	6.51	4.43	2.48	2.40	0.41	0.19	0.06	0.05	0.02	0.03
IN.	0.08	2.50	7.50	5.11	2.58	2.76	0.46	0.22	0.07	0.05	0.02	0.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
MEAN	7.89	47.2	70.5	59.7	56.1	35.6	11.7	6.80	3.19	0.91	0.47	0.92
MAX	23.1	121	187	103	114	91.5	25.9	21.8	6.60	1.66	0.93	2.54
(WY)	1997	1997	1997	1996	1996	1997	1996	1996	1997	1997	1997	1997
MIN	0.93	1.89	10.9	7.47	9.28	10.4	5.80	2.05	0.95	0.24	0.14	0.19
(WY)	2000	1994	2001	2001	2001	2001	2000	1994	2002	1994	2001	2001

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1994 - 2002
ANNUAL TOTAL	5340.46	8625.75	
ANNUAL MEAN	14.6	23.6	24.9
HIGHEST ANNUAL MEAN			48.8
LOWEST ANNUAL MEAN			4.83
HIGHEST DAILY MEAN	240	240	1510
LOWEST DAILY MEAN	0.03	0.08	0.03
ANNUAL SEVEN-DAY MINIMUM	0.05	0.09	0.05
ANNUAL RUNOFF (AC-FT)	10590	17110	18070
ANNUAL RUNOFF (CFSM)	0.98	1.58	1.66
ANNUAL RUNOFF (INCHES)	13.24	21.39	22.59
10 PERCENT EXCEEDS	21	83	70
50 PERCENT EXCEEDS	3.4	2.8	5.7
90 PERCENT EXCEEDS	0.11	0.31	0.39

e Estimated

14201300 ZOLLNER CREEK NEAR MOUNT ANGEL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1993 to September 1997.

WATER TEMPERATURE: July 1993 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Water temperature records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 611 microsiemens Oct. 6, 1995, but may have been greater during periods of missing record; minimum recorded, 77 microsiemens Feb. 6, 1996, but may have been lower during periods of missing record.

WATER TEMPERATURE: Maximum, 24.5°C July 21-23, 1994, July 26, 1996, July 28, 1998, but may have been higher during periods of missing record during the 1996 water year; minimum, 0.5°C Nov. 25, 26, 1993, Dec. 22, 23, 1998.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22.5°C July 13; minimum, 5.2°C Jan. 27.

DAY	TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002											
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.3	11.7	12.5	11.5	10.9	11.2	9.0	8.7	9.0	6.8	6.2	6.4
2	13.5	12.1	12.8	12.3	11.5	11.8	8.8	8.4	8.6	7.4	6.7	7.1
3	13.2	12.0	12.7	12.1	11.7	11.9	9.0	8.5	8.7	7.5	6.7	7.1
4	13.1	11.7	12.5	12.4	11.9	12.1	8.6	7.9	8.2	7.3	6.8	7.0
5	12.8	11.8	12.3	12.3	11.2	11.9	8.0	7.3	7.8	7.5	7.0	7.2
6	13.6	12.2	13.0	11.2	9.8	10.6	8.9	8.0	8.4	8.8	7.5	8.0
7	12.9	11.8	12.2	9.8	8.0	8.7	9.1	8.7	8.9	9.8	8.8	9.4
8	12.8	11.9	12.4	8.0	7.0	7.4	9.1	8.7	8.9	9.9	9.4	9.7
9	12.1	11.0	11.5	7.0	6.3	6.7	9.0	8.6	8.7	9.4	9.1	9.2
10	11.2	10.3	10.6	7.0	6.1	6.6	8.7	8.2	8.3	9.1	8.8	8.9
11	11.4	10.4	10.8	7.6	6.8	7.2	8.2	7.8	8.0	8.9	8.3	8.5
12	11.4	10.4	10.9	8.6	7.6	8.1	8.1	7.8	7.9	8.6	8.1	8.4
13	12.3	11.1	11.6	9.8	8.6	9.0	9.2	8.1	8.6	8.1	7.2	7.5
14	13.0	11.8	12.3	11.7	9.8	10.9	9.1	8.2	8.4	7.6	7.2	7.4
15	12.5	11.3	12.0	12.2	11.7	11.9	8.2	7.7	7.9	7.2	6.5	6.7
16	12.1	11.3	11.7	11.8	11.3	11.6	9.1	8.1	8.6	6.5	6.2	6.3
17	11.3	10.3	10.8	11.3	10.4	10.9	9.1	8.3	8.6	6.5	6.3	6.4
18	10.5	9.3	9.7	10.4	9.3	9.8	8.3	8.1	8.2	6.6	6.3	6.4
19	10.4	9.2	9.8	10.1	9.3	9.6	8.1	7.6	7.8	6.8	6.4	6.6
20	10.8	10.1	10.5	10.6	10.1	10.4	8.1	7.9	8.0	6.7	6.2	6.5
21	10.3	9.6	9.9	10.6	10.1	10.3	8.2	7.9	8.0	6.7	6.2	6.5
22	10.8	9.9	10.3	10.4	10.1	10.3	7.9	7.6	7.7	6.2	5.6	5.9
23	11.2	10.2	10.8	10.2	9.8	10.0	7.7	6.7	7.0	6.5	5.8	6.1
24	10.2	9.3	9.7	10.1	9.7	9.9	6.7	5.9	6.2	6.8	6.4	6.6
25	10.6	9.4	10.0	9.7	9.4	9.6	5.9	5.6	5.8	7.1	6.7	6.9
26	10.8	9.8	10.2	9.4	9.1	9.3	5.7	5.3	5.5	6.7	6.0	6.4
27	10.1	9.6	9.9	9.1	8.5	8.8	5.9	5.7	5.8	6.0	5.2	5.5
28	9.6	9.1	9.3	9.4	8.2	8.8	6.1	5.8	6.0	6.0	5.4	5.6
29	9.1	8.9	9.0	9.4	8.9	9.1	5.9	5.6	5.7	5.9	5.5	5.7
30	10.0	9.1	9.5	9.1	8.7	8.9	6.0	5.4	5.7	6.2	5.6	5.8
31	10.9	10.0	10.5	---	---	---	6.6	6.0	6.3	6.3	6.0	6.1
MONTH	13.6	8.9	11.0	12.4	6.1	9.8	9.2	5.3	7.7	9.9	5.2	7.0

WILLAMETTE RIVER BASIN

14201340 PUDDING RIVER NEAR WOODBURN, OR

LOCATION.--Lat 45°09'05", long 122°48'11", in NW 1/4 SW 1/4 sec. 10, T.5 S., R.1 W., Marion County, Hydrologic Unit 17090009, on left bank 1.0 mile east of Woodburn, and at mile 23.4.

DRAINAGE AREA.--314 mi².

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 130 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Many diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--5 years (water years 1998-2002), 816 ft³/s, 35.30 in/yr, 590,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,500 ft³/s Dec. 29, 1998, gage height, 29.05 ft; minimum discharge, 7.0 ft³/s Sept. 27, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 8, 1996 reached a stage of 32.76 ft, from floodmark, discharge about 29,000 ft³/s, on basis of runoff comparison with nearby station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 28	0200	*4,580	*26.37	No other peak greater than base discharge.			
Minimum discharge, 7.0 ft ³ /s Sept. 27.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	672	2640	957	2490	1050	817	526	340	328	26	10
2	27	597	3010	1170	2360	910	785	500	294	253	26	15
3	25	481	3220	1350	2190	805	745	485	268	210	26	15
4	24	351	3200	1280	2040	727	719	464	240	182	25	13
5	25	271	3100	1120	1860	674	709	433	220	167	29	12
6	24	264	3080	1210	1700	898	716	435	212	150	33	21
7	23	235	3140	1940	1820	2130	710	443	200	137	30	35
8	25	203	3090	2490	2720	2150	690	410	188	132	29	32
9	27	177	2900	2670	3020	1850	662	376	186	123	25	29
10	28	157	2640	2440	2830	1580	865	358	189	109	19	33
11	31	143	2370	2150	2550	1480	1150	335	173	98	24	27
12	44	135	2150	1880	2280	2470	1110	319	158	89	17	23
13	55	146	2020	1730	e2010	2950	1050	316	145	80	17	20
14	51	286	2840	1510	1760	2800	1610	334	132	74	14	19
15	49	580	3330	1280	1490	2590	2110	322	121	73	12	18
16	45	511	3280	1090	1260	2370	1710	291	118	67	10	19
17	43	638	3480	976	1130	2180	1450	290	124	64	10	35
18	44	708	3640	903	1040	1960	1330	296	144	55	11	40
19	47	626	3430	888	993	1880	1200	292	297	50	14	46
20	42	615	3080	1070	1100	2110	1070	302	243	51	18	38
21	41	640	2840	1780	1080	2070	975	306	189	52	17	32
22	41	791	2560	2490	1270	1910	886	311	163	55	16	42
23	48	1870	2260	2580	1700	1730	807	309	148	48	27	38
24	217	2060	1990	2370	2240	1580	735	284	144	42	35	33
25	175	1780	1710	2660	2150	1470	676	257	129	34	35	22
26	114	1540	1420	3720	1880	1340	634	243	113	32	37	11
27	96	1330	1150	4270	1570	1210	642	245	102	32	37	7.6
28	91	1180	1050	4400	1260	1110	702	258	101	35	25	9.8
29	107	2000	1120	3690	---	1020	610	308	137	35	16	14
30	111	2630	1030	3130	---	934	550	493	442	34	13	19
31	243	---	947	2720	---	870	---	419	---	27	11	---
TOTAL	1993	23617	77717	63914	51793	50808	28425	10960	5660	2918	684	728.4
MEAN	64.3	787	2507	2062	1850	1639	948	354	189	94.1	22.1	24.3
MAX	243	2630	3640	4400	3020	2950	2110	526	442	328	37	46
MIN	23	135	947	888	993	674	550	243	101	27	10	7.6
AC-FT	3950	46840	154200	126800	102700	100800	56380	21740	11230	5790	1360	1440
CFSM	0.20	2.51	7.98	6.57	5.89	5.22	3.02	1.13	0.60	0.30	0.07	0.08
IN.	0.24	2.80	9.21	7.57	6.14	6.02	3.37	1.30	0.67	0.35	0.08	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

	1998	1999	2000	2001	2002
MEAN	200	869	1823	1916	1727
MAX	600	1394	2845	2842	2835
(WY)	1998	1999	1999	1999	1999
MIN	61.3	202	717	478	460
(WY)	2000	2001	2001	2001	2001

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1998 - 2002
ANNUAL TOTAL	193793	319217.4	
ANNUAL MEAN	531	875	816
HIGHEST ANNUAL MEAN			1191
LOWEST ANNUAL MEAN			334
HIGHEST DAILY MEAN	3640	4400	7210
LOWEST DAILY MEAN	12	7.6	7.6
ANNUAL SEVEN-DAY MINIMUM	15	13	13
ANNUAL RUNOFF (AC-FT)	384400	633200	590900
ANNUAL RUNOFF (CFSM)	1.69	2.79	2.60
ANNUAL RUNOFF (INCHES)	22.96	37.82	35.30
10 PERCENT EXCEEDS	1160	2510	2300
50 PERCENT EXCEEDS	312	358	440
90 PERCENT EXCEEDS	20	25	32

e Estimated

14202980 SCOGGINS CREEK BELOW HENRY HAGG LAKE, NEAR GASTON, OR

LOCATION.--Lat 45°28'10", long 123°11'56", in SE 1/4 NE 1/4 sec.20, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, on left bank 600 ft downstream from Scoggins Dam, 800 ft upstream from small left bank tributary, 3.7 mi northwest of Gaston, and at mile 48.

DRAINAGE AREA.--38.8 mi².

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 187.48 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Henry Hagg Lake since January 1975. Discharge not adjusted for storage or release from Henry Hagg Lake as evaporation from reservoir at times exceeds natural flow.

AVERAGE DISCHARGE.--27 years (water years 1976-2002), 114 ft³/s, 82,500 acre-ft, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,210 ft³/s Apr. 23, 1996, gage height, 16.88 ft; minimum discharge, 0.72 ft³/s Nov. 4, 5, 1996, Dec. 16, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 914 ft³/s Jan. 13, gage height, 11.22 ft; minimum discharge, 3.4 ft³/s Dec. 2, 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	14	6.9	127	620	9.2	92	60	31	141	153	190
2	86	14	3.4	128	557	9.2	65	59	31	126	148	189
3	85	14	4.2	128	502	9.2	47	60	61	134	147	181
4	82	14	5.1	190	231	9.3	47	60	93	141	146	171
5	79	14	5.0	237	16	9.3	101	60	82	141	143	164
6	83	14	4.5	187	16	9.5	181	60	67	141	137	170
7	77	23	9.4	9.7	17	9.4	180	50	59	141	145	181
8	71	36	15	9.1	17	9.2	111	42	63	136	148	180
9	72	57	15	9.2	16	9.3	44	36	63	140	160	178
10	66	65	16	41	16	9.6	35	27	64	161	166	175
11	43	64	16	209	16	38	100	31	88	165	166	181
12	39	50	16	278	16	62	155	31	151	152	159	178
13	43	36	16	621	37	202	156	48	170	150	167	172
14	43	23	16	859	59	288	110	62	166	150	183	172
15	43	16	16	786	59	252	80	62	162	143	178	171
16	50	13	17	714	59	211	80	50	162	143	174	162
17	49	13	17	680	59	210	81	40	137	152	173	148
18	43	13	17	740	60	306	80	40	109	159	173	142
19	45	14	17	580	60	394	101	40	107	160	167	142
20	47	14	18	267	141	394	117	44	122	154	161	144
21	45	14	247	132	186	392	117	47	122	155	159	144
22	42	15	395	276	82	254	117	47	122	169	155	148
23	26	15	391	367	55	123	83	47	122	175	155	150
24	13	15	564	230	55	123	32	39	139	169	155	152
25	13	15	660	13	25	105	21	33	168	159	155	166
26	14	14	585	9.4	9.2	92	21	29	168	158	160	173
27	16	13	517	9.3	9.3	92	21	27	178	161	168	167
28	16	15	285	163	9.3	92	66	47	164	161	171	163
29	15	14	126	452	---	92	72	47	146	155	178	162
30	14	11	127	563	---	92	60	47	146	156	181	104
31	14	---	127	656	---	92	---	38	---	160	190	---
TOTAL	1463	662	4274.5	9670.7	3004.8	3999.2	2573	1410	3463	4708	5021	4920
MEAN	47.2	22.1	138	312	107	129	85.8	45.5	115	152	162	164
MAX	89	65	660	859	620	394	181	62	178	175	190	190
MIN	13	11	3.4	9.1	9.2	9.2	21	27	31	126	137	104
AC-FT	2900	1310	8480	19180	5960	7930	5100	2800	6870	9340	9960	9760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

	93.5	64.2	159	183	135	125	79.5	57.4	62.0	125	151	130
MEAN	93.5	64.2	159	183	135	125	79.5	57.4	62.0	125	151	130
MAX	155	233	571	700	720	326	272	122	121	201	216	206
(WY)	1980	1985	1996	1997	1999	1983	1996	1992	1994	1996	1993	1993
MIN	26.2	16.7	10.2	9.69	9.50	9.98	9.91	19.9	14.3	52.3	83.4	72.9
(WY)	1978	1988	2001	2001	1977	2001	2001	1977	1977	1993	1977	1977

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1976 - 2002

ANNUAL TOTAL	19180.0	45169.2		
ANNUAL MEAN	52.5	124	114	
HIGHEST ANNUAL MEAN			217	1999
LOWEST ANNUAL MEAN			40.4	1977
HIGHEST DAILY MEAN	660	Dec 25	859	Jan 14
LOWEST DAILY MEAN	3.4	Dec 2	3.4	Dec 2
ANNUAL SEVEN-DAY MINIMUM	5.5	Dec 1	5.5	Dec 1
ANNUAL RUNOFF (AC-FT)	38040		89590	82500
10 PERCENT EXCEEDS	110		210	219
50 PERCENT EXCEEDS	17		92	77
90 PERCENT EXCEEDS	9.8		14	12

14203500 TUALATIN RIVER NEAR DILLEY, OR

LOCATION.--Lat 45°28'30", long 123°07'23", in NE 1/4 NW 1/4 sec.24, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, on right bank 5 ft upstream from highway bridge, 1.0 mi south of Dilley, 1.2 mi downstream from Scoggins Creek, and at mile 58.8.

DRAINAGE AREA.--125 mi².

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

REVISED RECORDS.--WSP 1935: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 147.57 ft above NGVD of 1929. Prior to June 16, 1950, nonrecording gage at several sites within 200 ft of present site at datum 4.00 ft higher. June 16, 1950, to Aug. 10, 1966, water-stage recorder at present site at datum 4.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diurnal fluctuation caused by operation of millpond on Scoggins Creek upstream from station and regulation by Henry Hagg Lake since January 1975. Diversions upstream from station of approximately 3,000 acre-ft from J. W. Barney Reservoir on the Middle Fork of North Fork Trask River for municipal water supply and irrigation in Wapato Lake area. Continuous water-quality records for the period November 1963 to September 1968 have been collected at this location. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--35 years (water years 1940-1974), 415 ft³/s, 300,800 acre-ft/yr.
28 years (water years 1975-2002), 364 ft³/s, 263,600 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,100 ft³/s Dec. 22, 1964, gage height, 19.34 ft, from rating curve extended above 6,000 ft³/s; minimum discharge, 0.08 ft³/s Sept. 3, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,870 ft³/s Jan. 8, gage height, 17.82 ft; minimum discharge, 45 ft³/s Nov. 7.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	89	2720	448	1560	264	302	170	90	202	199	241
2	119	69	2740	524	1350	243	277	166	85	184	194	240
3	116	59	1880	516	1210	224	238	162	93	184	196	235
4	115	52	1300	530	1020	211	227	158	141	195	200	222
5	113	49	1210	599	626	204	239	156	139	194	197	218
6	116	49	1110	726	523	233	343	161	135	190	183	223
7	115	53	1360	2270	599	229	340	151	120	189	194	241
8	103	73	1140	3480	921	211	297	134	128	188	192	244
9	105	94	846	2540	1080	199	214	127	132	183	202	241
10	e110	108	712	1720	872	260	273	105	128	195	211	242
11	e120	107	638	1260	738	461	326	116	133	215	211	238
12	e120	106	593	1220	655	1050	383	113	186	204	206	238
13	e110	87	684	1250	584	1210	384	116	222	203	200	224
14	e100	424	1870	1810	548	1280	508	138	220	203	222	224
15	e95	428	1880	1750	490	1100	515	135	215	197	224	225
16	e90	246	1910	1540	445	871	450	127	217	189	219	223
17	e90	167	2730	1310	407	767	412	112	206	204	221	220
18	e85	131	2250	1260	384	722	378	110	184	207	222	207
19	e85	138	1950	1220	440	899	352	111	168	214	220	205
20	82	281	1580	1020	503	1220	348	115	182	204	211	207
21	82	400	1320	1030	599	1180	327	118	177	209	210	205
22	90	602	1490	1170	596	1000	308	112	174	216	205	209
23	133	937	1280	1380	558	716	279	113	175	221	204	211
24	88	731	1140	1310	523	616	211	107	180	212	204	211
25	64	532	1270	2340	446	543	179	94	216	202	205	222
26	57	421	1190	2510	361	466	170	91	214	198	207	237
27	60	343	1030	1950	320	421	166	84	217	206	217	234
28	67	448	888	1380	290	386	176	112	225	206	216	226
29	60	1180	618	1500	---	358	200	133	236	201	223	228
30	62	1720	491	1560	---	337	176	120	214	196	226	206
31	89	---	451	1590	---	317	---	108	---	204	239	---
TOTAL	2966	10124	42271	44713	18648	18198	8998	3875	5152	6215	6480	6747
MEAN	95.68	337.5	1364	1442	666.0	587.0	299.9	125.0	171.7	200.5	209.0	224.9
MAX	133	1720	2740	3480	1560	1280	515	170	236	221	239	244
MIN	57	49	451	448	290	199	166	84	85	183	183	205
AC-FT	5880	20080	83840	88690	36990	36100	17850	7690	10220	12330	12850	13380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2002, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
MEAN	144.0	321.8	754.4	797.2	722.7	538.1	327.3	170.4	117.7	147.8	173.8	166.6																	
MAX	320	882	2062	1615	2250	1086	974	424	189	211	269	370																	
(WY)	1998	1985	1996	1999	1999	1983	1991	1996	2000	2000	1975	1975																	
MIN	6.03	47.2	41.1	31.8	62.0	125	99.8	80.8	65.9	91.0	93.0	82.6																	
(WY)	1975	1988	1977	1977	1977	2001	1977	1977	1979	1977	1977	1985																	

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1975 - 2002
ANNUAL TOTAL	87992	174387	
ANNUAL MEAN	241.1	477.8	363.9
HIGHEST ANNUAL MEAN			695
LOWEST ANNUAL MEAN			104
HIGHEST DAILY MEAN	2740	Dec 2	8620
LOWEST DAILY MEAN	49	Nov 5	3.3
ANNUAL SEVEN-DAY MINIMUM	58	Nov 2	3.9
ANNUAL RUNOFF (AC-FT)	174500		263600
10 PERCENT EXCEEDS	467		906
50 PERCENT EXCEEDS	118		186
90 PERCENT EXCEEDS	89		85

e Estimated

WILLAMETTE RIVER BASIN

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14205400 EAST FORK DAIRY CREEK NEAR MEACHAM, OR

LOCATION.--Lat 45°40'51", long 123°04'12", in SW 1/4 SW 1/4 sec.4, T.2 N., R.3 W., Washington County, Hydrologic Unit 17090010, on right bank of private drive, 0.9 mi downstream from Murtaugh Creek, and at mile 12.3.

DRAINAGE AREA.-- 32.92 mi².

PERIOD OF RECORD.--May to September 2002.

GAGE.--Water-stage recorder. Elevation of gage is 320 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD MAY TO SEPTEMBER.--Maximum discharge, 50 ft³/s May 7, 10, gage height, 5.19 ft; minimum discharge, 7.8 ft³/s Sept. 26, 27.

DISCHARGE, CUBIC FEET PER SECOND, MAY TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	MAY	JUN	JUL	AUG	SEP
1	---	32	22	13	10
2	---	31	21	13	10
3	---	30	20	13	10
4	---	30	20	13	10
5	---	29	19	14	10
6	---	29	19	13	11
7	---	29	19	13	11
8	47	30	20	13	11
9	46	29	19	13	11
10	46	28	18	12	9.8
11	44	27	18	12	9.8
12	43	26	17	12	9.6
13	42	25	16	12	9.3
14	42	25	16	12	9.0
15	40	26	16	12	9.3
16	39	24	16	12	9.7
17	42	26	16	11	10
18	39	27	16	11	9.9
19	39	25	16	11	9.5
20	39	24	16	11	9.3
21	38	23	16	11	8.9
22	36	23	15	12	8.7
23	36	22	15	11	8.6
24	35	22	15	11	8.5
25	34	21	15	12	9.6
26	34	21	15	11	8.3
27	35	21	14	11	8.2
28	38	25	14	11	8.4
29	39	28	14	10	8.8
30	34	23	14	10	e12
31	33	---	14	10	---
TOTAL	---	781	521	366	289.2
MEAN	---	26.0	16.8	11.8	9.64
MAX	---	32	22	14	12
MIN	---	21	14	10	8.2
AC-FT	---	1550	1030	726	574
CFSM	---	0.79	0.51	0.36	0.29
IN.	---	0.88	0.59	0.41	0.33

e Estimated

WILLAMETTE RIVER BASIN

14206900 FANNO CREEK AT 56TH AVENUE, PORTLAND, OR

LOCATION.--Lat 45°29'17", long 122°44'01", in NE 1/4 NW 1/4 sec.18, T.1 S., R.1 E., Multnomah County, Hydrologic Unit 17090010, on bridge at SW 56th Ave., in Portland, and at mile 11.9.

DRAINAGE AREA.--2.37 mi².

PERIOD OF RECORD.--Annual maximums, 1975-77. October 1990 to current year.

REVISED RECORDS.--WDR OR-92-1: 1991, 1991(m).

GAGE.--Water-stage recorder. Elevation of gage is 250 ft above NGVD of 1929, from topographic map.

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

AVERAGE DISCHARGE.--12 years (water years 1991-2002), 3.35 ft³/s, 19.18 in/yr, 2,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD--Maximum discharge, 733 ft³/s Feb. 8, 1996, gage height, 13.2 ft, from floodmark, from rating curve extended above 200 ft³/s; minimum discharge, 0.01 ft³/s Sept. 4, 2001.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 28	1645	161	11.04	Feb. 7	1630	184	11.18
Dec. 16	2200	157	11.01	Feb. 23	0115	303	11.78
Jan. 7	2030	*314	*11.83				

Minimum discharge, 0.02 ft³/s Oct. 1.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.12	1.9	37	9.2	4.2	1.9	1.3	0.72	0.57	0.47	0.14	0.13
2	0.12	0.94	10	3.5	3.5	1.7	1.2	0.71	0.53	0.43	0.14	0.13
3	0.15	0.50	6.8	3.1	4.0	1.5	1.2	0.65	0.51	0.46	0.15	0.14
4	0.12	1.3	16	2.0	3.0	1.5	1.2	0.63	0.48	0.42	0.20	0.15
5	0.10	4.9	17	7.3	4.3	1.7	2.8	0.86	0.46	0.37	0.41	0.15
6	0.13	0.70	8.3	28	8.9	19	1.2	0.65	0.43	0.37	0.23	0.15
7	0.15	0.54	4.5	56	31	3.4	1.0	0.60	0.45	0.67	0.16	0.15
8	0.33	0.54	5.1	16	13	2.5	0.96	0.58	0.57	3.2	0.15	0.14
9	0.15	0.54	3.7	6.0	4.8	2.5	2.8	0.62	0.46	0.33	0.17	0.15
10	4.1	0.57	4.6	4.4	4.5	7.8	3.8	0.62	0.45	0.25	0.15	0.14
11	0.45	0.70	4.4	3.6	3.3	29	2.1	0.59	0.46	0.26	0.14	0.14
12	0.22	2.7	6.0	4.7	2.9	12	1.2	0.63	0.43	0.36	0.13	0.15
13	0.41	6.4	26	3.2	2.6	7.1	5.1	0.67	0.41	0.29	0.13	0.18
14	0.18	8.9	8.9	2.9	2.4	4.4	2.8	0.59	0.44	0.23	0.13	0.14
15	0.17	4.0	6.3	2.5	2.1	4.7	1.4	0.54	0.40	0.19	0.14	0.16
16	0.52	1.8	30	2.8	3.7	3.7	3.6	0.57	0.39	0.19	0.14	2.9
17	0.22	0.91	9.6	2.3	2.2	3.6	2.1	1.6	3.5	0.20	0.12	1.3
18	0.17	0.76	9.0	4.1	2.7	4.2	1.3	0.52	1.1	0.20	0.13	0.21
19	0.16	6.9	5.4	4.7	15	14	e1.2	0.94	0.56	0.20	0.15	0.20
20	0.16	7.3	8.7	6.9	3.1	4.4	1.2	3.2	0.47	0.19	0.16	0.22
21	0.99	6.5	3.8	6.9	3.1	3.4	1.1	1.4	0.42	0.16	0.14	0.19
22	4.6	21	3.2	6.1	2.5	3.0	0.93	1.8	0.38	0.14	0.14	0.20
23	2.5	2.2	2.5	3.4	36	2.8	0.87	0.71	0.55	0.13	0.14	0.22
24	0.37	4.5	2.2	6.8	3.8	2.4	0.84	0.59	0.33	0.13	0.15	0.23
25	0.25	3.2	2.0	32	3.0	2.1	0.77	0.59	0.32	0.17	0.14	0.24
26	0.22	1.4	1.8	9.8	2.6	2.0	2.7	0.54	0.31	0.19	0.14	0.24
27	5.4	1.2	3.8	12	2.4	1.8	2.0	1.8	0.31	0.16	0.13	0.22
28	0.45	32	2.6	7.6	2.1	1.7	1.4	4.6	7.2	0.16	0.13	0.22
29	1.2	5.4	1.7	4.7	---	1.6	0.81	1.4	3.3	0.17	0.13	0.87
30	11	22	1.5	4.3	---	1.5	0.77	0.87	0.64	0.18	0.12	2.1
31	4.0	---	2.9	6.0	---	1.4	---	0.61	---	0.19	0.13	---
TOTAL	39.11	152.20	255.3	272.8	176.7	154.3	51.65	31.40	26.83	11.06	4.76	11.76
MEAN	1.262	5.073	8.235	8.800	6.311	4.977	1.722	1.013	0.894	0.357	0.154	0.392
MAX	11	32	37	56	36	29	5.1	4.6	7.2	3.2	0.41	2.9
MIN	0.10	0.50	1.5	2.0	2.1	1.4	0.77	0.52	0.31	0.13	0.12	0.13
AC-FT	78	302	506	541	350	306	102	62	53	22	9.4	23
CFSM	0.53	2.14	3.47	3.71	2.66	2.10	0.73	0.43	0.38	0.15	0.06	0.17
IN.	0.61	2.39	4.01	4.28	2.77	2.42	0.81	0.49	0.42	0.17	0.07	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	1.828	5.454	6.941	7.019	7.033	4.461	2.880	2.158	1.154	0.537	0.389	0.513
MAX	4.11	14.3	20.1	11.8	16.6	9.47	5.20	4.79	1.94	0.89	1.07	1.18
(WY)	1995	1997	1997	1999	1996	1997	1996	1998	1997	1997	1997	1996
MIN	0.60	1.06	2.67	1.06	1.22	1.73	1.31	0.73	0.31	0.29	0.13	0.12
(WY)	1992	1994	2001	2001	2001	1994	1998	1994	1992	1992	1992	1999

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1991 - 2002

ANNUAL TOTAL	714.54	1187.87										
ANNUAL MEAN	1.958	3.254								3.346		
HIGHEST ANNUAL MEAN										5.95		1997
LOWEST ANNUAL MEAN										1.21		2001
HIGHEST DAILY MEAN			37	Dec 1		56	Jan 7		202	Nov 19		1996
LOWEST DAILY MEAN			0.10	Oct 5		0.10	Oct 5		0.06	Sep 12		1999
ANNUAL SEVEN-DAY MINIMUM			0.12	Sep 29		0.13	Oct 1		0.07	Oct 1		1991
ANNUAL RUNOFF (AC-FT)		1420				2360			2420			
ANNUAL RUNOFF (CFSM)		0.83				1.37			1.41			
ANNUAL RUNOFF (INCHES)		11.22				18.65			19.18			
10 PERCENT EXCEEDS		4.5				7.2			7.8			
50 PERCENT EXCEEDS		0.66				1.2			1.2			
90 PERCENT EXCEEDS		0.17				0.15			0.20			

e Estimated

14206950 FANNO CREEK AT DURHAM, OR

LOCATION.--Lat 45°24'13", long 122°45'13", in NE 1/4 NW 1/4 sec.13, T.2 S., R.1 W., Washington County, Hydrologic Unit 17090010, on right bank under Durham Road bridge, at Durham, and at mile 1.13.

DRAINAGE AREA.--31.5 mi².

PERIOD OF RECORD.--September to November 1966, September 1972 to September 1977 (discharge measurements only), October 1993 to February 1996, October 2000 to September 2001.

GAGE.--Water-stage recorder. Datum of gage is 116.83 ft above NGVD of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--4 years (water years 1994-95, 2001-02), 39.9 ft³/s, 17.20 in/yr, 28,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft³/s Feb. 6, 1996, gage height, 9.45 ft (from outside high-water mark); minimum discharge, 1.0 ft³, Sept. 13, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s Jan. 8, gage height, 9.18 ft; minimum discharge, 2.3 ft³/s Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	31	467	e120	80	28	17	13	12	13	e3.8	3.1
2	4.6	26	457	110	50	25	15	12	10	10	e3.8	3.2
3	4.1	15	172	71	57	22	16	11	9.6	10	e4.0	3.3
4	4.5	12	216	44	41	20	15	10	9.5	9.7	e4.0	3.6
5	3.8	60	316	87	53	21	35	9.7	9.7	9.1	e4.4	3.6
6	4.0	24	141	265	76	302	32	10	7.8	8.2	e5.0	5.0
7	4.1	12	99	757	235	109	18	9.8	6.9	10	e5.0	5.0
8	6.0	9.3	68	700	358	53	17	9.4	7.9	49	e4.4	3.3
9	4.9	8.6	70	179	111	41	41	9.1	7.2	14	e4.0	3.9
10	50	9.0	66	96	76	87	88	9.5	6.6	9.9	e4.0	4.1
11	28	9.1	55	71	66	298	44	8.8	6.3	e7.5	e4.0	5.4
12	9.8	26	90	84	47	400	27	8.4	7.2	e7.0	e4.0	4.0
13	7.8	69	326	52	40	166	41	8.4	7.1	e6.5	e3.8	3.6
14	6.3	233	408	44	35	104	120	9.2	e7.0	e6.0	e3.8	3.4
15	5.0	60	134	36	31	79	32	9.1	7.1	e5.5	e4.0	3.1
16	7.1	48	285	33	49	73	40	8.5	5.8	e5.5	4.4	23
17	8.8	30	388	33	32	61	55	35	26	e5.0	3.5	68
18	5.5	16	164	42	31	62	38	13	38	e5.0	3.0	12
19	4.5	86	132	68	199	218	23	14	11	e4.8	3.3	6.7
20	4.5	103	163	108	68	87	20	52	8.8	e4.6	11	5.3
21	9.5	113	103	96	57	56	18	34	8.9	e4.6	5.7	4.9
22	45	249	68	110	43	44	17	16	8.2	e4.4	4.2	4.1
23	57	82	49	61	356	39	14	18	7.7	e4.4	3.6	3.2
24	24	67	38	64	110	33	13	11	7.2	e4.2	3.6	3.3
25	9.3	47	32	422	56	29	14	11	7.6	e4.2	3.4	3.3
26	7.1	30	27	225	43	26	17	15	6.9	e4.0	3.0	e3.4
27	57	21	34	218	36	23	47	13	7.2	e4.0	2.8	4.0
28	40	327	71	141	32	21	17	56	47	e4.0	2.6	4.6
29	19	338	29	85	---	20	14	73	128	e4.0	3.6	40
30	149	282	24	66	---	18	13	18	19	e4.0	3.5	35
31	104	---	e45	77	---	18	---	14	---	e3.8	3.1	---
TOTAL	698.7	2443.0	4737	4565	2468	2583	918	548.9	459.2	245.9	126.3	278.4
MEAN	22.5	81.4	153	147	88.1	83.3	30.6	17.7	15.3	7.93	4.07	9.28
MAX	149	338	467	757	358	400	120	73	128	49	11	68
MIN	3.8	8.6	24	33	31	18	13	8.4	5.8	3.8	2.6	3.1
AC-FT	1390	4850	9400	9050	4900	5120	1820	1090	911	488	251	552
CFSM	0.72	2.59	4.85	4.67	2.80	2.65	0.97	0.56	0.49	0.25	0.13	0.29
IN.	0.83	2.89	5.59	5.39	2.91	3.05	1.08	0.65	0.54	0.29	0.15	0.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	MEAN	26.4	63.4	99.6	95.0	78.1	55.9	34.8	18.8	15.4	8.07	6.69	8.25
MAX	49.8	115	153	147	111	83.3	49.0	26.7	22.6	12.6	9.63	9.67	
(WY)	1995	1996	2002	2002	1995	2002	1995	1995	1995	1995	2001	1995	
MIN	8.53	10.3	40.0	17.1	21.5	27.6	24.6	13.5	10.3	4.20	3.83	7.00	
(WY)	1994	1994	2001	2001	2001	2001	2001	1994	1994	1994	1994	2001	

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	12286.4	20071.4	
ANNUAL MEAN	33.7	55.0	39.9
HIGHEST ANNUAL MEAN			56.2
LOWEST ANNUAL MEAN			19.3
HIGHEST DAILY MEAN	467	757	840
LOWEST DAILY MEAN	2.7	2.6	1.3
ANNUAL SEVEN-DAY MINIMUM	3.0	3.1	1.9
ANNUAL RUNOFF (AC-FT)	24370	39810	28890
ANNUAL RUNOFF (CFSM)	1.07	1.75	1.27
ANNUAL RUNOFF (INCHES)	14.51	23.70	17.20
10 PERCENT EXCEEDS	70	133	89
50 PERCENT EXCEEDS	13	18	15
90 PERCENT EXCEEDS	4.5	4.0	3.8

e Estimated

14207500 TUALATIN RIVER AT WEST LINN, OR

LOCATION.--Lat 45°21'03", long 122°40'30", in SW 1/4 sec.34, T.2 S., R.1 E., Clackamas County, Hydrologic Unit 17090010, on left bank 300 ft upstream from bridge on State Highway 212, 0.4 mi west of West Linn city limits, and at mile 1.8.

DRAINAGE AREA.--706 mi².

PERIOD OF RECORD.--July 1928 to current year. Prior to October 1960, published as "near Willamette."

REVISED RECORDS.--WSP 1014: 1943. WSP 1184: 1947. WSP 1248: 1941. WSP 1935: Drainage area. WDR OR-75-1: 1974(M). WDR OR-77-1: 1971-73, 1975, 1976(M).

GAGE.--Water-stage recorder. Datum of gage is 85.61 ft above NGVD of 1929 (levels by Corps of Engineers). Prior to June 12, 1941, nonrecording gage at datum 1.02 ft higher.

REMARKS.--Records good except for the period December through May and estimated daily discharges, which are poor. Discharge data for the period Sept. 24-30 obtained from the National Weather Service. October 1951 to September 1970, records published for this station included the daily flow in Oswego Canal, which diverts at point 5.0 mi upstream from station for development of power between outlet of Lake Oswego and Willamette River. Adjustment for diversion to Lake Oswego are published for the 1971-95 water years. Some regulation in low-water season by flashboards on crest of diversion dam for Oswego Canal and regulation by Henry Hagg Lake since January 1975. Several diversions upstream from station for irrigation. U.S. Geological Survey satellite telemeter at station. Periodic suspended sediment data are available for the period October 1974 to September 1995.

AVERAGE DISCHARGE.--27 years (water years 1976-2002), 1,452 ft³/s, 1,052,000 acre-ft/yr, river only, not adjusted for diversion to Oswego Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 ft³/s Feb. 10, 1996, gage height, 18.32 ft, does not include an estimated 3,600 ft³/s flowing in Oswego Canal; minimum daily discharge, 0.20 ft³/s July 30 to Aug. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,620 ft³/s Dec. 21, gage height, 10.38 ft; minimum discharge, 135 ft³/s Aug. 19.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	567	4590	2590	5690	1670	1330	758	444	564	182	183
2	203	484	5370	2490	5270	1520	1250	713	374	472	183	188
3	191	409	5360	2540	4890	1390	1170	680	328	389	158	204
4	174	331	5840	2500	4500	1280	1080	653	304	326	144	210
5	163	336	6600	2410	4170	1200	1020	634	291	293	153	201
6	159	312	6570	2780	3940	1600	1020	622	297	290	166	184
7	154	292	6440	4770	3990	1790	1030	618	295	274	167	183
8	164	247	6140	6180	4500	1660	1040	602	286	308	162	192
9	173	221	5800	5960	4430	1430	1020	566	298	334	173	217
10	207	214	5430	6370	4370	1350	1110	537	316	331	166	231
11	254	225	5010	6860	4320	1860	1210	503	311	278	156	226
12	251	266	4600	7050	4250	3490	1250	475	281	245	162	214
13	236	342	4670	6720	4100	4140	1240	452	256	241	172	208
14	206	800	5120	6160	3870	4160	1430	446	254	234	167	204
15	190	1250	4850	5550	3560	4150	1550	452	278	235	158	201
16	185	1770	5130	4960	3260	4240	1700	462	291	238	148	217
17	185	1520	5790	4450	2940	4260	1690	498	321	224	152	309
18	177	1100	6000	4020	2510	4180	1610	497	395	203	148	316
19	181	900	6610	3700	2410	4300	1490	474	394	204	141	308
20	175	967	7250	3510	2270	4150	1350	489	371	214	151	280
21	171	1390	7560	3430	2170	3980	1250	544	324	226	158	242
22	200	2100	7470	3480	2120	3800	1190	527	295	228	160	e200
23	293	2450	7080	3510	2720	3650	1130	511	270	214	163	e200
24	321	2630	6530	3550	2850	3480	1060	469	262	201	159	191
25	329	2650	5920	4630	2670	3220	972	434	267	202	148	178
26	285	2520	5300	5160	2380	2870	884	403	254	206	144	175
27	269	2200	4730	5540	2090	2440	881	374	250	201	147	184
28	313	2260	4290	5950	1860	2030	875	424	272	199	153	201
29	318	3020	3830	6200	---	1750	831	569	523	210	158	239
30	472	3600	3420	6210	---	1560	801	556	584	198	189	281
31	600	---	2990	6000	---	1430	---	522	---	181	205	---
TOTAL	7400	37373	172290	145230	98100	84030	35464	16464	9686	8163	4993	6567
MEAN	238.7	1246	5558	4685	3504	2711	1182	531.1	322.9	263.3	161.1	218.9
MAX	600	3600	7560	7050	5690	4300	1700	758	584	564	205	316
MIN	154	214	2990	2410	1860	1200	801	374	250	181	141	175
AC-FT	14680	74130	341700	288100	194600	166700	70340	32660	19210	16190	9900	13030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	291.9	1164	3231	3473	3554	2645	1530	726.4	368.5	186.5	156.4	206.0															
MAX	995	3062	7035	7845	9490	5625	3758	2437	762	292	254	420															
(WY)	1998	1984	1997	1997	1996	1999	1991	1996	1984	1998	1997	1997															
MIN	71.7	130	158	163	180	638	354	229	147	59.9	79.9	79.1															
(WY)	1988	1988	1977	1977	1977	2001	1977	1977	1992	1977	1986	1987															

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1976 - 2002	
ANNUAL TOTAL	328335		625760			
ANNUAL MEAN	899.5		1714		1452	
HIGHEST ANNUAL MEAN					2787	
LOWEST ANNUAL MEAN					278	
HIGHEST DAILY MEAN	7560		Dec 21		25900	
LOWEST DAILY MEAN	108		Aug 16		18	
ANNUAL SEVEN-DAY MINIMUM	114		Aug 11		24	
ANNUAL RUNOFF (AC-FT)	651300		1241000		1052000	
10 PERCENT EXCEEDS	2480		5120		4190	
50 PERCENT EXCEEDS	438		556		544	
90 PERCENT EXCEEDS	130		176		126	

e Estimated

14207740 WILLAMETTE RIVER ABOVE FALLS, AT OREGON CITY, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 2001 to present.

INSTURMENTATION.--Temperature probe and data logger.

REMARKS.--Records fair. Records represent water temperature at the probe and are not necessarily representative of the river cross-section. Periodic cross-section water temperature data available in the files of the Portland Field Office.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 24.5°C Aug. 14, 2001; minimum, 5.6°C Jan. 29, 2002.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 24.1°C July 16, 17, 28, Aug. 17; minimum, 5.6°C Jan. 29.

TEMPERATURE, WATER (DEG. C), AUGUST TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	22.0	21.7	21.9
2	---	---	---	---	---	---	---	---	---	22.6	21.8	22.1
3	---	---	---	---	---	---	---	---	---	22.5	21.9	22.1
4	---	---	---	---	---	---	---	---	---	22.2	21.9	22.0
5	---	---	---	---	---	---	---	---	---	21.9	21.5	21.7
6	---	---	---	---	---	---	---	---	---	21.5	20.9	21.2
7	---	---	---	---	---	---	---	---	---	21.0	20.6	20.8
8	---	---	---	---	---	---	---	---	---	20.6	20.1	20.4
9	---	---	---	---	---	---	23.1	22.4	22.6	20.3	20.0	20.2
10	---	---	---	---	---	---	23.5	22.6	23.0	20.2	19.6	19.9
11	---	---	---	---	---	---	23.9	23.0	23.4	19.8	19.4	19.6
12	---	---	---	---	---	---	24.3	23.5	23.8	19.7	19.4	19.6
13	---	---	---	---	---	---	24.4	23.7	24.0	19.8	19.5	19.6
14	---	---	---	---	---	---	24.5	24.0	24.2	20.1	19.6	19.8
15	---	---	---	---	---	---	24.5	24.0	24.2	20.6	20.0	20.3
16	---	---	---	---	---	---	24.3	23.9	24.0	21.0	20.3	20.5
17	---	---	---	---	---	---	24.2	23.6	23.8	20.9	20.5	20.6
18	---	---	---	---	---	---	23.9	23.5	23.7	20.9	20.5	20.7
19	---	---	---	---	---	---	23.5	23.1	23.3	20.6	20.3	20.4
20	---	---	---	---	---	---	23.2	22.8	22.9	20.4	20.0	20.2
21	---	---	---	---	---	---	22.8	21.8	22.4	20.3	19.9	20.0
22	---	---	---	---	---	---	21.9	21.5	21.7	20.0	19.6	19.7
23	---	---	---	---	---	---	21.5	20.9	21.3	19.7	19.3	19.4
24	---	---	---	---	---	---	21.1	20.7	20.8	19.4	18.9	19.1
25	---	---	---	---	---	---	21.0	20.7	20.8	19.1	18.5	18.7
26	---	---	---	---	---	---	20.8	20.3	20.5	18.5	18.4	18.4
27	---	---	---	---	---	---	20.4	20.0	20.2	18.5	18.2	18.3
28	---	---	---	---	---	---	20.8	20.1	20.3	18.4	18.1	18.2
29	---	---	---	---	---	---	21.1	20.6	20.7	18.1	17.5	17.7
30	---	---	---	---	---	---	21.8	20.8	21.1	17.7	17.1	17.4
31	---	---	---	---	---	---	22.0	21.2	21.6	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	22.6	17.1	20.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.2	16.7	16.9	11.3	10.7	11.0	8.1	8.0	8.0	6.7	6.4	6.6
2	16.9	16.5	16.7	11.1	10.7	10.9	8.2	8.0	8.1	7.1	6.7	6.9
3	17.0	16.4	16.6	11.5	11.1	11.3	8.1	8.0	8.1	7.2	7.0	7.1
4	16.8	16.5	16.7	11.6	11.4	11.5	8.0	7.7	7.9	7.4	7.1	7.2
5	17.3	16.6	16.9	11.7	11.5	11.6	7.8	7.6	7.7	7.3	7.0	7.2
6	17.4	17.0	17.1	11.9	11.6	11.7	7.6	7.4	7.5	7.3	7.0	7.1
7	17.1	16.8	16.9	11.8	11.5	11.7	8.0	7.6	7.8	8.7	7.3	7.9
8	16.8	16.4	16.6	11.6	11.3	11.5	8.1	8.0	8.0	9.4	8.7	9.2
9	16.6	16.1	16.3	11.3	10.9	11.1	8.0	7.7	7.9	9.4	9.1	9.3
10	16.2	15.6	15.9	10.9	10.2	10.5	7.8	7.6	7.7	9.1	8.6	8.9
11	15.6	15.0	15.3	10.2	9.8	10.0	7.6	7.3	7.4	8.7	8.2	8.4
12	15.0	14.7	14.9	9.8	9.3	9.5	7.4	7.2	7.3	8.2	7.9	8.1
13	14.7	14.3	14.5	9.3	9.1	9.1	7.8	7.4	7.5	7.9	7.6	7.7
14	14.4	13.9	14.1	9.8	9.1	9.4	7.9	7.7	7.8	7.6	7.2	7.4
15	14.3	13.8	14.0	10.8	9.8	10.4	7.9	7.4	7.7	7.2	6.7	6.9
16	14.1	13.8	14.0	11.4	10.8	11.2	7.6	7.4	7.4	6.7	6.3	6.5
17	14.7	13.9	14.1	11.3	11.1	11.2	7.9	7.5	7.7	6.3	6.0	6.2
18	14.6	14.1	14.3	11.1	10.6	10.9	7.9	7.7	7.8	6.1	5.9	6.0
19	14.7	14.1	14.3	10.6	10.0	10.4	7.7	7.3	7.5	6.5	6.1	6.3
20	14.5	14.0	14.3	10.0	9.8	9.9	7.3	7.2	7.3	6.7	6.3	6.5
21	14.0	13.4	13.7	9.8	9.6	9.6	7.3	7.2	7.2	6.6	6.3	6.5
22	13.4	13.0	13.2	9.6	9.5	9.6	7.3	7.0	7.2	6.5	6.3	6.4
23	13.0	12.8	12.9	9.6	9.5	9.6	7.0	6.7	6.9	6.3	5.9	6.0
24	12.8	12.0	12.4	9.5	9.1	9.3	6.7	6.3	6.5	6.2	5.9	6.1
25	12.3	12.0	12.1	9.1	8.8	9.0	6.4	6.0	6.2	6.7	6.2	6.5
26	12.2	11.9	12.0	8.8	8.6	8.8	6.0	5.7	5.9	6.9	6.6	6.8
27	12.0	11.9	12.0	8.6	8.2	8.5	5.8	5.7	5.7	6.7	6.1	6.3
28	12.0	11.7	11.8	8.2	8.0	8.1	6.0	5.7	5.8	6.1	5.7	5.9
29	11.8	11.6	11.7	8.0	7.7	7.9	6.2	5.9	6.0	5.8	5.6	5.7
30	11.9	11.7	11.8	8.1	7.8	8.0	6.4	6.1	6.2	5.8	5.7	5.8
31	11.8	11.3	11.6	---	---	---	6.5	6.3	6.4	6.0	5.8	5.9
MONTH	17.4	11.3	14.4	11.9	7.7	10.1	8.2	5.7	7.2	9.4	5.6	6.9

14207740 WILLAMETTE RIVER ABOVE FALLS, AT OREGON CITY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.4	6.0	6.2	7.2	6.9	7.1	10.2	9.9	10.0	12.9	12.2	12.6
2	6.6	6.3	6.5	7.2	6.9	7.0	10.4	10.0	10.2	13.0	12.7	12.9
3	6.8	6.5	6.7	7.2	7.0	7.1	10.7	10.2	10.4	12.8	12.2	12.6
4	7.0	6.7	6.9	7.3	6.9	7.1	11.0	10.6	10.8	12.2	11.7	12.1
5	7.0	6.8	6.9	7.5	7.0	7.3	11.1	10.7	10.9	11.8	11.3	11.7
6	6.8	6.6	6.7	7.4	7.1	7.3	11.0	10.7	10.8	12.0	11.3	11.7
7	6.7	6.5	6.6	7.3	7.2	7.3	10.7	10.3	10.5	11.9	11.6	11.7
8	6.9	6.6	6.8	7.2	6.7	7.0	10.4	9.9	10.1	11.8	11.4	11.7
9	6.8	6.5	6.6	6.7	6.4	6.6	10.2	9.7	9.9	11.6	11.0	11.3
10	6.8	6.6	6.7	6.5	6.3	6.4	10.7	10.1	10.3	11.7	11.0	11.4
11	6.9	6.6	6.7	7.0	6.4	6.7	10.8	10.3	10.6	12.2	11.3	11.7
12	6.9	6.6	6.7	7.7	7.0	7.3	10.5	9.9	10.2	12.8	11.8	12.4
13	6.9	6.6	6.7	7.8	7.4	7.6	10.3	9.9	10.1	13.3	12.4	13.0
14	6.7	6.4	6.6	7.4	7.0	7.3	10.3	9.7	10.1	14.1	13.0	13.7
15	6.9	6.4	6.6	7.1	6.8	7.0	9.8	8.9	9.5	14.0	13.5	13.8
16	7.2	6.7	6.9	6.9	6.7	6.8	9.0	8.2	8.6	13.8	13.4	13.7
17	7.3	7.0	7.1	6.7	6.5	6.6	8.2	7.8	8.0	14.1	13.4	13.8
18	7.5	7.1	7.3	6.5	6.2	6.4	8.0	7.9	8.0	14.4	13.7	14.1
19	7.9	7.5	7.7	6.4	6.2	6.2	8.2	7.9	8.1	14.5	13.9	14.2
20	8.5	7.9	8.1	6.9	6.2	6.5	9.1	8.2	8.7	14.4	13.8	14.1
21	9.0	8.5	8.7	7.4	6.8	7.1	9.7	8.9	9.3	13.9	13.2	13.6
22	9.2	8.9	9.0	7.9	7.2	7.5	10.0	9.3	9.6	13.2	12.8	13.1
23	9.4	9.1	9.2	8.3	7.7	8.0	10.4	9.4	9.8	13.3	12.7	13.0
24	9.6	9.2	9.4	8.5	8.1	8.3	11.2	10.1	10.6	13.5	12.9	13.2
25	9.2	8.2	8.7	9.1	8.3	8.7	11.6	11.0	11.2	13.9	13.2	13.6
26	8.2	7.6	7.8	9.1	8.7	8.9	11.6	11.3	11.5	15.0	13.6	14.4
27	7.6	7.0	7.2	8.9	8.4	8.7	11.8	11.5	11.6	15.7	14.7	15.2
28	7.2	6.9	7.1	9.0	8.5	8.7	11.8	11.5	11.7	16.0	15.3	15.7
29	---	---	---	9.3	8.8	9.0	12.1	11.8	11.9	15.8	15.4	15.6
30	---	---	---	9.6	9.2	9.4	12.4	11.9	12.2	15.4	15.0	15.1
31	---	---	---	9.9	9.4	9.6	---	---	---	15.0	14.8	14.8
MONTH	9.6	6.0	7.3	9.9	6.2	7.5	12.4	7.8	10.2	16.0	11.0	13.3
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.1	14.8	15.0	20.0	19.3	19.5	22.9	22.4	22.6	22.9	22.0	22.3
2	15.8	15.0	15.5	19.9	19.1	19.4	23.2	22.4	22.8	23.2	22.4	22.6
3	16.2	15.5	15.9	19.4	18.9	19.2	22.8	22.4	22.5	22.9	22.3	22.5
4	16.5	15.6	16.1	19.6	18.9	19.2	22.4	22.0	22.1	22.4	22.0	22.2
5	17.0	15.9	16.4	20.1	19.3	19.6	22.4	21.8	22.0	22.2	21.8	22.0
6	16.8	16.1	16.5	20.4	19.9	20.0	22.1	21.6	21.7	22.1	21.6	21.8
7	17.0	16.3	16.7	20.5	20.3	20.4	21.6	21.1	21.3	21.9	21.3	21.6
8	16.7	16.2	16.4	20.6	20.2	20.4	21.3	20.8	21.0	21.3	20.7	21.0
9	16.3	15.8	16.1	---	---	---	21.4	20.7	20.9	20.7	20.1	20.4
10	16.3	15.5	15.9	---	---	---	21.4	20.9	21.1	20.3	19.5	19.9
11	16.5	15.4	15.9	---	---	---	21.4	20.9	21.1	19.6	19.1	19.4
12	17.3	15.8	16.5	---	---	---	22.2	21.2	21.6	19.7	19.1	19.3
13	18.3	17.0	17.6	---	---	---	22.9	21.7	22.2	20.1	19.4	19.6
14	19.2	18.0	18.6	---	---	---	23.4	22.5	22.7	20.2	19.7	20.0
15	19.5	18.7	19.1	---	---	---	23.5	22.8	23.1	20.4	20.0	20.2
16	19.4	18.9	19.1	24.1	23.6	23.9	23.8	23.1	23.3	20.6	20.3	20.4
17	18.9	18.4	18.8	24.1	23.8	23.9	24.1	23.4	23.6	20.5	20.2	20.4
18	18.4	17.4	17.9	23.8	23.3	23.5	23.9	23.4	23.6	20.3	19.7	20.0
19	17.4	16.8	17.0	23.4	22.9	23.1	23.8	23.3	23.5	19.8	19.0	19.4
20	17.1	16.4	16.7	22.9	22.5	22.7	23.4	23.0	23.2	19.2	18.4	18.6
21	17.6	16.5	16.9	23.3	22.5	22.8	23.0	22.5	22.7	18.4	17.9	18.0
22	17.7	17.4	17.5	23.4	22.8	23.0	22.5	21.8	22.0	18.2	17.7	18.0
23	18.7	17.6	18.2	23.2	22.8	22.9	22.0	21.5	21.7	18.4	18.0	18.1
24	19.6	18.5	19.1	23.3	22.7	23.0	21.7	21.3	21.5	18.5	18.0	18.2
25	19.8	19.2	19.4	23.7	23.0	23.2	21.5	21.0	21.2	18.8	18.0	18.2
26	20.1	19.5	19.8	23.9	23.3	23.5	21.1	20.8	21.0	18.4	18.1	18.2
27	20.4	19.8	20.1	24.0	23.4	23.6	21.7	21.0	21.2	18.5	18.1	18.2
28	20.4	20.0	20.2	24.1	23.3	23.6	22.1	21.5	21.7	18.4	18.1	18.2
29	21.0	20.1	20.5	23.8	23.1	23.4	22.5	21.9	22.1	18.3	17.9	18.2
30	20.7	20.0	20.4	23.7	23.1	23.3	22.1	21.8	21.9	18.0	17.5	17.8
31	---	---	---	23.1	22.5	22.8	22.4	21.6	21.9	---	---	---
MONTH	21.0	14.8	17.7	---	---	---	24.1	20.7	22.1	23.2	17.5	19.8

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR

LOCATION.--Lat 45°21'28", long 122°36'35", in NE 1/4 NW 1/4 sec.31, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090007, on right bank 0.5 mi below Willamette Falls, 1.4 mi upstream from Clackamas River, and at mile 26.2.

DRAINAGE AREA.--10,000 mi², approximately.

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (Oregon State Highway Division bench mark).

REMARKS.--Flow regulated by many reservoirs upstream. Gage out of operation during period October 1993 to January 1994 and July to September 1994.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 46.04 ft Feb. 9, 1996, from high-water mark; minimum, 1.24 ft July 14, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 21.60 ft Dec. 17; minimum, 1.49 ft Oct. 10.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	5.38	2.05	3.74	7.40	4.23	5.69	18.45	16.53	17.31	10.77	8.59	9.38
2	5.81	2.40	4.05	7.55	4.77	5.92	19.48	18.40	19.05	11.77	9.20	10.24
3	5.94	2.59	4.15	7.07	4.29	5.45	19.71	19.10	19.41	11.46	10.21	10.75
4	5.45	2.21	3.79	6.43	3.59	4.84	19.15	18.26	18.76	11.15	10.19	10.65
5	5.92	2.05	3.77	6.31	3.41	4.63	18.38	17.69	18.03	11.02	9.92	10.36
6	5.75	2.44	3.91	6.51	3.24	4.64	18.35	17.66	17.87	11.76	9.68	10.47
7	5.33	2.18	3.59	5.83	3.34	4.35	18.48	18.08	18.32	16.43	11.76	14.20
8	5.35	1.86	3.43	5.71	2.93	4.07	18.41	17.82	18.14	19.04	16.43	18.11
9	4.93	1.83	3.18	5.81	3.13	4.27	18.15	16.47	17.41	19.15	18.60	18.87
10	5.59	1.49	3.16	5.99	2.88	4.31	16.50	14.91	15.79	18.70	17.29	18.17
11	5.59	2.32	3.71	5.80	2.53	4.21	14.94	13.53	14.35	17.29	15.19	16.32
12	5.29	1.78	3.47	6.46	2.84	4.60	13.61	12.51	13.13	15.19	13.92	14.51
13	5.53	1.97	3.65	7.21	3.32	5.14	14.28	12.27	12.99	14.05	13.44	13.73
14	5.44	2.14	3.85	8.80	3.88	6.52	18.25	14.28	17.06	13.46	12.66	13.06
15	6.07	2.43	4.20	9.59	6.59	7.91	19.46	18.25	18.88	12.66	11.78	12.23
16	6.50	2.92	4.54	8.99	6.33	7.47	20.86	19.31	19.87	12.11	11.40	11.74
17	6.69	2.92	4.60	8.57	6.03	6.98	21.60	20.85	21.23	11.89	10.77	11.27
18	6.95	3.38	4.91	8.19	5.91	6.77	21.31	20.60	21.04	11.03	10.14	10.49
19	6.55	3.01	4.54	7.94	5.45	6.44	21.27	20.27	20.76	10.48	9.65	10.01
20	5.87	2.55	4.08	8.09	5.57	6.74	20.48	19.16	19.70	10.92	9.45	10.14
21	5.63	2.15	3.70	8.07	6.11	7.20	19.30	18.49	18.83	14.80	10.91	12.74
22	5.94	2.08	3.75	10.56	6.96	8.43	18.60	17.13	17.87	17.07	14.80	16.03
23	5.44	2.93	4.15	13.39	10.56	11.86	17.24	15.89	16.58	17.77	17.07	17.37
24	5.05	2.49	3.78	13.99	13.08	13.60	15.99	14.31	15.19	17.24	15.78	16.60
25	5.14	2.90	3.96	13.12	11.20	12.16	14.31	12.45	13.46	18.25	15.89	16.84
26	4.81	2.20	3.58	11.30	10.38	10.90	12.46	11.07	11.90	20.22	18.25	19.37
27	5.33	2.48	3.90	10.85	9.87	10.35	11.44	10.19	10.88	20.81	20.05	20.48
28	5.25	2.34	3.72	11.83	9.84	10.71	11.31	9.81	10.33	20.60	19.62	20.28
29	5.70	2.60	4.00	15.16	11.49	13.85	11.35	9.74	10.27	19.62	17.00	18.31
30	6.36	2.94	4.45	16.68	15.15	16.06	11.04	9.40	9.96	17.03	14.82	15.69
31	6.90	3.31	5.13	--	--	--	10.77	8.92	9.59	14.82	13.16	13.82
MONTH	6.95	1.49	3.95	16.68	2.53	7.54	21.60	8.92	16.26	20.81	8.59	14.27

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	13.44	12.43	12.86	9.52	7.75	8.49	9.28	7.11	8.00	9.54	8.19	8.79
2	12.84	11.92	12.35	9.10	6.79	7.72	9.49	7.82	8.39	9.17	7.77	8.44
3	12.32	10.97	11.60	8.85	6.11	7.18	8.87	7.23	7.99	8.83	7.78	8.30
4	11.25	10.25	10.69	8.33	5.74	6.67	8.25	6.81	7.49	8.72	7.74	8.36
5	11.11	9.96	10.52	8.24	5.62	6.52	8.14	6.94	7.55	8.72	7.87	8.32
6	10.60	9.61	10.04	8.34	5.88	7.01	8.08	6.85	7.57	8.49	7.23	7.84
7	11.10	9.65	10.43	9.95	7.85	9.11	8.14	6.91	7.60	8.47	7.23	8.00
8	14.91	11.10	13.45	10.32	9.12	9.89	8.39	6.89	7.64	9.15	7.82	8.62
9	15.83	14.91	15.48	9.59	8.17	9.07	8.82	7.46	8.14	9.32	7.70	8.48
10	15.42	13.29	14.53	9.60	8.12	8.70	10.07	7.76	9.10	8.62	6.94	7.66
11	13.29	11.86	12.54	10.78	8.02	9.39	11.64	9.62	10.70	8.23	6.65	7.39
12	11.87	11.15	11.56	14.99	10.58	13.31	12.17	11.28	11.76	8.83	---	---
13	11.23	10.04	10.65	16.59	14.97	15.85	12.57	11.38	11.98	8.51	6.71	7.42
14	10.44	9.53	9.90	16.64	15.66	16.26	15.67	12.48	14.47	8.87	7.26	7.91
15	9.87	8.79	9.39	15.66	14.33	14.93	17.03	15.61	16.23	8.92	7.38	7.99
16	9.52	8.11	8.73	14.33	13.11	13.66	18.26	17.03	17.65	8.88	7.24	7.96
17	9.01	7.45	8.04	13.11	12.10	12.56	18.35	18.13	18.24	8.52	7.08	7.71
18	8.69	7.06	7.64	12.13	11.02	11.55	18.23	17.21	17.74	8.89	7.39	8.09
19	9.08	6.98	7.85	11.97	10.99	11.43	17.23	15.62	16.48	8.36	7.14	7.77
20	8.71	7.52	7.94	12.52	11.85	12.08	15.62	13.48	14.63	8.44	7.56	8.02
21	9.05	7.71	8.24	11.98	10.87	11.47	13.60	12.36	13.11	8.90	7.77	8.51
22	9.49	8.25	8.75	11.06	9.83	10.53	12.48	11.00	11.86	9.82	8.37	9.45
23	10.62	8.51	9.80	10.18	9.06	9.75	11.28	10.58	10.96	10.71	9.50	10.09
24	11.84	10.21	11.08	10.02	9.11	9.45	11.00	10.27	10.63	10.70	9.57	10.02
25	11.51	10.18	10.95	10.51	9.11	9.76	11.03	9.74	10.30	11.01	9.52	10.09
26	10.89	9.41	10.06	10.50	9.08	9.67	10.67	9.38	9.92	10.69	8.96	9.67
27	10.33	8.61	9.51	10.30	8.78	9.36	10.57	9.06	9.69	10.34	8.42	9.24
28	9.84	8.19	8.90	10.08	8.40	9.09	10.70	8.63	9.50	10.85	9.07	10.01
29	---	---	---	9.70	7.89	8.62	9.92	8.00	8.74	11.76	10.29	11.13
30	---	---	---	9.59	7.42	8.25	9.90	8.07	8.81	11.86	11.18	11.52
31	---	---	---	9.48	7.25	8.01	---	---	---	11.81	11.20	11.49
MONTH	15.83	6.98	10.48	16.64	5.62	10.17	18.35	6.81	11.10	11.86	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	12.13	11.26	11.55	11.05	10.17	10.43	6.48	3.96	4.83	5.99	3.03	3.99
2	12.33	11.24	11.81	10.80	10.02	10.34	6.50	3.84	4.73	5.74	2.61	3.76
3	11.44	10.34	10.82	10.56	9.28	9.92	6.45	4.07	4.84	5.60	2.08	3.83
4	11.06	10.49	10.88	9.84	9.27	9.51	6.57	3.72	4.77	6.20	2.40	4.30
5	12.03	10.90	11.45	10.01	8.43	9.21	6.52	3.35	4.80	7.07	3.16	4.87
6	---	---	---	9.31	7.39	8.13	7.55	4.45	5.70	7.11	3.26	5.01
7	---	---	---	9.04	7.17	7.90	7.72	3.97	5.43	7.24	3.21	5.02
8	12.48	12.12	12.29	8.97	7.08	7.88	7.61	4.13	5.53	6.70	2.90	4.70
9	12.43	11.27	11.82	8.71	6.43	7.34	8.20	4.82	6.20	6.42	2.76	4.52
10	11.67	10.48	11.04	8.89	5.91	7.16	8.19	4.39	5.97	7.02	2.97	4.68
11	11.37	10.31	10.76	9.12	6.59	7.55	7.80	4.41	5.78	6.99	3.21	4.91
12	11.88	10.19	11.02	9.34	7.32	8.07	7.67	4.01	5.57	6.09	2.75	4.42
13	11.21	10.02	10.57	9.60	7.55	8.50	7.93	4.13	5.61	5.93	2.43	3.81
14	11.34	9.74	10.53	8.98	7.12	8.01	7.93	4.38	5.71	6.24	2.42	3.96
15	10.38	9.32	9.85	8.90	7.23	7.87	7.73	4.29	5.58	6.34	2.89	4.13
16	10.11	8.87	9.60	8.79	6.34	7.53	7.73	4.50	5.57	5.64	2.18	3.81
17	10.09	8.64	9.15	8.43	6.02	6.78	7.47	4.00	5.25	5.71	2.41	4.16
18	10.35	9.34	9.82	8.61	6.91	7.51	6.89	3.42	4.76	6.46	2.93	4.57
19	10.97	9.89	10.55	8.98	6.26	7.30	7.02	3.72	5.07	6.41	3.08	4.63
20	12.02	10.97	11.77	8.59	6.09	7.05	7.25	3.93	5.30	6.51	3.20	4.76
21	12.48	11.78	12.07	8.68	6.09	7.41	7.51	4.27	5.50	6.66	3.28	4.78
22	12.52	10.96	11.73	8.77	6.62	7.50	7.53	4.00	5.47	6.46	2.75	4.53
23	11.64	9.97	10.67	9.10	6.17	7.41	7.39	4.06	5.41	7.03	3.11	4.80
24	11.40	10.02	10.62	8.81	5.89	7.03	7.33	4.05	5.43	6.86	3.62	5.09
25	11.52	9.83	10.55	8.61	5.88	6.97	7.09	3.54	5.14	6.60	3.16	4.53
26	10.69	9.28	9.94	8.20	5.21	6.42	6.27	3.20	4.50	6.82	3.24	4.60
27	10.41	9.43	9.87	7.48	4.65	5.81	6.39	3.07	4.44	6.65	3.58	4.73
28	10.84	9.95	10.36	6.77	4.04	5.38	6.55	2.95	4.57	5.90	2.98	4.25
29	12.08	10.77	11.52	6.44	3.65	5.04	6.21	3.47	4.63	5.62	2.72	3.84
30	12.09	10.69	11.38	6.96	4.55	5.28	6.16	2.92	4.00	5.49	2.35	3.66
31	---	---	---	6.64	3.80	5.10	5.99	3.19	4.07	---	---	---
MONTH	---	---	---	11.05	3.65	7.53	8.20	2.92	5.17	7.24	2.08	4.42

WILLAMETTE RIVER BASIN

14208600 TIMOTHY LAKE NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°06'50", long 121°48'35", in NE 1/4 sec.27, T.5 S., R.8 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, in intake structure 350 ft upstream from dam on Oak Grove Fork, 0.4 mi upstream from Anvil Creek, 14 mi south of Government Camp, and at mile 15.8.

DRAINAGE AREA.--53.8 mi².

PERIOD OF RECORD.--May 1956 to current year. Prior to October 1957, published as Timothy Meadows Reservoir.

GAGE.--Nonrecording gage. Datum of gage is NGVD of 1929 (levels by Portland General Electric Co.).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway built by Portland General Electric Co. Usable storage began May 28, 1956. Capacity, 65,710 acre-ft at elevation 3,190 ft, normal maximum operating level. Usable capacity increased in 1966 water year to 64,450 acre-ft between elevations 3,125.0 ft, invert of outlet pipe, and 3,192.0 ft, top of radial gates. Storage of 4,060 acre-ft below elevation 3,125.0 ft not normally available for release. Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Elevations and capacity table furnished by Portland General Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 68,800 acre-ft Oct. 3, 1967, elevation, 3,192.2 ft; minimum contents observed, 16,010 acre-ft Feb. 24, 1957, elevation, 3,144.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 66,210 acre-ft July 8, 9, 25-27, Aug. 10-12, elevation, 3,191.79 ft; minimum contents observed, 42,670 acre-ft Feb. 19, elevation, 3,171.69 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	3,187.73	62,630	-
Oct. 31.....	3,183.68	57,320	-5,310
Nov. 30.....	3,180.30	53,040	-4,280
Dec. 31.....	3,180.00	52,670	-370
CAL YR 2001.....	-	-	+840
Jan. 31.....	3,177.67	49,800	-2,870
Feb. 28.....	3,172.49	43,600	-6,200
Mar. 31.....	3,177.20	49,220	+5,620
Apr. 30.....	3,186.38	60,840	+11,620
May 31.....	3,191.64	68,000	+7,160
June 30.....	3,191.64	68,000	0
July 31.....	3,191.77	68,190	+190
Aug. 31.....	3,191.78	68,200	+10
Sept. 30.....	3,186.45	60,930	-7,270
WTR YR 2002.....	-	-	-1,700

14208700 OAK GROVE FORK NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°06'50", long 121°48'50", in NE 1/4 sec.27, T.5 S., R.8 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.1 mi upstream from Anvil Creek, 0.3 mi downstream from Timothy Lake, 14 mi south of Government Camp, and at mile 15.5.

DRAINAGE AREA.--54.4 mi².

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder and artificial control. Datum of gage is 3,041.83 ft above NGVD of 1929 (Portland General Electric Co. bench mark).

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1956 by Timothy Lake (station 14208600). No diversion upstream from station.

AVERAGE DISCHARGE.--46 years (water years 1957-2002), 134 ft³/s, 33.45 in/yr, 97,080 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s Dec. 24, 1964, gage height, 3.93 ft, from rating curve extended above 290 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 3.7 ft³/s Sept. 23, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 696 ft³/s Sept. 23, gage height, 2.99 ft; minimum discharge, 36 ft³/s Mar. 21, 22.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	213	150	210	290	43	43	153	210	86	68	61
2	144	217	150	210	298	43	43	153	206	78	67	67
3	144	217	162	209	299	42	44	153	204	74	64	79
4	144	220	193	216	298	42	44	153	202	74	62	96
5	146	206	147	207	297	42	44	153	185	75	62	99
6	153	212	173	174	307	42	44	55	164	78	62	113
7	153	213	64	117	288	42	45	78	156	84	62	113
8	150	213	120	69	283	42	45	112	156	92	64	116
9	139	212	141	44	294	42	46	111	158	93	67	150
10	130	211	187	69	293	42	48	45	159	92	67	214
11	67	210	185	109	294	42	49	58	159	92	67	232
12	117	210	185	95	294	44	50	124	159	88	67	280
13	142	210	116	111	294	43	53	114	153	83	67	294
14	141	208	43	138	294	43	67	103	133	81	67	294
15	141	210	45	170	294	44	65	104	131	77	67	294
16	143	152	45	181	293	44	88	109	131	77	67	294
17	142	132	44	201	290	43	110	95	131	77	67	294
18	143	123	42	204	225	43	53	80	144	77	67	294
19	142	121	66	211	95	43	47	80	142	77	66	291
20	144	101	121	204	64	42	46	76	133	71	63	290
21	154	102	162	207	62	37	51	95	133	63	62	290
22	128	89	189	210	60	40	50	111	133	62	62	290
23	143	107	199	246	64	42	58	111	133	62	62	286
24	169	151	199	252	62	42	104	120	120	62	62	211
25	170	150	199	177	57	43	168	125	89	64	62	115
26	219	143	207	217	43	43	208	137	86	66	62	125
27	219	99	210	248	43	43	224	138	86	69	62	125
28	220	98	210	265	43	43	223	151	86	69	62	125
29	219	109	210	268	---	43	194	168	86	69	61	114
30	219	135	210	282	---	43	153	213	86	69	61	101
31	202	---	210	285	---	43	---	213	---	69	60	---
TOTAL	4831	4994	4584	5806	5818	1315	2507	3691	4254	2350	1988	5747
MEAN	155.8	166.5	147.9	187.3	207.8	42.42	83.57	119.1	141.8	75.81	64.13	191.6
MAX	220	220	210	285	307	44	224	213	210	93	68	294
MIN	67	89	42	44	43	37	43	45	86	62	60	61
AC-FT	9580	9910	9090	11520	11540	2610	4970	7320	8440	4660	3940	11400
MEAN†	69.4	94.6	142	141	96.2	134	279	235	142	78.9	64.2	69.4
CFSM†	1.28	1.74	2.61	2.59	1.77	2.46	5.13	4.32	2.61	1.45	1.18	1.28
IN.†	1.47	1.94	3.00	2.98	1.84	2.84	5.72	4.99	2.91	1.67	1.36	1.42
AC-FT†	4270	5630	8720	8650	5340	8230	16590	14480	8440	4850	3950	4130

CAL YR 2001 TOTAL 29604 MEAN 81.11 MAX 220 MIN 39 AC-FT 58720 MEAN† 82.3 CFMSM† 1.51 IN.† 20.53 AC-FT† 59560
WTR YR 2002 TOTAL 47885 MEAN 131.2 MAX 307 MIN 37 AC-FT 94980 MEAN† 129 CFMSM† 2.37 IN.† 32.15 AC-FT† 93280

† Adjusted for change in contents in Timothy Lake.

14209500 CLACKAMAS RIVER ABOVE THREE LYNX CREEK, OR

LOCATION.--Lat 45°07'30", long 122°04'20", in SE 1/4 NE 1/4 sec.21, T.5 S., R.6 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.1 mi upstream from Three Lynx Creek, 0.25 mi downstream from powerplant, 17 mi southeast of Estacada, and at mile 47.8.

DRAINAGE AREA.--479 mi².

PERIOD OF RECORD.--April 1909 to December 1913, October 1921 to current year. Prior to October 1911 (monthly discharge only), published in WSP 1318.

REVISED RECORDS.--WSP 1148: Drainage area. WSP 1248: 1910(M), 1912, 1948-50(M).

GAGE.--Water-stage recorder. Datum of gage is 1,091.69 ft above NGVD of 1929 (levels by Portland General Electric Co.). Apr. 23, 1909, to Jan. 4, 1914, nonrecording gage at about same site and datum. Nov. 1, 1921, to Dec. 27, 1924, water-stage recorder at present site at datum 0.91 ft higher.

REMARKS.--No estimated daily discharges. Records good. Regulation since May 1956 by Timothy Lake (station 14208600) and by Oak Grove powerhouse.

AVERAGE DISCHARGE.--39 years (water years 1910-13, 1922-1956), 1,942 ft³/s, 55.08 in/yr, 1,407,000 acre-ft/yr. 46 years (water years 1957-2002), 2,024 ft³/s, 57.42 in/yr, 1,467,000 acre-ft/yr (regulated period).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,200 ft³/s Dec. 22, 1964, gage height, 21.7 ft, from floodmark, from rating curve extended above 34,100 ft³/s on basis of slope-area measurement at gage height 15.06 ft; minimum recorded discharge, 260 ft³/s Oct. 15, 2001; minimum daily, 410 ft³/s Sept. 4, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 22	2200	8,930	6.97	Jan. 8	0830	12,700	8.58
Dec. 14	0200	12,100	8.37	Mar. 12	0330	8,760	6.89
Dec. 17	0530	10,600	7.72	Apr. 14	0730	*17,100	*10.23

Minimum discharge, 260 ft³/s Oct. 15.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	604	2010	4880	1730	1840	1840	2090	2930	3650	1280	715	622
2	601	1700	4770	2090	1780	1710	2240	3200	3370	1250	709	628
3	598	1370	3400	2300	1750	1600	2310	3450	3140	1180	702	639
4	594	1200	2770	2190	1720	1540	2460	3200	3010	1130	700	657
5	593	1100	2380	2070	1680	1540	2820	3030	3040	1090	704	657
6	604	1070	3500	3430	1690	2250	2920	2890	3000	1060	711	674
7	605	979	4300	7530	2130	2510	3030	2630	2670	1050	700	679
8	615	868	3250	10700	2430	2090	2950	2440	2410	1040	692	678
9	604	881	2740	6810	2210	1870	3350	2340	2240	1010	688	713
10	637	874	2460	4700	2010	1880	5740	2130	2110	975	684	775
11	798	851	2280	3730	1910	3420	5810	2090	2140	960	679	797
12	668	868	2140	3640	1810	7170	6100	2310	2230	946	674	879
13	662	1070	4000	3600	1740	4600	6350	2670	2370	911	670	858
14	646	3350	8850	3150	1660	3510	12900	2750	2500	890	663	856
15	592	2070	4920	2800	1620	2900	7770	2740	2390	873	659	856
16	632	1910	6600	2530	1600	2560	5590	2690	2230	856	656	856
17	619	1820	8700	2350	1600	2280	4540	2760	2130	843	654	879
18	604	1510	5670	2180	1540	2060	3780	2970	2510	831	651	880
19	619	1440	4300	2160	1640	2130	3280	2990	2170	821	651	865
20	613	1610	3580	2360	1770	2060	2990	2970	1930	806	651	857
21	629	2200	3040	2810	2140	1970	2870	3020	1850	787	660	847
22	801	5290	2670	2360	3240	1860	2800	3010	1820	775	651	841
23	1420	5690	2380	2110	4090	1790	2800	2910	1750	765	643	826
24	1060	3360	2150	2080	3900	1840	2710	2870	1640	758	642	743
25	884	2530	1990	3870	3090	1870	2750	2920	1520	751	643	643
26	872	2110	1860	3510	2560	1870	2850	3230	1480	749	641	663
27	845	1760	1780	2760	2220	1920	2880	3480	1450	748	638	662
28	849	2910	1810	2360	2010	1900	2730	3750	1380	739	635	661
29	823	6020	1740	2130	---	1880	2690	4760	1630	735	629	661
30	1190	3940	1660	1970	---	1890	2790	4480	1480	729	626	716
31	2300	---	1650	1900	---	1980	---	3980	---	721	625	---
TOTAL	24181	64361	108220	99910	59380	72290	116890	93590	67240	28059	20646	22568
MEAN	780.0	2145	3491	3223	2121	2332	3896	3019	2241	905.1	666.0	752.3
MAX	2300	6020	8850	10700	4090	7170	12900	4760	3650	1280	715	880
MIN	592	851	1650	1730	1540	1540	2090	2090	1380	721	625	622
AC-FT	47960	127700	214700	198200	117800	143400	231900	185600	133400	55660	40950	44760
CFSM	1.63	4.48	7.29	6.73	4.43	4.87	8.13	6.30	4.68	1.89	1.39	1.57
IN.	1.88	5.00	8.40	7.76	4.61	5.61	9.08	7.27	5.22	2.18	1.60	1.75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994																								
MEAN	1029	2240	3114	3063	3018	2644	2672	2516	1638	903.7	737.0	781.2	2145	4239	8271	6139	7671	6559	3896	4701	4136	1565	972	1242	1998	1996	1965	1970	1996	1972	2002	1971	1974	1974	1974	1974	1959	593	666	786	751	734	1353	1417	1057	674	592	534	510	1993	1988	1977	1977	1977	1992	1967	1992	1992	1992	1992	1992	1994

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1957 - 2002

	2001	2002	1957-2002
ANNUAL TOTAL	500082	777335	
ANNUAL MEAN	1370	2130	2024
HIGHEST ANNUAL MEAN			3128
LOWEST ANNUAL MEAN			1062
HIGHEST DAILY MEAN	8850	Dec 14	12900
LOWEST DAILY MEAN	480	Aug 15	592
ANNUAL SEVEN-DAY MINIMUM	516	Sep 3	600
ANNUAL RUNOFF (AC-FT)	991900		1542000
ANNUAL RUNOFF (CFSM)	2.86		4.45
ANNUAL RUNOFF (INCHES)	38.84		60.37
10 PERCENT EXCEEDS	2550		3740
50 PERCENT EXCEEDS	1010		1880
90 PERCENT EXCEEDS	581		655

14209700 FISH CREEK NEAR THREE LYNX, OR

LOCATION.--Lat 45°08'52", long 122°09'07", in NE 1/4 SE 1/4 sec.11, T.5 S., R.5 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank, 0.7 mi upstream from Clackamas River, and at mile 1.15.

DRAINAGE AREA.--45.1 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 940 ft above NGVD of 1929, from topographic map.

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

AVERAGE DISCHARGE.--13 years (water years 1990-2002), 212 ft³/s, 63.94 in/yr, 153,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,540 ft³/s Feb. 7, 1996, gage height, 11.83 ft, from rating curve extended above 2,800 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 15.40 ft, backwater from debris flow; minimum discharge, 6.0 ft³/s Sept. 1, 2, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 13	2230	2,160	8.59	Apr. 14	0400	*2,400	*8.81

Minimum discharge, 7.8 ft³/s Oct. 4-6, Sept. 25-29.

DISCHARGE in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	391	836	157	129	156	205	215	256	93	19	10
2	8.9	343	723	233	130	138	219	233	228	80	18	10
3	8.5	226	453	251	142	125	228	255	209	71	18	10
4	8.1	161	337	222	152	118	260	224	206	64	18	10
5	8.0	140	274	201	146	119	313	210	222	59	19	9.9
6	8.1	114	675	437	156	311	317	205	214	54	19	10
7	8.2	96	741	1020	346	318	329	179	177	52	18	10
8	9.6	82	457	1360	397	172	315	158	151	49	17	9.8
9	10	73	357	745	282	183	378	146	135	45	16	9.7
10	21	64	291	462	215	183	646	135	127	42	16	9.4
11	92	58	279	334	205	555	642	129	136	40	15	9.2
12	39	65	277	369	178	985	639	145	151	37	15	9.0
13	42	157	867	377	153	551	711	199	166	35	14	8.7
14	38	295	1300	297	135	392	1660	215	172	34	13	8.6
15	34	208	648	238	130	309	809	207	152	33	13	8.7
16	28	247	1100	202	133	256	510	199	136	31	13	9.1
17	25	242	1220	174	142	212	382	213	137	30	13	12
18	21	193	688	157	144	185	318	231	198	29	12	12
19	19	184	477	173	249	267	271	233	153	28	12	11
20	18	226	365	291	269	294	236	230	127	27	13	11
21	18	289	288	430	373	274	214	231	115	26	14	9.6
22	177	1030	235	254	594	221	204	239	109	25	13	9.0
23	347	992	197	192	694	200	201	226	101	24	13	8.6
24	181	485	169	191	556	215	191	217	90	23	12	8.3
25	115	316	149	606	361	217	188	225	82	22	12	8.2
26	87	242	134	437	265	214	196	259	77	22	12	8.0
27	75	198	125	273	213	227	200	284	73	22	12	8.0
28	73	548	154	204	181	209	184	319	69	21	12	7.9
29	67	1090	147	165	---	193	182	423	145	20	11	9.4
30	227	584	134	141	---	188	204	365	114	20	11	19
31	459	---	134	133	---	198	---	300	---	19	11	---
TOTAL	2281.7	9339	14231	10726	7070	8236	11352	7049	4428	1177	444	294.1
MEAN	73.60	311.3	459.1	346.0	252.5	265.7	378.4	227.4	147.6	37.97	14.32	9.803
MAX	459	1090	1300	1360	694	985	1660	423	256	93	19	19
MIN	8.0	58	125	133	129	118	182	129	69	19	11	7.9
AC-FT	4530	18520	28230	21280	14020	16340	22520	13980	8780	2330	881	583
CFSM	1.63	6.90	10.2	7.67	5.60	5.89	8.39	5.04	3.27	0.84	0.32	0.22
IN.	1.88	7.70	11.74	8.85	5.83	6.79	9.36	5.81	3.65	0.97	0.37	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	94.48	337.8	415.9	370.3	356.7	288.6	296.4	208.0	117.0	37.00	17.75	17.48	
MAX	233	756	1006	654	817	564	447	389	236	62.8	31.4	44.0	
(WY)	1998	1996	1997	1997	1996	1997	1993	1999	1999	1993	1993	1997	
MIN	15.3	26.7	177	98.1	90.0	87.0	181	68.0	20.9	13.6	8.20	9.61	
(WY)	1994	1994	2001	2001	2001	1992	1998	1992	1992	1992	1992	2001	

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1990 - 2002
ANNUAL TOTAL	52543.0	76627.8	
ANNUAL MEAN	144.0	209.9	212.3
HIGHEST ANNUAL MEAN			335
LOWEST ANNUAL MEAN			99.6
HIGHEST DAILY MEAN	1300	1660	5970
LOWEST DAILY MEAN	8.0	7.9	6.1
ANNUAL SEVEN-DAY MINIMUM	8.3	8.3	6.4
ANNUAL RUNOFF (AC-FT)	104200	152000	153800
ANNUAL RUNOFF (CFSM)	3.19	4.65	4.71
ANNUAL RUNOFF (INCHES)	43.34	63.21	63.94
10 PERCENT EXCEEDS	337	458	473
50 PERCENT EXCEEDS	80	166	131
90 PERCENT EXCEEDS	11	11	14

WATER-QUALITY RECORDS

PERIOD OR RECORD.--July 2001 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 2001 to current year.

pH: July 2001 to current year.

WATER TEMPERATURE: July 2001 to current year.

DISSOLVED OXYGEN: July 2001 to current year.

TURBIDITY: July 2001 to current year.

INSTRUMENTATION.--Water-quality monitor. Electronic data logger with a 30-minute recording interval.

REMARKS.--

SPECIFIC CONDUCTANCE: Records excellent.

pH: Records excellent.

WATER TEMPERATURE: Records excellent.

DISSOLVED OXYGEN: Records poor.

TURBIDITY: Records excellent for the period Jan. 24 to Sept. 30, 2002; records good for the period July 11, 2001 to Jan. 24, 2002.

EXTREMES FOR PEROF OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 72 microsiemens Sept. 19, 22, 2001; minimum recorded, 24 microsiemens

Apr. 14, 15, 2002.

pH: Maximum recorded, 7.7 units Aug. 2, 24, 2001; minimum recorded, 7.1 units Apr. 14, 2002.

WATER TEMPERATURE: Maximum recorded, 18.6°C July 26, 29, 2002; minimum recorded, 3.5°C Feb. 1, 2002.

DISSOLVED OXYGEN: Maximum recorded, 13.7 mg/L Jan. 21, 2002; minimum recorded, 8.2 mg/L Aug. 17, 2001.

TURBIDITY: Maximum recorded, 124 NTU Apr. 14, 2002; minimum recorded, <1 many days most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 70 microsiemens Oct. 4-11; minimum recorded, 24 microsiemens Apr. 14, 15.

pH: Maximum recorded, 7.6 units Sept. 26, 27; minimum recorded, 7.1 units Apr. 14.

WATER TEMPERATURE: Maximum recorded, 18.6°C July 26, 29; minimum recorded, 3.5°C Feb. 1.

DISSOLVED OXYGEN: Maximum recorded, 13.7 mg/L Jan. 21; minimum recorded, 8.8 mg/L Aug. 19.

TURBIDITY: Maximum recorded, 124 NTU Apr. 14; minimum recorded, <1 many days.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), JULY TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	67	66	67	70	70	70
2	---	---	---	---	---	---	67	66	67	71	70	70
3	---	---	---	---	---	---	67	66	67	71	70	70
4	---	---	---	---	---	---	67	67	67	71	70	70
5	---	---	---	---	---	---	67	67	67	71	70	71
6	---	---	---	---	---	---	67	67	67	71	71	71
7	---	---	---	---	---	---	68	67	68	71	71	71
8	---	---	---	---	---	---	68	68	68	71	71	71
9	---	---	---	---	---	---	69	68	68	71	71	71
10	---	---	---	---	---	---	69	68	68	71	71	71
11	---	---	---	---	---	---	69	68	68	71	71	71
12	---	---	---	63	63	63	69	69	69	71	71	71
13	---	---	---	63	63	63	69	69	69	71	71	71
14	---	---	---	64	63	63	70	68	69	71	71	71
15	---	---	---	64	63	64	69	68	69	71	71	71
16	---	---	---	64	64	64	69	69	69	71	71	71
17	---	---	---	65	64	64	69	69	69	71	71	71
18	---	---	---	65	65	65	69	69	69	71	71	71
19	---	---	---	65	65	65	70	69	69	72	71	71
20	---	---	---	65	65	65	70	70	70	71	71	71
21	---	---	---	65	65	65	70	70	70	71	71	71
22	---	---	---	65	65	65	70	70	70	72	70	70
23	---	---	---	66	65	65	70	70	70	70	70	70
24	---	---	---	66	65	65	71	70	70	70	70	70
25	---	---	---	66	65	65	70	70	70	70	70	70
26	---	---	---	65	65	65	71	69	70	70	69	70
27	---	---	---	66	65	65	69	69	69	70	69	69
28	---	---	---	66	66	66	69	69	69	70	69	70
29	---	---	---	66	66	66	70	69	69	70	69	69
30	---	---	---	66	66	66	71	70	70	69	69	69
31	---	---	---	66	66	66	70	70	70	---	---	---
MONTH	---	---	---	---	---	---	71	66	69	72	69	70

WILLAMETTE RIVER BASIN

14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	69	69	69	59	54	57	39	37	38	48	47	48
2	69	69	69	55	47	51	40	38	39	48	48	48
3	69	69	69	47	45	46	39	38	38	48	48	48
4	70	69	69	46	45	46	41	39	40	48	46	46
5	70	69	69	46	46	46	42	41	41	46	45	45
6	70	69	70	49	46	48	43	42	43	45	44	44
7	70	70	70	50	49	50	44	40	42	45	35	42
8	70	70	70	52	50	51	40	38	38	35	29	31
9	70	70	70	52	51	51	40	38	39	31	29	30
10	70	70	70	52	52	52	41	40	41	33	31	32
11	70	69	69	53	52	52	43	41	42	36	33	34
12	69	69	69	54	53	53	43	42	43	37	36	36
13	69	68	69	54	53	53	44	43	44	38	37	38
14	69	67	68	56	54	55	44	31	36	38	37	38
15	67	66	67	56	52	55	34	31	33	39	38	38
16	67	66	66	52	47	49	37	34	36	39	39	39
17	66	66	66	47	46	46	37	31	33	41	39	40
18	66	66	66	46	46	46	34	31	32	42	41	42
19	66	66	66	46	46	46	36	34	35	42	41	42
20	66	66	66	47	46	46	37	36	37	43	42	43
21	66	66	66	47	47	47	39	37	38	43	43	43
22	66	66	66	47	45	47	40	39	39	43	41	42
23	67	66	66	45	35	38	41	40	41	42	41	41
24	66	62	65	37	35	36	43	41	42	44	42	43
25	62	58	60	39	37	38	44	43	43	46	44	45
26	58	56	56	41	39	40	45	44	44	46	40	43
27	57	56	56	42	41	42	46	45	45	40	39	40
28	57	57	57	43	42	43	46	46	46	43	40	42
29	58	57	58	45	36	42	47	46	47	44	43	43
30	59	58	58	37	35	36	47	47	47	45	44	45
31	59	59	59	---	---	---	48	47	47	47	45	46
MONTH	70	56	66	59	35	47	48	31	40	48	29	41
	FEBRUARY			MARCH			APRIL			MAY		
1	47	47	47	42	41	42	46	46	46	41	40	41
2	48	47	48	43	42	43	46	45	46	41	40	40
3	48	48	48	44	43	44	46	45	45	40	39	39
4	48	48	48	45	44	45	45	44	44	39	37	38
5	49	48	49	46	45	46	44	43	43	37	37	37
6	49	49	49	47	46	47	43	41	42	38	37	38
7	49	49	49	48	47	47	41	40	41	38	38	38
8	49	49	49	47	42	45	41	39	40	38	38	38
9	49	45	47	42	42	42	39	38	39	39	38	38
10	45	45	45	43	42	42	39	37	38	40	38	39
11	46	45	45	45	43	44	37	32	34	41	40	40
12	47	46	47	45	33	40	32	32	32	41	40	41
13	48	47	47	34	33	33	32	32	32	42	41	42
14	48	48	48	36	34	35	32	24	28	42	41	42
15	49	48	49	38	36	37	28	24	26	41	40	40
16	50	49	49	39	38	39	30	28	29	40	39	39
17	50	49	50	41	39	40	32	30	31	39	39	39
18	51	50	50	42	41	42	34	32	33	39	39	39
19	51	50	51	43	42	42	35	34	35	39	37	38
20	51	51	51	44	43	43	37	13	36	37	37	37
21	51	49	50	44	43	44	38	37	38	37	37	37
22	49	47	48	44	43	44	39	38	39	37	36	37
23	47	41	44	45	44	44	40	39	40	36	36	36
24	41	37	39	45	45	45	40	40	40	36	36	36
25	37	37	37	46	45	46	40	40	40	37	36	36
26	38	37	37	46	46	46	40	40	40	37	36	37
27	39	38	39	46	46	46	40	40	40	37	36	37
28	41	39	40	46	46	46	40	40	40	36	35	35
29	---	---	---	46	46	46	40	40	40	35	34	34
30	---	---	---	46	46	46	41	40	40	34	31	33
31	---	---	---	46	46	46	---	---	---	31	30	31
MONTH	51	37	46	48	33	43	46	13	38	42	30	38

WILLAMETTE RIVER BASIN

14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	32	31	31	45	45	45	62	62	62	66	66	66
2	33	32	33	45	45	45	63	62	62	66	66	66
3	34	33	34	46	45	46	63	63	63	67	66	67
4	35	34	35	46	46	46	64	63	63	67	67	67
5	36	35	35	47	46	47	64	63	63	67	67	67
6	36	35	36	48	47	47	63	63	63	67	67	67
7	36	36	36	48	48	48	64	63	63	67	67	67
8	36	36	36	49	48	48	63	63	63	67	66	67
9	37	36	37	49	49	49	63	63	63	67	66	67
10	38	37	38	50	49	50	63	63	63	67	66	67
11	39	38	39	52	50	52	63	63	63	67	66	67
12	40	39	39	53	52	52	63	63	63	67	67	67
13	41	40	41	53	53	53	64	63	63	67	67	67
14	41	41	41	54	53	53	64	64	64	67	66	66
15	41	40	40	55	54	54	64	64	64	67	66	66
16	40	39	39	56	55	55	64	64	64	66	66	66
17	39	38	39	57	56	57	64	64	64	66	65	65
18	39	39	39	58	57	57	65	64	64	66	65	65
19	39	39	39	58	58	58	65	65	65	66	65	65
20	39	38	38	58	58	58	66	65	65	65	65	65
21	39	38	39	59	58	58	66	66	66	65	65	65
22	41	39	40	59	59	59	66	66	66	66	65	65
23	41	40	40	59	59	59	66	66	66	66	65	65
24	44	41	41	60	59	59	66	66	66	66	65	65
25	42	42	42	60	59	59	66	66	66	65	64	64
26	43	42	42	60	60	60	66	66	66	64	62	64
27	43	43	43	60	60	60	66	65	65	66	57	60
28	44	43	43	61	60	60	66	66	66	66	59	60
29	44	44	44	61	61	61	66	66	66	63	57	61
30	45	44	45	62	61	62	66	66	66	66	62	64
31	---	---	---	62	62	62	66	66	66	---	---	---
MONTH	45	31	39	62	45	54	66	62	64	67	57	65
YEAR	70	13	49									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, JULY TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	---	---	---	---	---	---	7.6	7.5	7.5	7.5	7.4	7.5
2	---	---	---	---	---	---	7.7	7.5	7.6	7.5	7.4	7.4
3	---	---	---	---	---	---	7.7	7.6	7.6	7.4	7.4	7.4
4	---	---	---	---	---	---	7.6	7.5	7.6	7.5	7.4	7.5
5	---	---	---	---	---	---	7.5	7.5	7.5	7.6	7.5	7.5
6	---	---	---	---	---	---	7.6	7.5	7.5	7.7	7.5	7.5
7	---	---	---	---	---	---	7.7	7.5	7.6	7.6	7.5	7.5
8	---	---	---	---	---	---	7.6	7.5	7.6	7.6	7.5	7.6
9	---	---	---	---	---	---	7.6	7.5	7.5	7.6	7.5	7.6
10	---	---	---	---	---	---	7.6	7.5	7.5	7.6	7.5	7.6
11	---	---	---	---	---	---	7.6	7.5	7.5	7.6	7.5	7.5
12	---	---	---	7.6	7.5	7.5	7.5	7.5	7.5	7.6	7.5	7.5
13	---	---	---	7.6	7.5	7.5	7.6	7.5	7.5	7.6	7.5	7.5
14	---	---	---	7.5	7.4	7.5	7.5	7.5	7.5	7.6	7.5	7.5
15	---	---	---	7.5	7.4	7.5	7.5	7.5	7.4	7.5	7.6	7.5
16	---	---	---	7.5	7.4	7.4	7.5	7.5	7.5	7.6	7.5	7.5
17	---	---	---	7.4	7.4	7.4	7.5	7.5	7.5	7.5	7.5	7.5
18	---	---	---	7.5	7.4	7.5	7.5	7.5	7.5	7.5	7.5	7.5
19	---	---	---	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.5
20	---	---	---	7.6	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.5
21	---	---	---	7.5	7.5	7.5	7.5	7.5	7.5	7.6	7.5	7.5
22	---	---	---	7.5	7.4	7.5	7.5	7.4	7.5	7.6	7.5	7.6
23	---	---	---	7.6	7.5	7.5	7.4	7.4	7.4	7.6	7.6	7.6
24	---	---	---	7.6	7.5	7.5	7.7	7.4	7.6	7.6	7.5	7.6
25	---	---	---	7.6	7.5	7.6	7.5	7.4	7.5	7.6	7.5	7.6
26	---	---	---	7.6	7.5	7.5	7.6	7.5	7.5	7.6	7.5	7.5
27	---	---	---	7.6	7.5	7.5	7.6	7.5	7.6	7.5	7.5	7.5
28	---	---	---	7.6	7.5	7.5	7.6	7.5	7.5	7.5	7.5	7.5
29	---	---	---	7.5	7.5	7.5	7.5	7.5	7.5	7.6	7.5	7.5
30	---	---	---	7.5	7.5	7.5	7.5	7.5	7.5	7.6	7.5	7.6
31	---	---	---	7.6	7.4	7.5	7.5	7.4	7.5	---	---	---
MAX	---	---	---	---	---	---	7.7	7.6	7.6	7.7	7.6	7.6
MIN	---	---	---	---	---	---	7.4	7.4	7.4	7.4	7.4	7.4

WILLAMETTE RIVER BASIN

14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.6	7.5	7.6	7.3	7.3	7.3	7.3	7.2	7.3	7.4	7.3	7.3
2	7.6	7.5	7.6	7.3	7.2	7.3	7.3	7.3	7.3	7.4	7.3	7.4
3	7.6	7.5	7.5	7.2	7.2	7.2	7.3	7.2	7.3	7.4	7.4	7.4
4	7.6	7.5	7.5	7.3	7.2	7.2	7.3	7.2	7.3	7.4	7.4	7.4
5	7.6	7.5	7.5	7.2	7.2	7.2	7.3	7.2	7.3	7.4	7.4	7.4
6	7.6	7.5	7.5	7.3	7.2	7.2	7.4	7.3	7.3	7.4	7.3	7.4
7	7.6	7.5	7.5	7.3	7.2	7.3	7.4	7.3	7.3	7.4	7.3	7.4
8	7.5	7.5	7.5	7.5	7.3	7.4	7.3	7.2	7.3	7.3	7.2	7.2
9	7.5	7.5	7.5	7.4	7.4	7.4	7.3	7.2	7.3	7.2	7.2	7.2
10	7.5	7.5	7.5	7.4	7.4	7.4	7.3	7.3	7.3	7.2	7.2	7.2
11	7.5	7.5	7.5	7.4	7.4	7.4	7.3	7.2	7.3	7.3	7.2	7.2
12	7.5	7.5	7.5	7.4	7.4	7.4	7.3	7.3	7.3	7.3	7.2	7.3
13	7.5	7.4	7.5	7.4	7.4	7.4	7.4	7.3	7.3	7.3	7.3	7.3
14	7.5	7.4	7.4	7.5	7.4	7.4	7.4	7.2	7.3	7.3	7.3	7.3
15	7.4	7.4	7.4	7.4	7.3	7.4	7.2	7.2	7.2	7.3	7.3	7.3
16	7.4	7.3	7.3	7.3	7.2	7.3	7.3	7.2	7.3	7.3	7.3	7.3
17	7.3	7.3	7.3	7.3	7.2	7.2	7.3	7.2	7.2	7.3	7.3	7.3
18	7.3	7.3	7.3	7.3	7.2	7.3	7.2	7.2	7.2	7.3	7.3	7.3
19	7.3	7.3	7.3	7.3	7.2	7.3	7.3	7.2	7.2	7.4	7.3	7.3
20	7.4	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.2	7.4	7.3	7.3
21	7.4	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.2	7.4	7.3	7.3
22	7.4	7.3	7.3	7.4	7.2	7.3	7.3	7.2	7.3	7.3	7.3	7.3
23	7.4	7.3	7.3	7.4	7.1	7.2	7.3	7.3	7.3	7.3	7.3	7.3
24	7.4	7.3	7.3	7.2	7.1	7.1	7.3	7.3	7.3	7.4	7.3	7.3
25	7.3	7.3	7.3	7.2	7.1	7.2	7.3	7.3	7.3	7.4	7.3	7.3
26	7.3	7.2	7.3	7.2	7.2	7.2	7.3	7.3	7.3	7.4	7.3	7.4
27	7.3	7.2	7.3	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.3	7.3
28	7.3	7.2	7.2	7.3	7.2	7.3	7.4	7.3	7.3	7.4	7.3	7.3
29	7.3	7.2	7.2	7.4	7.2	7.3	7.4	7.3	7.3	7.4	7.3	7.3
30	7.3	7.2	7.3	7.3	7.2	7.2	7.4	7.3	7.3	7.4	7.3	7.4
31	7.4	7.3	7.3	---	---	---	7.4	7.3	7.3	7.4	7.4	7.4
MAX	7.6	7.5	7.6	7.5	7.4	7.4	7.4	7.3	7.3	7.4	7.4	7.4
MIN	7.3	7.2	7.2	7.2	7.1	7.1	7.2	7.2	7.2	7.2	7.2	7.2

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.4	7.4	7.4	7.4	7.4	7.4	7.6	7.5	7.5	7.5	7.3	7.4
2	7.4	7.4	7.4	7.4	7.4	7.4	7.6	7.5	7.5	7.4	7.3	7.4
3	7.4	7.3	7.4	7.5	7.4	7.4	7.6	7.5	7.5	7.4	7.3	7.4
4	7.4	7.4	7.4	7.5	7.4	7.4	7.6	7.3	7.5	7.4	7.3	7.4
5	7.4	7.4	7.4	7.5	7.4	7.4	7.5	7.4	7.4	7.4	7.3	7.4
6	7.4	7.4	7.4	7.5	7.4	7.4	7.5	7.4	7.4	7.4	7.3	7.4
7	7.5	7.4	7.4	7.5	7.4	7.4	7.5	7.4	7.4	7.4	7.4	7.4
8	7.4	7.4	7.4	7.4	7.4	7.4	7.5	7.4	7.4	7.5	7.4	7.4
9	7.4	7.3	7.3	7.4	7.4	7.4	7.5	7.3	7.4	7.5	7.4	7.4
10	7.4	7.3	7.3	7.4	7.4	7.4	7.5	7.4	7.4	7.4	7.4	7.4
11	7.4	7.3	7.3	7.5	7.4	7.4	7.4	7.3	7.3	7.5	7.4	7.4
12	7.4	7.3	7.3	7.5	7.3	7.4	7.4	7.3	7.3	7.5	7.4	7.5
13	7.4	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.5	7.4	7.4
14	7.5	7.3	7.4	7.3	7.3	7.3	7.3	7.1	7.2	7.5	7.4	7.4
15	7.5	7.4	7.4	7.4	7.3	7.3	7.2	7.1	7.2	7.5	7.4	7.5
16	7.5	7.4	7.4	7.4	7.3	7.3	7.2	7.2	7.2	7.5	7.4	7.5
17	7.5	7.4	7.4	7.4	7.4	7.4	7.3	7.2	7.2	7.5	7.2	7.3
18	7.5	7.4	7.5	7.4	7.4	7.4	7.3	7.2	7.2	7.4	7.3	7.3
19	7.5	7.4	7.5	7.4	7.4	7.4	7.3	7.2	7.2	7.3	7.2	7.3
20	7.5	7.4	7.5	7.5	7.4	7.4	7.3	7.2	7.2	7.3	7.2	7.3
21	7.5	7.4	7.5	7.5	7.4	7.4	7.3	7.2	7.3	7.3	7.2	7.3
22	7.5	7.4	7.4	7.5	7.4	7.4	7.3	7.2	7.2	7.3	7.2	7.3
23	7.5	7.4	7.4	7.5	7.4	7.5	7.3	7.2	7.3	7.3	7.2	7.3
24	7.4	7.3	7.4	7.5	7.4	7.5	7.3	7.2	7.3	7.3	7.2	7.3
25	7.3	7.3	7.3	7.5	7.4	7.5	7.4	7.2	7.3	7.3	7.2	7.3
26	7.4	7.3	7.3	7.5	7.5	7.5	7.4	7.3	7.3	7.3	7.2	7.3
27	7.4	7.3	7.3	7.6	7.4	7.5	7.4	7.3	7.3	7.3	7.2	7.2
28	7.4	7.3	7.4	7.5	7.5	7.5	7.4	7.3	7.4	7.3	7.2	7.2
29	---	---	---	7.5	7.5	7.5	7.4	7.3	7.4	7.3	7.2	7.2
30	---	---	---	7.6	7.5	7.5	7.5	7.3	7.4	7.2	7.2	7.2
31	---	---	---	7.6	7.5	7.5	---	---	---	7.2	7.1	7.2
MAX	7.5	7.4	7.5	7.6	7.5	7.5	7.6	7.5	7.5	7.5	7.4	7.5
MIN	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.2	7.2	7.2	7.1	7.2

WILLAMETTE RIVER BASIN

14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.2	7.1	7.2	7.2	7.1	7.1	7.3	7.3	7.3	7.5	7.4	7.4
2	7.3	7.2	7.2	7.3	7.1	7.2	7.4	7.3	7.3	7.4	7.3	7.4
3	7.3	7.2	7.2	7.3	7.2	7.2	7.4	7.3	7.3	7.5	7.3	7.4
4	7.3	7.2	7.2	7.2	7.2	7.2	7.4	7.3	7.4	7.4	7.3	7.4
5	7.3	7.2	7.2	7.2	7.1	7.2	7.3	7.2	7.3	7.5	7.4	7.4
6	7.3	7.2	7.3	7.2	7.1	7.2	7.3	7.3	7.3	7.5	7.4	7.5
7	7.3	7.2	7.3	7.2	7.1	7.1	7.4	7.3	7.4	7.5	7.4	7.5
8	7.3	7.2	7.3	7.2	7.1	7.1	7.5	7.4	7.4	7.5	7.4	7.5
9	7.3	7.2	7.3	7.2	7.1	7.2	7.5	7.4	7.4	7.5	7.4	7.5
10	7.3	7.2	7.3	7.2	7.2	7.2	7.4	7.3	7.4	7.5	7.4	7.5
11	7.3	7.2	7.3	7.3	7.2	7.3	7.4	7.3	7.4	7.5	7.4	7.5
12	7.3	7.2	7.2	7.4	7.3	7.3	7.5	7.3	7.3	7.5	7.4	7.4
13	7.3	7.2	7.3	7.4	7.3	7.3	7.4	7.3	7.3	7.5	7.4	7.4
14	7.3	7.2	7.3	7.3	7.3	7.3	7.4	7.3	7.3	7.5	7.4	7.4
15	7.3	7.2	7.3	7.3	7.2	7.3	7.4	7.3	7.3	7.5	7.4	7.4
16	7.3	7.2	7.2	7.4	7.3	7.3	7.3	7.2	7.3	7.4	7.4	7.4
17	7.3	7.2	7.2	7.4	7.3	7.3	7.3	7.2	7.3	7.4	7.3	7.4
18	7.4	7.2	7.3	7.4	7.3	7.3	7.3	7.2	7.2	7.4	7.3	7.4
19	7.4	7.3	7.3	7.4	7.3	7.3	7.3	7.2	7.3	7.5	7.3	7.4
20	7.4	7.3	7.3	7.4	7.3	7.3	7.3	7.3	7.3	7.5	7.4	7.4
21	7.3	7.2	7.3	7.4	7.3	7.3	7.3	7.3	7.3	7.5	7.4	7.4
22	7.3	7.2	7.3	7.4	7.3	7.3	7.4	7.2	7.3	7.5	7.4	7.4
23	7.3	7.2	7.3	7.4	7.3	7.3	7.5	7.3	7.4	7.5	7.4	7.4
24	7.3	7.2	7.2	7.3	7.3	7.3	7.5	7.3	7.4	7.5	7.4	7.4
25	7.3	7.2	7.3	7.3	7.2	7.3	7.5	7.4	7.4	7.5	7.4	7.4
26	7.3	7.2	7.2	7.3	7.2	7.2	7.4	7.3	7.3	7.7	7.4	7.6
27	7.2	7.2	7.2	7.2	7.2	7.2	7.4	7.3	7.4	7.7	7.6	7.6
28	7.2	7.1	7.2	7.3	7.2	7.2	7.5	7.4	7.4	7.6	7.6	7.6
29	7.2	7.1	7.1	7.3	7.2	7.3	7.5	7.4	7.4	7.6	7.6	7.6
30	7.2	7.1	7.1	7.4	7.3	7.3	7.5	7.4	7.5	7.6	7.6	7.6
31	---	---	---	7.3	7.3	7.3	7.5	7.4	7.4	---	---	---
MAX	7.4	7.3	7.3	7.4	7.3	7.3	7.5	7.4	7.5	7.7	7.6	7.6
MIN	7.2	7.1	7.1	7.2	7.1	7.1	7.3	7.2	7.2	7.4	7.3	7.4

TEMPERATURE, WATER (DEG. C), JULY TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	16.7	16.5	16.6	17.2	17.0	17.1
2	---	---	---	---	---	---	16.7	16.5	16.6	17.0	16.8	16.9
3	---	---	---	---	---	---	16.8	16.6	16.7	16.8	16.6	16.7
4	---	---	---	---	---	---	16.6	16.4	16.5	16.7	16.5	16.7
5	---	---	---	---	---	---	16.6	16.2	16.4	16.5	16.4	16.5
6	---	---	---	---	---	---	17.0	16.4	16.7	16.4	16.1	16.2
7	---	---	---	---	---	---	17.2	16.8	17.0	16.1	16.0	16.0
8	---	---	---	---	---	---	17.3	16.9	17.1	16.1	15.8	16.0
9	---	---	---	---	---	---	17.5	17.1	17.3	16.0	15.8	15.9
10	---	---	---	---	---	---	17.6	17.4	17.5	15.9	15.6	15.7
11	---	---	---	---	---	---	17.8	17.5	17.7	15.7	15.5	15.7
12	---	---	---	18.0	17.7	17.8	17.9	17.6	17.8	15.7	15.5	15.6
13	---	---	---	18.2	17.8	18.0	18.0	17.7	17.9	15.7	15.5	15.6
14	---	---	---	18.1	17.8	17.9	18.1	17.9	18.0	15.6	15.4	15.5
15	---	---	---	17.8	17.7	17.8	17.9	17.7	17.8	15.6	15.5	15.6
16	---	---	---	17.7	17.4	17.5	17.8	17.7	17.8	15.7	15.6	15.7
17	---	---	---	17.4	17.2	17.2	17.8	17.5	17.6	15.6	15.5	15.6
18	---	---	---	17.2	16.8	17.0	18.0	17.6	17.8	15.5	15.3	15.4
19	---	---	---	16.8	16.5	16.6	17.9	17.7	17.8	15.3	15.2	15.2
20	---	---	---	16.5	16.3	16.4	17.9	17.7	17.8	15.2	15.0	15.1
21	---	---	---	16.3	15.9	16.1	17.8	17.6	17.7	15.1	14.8	14.9
22	---	---	---	16.4	15.9	16.1	17.6	17.1	17.3	14.8	14.6	14.7
23	---	---	---	16.7	16.3	16.5	17.1	16.7	16.9	14.7	14.5	14.6
24	---	---	---	16.6	16.4	16.5	16.7	16.4	16.6	14.6	14.4	14.4
25	---	---	---	17.0	16.5	16.8	16.6	16.3	16.5	14.4	14.2	14.3
26	---	---	---	17.1	16.8	16.9	16.6	16.3	16.5	14.2	13.8	14.0
27	---	---	---	17.1	16.8	17.0	16.7	16.4	16.6	13.8	13.5	13.6
28	---	---	---	17.4	17.0	17.2	16.9	16.6	16.8	13.6	13.3	13.4
29	---	---	---	17.1	16.9	17.0	17.0	16.8	16.9	13.3	13.1	13.2
30	---	---	---	16.9	16.6	16.7	17.1	16.9	17.0	13.4	13.1	13.2
31	---	---	---	16.8	16.5	16.6	17.2	17.0	17.1	---	---	---
MONTH	---	---	---	---	---	---	18.1	16.2	17.2	17.2	13.1	15.3

WILLAMETTE RIVER BASIN

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14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.2	13.0	13.1	8.9	8.5	8.7	6.1	6.0	6.0	4.3	4.0	4.1
2	13.1	12.9	13.0	8.9	8.9	8.9	6.3	6.0	6.2	4.7	4.3	4.5
3	13.1	12.9	13.0	8.9	8.8	8.8	6.3	6.2	6.2	4.9	4.6	4.7
4	13.1	12.8	12.9	9.0	8.8	9.0	6.3	6.1	6.2	5.2	4.9	5.1
5	12.9	12.7	12.8	9.1	9.0	9.1	6.1	5.8	6.0	5.3	5.1	5.2
6	12.8	12.7	12.7	9.0	8.6	8.8	5.8	5.2	5.5	5.4	5.2	5.3
7	12.7	12.3	12.5	8.6	8.3	8.5	5.9	5.2	5.6	6.5	5.4	6.0
8	12.3	11.8	12.0	8.3	8.1	8.2	6.1	5.9	6.0	6.7	6.4	6.5
9	11.8	11.7	11.7	8.1	7.6	7.8	6.0	5.8	5.9	6.4	6.1	6.3
10	11.7	11.3	11.4	7.6	7.3	7.4	5.9	5.8	5.8	6.1	5.8	5.9
11	11.3	10.9	11.0	7.3	7.2	7.3	5.8	5.6	5.7	5.8	5.6	5.6
12	10.9	10.6	10.7	7.4	7.1	7.2	5.6	5.3	5.4	5.8	5.7	5.8
13	10.6	10.3	10.4	7.6	7.4	7.5	5.5	5.2	5.4	5.8	5.7	5.8
14	10.7	10.4	10.6	8.1	7.6	7.8	6.3	5.5	5.9	5.8	5.4	5.7
15	10.7	10.5	10.6	8.6	8.1	8.3	5.5	5.4	5.4	5.4	5.0	5.2
16	10.6	10.4	10.5	9.0	8.6	8.8	5.9	5.4	5.6	5.0	4.8	4.9
17	10.7	10.5	10.6	9.1	9.0	9.0	6.5	5.9	6.2	4.8	4.5	4.7
18	10.6	10.4	10.5	9.0	8.6	8.8	5.9	5.6	5.8	4.5	4.2	4.2
19	10.5	10.3	10.4	8.8	8.6	8.7	5.7	5.5	5.6	4.2	4.1	4.1
20	10.5	10.4	10.4	8.7	7.6	8.1	5.6	5.5	5.5	4.4	4.1	4.2
21	10.4	10	10.2	7.6	7.4	7.5	5.6	5.5	5.6	4.5	4.2	4.4
22	10	9.6	9.7	7.9	7.6	7.8	5.6	5.3	5.4	4.3	4.2	4.2
23	9.6	9.2	9.4	7.8	7.4	7.6	5.3	4.9	5.0	4.2	4.1	4.1
24	9.2	8.9	9.0	7.4	7.2	7.3	4.9	4.5	4.6	4.1	3.9	3.9
25	9.2	9.0	9.1	7.2	7.0	7.1	4.5	4.1	4.2	4.4	3.9	4.0
26	9.0	8.7	8.8	7.0	6.5	6.7	4.1	3.8	3.9	4.6	4.4	4.5
27	8.7	8.6	8.7	6.5	6.2	6.2	3.8	3.6	3.7	4.4	4.3	4.4
28	8.7	8.5	8.6	6.2	6.1	6.1	3.6	3.5	3.6	4.4	4.0	4.2
29	8.6	8.5	8.5	6.1	5.3	5.6	3.6	3.5	3.6	4.0	3.7	3.8
30	8.6	8.5	8.6	6.0	5.6	5.8	3.9	3.6	3.7	3.9	3.8	3.9
31	8.5	8.4	8.4	---	---	---	4.0	3.9	4.0	3.9	3.5	3.6
MONTH	13.2	8.4	10.6	9.1	5.3	7.8	6.5	3.5	5.3	6.7	3.5	4.8
	FEBRUARY			MARCH			APRIL			MAY		
1	3.7	3.5	3.6	4.4	4.0	4.2	7.2	6.8	7.0	8.4	7.8	8.1
2	4.0	3.6	3.8	4.7	4.2	4.4	7.6	6.8	7.1	8.4	8.0	8.1
3	4.3	4.0	4.1	4.8	4.6	4.7	7.7	7.0	7.3	8.3	7.9	8.1
4	4.4	4.2	4.3	4.8	4.5	4.6	7.9	6.9	7.4	8.3	7.8	8.1
5	4.4	4.3	4.3	4.6	4.4	4.5	7.8	7.0	7.3	8.2	7.3	7.6
6	4.5	4.4	4.5	4.6	4.4	4.5	7.3	6.9	7.1	7.7	7.5	7.6
7	4.5	4.2	4.4	5.2	4.6	4.9	7.0	6.7	6.8	7.7	7.1	7.3
8	4.7	4.2	4.4	5.1	4.7	4.8	7.4	6.7	7.0	7.3	6.6	6.9
9	4.7	4.5	4.6	4.7	4.5	4.5	7.3	6.6	6.9	7.3	6.6	6.9
10	4.9	4.6	4.7	4.6	4.4	4.4	7.3	6.8	7.1	7.5	7.0	7.2
11	4.9	4.7	4.8	4.8	4.3	4.5	6.8	6.5	6.7	7.9	7.3	7.5
12	5.0	4.6	4.8	5.9	4.8	5.5	6.8	6.3	6.5	8.8	7.6	8.0
13	5.0	4.8	4.8	5.4	5.1	5.2	7.2	6.5	6.8	8.9	8.3	8.6
14	4.9	4.7	4.8	5.2	4.9	5.0	7.1	5.5	6.5	9.2	8.6	8.9
15	4.7	4.5	4.6	5.1	4.9	5.0	5.5	5.1	5.4	9.4	8.2	8.8
16	4.7	4.5	4.6	5.1	4.9	5.0	5.7	5.1	5.4	9.5	8.3	8.9
17	4.6	4.4	4.5	5.0	4.8	4.9	5.6	5.2	5.4	9.5	8.4	8.9
18	4.9	4.6	4.7	5.0	4.6	4.7	5.7	5.4	5.5	9.5	8.8	9.1
19	5.0	4.9	4.9	4.6	4.4	4.4	5.9	5.6	5.7	9.4	9.2	9.3
20	5.4	4.9	5.1	4.7	4.3	4.4	13.2	5.9	6.3	9.2	8.7	8.9
21	5.8	5.4	5.6	4.8	4.4	4.6	7.0	6.2	6.5	9.1	8.4	8.7
22	6.0	5.7	5.8	5.3	4.8	5.0	7.2	6.8	7.0	8.9	8.3	8.6
23	6.3	5.9	6.1	5.3	5.1	5.2	7.8	6.8	7.2	9.1	8.2	8.6
24	6.2	5.8	5.9	5.4	5.1	5.2	8.1	7.2	7.6	9.4	8.2	8.7
25	5.8	5.2	5.5	6.1	5.3	5.6	8.1	7.0	7.5	9.6	8.7	9.1
26	5.2	4.7	4.9	6.6	5.8	6.1	7.8	7.2	7.5	10.0	9.1	9.5
27	4.7	4.2	4.4	6.7	6.3	6.5	7.7	7.4	7.6	9.9	9.3	9.6
28	4.5	4.2	4.3	6.6	6.4	6.5	8.0	7.1	7.4	9.8	9.3	9.5
29	---	---	---	6.7	6.6	6.7	8.2	7.0	7.5	9.3	9.0	9.2
30	---	---	---	6.9	6.6	6.7	8.3	7.5	7.9	9.7	8.9	9.2
31	---	---	---	7.1	6.5	6.8	---	---	---	10.0	8.7	9.4
MONTH	6.3	3.5	4.7	7.1	4.0	5.1	13.2	5.1	6.8	10.0	6.6	8.5

WILLAMETTE RIVER BASIN

14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.4	9.2	9.8	14.2	13.9	14.1	18.0	17.7	17.8	16.5	16.3	16.4
2	10.7	9.5	10.0	14.3	14.0	14.1	17.9	17.6	17.8	16.6	16.3	16.5
3	10.8	9.7	10.2	14.4	13.9	14.2	17.6	17.3	17.4	16.7	16.4	16.5
4	10.7	10	10.3	14.5	14.0	14.2	17.3	17.0	17.2	16.4	16.1	16.3
5	11.0	10.2	10.5	14.6	14.1	14.4	17.0	16.5	16.7	16.1	15.8	16.0
6	11.2	10.4	10.8	14.9	14.4	14.7	16.5	16.1	16.3	15.8	15.6	15.7
7	11.2	10.4	10.7	14.7	14.4	14.6	16.1	15.7	15.9	15.6	15.2	15.4
8	10.7	9.9	10.1	14.6	14.2	14.4	15.8	15.6	15.7	15.2	14.7	14.9
9	10.0	9.6	9.7	15.3	14.4	14.9	15.9	15.6	15.8	14.7	14.5	14.6
10	9.9	9.4	9.6	16.1	15.2	15.6	16.2	15.9	16.0	14.6	14.4	14.5
11	10.6	9.7	10.0	16.1	15.7	15.9	16.2	15.9	16.1	14.5	14.3	14.4
12	11.3	10.2	10.6	16.3	15.9	16.1	16.4	16.1	16.2	14.4	14.2	14.3
13	12.5	11.1	11.6	16.6	16.2	16.4	16.7	16.3	16.5	14.4	14.2	14.3
14	13.0	11.9	12.4	16.9	16.4	16.6	16.9	16.6	16.7	14.4	14.2	14.3
15	13.2	12.6	12.9	17.2	16.6	16.9	17.2	16.7	16.9	14.4	14.1	14.2
16	13.3	12.8	13.0	17.7	17.1	17.4	17.0	16.8	16.9	14.1	13.8	13.9
17	13.0	12.6	12.8	18.0	17.6	17.8	17.1	16.8	16.9	13.8	13.6	13.7
18	12.6	12.0	12.3	18.0	17.8	17.9	17.2	16.9	17.1	13.6	13.3	13.4
19	12.1	11.3	11.7	17.8	17.6	17.7	17.3	17.0	17.2	13.5	13.2	13.4
20	12.2	11.3	11.7	17.8	17.5	17.6	17.3	16.9	17.1	13.5	13.3	13.4
21	12.5	11.9	12.1	18.1	17.7	17.9	16.9	16.4	16.6	13.5	13.2	13.4
22	12.7	12.1	12.4	18.3	17.9	18.1	16.4	16.1	16.2	13.4	13.0	13.2
23	13.9	12.3	12.6	18.5	18.2	18.3	16.4	16.1	16.2	13.4	13.1	13.3
24	13.8	13.0	13.5	18.5	18.3	18.4	16.3	16.1	16.2	13.4	13.0	13.1
25	14.2	13.8	14.0	18.6	18.3	18.4	16.3	16.2	16.3	13.1	12.8	13.0
26	14.5	14.2	14.4	18.6	18.3	18.5	16.2	16.0	16.1	13.1	12.9	13.0
27	14.7	14.4	14.5	18.3	18.1	18.2	16.2	15.9	16.0	13.1	12.9	13.0
28	14.5	14.4	14.5	18.4	18.0	18.2	16.4	16.1	16.2	13.1	12.9	13.0
29	14.8	14.5	14.6	18.6	18.3	18.5	16.6	16.3	16.4	13.1	12.9	13.0
30	14.6	13.9	14.3	18.6	18.2	18.4	16.5	16.2	16.4	12.9	12.6	12.7
31	---	---	---	18.2	17.8	18.0	16.4	16.2	16.3	---	---	---
MONTH	14.8	9.2	11.9	18.6	13.9	16.7	18.0	15.6	16.6	16.7	12.6	14.2
YEAR	18.6	3.5	9.5									

OXYGEN DISSOLVED (MG/L), JULY TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	9.0	8.5	8.8	8.8	8.5	8.6
2	---	---	---	---	---	---	9.1	8.7	9.0	8.7	8.4	8.6
3	---	---	---	---	---	---	9.1	8.8	9.0	8.7	8.5	8.6
4	---	---	---	---	---	---	9.1	8.8	8.9	9.1	8.5	8.7
5	---	---	---	---	---	---	8.9	8.7	8.8	8.8	8.5	8.7
6	---	---	---	---	---	---	9.0	8.7	8.8	9.4	8.4	8.6
7	---	---	---	---	---	---	9.0	8.7	8.8	8.7	8.5	8.6
8	---	---	---	---	---	---	9.0	8.6	8.8	8.8	8.6	8.7
9	---	---	---	---	---	---	8.8	8.5	8.7	8.8	8.6	8.8
10	---	---	---	---	---	---	8.9	8.4	8.7	9.1	8.7	8.9
11	---	---	---	---	---	---	8.8	8.5	8.7	9.1	8.7	8.9
12	---	---	---	9.3	8.9	9.1	8.8	8.5	8.6	8.9	8.7	8.8
13	---	---	---	9.2	8.9	9.1	8.7	8.4	8.6	8.9	8.7	8.8
14	---	---	---	9.2	8.8	9.0	8.7	8.2	8.4	8.9	8.7	8.8
15	---	---	---	9.0	8.8	8.8	8.4	8.2	8.3	9.3	8.8	9.0
16	---	---	---	8.9	8.7	8.7	8.4	8.2	8.3	9.1	8.8	9.0
17	---	---	---	8.7	8.5	8.6	8.3	8.2	8.2	9.0	8.8	8.9
18	---	---	---	8.9	8.6	8.7	8.5	8.2	8.4	8.9	8.7	8.8
19	---	---	---	9.3	8.7	9.0	8.5	8.3	8.4	8.8	8.7	8.7
20	---	---	---	9.2	8.9	9.1	8.5	8.3	8.4	8.9	8.7	8.8
21	---	---	---	9.1	8.9	9.0	8.5	8.2	8.3	9.0	8.7	8.9
22	---	---	---	9.2	8.9	9.0	8.4	8.2	8.3	9.1	8.9	9.0
23	---	---	---	9.2	8.9	9.0	8.4	8.2	8.3	9.1	8.8	9.0
24	---	---	---	9.3	8.8	9.0	9.4	8.3	9.0	9.1	8.8	9.0
25	---	---	---	9.0	8.7	8.8	8.9	8.6	8.8	---	---	---
26	---	---	---	8.9	8.6	8.7	9.0	8.7	8.9	---	---	---
27	---	---	---	8.7	8.5	8.6	9.1	8.8	9.0	---	---	---
28	---	---	---	8.7	8.4	8.5	9.1	8.8	8.9	---	---	---
29	---	---	---	8.7	8.3	8.5	9.0	8.7	8.9	---	---	---
30	---	---	---	8.8	8.4	8.6	8.8	8.6	8.7	---	---	---
31	---	---	---	9.1	8.5	8.7	8.8	8.6	8.7	---	---	---
MONTH	---	---	---	---	---	---	9.4	8.2	8.7	---	---	---

14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	10.7	10.5	10.6	12.6	11.7	12.0	12.5	12.3	12.4
2	---	---	---	10.8	10.6	10.7	12.5	11.9	12.2	12.4	12.1	12.2
3	---	---	---	10.9	10.6	10.7	12.0	11.6	11.8	12.2	12.0	12.1
4	---	---	---	10.7	10.5	10.6	11.8	11.6	11.7	12.0	11.9	11.9
5	---	---	---	10.7	10.6	10.7	11.8	11.7	11.8	12.0	11.9	11.9
6	---	---	---	10.8	10.6	10.7	13.0	11.7	12.2	12.1	11.8	11.9
7	---	---	---	11.0	10.8	10.9	13.1	12.4	12.9	12.4	12.1	12.3
8	---	---	---	11.1	10.7	10.9	12.4	12.1	12.2	13.0	12.3	12.8
9	---	---	---	11.1	10.7	11.0	12.3	12.0	12.1	12.8	12.3	12.5
10	---	---	---	11.0	10.9	11.0	12.2	12.0	12.1	12.4	11.9	12.2
11	---	---	---	11.3	11.0	11.1	12.2	11.9	12.1	11.9	11.8	11.8
12	---	---	---	11.3	11.2	11.3	12.2	12.0	12.1	11.8	11.7	11.7
13	---	---	---	11.4	11.2	11.3	13.1	11.8	12.1	11.8	11.7	11.7
14	---	---	---	11.4	10.8	11.0	13.2	12.8	13.0	12.0	11.7	11.8
15	---	---	---	10.8	10.5	10.7	12.9	12.5	12.8	12.1	12.0	12.1
16	---	---	---	10.7	10.4	10.5	12.9	12.5	12.6	12.2	12.1	12.1
17	10.0	9.8	9.9	10.7	10.4	10.6	13.1	12.7	12.9	12.4	11.8	12.2
18	9.9	9.8	9.9	10.9	10.6	10.8	12.7	12.4	12.6	12.5	12.4	12.5
19	9.9	9.7	9.8	10.9	10.6	10.7	12.8	12.0	12.4	12.5	12.4	12.5
20	9.9	9.7	9.8	11.2	10.8	11.0	12.0	11.8	11.9	12.5	12.1	12.2
21	10.1	9.8	10.0	11.3	11.2	11.3	11.9	11.8	11.9	13.7	12.1	12.9
22	10.2	9.8	10.0	12.4	10.9	11.5	12.1	11.8	11.9	13.4	12.5	13.0
23	10.3	10.1	10.3	12.4	12.1	12.3	12.3	12.0	12.2	12.8	12.3	12.5
24	10.4	10.0	10.2	12.1	11.7	11.8	12.5	12.2	12.3	12.7	12.4	12.5
25	10.5	10.3	10.4	11.8	11.5	11.7	12.7	12.4	12.6	12.6	12.3	12.5
26	10.6	10.4	10.5	11.9	11.5	11.6	12.7	12.6	12.7	12.5	12.0	12.2
27	10.7	10.3	10.5	12.0	11.8	11.9	12.7	12.7	12.7	12.3	12.0	12.1
28	10.6	10.3	10.4	12.0	11.6	11.8	12.8	12.7	12.7	12.5	12.2	12.3
29	10.4	10.3	10.4	12.8	12.0	12.6	12.7	12.6	12.7	12.7	12.5	12.6
30	10.7	10.3	10.4	12.7	11.8	12.2	12.7	12.5	12.6	12.7	12.4	12.5
31	10.8	10.6	10.7	---	---	---	12.6	12.5	12.5	12.8	12.5	12.6
MONTH	---	---	---	12.8	10.4	11.2	13.2	11.6	12.3	13.7	11.7	12.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	12.8	12.6	12.7	12.7	12.4	12.6	12.6	12.3	12.4	12.1	11.8	11.9
2	12.7	12.5	12.6	12.7	12.5	12.6	12.5	12.2	12.4	11.9	11.7	11.7
3	12.7	12.5	12.6	12.5	12.4	12.4	12.4	12.1	12.3	11.8	11.7	11.7
4	12.6	12.5	12.5	12.6	12.4	12.5	12.4	12.1	12.2	11.8	11.6	11.7
5	12.6	12.4	12.5	12.6	12.4	12.5	12.1	12.0	12.0	11.7	11.6	11.7
6	12.5	12.4	12.4	12.5	12.2	12.4	12.1	11.9	12.0	11.7	11.5	11.6
7	12.9	12.2	12.4	12.2	12.0	12.1	12.0	11.9	12.0	11.8	11.6	11.7
8	12.4	12.3	12.4	12.3	12.0	12.1	12.1	11.8	11.9	11.8	11.7	11.8
9	12.4	12.3	12.3	12.3	12.1	12.2	12.0	11.9	11.9	11.7	11.6	11.6
10	12.6	12.2	12.4	12.5	12.2	12.3	12.3	11.8	12.0	11.7	11.6	11.6
11	12.6	12.5	12.5	12.7	12.2	12.4	12.3	12.2	12.3	11.7	11.6	11.7
12	12.6	12.3	12.4	13.3	12.7	12.9	12.4	12.3	12.4	11.7	11.5	11.6
13	12.5	12.1	12.2	12.9	12.5	12.7	12.4	12.2	12.3	11.6	11.4	11.5
14	12.6	12.2	12.4	12.6	12.5	12.5	13.4	12.3	13.2	11.6	11.4	11.5
15	12.5	12.3	12.4	12.7	12.4	12.6	13.2	13.0	13.1	11.6	11.4	11.5
16	12.5	12.4	12.4	12.7	12.5	12.6	13.0	12.6	12.7	11.6	11.4	11.5
17	12.5	12.4	12.4	12.7	12.6	12.6	12.7	12.6	12.6	11.8	11.3	11.5
18	12.5	12.2	12.4	12.9	12.6	12.7	12.7	12.6	12.6	11.3	11.0	11.1
19	12.3	12.1	12.2	13.0	12.9	12.9	12.7	12.5	12.6	11.0	10.8	10.9
20	12.2	12.1	12.2	13.0	12.9	13.0	12.7	8.6	12.6	11.2	10.9	11.0
21	12.2	11.7	12.0	13.0	12.8	12.9	12.6	12.4	12.5	11.2	11.1	11.1
22	11.9	11.7	11.8	12.9	12.7	12.8	12.5	12.3	12.4	11.4	11.1	11.2
23	12.0	11.6	11.8	12.8	12.6	12.7	12.4	12.3	12.4	11.4	11.3	11.3
24	12.2	11.8	12.1	12.8	12.7	12.8	12.4	12.3	12.4	11.4	11.3	11.3
25	12.2	11.8	12.0	12.8	12.6	12.7	13.0	12.3	12.6	11.3	11.1	11.2
26	12.5	12.2	12.3	12.7	12.4	12.5	12.7	12.4	12.5	11.3	11.1	11.2
27	12.7	12.4	12.5	12.6	12.3	12.4	12.4	12.2	12.3	11.2	10.9	11.0
28	12.7	12.5	12.6	12.6	12.4	12.5	12.4	12.3	12.3	11.1	10.9	11.0
29	---	---	---	12.6	12.4	12.4	12.4	12.1	12.3	11.6	10.9	11.2
30	---	---	---	12.6	12.4	12.5	12.4	12.1	12.2	11.6	11.2	11.3
31	---	---	---	12.6	12.4	12.5	---	---	---	11.3	11.1	11.2
MONTH	12.9	11.6	12.3	13.3	12.0	12.6	13.4	8.6	12.4	12.1	10.8	11.4

WILLAMETTE RIVER BASIN

14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.2	11.0	11.1	9.9	9.7	9.8	9.4	9.0	9.2	9.8	9.5	9.6
2	11.2	11.0	11.1	10.5	9.8	10.2	9.4	9.0	9.2	9.7	9.4	9.6
3	11.1	11.0	11.1	10.5	10.1	10.2	9.4	9.2	9.3	9.7	9.4	9.6
4	11.1	11.0	11.0	10.2	9.9	10.1	9.5	9.2	9.3	9.7	9.4	9.6
5	11.1	11.0	11.0	10.2	9.8	10	9.7	9.1	9.4	9.7	9.4	9.6
6	11.1	10.8	11.0	10.0	9.8	9.9	9.6	9.5	9.6	9.8	9.4	9.6
7	11.1	10.8	10.9	9.8	9.7	9.7	9.8	9.4	9.7	9.9	9.5	9.7
8	11.2	11.1	11.1	9.9	9.7	9.8	10	9.7	9.9	10	9.7	9.8
9	11.5	11.2	11.3	10.2	9.8	10	10.0	9.8	9.9	10.1	9.8	10
10	11.3	11.1	11.2	9.9	9.7	9.8	9.9	9.7	9.8	10.1	9.8	10
11	11.2	10.9	11.0	10.2	9.6	9.8	9.8	9.6	9.7	10.1	9.8	9.9
12	11.0	10.7	10.9	9.8	9.5	9.7	9.7	9.0	9.5	10.2	9.7	9.9
13	10.9	10.5	10.7	9.7	9.5	9.6	9.6	9.3	9.4	10.1	9.7	9.9
14	10.7	10.5	10.5	9.6	9.3	9.5	9.5	9.2	9.3	10	9.7	9.8
15	10.6	10.3	10.4	9.5	9.1	9.3	9.4	9.1	9.2	9.9	9.7	9.8
16	10.3	10.1	10.2	9.2	8.9	9.1	9.5	9.2	9.3	9.9	9.6	9.7
17	10.4	10.1	10.2	9.1	8.9	9.0	9.4	9.1	9.2	9.9	9.5	9.7
18	11.0	10.3	10.6	9.2	8.9	9.1	9.3	8.8	9.1	10.0	9.7	9.9
19	11.0	10.9	10.9	9.2	8.9	9.0	9.4	8.8	9.1	10.1	9.8	10
20	11.0	10.8	10.9	9.1	8.9	9.0	9.4	9.1	9.2	10.2	9.9	10.0
21	10.9	10.6	10.8	9.1	8.8	9.0	9.5	9.1	9.3	10.2	9.9	10.1
22	10.8	10.6	10.7	9.3	8.8	9.1	9.6	9.3	9.5	10.2	9.9	10.1
23	10.7	10.2	10.5	9.4	9.1	9.2	9.9	9.5	9.7	10.2	9.9	10.0
24	10.4	10.0	10.2	9.4	9.1	9.2	10	9.6	9.8	10.3	9.8	10.1
25	10.3	9.9	10.1	9.4	9.1	9.2	10	9.7	9.8	10.3	10.0	10.2
26	10.1	9.7	9.9	9.2	9.0	9.1	9.8	9.6	9.7	10.5	10	10.3
27	9.9	9.6	9.8	9.1	8.9	9.0	9.9	9.6	9.7	10.5	10.2	10.4
28	9.7	9.5	9.6	9.2	8.9	9.1	9.9	9.6	9.8	10.4	10.2	10.3
29	9.7	9.5	9.6	9.3	9.0	9.2	10	9.6	9.8	10.4	10.2	10.3
30	9.8	9.6	9.7	9.4	9.1	9.2	9.9	9.6	9.8	10.5	10.2	10.4
31	---	---	---	9.3	9.1	9.2	9.8	9.6	9.7	---	---	---
MONTH	11.5	9.5	10.6	10.5	8.8	9.5	10.0	8.8	9.5	10.5	9.4	9.9

TURBIDITY (NTU), JULY TO SEPTEMBER 2001

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	---	---	---	---	---	---	3	<1	<1	1	<1	<1
2	---	---	---	---	---	---	2	<1	<1	1	<1	<1
3	---	---	---	---	---	---	2	<1	<1	2	<1	<1
4	---	---	---	---	---	---	2	<1	<1	3	<1	<1
5	---	---	---	---	---	---	2	<1	<1	2	<1	<1
6	---	---	---	---	---	---	2	<1	<1	4	<1	<1
7	---	---	---	---	---	---	2	<1	<1	2	<1	<1
8	---	---	---	---	---	---	2	<1	<1	2	<1	<1
9	---	---	---	---	---	---	2	<1	<1	4	<1	<1
10	---	---	---	---	---	---	1	<1	<1	2	<1	<1
11	---	---	---	---	---	---	2	<1	<1	3	<1	<1
12	---	---	---	2	<1	<1	2	<1	<1	2	<1	<1
13	---	---	---	1	<1	<1	2	<1	<1	1	<1	<1
14	---	---	---	3	<1	<1	3	<1	<1	2	<1	<1
15	---	---	---	2	<1	<1	<1	<1	<1	3	<1	<1
16	---	---	---	2	<1	<1	2	<1	<1	2	<1	<1
17	---	---	---	5	<1	<1	1	<1	<1	3	<1	<1
18	---	---	---	4	<1	<1	2	<1	<1	2	<1	<1
19	---	---	---	3	<1	<1	2	<1	<1	4	<1	<1
20	---	---	---	4	<1	<1	1	<1	<1	2	<1	<1
21	---	---	---	2	<1	<1	2	<1	<1	2	<1	1
22	---	---	---	1	<1	<1	2	<1	<1	2	<1	1
23	---	---	---	4	<1	<1	2	<1	1	2	<1	<1
24	---	---	---	3	<1	<1	2	<1	1	2	<1	<1
25	---	---	---	1	<1	<1	2	<1	<1	5	<1	1
26	---	---	---	2	<1	<1	2	<1	<1	4	<1	1
27	---	---	---	1	<1	<1	2	<1	<1	2	<1	<1
28	---	---	---	2	<1	<1	2	<1	<1	2	<1	<1
29	---	---	---	1	<1	<1	2	<1	<1	3	<1	<1
30	---	---	---	1	<1	<1	2	<1	<1	2	<1	<1
31	---	---	---	2	<1	<1	1	<1	<1	---	---	---
MAX	---	---	---	---	---	---	3	<1	1	5	<1	1
MIN	---	---	---	---	---	---	<1	<1	<1	1	<1	<1

WILLAMETTE RIVER BASIN

14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	2	<1	<1	5	1	2	12	6	8	1	<1	<1
2	2	<1	<1	5	2	3	10	5	8	2	<1	<1
3	4	<1	<1	3	2	3	10	6	8	2	<1	<1
4	5	<1	<1	3	2	2	7	5	5	2	<1	1
5	2	<1	<1	3	2	2	5	3	4	2	1	1
6	2	<1	<1	3	<1	1	5	3	3	2	1	1
7	2	<1	1	2	<1	<1	8	3	5	18	2	5
8	2	<1	<1	---	---	---	10	5	7	61	18	30
9	3	<1	1	3	<1	<1	6	3	4	63	23	38
10	4	<1	1	<1	<1	<1	6	2	3	23	13	16
11	5	1	1	<1	<1	<1	6	2	2	14	6	8
12	2	<1	1	<1	<1	<1	2	2	2	6	4	5
13	2	<1	1	1	<1	<1	10	2	2	9	2	3
14	4	<1	2	7	<1	2	60	10	41	6	3	3
15	5	1	2	5	<1	2	44	15	26	4	2	3
16	3	<1	1	6	3	4	15	8	10	4	2	2
17	2	<1	<1	5	2	3	33	9	23	3	1	2
18	3	<1	<1	6	1	2	33	12	21	2	1	1
19	1	<1	<1	9	2	2	12	8	9	2	1	1
20	<1	<1	<1	2	1	2	8	4	6	2	1	1
21	<1	<1	<1	2	<1	1	6	3	4	3	2	2
22	2	<1	<1	21	1	2	4	3	3	8	3	6
23	4	<1	1	31	12	27	4	2	2	8	5	7
24	4	<1	1	29	12	17	2	2	2	6	4	4
25	2	1	1	12	6	8	6	2	2	12	4	6
26	2	<1	1	6	3	4	3	1	2	12	4	8
27	5	<1	<1	4	2	3	2	1	1	12	7	9
28	1	<1	<1	6	2	4	2	1	1	7	4	5
29	<1	<1	<1	16	4	7	2	<1	1	4	3	3
30	2	<1	<1	19	11	16	1	<1	<1	3	2	2
31	4	<1	1	---	---	---	5	<1	<1	2	2	2
MAX	5	1	2	---	---	---	60	15	41	63	23	38
MIN	<1	<1	<1	---	---	---	1	<1	<1	1	<1	<1

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
FEBRUARY			MARCH			APRIL			MAY			
1	3	1	2	2	1	1	4	2	2	3	1	1
2	2	1	1	2	<1	1	4	2	2	3	1	2
3	4	1	1	1	<1	<1	3	2	2	3	2	2
4	2	1	1	1	<1	<1	3	2	2	7	2	2
5	2	1	1	2	<1	<1	3	2	2	6	2	2
6	3	1	1	4	<1	2	5	2	2	5	2	2
7	5	1	2	3	1	2	3	2	2	3	1	2
8	3	2	2	6	2	4	4	2	2	3	1	2
9	5	2	3	6	4	5	4	2	2	2	1	1
10	5	4	4	4	2	3	11	2	3	2	1	1
11	5	3	3	6	2	2	10	5	9	2	1	1
12	3	2	2	36	5	13	12	7	8	3	<1	1
13	4	2	2	36	12	21	10	6	7	2	<1	1
14	4	2	2	13	6	9	124	7	46	2	1	1
15	3	1	1	8	4	5	108	34	56	4	1	1
16	2	<1	1	5	4	4	34	14	21	2	1	1
17	4	<1	<1	5	2	3	14	7	10	3	1	1
18	1	<1	<1	4	2	3	11	5	6	2	1	1
19	2	<1	1	4	2	2	8	4	5	3	1	1
20	2	<1	<1	3	2	2	12	3	3	2	1	1
21	2	<1	1	5	2	3	4	2	3	3	1	1
22	5	2	2	5	4	4	4	2	2	2	<1	1
23	7	2	4	4	3	3	3	2	2	2	1	2
24	6	4	6	4	2	3	2	2	2	5	1	2
25	7	4	6	2	2	2	2	1	2	4	1	1
26	4	3	4	5	2	2	2	1	1	2	<1	1
27	3	2	2	4	2	2	3	1	2	3	1	1
28	3	1	2	2	2	2	2	1	1	6	2	2
29	---	---	---	2	2	2	2	1	2	5	2	2
30	---	---	---	3	2	2	2	1	1	5	3	4
31	---	---	---	4	2	2	---	---	---	6	4	5
MAX	7	4	6	36	12	21	124	34	56	7	4	5
MIN	1	<1	<1	1	<1	<1	2	1	1	2	<1	1

WILLAMETTE RIVER BASIN

14210000 CLACKAMAS RIVER AT ESTACADA, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	4	3	4	<1	<1	<1	2	<1	<1	2	<1	1
2	4	2	2	<1	<1	<1	2	<1	<1	4	<1	1
3	5	2	2	<1	<1	<1	2	<1	1	2	<1	1
4	5	1	2	<1	<1	<1	4	<1	1	3	<1	1
5	2	1	2	<1	<1	<1	2	1	1	2	<1	1
6	3	1	1	<1	<1	<1	2	1	1	5	<1	1
7	2	1	1	<1	<1	<1	4	<1	1	2	<1	2
8	3	1	1	<1	<1	<1	2	<1	<1	2	<1	1
9	3	1	1	<1	<1	<1	2	<1	1	3	<1	1
10	2	<1	1	<1	<1	<1	1	<1	1	5	<1	1
11	2	<1	<1	2	<1	1	1	<1	1	2	<1	1
12	2	<1	<1	2	<1	1	2	<1	1	3	<1	1
13	2	<1	<1	2	<1	1	5	<1	1	2	<1	1
14	1	<1	<1	2	<1	1	2	<1	<1	2	<1	1
15	1	<1	<1	2	<1	1	1	<1	<1	4	1	1
16	2	<1	<1	2	<1	<1	2	<1	<1	2	<1	1
17	2	<1	<1	2	<1	<1	1	<1	<1	2	1	2
18	4	<1	1	4	<1	<1	2	<1	<1	2	1	1
19	2	<1	1	2	<1	1	3	<1	<1	2	<1	1
20	2	<1	1	2	<1	1	4	<1	1	2	<1	1
21	2	<1	<1	2	<1	1	2	<1	1	4	<1	1
22	2	<1	<1	2	<1	1	1	1	1	1	<1	1
23	7	<1	<1	2	<1	1	3	<1	1	4	<1	1
24	<1	<1	<1	2	<1	<1	2	<1	1	1	<1	1
25	<1	<1	<1	1	<1	1	1	<1	1	2	<1	<1
26	<1	<1	<1	1	<1	<1	2	1	1	2	<1	<1
27	<1	<1	<1	3	<1	<1	2	1	1	2	<1	<1
28	1	<1	<1	2	<1	<1	2	<1	1	1	<1	<1
29	<1	<1	<1	3	<1	<1	2	<1	1	4	<1	<1
30	<1	<1	<1	3	<1	<1	1	<1	1	3	1	2
31	---	---	---	2	<1	1	2	<1	1	---	---	---
MAX	7	3	4	4	<1	1	5	1	1	5	1	2
MIN	<1	<1	<1	<1	<1	<1	1	<1	<1	1	<1	<1

14211010 CLACKAMAS RIVER NEAR OREGON CITY, OR

LOCATION.--Lat 45°22'46", long 122°34'34", in SW 1/4 sec.21, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090011, on left bank 1,000 ft upstream from bridge on Interstate Highway 205, at South Fork Water Board water intake facility, and at mile 1.6.

DRAINAGE AREA.--940 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 2001 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diurnal fluctuations and regulation caused by powerplants at River Mill Dam and, since 1958, North Fork Dam. Minor regulation since 1956 by Timothy Lake (station 14208600). One small diversion for City of Estacada near Estacada.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 ft³/s Apr. 14, 2002, gage height, 35.15 ft; minimum discharge, 549 ft³/s Oct. 4, 5, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,400 ft³/s Apr. 14, gage height, 35.15 ft; minimum discharge, 549 ft³/s Oct. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	e1600	1290	893	658
2	---	---	---	---	---	---	---	---	e1650	1210	845	673
3	---	---	---	---	---	---	---	---	e1900	1160	846	716
4	---	---	---	---	---	---	---	---	e1750	1120	870	687
5	---	---	---	---	---	---	---	---	e1700	1100	838	668
6	---	---	---	---	---	---	---	---	e1650	1070	867	674
7	---	---	---	---	---	---	---	---	e1600	1030	897	638
8	---	---	---	---	---	---	---	---	e1550	1020	e740	647
9	---	---	---	---	---	---	---	---	1530	1000	e740	674
10	---	---	---	---	---	---	---	---	1510	978	e780	700
11	---	---	---	---	---	---	---	---	1540	961	789	812
12	---	---	---	---	---	---	---	---	2570	950	784	710
13	---	---	---	---	---	---	---	---	2230	964	761	661
14	---	---	---	---	---	---	---	---	1950	923	722	635
15	---	---	---	---	---	---	---	---	1780	909	711	710
16	---	---	---	---	---	---	---	---	1630	967	729	771
17	---	---	---	---	---	---	---	---	1550	1020	691	726
18	---	---	---	---	---	---	---	---	1480	961	699	731
19	---	---	---	---	---	---	---	---	1420	967	776	735
20	---	---	---	---	---	---	---	---	1330	944	796	749
21	---	---	---	---	---	---	---	---	1290	917	773	737
22	---	---	---	---	---	---	---	---	1250	902	808	733
23	---	---	---	---	---	---	---	---	1240	876	836	741
24	---	---	---	---	---	---	---	---	1240	867	800	745
25	---	---	---	---	---	---	---	---	1430	873	770	798
26	---	---	---	---	---	---	---	---	1290	1020	730	e880
27	---	---	---	---	---	---	---	---	1420	774	680	e840
28	---	---	---	---	---	---	---	---	1810	740	665	820
29	---	---	---	---	---	---	---	---	1500	770	727	797
30	---	---	---	---	---	---	---	---	1360	996	675	768
31	---	---	---	---	---	---	---	---	---	1010	662	---
TOTAL	---	---	---	---	---	---	---	---	47750	30289	23900	21834
MEAN	---	---	---	---	---	---	---	---	1592	977	771	728
MAX	---	---	---	---	---	---	---	---	2570	1290	897	880
MIN	---	---	---	---	---	---	---	---	1240	740	662	635
AC-FT	---	---	---	---	---	---	---	---	94710	60080	47410	43310
CFSM	---	---	---	---	---	---	---	---	1.69	1.04	0.82	0.77
IN.	---	---	---	---	---	---	---	---	1.89	1.20	0.95	0.86

e Estimated

WILLAMETTE RIVER BASIN

14211010 CLACKAMAS RIVER NEAR OREGON CITY, OR--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	755	4370	8610	2910	4100	3160	3260	3930	4990	2050	928	760
2	762	3720	10700	3630	3870	2880	3350	4160	4500	1860	961	751
3	742	2840	8190	3920	e3600	2660	3560	4550	4140	1720	914	759
4	722	2290	6790	3720	e3800	2520	3750	4320	3970	1670	968	774
5	707	e2300	6650	3550	e3700	2470	4190	4050	3990	1600	996	784
6	776	2120	6760	4550	e3700	4390	4460	3980	4030	1540	906	776
7	775	1950	10600	10400	4630	6150	4730	3650	3630	1490	917	797
8	783	1610	7600	17100	7020	4640	4760	3300	3280	1540	861	801
9	831	1450	6500	12200	5880	3860	4850	3200	3120	1440	857	797
10	844	1400	5540	8350	4840	3640	7610	2890	2890	1390	860	826
11	1580	1370	e5100	6470	4410	4760	8880	2840	2820	1370	838	872
12	1340	1410	e4800	5860	4050	13300	9050	2970	2820	1370	824	912
13	934	1820	e7500	6100	3730	9350	9190	3300	3060	1240	811	977
14	1020	4920	18500	5270	3120	7290	21600	3660	3240	1230	779	967
15	1000	3690	10900	4580	2900	6050	14300	3680	3170	1200	833	960
16	951	3360	11500	4080	2940	5200	9520	3620	2960	1170	787	982
17	984	3910	16700	3780	2870	4630	7540	3520	2820	1160	783	1160
18	968	3370	11500	3630	2820	4070	6390	3950	3600	1110	740	1090
19	913	2890	8620	3770	e3000	4960	5470	4020	3230	1100	741	1020
20	849	3130	7090	3980	e3300	5070	4820	4020	e2800	1100	834	1000
21	890	3410	5930	6680	e3700	4620	4470	4100	2560	1060	835	979
22	1170	6460	5050	5820	5210	4070	4180	4370	2490	1030	811	952
23	2930	12500	4360	5140	7300	3710	4070	4230	2370	1000	730	948
24	2390	7150	3840	4410	7430	3580	3830	4020	2240	997	754	972
25	1800	5200	3440	9200	5780	3480	3780	3940	2120	976	758	791
26	1540	4180	3200	10400	4660	3400	3850	e4200	2000	971	765	753
27	1280	3450	2990	7430	4120	3450	4210	4580	1960	977	765	780
28	1300	4580	3110	5820	3490	3360	3850	4940	1960	957	762	771
29	1270	12000	2950	4670	---	3200	3680	6080	2600	944	756	824
30	1820	8330	2730	4070	---	3150	3770	6510	2370	934	749	992
31	e4600	---	2750	3910	---	3170	---	5670	---	920	750	---
TOTAL	39226	121180	220500	185400	119970	140240	180970	126250	91730	39116	25573	26527
MEAN	1265	4039	7113	5981	4285	4524	6032	4073	3058	1262	825	884
MAX	4600	12500	18500	17100	7430	13300	21600	6510	4990	2050	996	1160
MIN	707	1370	2730	2910	2820	2470	3260	2840	1960	920	730	751
AC-FT	77800	240400	437400	367700	238000	278200	359000	250400	181900	77590	50720	52620
CFSM	1.35	4.30	7.57	6.36	4.56	4.81	6.42	4.33	3.25	1.34	0.88	0.94
IN.	1.55	4.80	8.73	7.34	4.75	5.55	7.16	5.00	3.63	1.55	1.01	1.05

WTR YR 2002 TOTAL 1316682 MEAN 3607 MAX 21600 MIN 707 AC-FT 2612000 CFSM 3.84 IN. 52.11

e Estimated

14211010 CLACKAMAS RIVER NEAR OREGON CITY, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
 SPECIFIC CONDUCTANCE: June to September 2002.
 pH: June to September 2002.
 WATER TEMPERATURE: June to September 2002.
 DISSOLVED OXYGEN: June to September 2002.
 TURBIDITY: June to September 2002.

INSTRUMENTATION.--Water-quality monitor. Electronic datalogger with a 30-minute recording interval.

REMARKS.--
 SPECIFIC CONDUCTANCE: Records excellent.
 pH: Records excellent.
 WATER TEMPERATURE: Records excellent.
 DISSOLVED OXYGEN: Records poor.
 TURBIDITY: Records excellent.

EXTREMES FOR PERIOD JUNE TO SEPTEMBER.--
 SPECIFIC CONDUCTANCE: Maximum recorded, 68 microsiemens Aug. 21, Sept. 2-11; minimum recorded, 40 microsiemens June 20-22.
 pH: Maximum recorded, 8.5 units Aug. 22, 29; minimum recorded, 7.3 units June 21, 26, July 11.
 WATER TEMPERATURE: Maximum recorded, 22.9°C July 23; minimum recorded, 12.2°C June 21.
 DISSOLVED OXYGEN: Maximum recorded, 11.7 mg/L Sept. 19, minimum recorded, 7.9 mg/L July 11.
 TURBIDITY: Maximum recorded, 10.7 NTU June 28, 29; minimum recorded <1 on many days during the year.

DAY	SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), JUNE SEPTEMBER 2002											
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	48	47	48	63	62	63	67	66	67
2	---	---	---	50	47	48	63	62	63	68	66	67
3	---	---	---	49	47	48	63	62	63	68	67	67
4	---	---	---	48	48	48	64	63	63	68	67	67
5	---	---	---	49	48	48	64	63	63	68	67	67
6	---	---	---	50	49	49	64	63	64	68	67	67
7	---	---	---	51	50	51	64	63	64	68	67	67
8	---	---	---	52	51	51	64	63	64	68	67	67
9	---	---	---	52	51	51	64	63	64	68	66	67
10	---	---	---	52	51	52	64	63	64	68	66	67
11	---	---	---	53	52	53	64	63	64	68	66	67
12	---	---	---	54	53	54	64	64	64	67	66	67
13	---	---	---	55	54	54	65	64	64	67	66	67
14	---	---	---	55	54	54	65	64	65	67	66	66
15	---	---	---	55	55	55	65	64	65	67	66	66
16	---	---	---	56	55	56	66	64	65	66	65	66
17	---	---	---	57	56	57	67	65	65	65	65	65
18	---	---	---	58	57	58	65	65	65	65	64	65
19	---	---	---	59	58	58	66	65	65	66	64	65
20	---	---	---	59	58	59	66	65	65	66	64	65
21	41	40	40	59	59	59	68	65	66	65	64	64
22	41	40	41	60	59	60	66	65	66	66	63	65
23	42	41	41	60	60	60	67	66	67	65	63	64
24	43	42	43	61	60	60	67	66	66	65	63	64
25	44	43	44	61	60	61	67	66	66	66	63	65
26	45	44	44	61	60	61	66	65	66	66	64	65
27	45	44	45	61	61	61	67	66	66	66	64	65
28	46	45	45	63	61	61	67	66	66	66	64	65
29	48	45	47	63	61	62	67	66	67	66	65	65
30	48	47	47	63	62	62	67	66	66	66	64	65
31	---	---	---	62	62	62	67	66	67	---	---	---
MONTH	---	---	---	63	47	56	68	62	65	68	63	66

WILLAMETTE RIVER BASIN

14211010 CLACKAMAS RIVER NEAR OREGON CITY, OR--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, JUNE TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	---	---	---	8.2	7.4	7.6	8.3	7.5	7.8	8.4	7.6	7.9
2	---	---	---	8.1	7.4	7.6	8.3	7.5	7.8	8.4	7.6	7.9
3	---	---	---	8.1	7.4	7.6	8.3	7.5	7.8	8.4	7.6	7.9
4	---	---	---	8.2	7.4	7.7	8.3	7.6	7.8	8.4	7.6	7.9
5	---	---	---	8.2	7.4	7.7	8.3	7.6	7.8	8.4	7.6	7.9
6	---	---	---	8.2	7.4	7.6	8.2	7.6	7.8	8.4	7.6	7.9
7	---	---	---	7.9	7.4	7.6	8.2	7.6	7.8	8.4	7.6	7.9
8	---	---	---	8.2	7.4	7.7	8.3	7.6	7.8	8.4	7.6	7.9
9	---	---	---	8.2	7.4	7.6	8.3	7.5	7.8	8.3	7.6	7.9
10	---	---	---	8.2	7.4	7.6	8.3	7.6	7.9	8.3	7.5	7.8
11	---	---	---	8.3	7.4	7.7	8.4	7.6	7.8	8.3	7.5	7.8
12	---	---	---	8.3	7.5	7.7	8.3	7.6	7.8	8.3	7.5	7.8
13	---	---	---	8.3	7.4	7.7	8.3	7.6	7.8	8.3	7.5	7.8
14	---	---	---	8.3	7.5	7.8	8.3	7.5	7.8	8.3	7.5	7.8
15	---	---	---	8.3	7.5	7.8	8.3	7.6	7.8	8.2	7.5	7.8
16	---	---	---	8.4	7.5	7.8	8.4	7.6	7.9	8.1	7.5	7.7
17	---	---	---	8.4	7.5	7.8	8.3	7.6	7.9	8.3	7.5	7.7
18	---	---	---	8.4	7.5	7.8	8.4	7.6	7.9	8.2	7.5	7.7
19	---	---	---	8.3	7.5	7.8	8.4	7.6	7.9	8.3	7.5	7.8
20	---	---	---	8.3	7.5	7.8	8.3	7.6	7.9	8.3	7.5	7.8
21	8.1	7.3	7.5	8.3	7.5	7.8	8.4	7.6	7.8	8.3	7.5	7.8
22	8.0	7.3	7.5	8.3	7.5	7.7	8.5	7.6	7.9	8.3	7.5	7.8
23	8.1	7.3	7.6	8.3	7.5	7.8	8.4	7.6	7.9	8.2	7.5	7.8
24	8.1	7.3	7.5	8.3	7.5	7.8	8.4	7.6	7.9	8.3	7.5	7.8
25	8.1	7.3	7.5	8.3	7.5	7.8	8.3	7.6	7.8	8.3	7.5	7.8
26	8.1	7.3	7.5	8.2	7.5	7.7	8.4	7.6	7.8	8.4	7.5	7.8
27	7.9	7.3	7.5	8.3	7.5	7.8	8.4	7.6	7.9	8.4	7.5	7.9
28	7.7	7.4	7.5	8.3	7.5	7.8	8.4	7.6	7.9	8.4	7.5	7.8
29	7.9	7.4	7.5	8.3	7.5	7.8	8.5	7.6	7.9	8.2	7.5	7.8
30	8.1	7.4	7.6	8.3	7.5	7.8	8.4	7.6	8.0	8.2	7.5	7.7
31	---	---	---	8.3	7.5	7.8	8.4	7.6	7.9	---	---	---
MAX	---	---	---	8.4	7.5	7.8	8.5	7.6	8.0	8.4	7.6	7.9
MIN	---	---	---	7.9	7.4	7.6	8.2	7.5	7.8	8.1	7.5	7.7

TEMPERATURE, WATER (DEG. C), JUNE TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	18.5	14.2	16.2	20.7	17.7	19.5	19.5	17.5	18.7
2	---	---	---	18.6	13.8	16.3	20.6	17.5	19.2	19.8	17.7	19.0
3	---	---	---	18.1	14.1	15.8	20.1	17.4	19.1	19.9	18.1	18.8
4	---	---	---	17.4	14.4	15.8	20.1	17.7	18.7	18.3	16.2	17.5
5	---	---	---	19.0	14.0	16.4	19.3	16.6	18.1	18.0	15.8	17.1
6	---	---	---	19.6	14.8	17.3	19.1	17.1	18.2	17.7	15.9	17.0
7	---	---	---	19.4	15.7	16.7	19.4	16.3	17.9	17.6	16.0	16.9
8	---	---	---	18.2	15.1	16.4	19.5	16.7	18.4	17.2	15.0	16.2
9	---	---	---	20.1	14.9	17.5	20.3	17.1	18.8	17.6	15.3	16.6
10	---	---	---	21.3	16.2	18.9	20.4	18.0	19.3	17.8	15.4	16.8
11	---	---	---	21.3	16.9	19.5	20.2	17.1	18.9	18.0	15.6	17.1
12	---	---	---	21.3	17.0	19.4	20.6	17.7	19.4	18.0	15.4	17.0
13	---	---	---	21.2	17.8	19.5	21.2	18.3	19.9	17.9	14.9	16.7
14	---	---	---	20.2	17.0	18.7	21.2	18.9	20.4	17.8	15.2	16.5
15	---	---	---	20.9	16.8	18.9	21.1	18.4	20.0	16.9	15.1	15.8
16	---	---	---	21.7	17.5	19.8	20.8	18.4	19.8	15.6	14.7	15.2
17	---	---	---	21.9	18.2	20.3	20.4	18.3	19.7	16.3	14.4	15.3
18	---	---	---	21.8	18.5	20.1	20.1	18.0	19.3	16.1	13.4	14.9
19	---	---	---	20.8	18.5	19.5	20.1	18.4	19.4	16.5	13.4	15.1
20	---	---	---	21.6	17.8	19.6	19.7	18.2	18.9	16.5	14.0	15.4
21	17.4	12.2	14.6	22.3	18.4	20.5	18.4	16.8	17.4	16.0	13.1	14.6
22	15.8	12.8	13.9	22.7	19.2	21.2	19.6	16.7	17.9	15.8	13.4	14.8
23	16.1	12.8	14.3	22.9	19.6	21.5	19.9	17.6	19.0	15.9	13.3	14.8
24	18.3	13.2	15.6	22.9	19.7	21.6	20.1	17.9	19.2	15.9	13.5	15.0
25	19.4	13.7	16.4	22.8	19.4	21.2	20.1	17.8	18.6	15.9	13.7	15.0
26	19.4	14.7	17.0	22.0	19.5	20.8	18.3	17.4	17.8	15.6	13.8	14.7
27	18.4	15.1	16.3	20.7	18.1	19.5	19.8	16.7	18.3	15.7	14.2	15.1
28	16.5	14.9	15.3	21.7	18.4	20.1	20.4	18.1	19.4	15.6	13.4	14.6
29	17.5	14.9	16.0	22.2	19.1	20.9	20.5	18.6	19.6	15.3	13.8	14.4
30	17.6	14.6	16.0	22.2	19.2	20.4	19.6	17.1	18.2	14.0	12.8	13.4
31	---	---	---	20.5	17.4	19.1	19.1	17.1	18.1	---	---	---
MONTH	---	---	---	22.9	13.8	19.0	21.2	16.3	18.9	19.9	12.8	16.0

WILLAMETTE RIVER BASIN

14211010 CLACKAMAS RIVER NEAR OREGON CITY, OR--Continued

OXYGEN DISSOLVED (MG/L), JUNE TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	10.2	8.9	9.6	10.5	8.7	9.5	10.7	8.9	9.7
2	---	---	---	10.3	8.8	9.5	10.5	8.6	9.6	10.6	8.9	9.6
3	---	---	---	10.3	8.7	9.6	10.5	8.7	9.5	10.5	8.7	9.6
4	---	---	---	10.4	9.0	9.7	10.5	8.7	9.6	10.8	9.2	9.9
5	---	---	---	10.3	8.6	9.6	10.6	9.1	9.9	10.9	9.3	10.0
6	---	---	---	10.2	8.5	9.4	10.6	9.0	9.8	10.9	9.3	10.1
7	---	---	---	10	8.3	9.3	10.8	9.1	9.9	11.1	9.4	10.2
8	---	---	---	10.4	9.0	9.7	10.8	8.9	9.9	11.3	9.7	10.5
9	---	---	---	10.3	8.4	9.4	10.3	8.8	9.5	11.2	9.7	10.4
10	---	---	---	10	8.0	9.1	10.2	8.4	9.3	11.2	9.6	10.3
11	---	---	---	10.1	7.9	9.1	10.3	8.6	9.4	11.2	9.5	10.3
12	---	---	---	10.2	8.3	9.2	10.2	8.5	9.3	11.2	9.5	10.3
13	---	---	---	10.1	8.2	9.1	10.1	8.4	9.2	11.2	9.6	10.3
14	---	---	---	10.3	8.6	9.4	10	8.2	9.1	11.3	9.6	10.4
15	---	---	---	10.4	8.6	9.5	10.1	8.3	9.2	11.2	9.8	10.5
16	---	---	---	10.3	8.4	9.3	10.2	8.3	9.3	11.3	10.2	10.7
17	---	---	---	10.1	8.2	9.1	10.2	8.4	9.3	11.3	10.2	10.7
18	---	---	---	10.1	8.2	9.2	10.3	8.7	9.4	11.6	10.4	10.9
19	---	---	---	10.2	8.4	9.3	10.3	8.6	9.4	11.7	10.1	10.8
20	---	---	---	10.2	8.6	9.4	10.3	8.7	9.5	11.5	10.0	10.7
21	10.5	9.2	9.9	10.2	8.4	9.2	10.8	9.2	9.9	11.6	10.2	10.8
22	10.4	9.2	9.9	10	8.1	9.0	10.7	9.3	10	11.5	10.1	10.7
23	10.5	9.3	9.9	10	8.1	9.0	10.6	8.9	9.7	11.4	9.8	10.6
24	10.3	8.9	9.7	9.9	8.1	9.0	10.6	8.9	9.7	11.3	9.9	10.5
25	10.1	8.6	9.4	10.3	8.2	9.2	10.7	8.8	9.7	11.0	9.5	10.3
26	10	8.6	9.3	10.1	8.2	9.2	10.8	9.4	10.0	11.0	9.1	10
27	9.8	8.6	9.3	10.3	8.8	9.5	10.4	9.0	9.8	10.8	9.1	9.8
28	9.8	8.9	9.3	10.3	8.6	9.4	10.2	8.6	9.3	11.0	9.1	10
29	9.9	9.0	9.4	10.2	8.4	9.2	10.3	8.4	9.3	10.9	9.1	9.9
30	10.1	9.0	9.5	10.4	8.4	9.4	10.7	8.7	9.7	11.1	9.5	10.2
31	---	---	---	10.6	8.9	9.7	10.6	9.0	9.7	---	---	---
MONTH	---	---	---	10.6	7.9	9.3	10.8	8.2	9.6	11.7	8.7	10.3

TURBIDITY (NTU), WATER YEAR JUNE SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	---	---	---	3	<1	1	<1	<1	<1	2	<1	<1
2	---	---	---	2	<1	<1	<1	<1	<1	1	<1	<1
3	---	---	---	1	<1	<1	2	<1	<1	1	<1	<1
4	---	---	---	3	<1	<1	2	<1	<1	<1	<1	<1
5	---	---	---	3	<1	<1	2	<1	<1	<1	<1	<1
6	---	---	---	3	<1	<1	2	<1	<1	<1	<1	<1
7	---	---	---	2	<1	<1	<1	<1	<1	2	<1	<1
8	---	---	---	3	<1	1	2	<1	<1	2	<1	<1
9	---	---	---	2	<1	1	3	<1	<1	2	<1	<1
10	---	---	---	2	<1	1	1	<1	<1	2	<1	1
11	---	---	---	2	<1	<1	<1	<1	<1	2	<1	1
12	---	---	---	3	<1	<1	<1	<1	<1	2	<1	<1
13	---	---	---	1	<1	<1	<1	<1	<1	3	<1	<1
14	---	---	---	2	<1	<1	<1	<1	<1	3	<1	<1
15	---	---	---	2	<1	<1	1	<1	<1	3	<1	1
16	---	---	---	1	<1	<1	1	<1	<1	5	<1	3
17	---	---	---	1	<1	<1	<1	<1	<1	---	---	---
18	---	---	---	<1	<1	<1	<1	<1	<1	---	---	---
19	---	---	---	2	<1	<1	1	<1	<1	---	---	---
20	---	---	---	2	<1	<1	2	<1	<1	---	---	---
21	2	<1	1	3	<1	<1	2	<1	<1	---	---	---
22	1	<1	<1	<1	<1	<1	1	<1	<1	---	---	---
23	2	<1	<1	<1	<1	<1	1	<1	<1	---	---	---
24	1	<1	<1	2	<1	<1	<1	<1	<1	---	---	---
25	1	<1	<1	2	<1	1	<1	<1	<1	---	---	---
26	2	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
27	1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1
28	11	<1	1	<1	<1	<1	1	<1	<1	1	<1	<1
29	11	2	4	1	<1	<1	2	<1	<1	3	<1	<1
30	5	<1	2	3	<1	1	2	<1	<1	2	<1	<1
31	---	---	---	<1	<1	<1	<1	<1	<1	---	---	---
MAX	---	---	---	3	<1	1	3	<1	<1	---	---	---
MIN	---	---	---	<1	<1	<1	<1	<1	<1	---	---	---

14211315 TRYON CREEK BELOW NETTLE CREEK, NEAR LAKE OSWEGO, OR

LOCATION.--Lat 45°25'53", long 122°40'17", in NW 1/4 NW 1/4 sec.42, T.2S., R.1E, Clackamas County, Hydrologic unit 17090012, on right bank, 0.8 mi north of Lake Oswego, and at mile 1.0.

DRAINAGE AREA.--6.28 mi².

PERIOD OF RECORD.--August 2001 to September 2002.

GAGE.--Water-stage recorder. Datum of gage is 95 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 340 ft³/s Feb. 23, gage height, 6.41 ft; minimum discharge, 0.09 ft³/s Sept. 4, 5, 12.DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.82	4.8	e60	e19	14	6.0	6.2	3.2	2.2	1.7	0.36	0.13
2	0.81	3.2	e20	e8.0	11	5.4	6.0	3.2	1.9	1.5	0.33	0.15
3	0.79	1.6	e12	e6.5	12	5.1	5.7	2.9	1.8	1.3	0.35	0.20
4	0.87	1.0	e40	e4.8	9.2	4.9	5.0	2.7	1.9	1.2	1.1	0.15
5	1.0	11	54	e14	11	5.3	7.7	2.8	1.6	1.2	0.79	0.18
6	0.91	2.5	23	e50	18	53	5.0	3.1	1.5	1.1	0.60	0.21
7	0.95	1.4	15	e80	53	19	4.4	2.8	1.6	1.5	e0.50	0.19
8	1.3	1.3	14	e75	34	14	3.9	2.7	1.7	6.5	e0.40	0.18
9	0.95	1.2	12	24	17	12	8.8	2.8	1.5	0.78	e0.50	0.19
10	9.1	1.1	12	17	16	20	18	2.8	1.3	0.66	0.50	0.23
11	2.0	1.3	11	14	12	68	9.5	2.7	e1.3	0.52	e0.70	0.47
12	1.2	4.8	15	15	11	50	6.7	2.5	e1.2	0.48	e1.0	0.16
13	1.5	13	78	12	9.5	36	13	2.7	e1.1	0.48	1.1	0.12
14	0.96	26	30	11	8.4	26	17	2.5	e1.0	0.43	e0.70	0.11
15	1.0	9.8	e22	9.6	7.7	23	9.7	2.3	e1.0	0.42	e0.70	0.13
16	2.3	6.5	e50	9.3	9.8	20	13	2.3	e0.90	0.40	e0.80	4.4
17	1.6	4.0	e32	8.7	7.4	19	10	5.0	e1.3	0.39	e0.70	5.4
18	1.2	2.9	e24	12	7.6	18	8.0	2.8	e4.0	0.39	e0.90	0.42
19	1.2	14	e14	12	23	47	6.9	4.1	e1.8	0.38	e1.0	0.24
20	1.0	14	e28	17	9.4	23	6.5	12	e1.6	0.39	e0.60	0.19
21	2.5	15	e22	e16	9.3	18	6.0	6.7	e1.4	0.34	e0.40	0.23
22	9.4	35	18	e16	7.9	16	5.5	5.4	1.3	0.36	0.32	0.36
23	7.0	8.2	14	13	49	14	5.1	4.2	1.2	0.30	0.25	0.33
24	2.8	11	12	16	14	12	4.6	3.7	1.2	0.35	0.17	0.34
25	2.0	8.4	11	67	10	11	4.4	3.5	1.2	0.33	0.22	0.36
26	1.6	4.9	9.8	28	8.7	10	5.8	3.2	1.1	0.34	0.22	0.40
27	12	3.5	13	32	7.7	9.1	10	4.9	1.1	0.37	0.19	0.35
28	3.6	65	14	24	6.6	8.1	5.1	9.7	9.6	0.36	0.20	0.38
29	5.0	e22	10	17	---	7.5	3.9	8.4	11	0.37	0.21	4.2
30	23	e42	9.6	14	---	6.6	3.6	3.4	2.3	0.34	0.18	4.0
31	11	---	13	16	---	6.3	---	2.7	---	0.38	0.16	---
TOTAL	111.36	340.4	712.4	677.9	414.2	593.3	225.0	123.7	75.30	25.56	16.15	24.40
MEAN	3.59	11.3	23.0	21.9	14.8	19.1	7.50	3.99	2.51	0.82	0.52	0.81
MAX	23	65	78	80	53	68	18	12	13	6.5	1.1	5.4
MIN	0.79	1.0	9.6	4.8	6.6	4.9	3.6	2.3	0.90	0.30	0.16	0.11
AC-FT	221	675	1410	1340	822	1180	446	245	149	51	32	48
CFSM	0.57	1.81	3.66	3.48	2.36	3.05	1.19	0.64	0.40	0.13	0.08	0.13
IN.	0.66	2.02	4.22	4.02	2.45	3.51	1.33	0.73	0.45	0.15	0.10	0.14

WTR YR 2002 TOTAL 3339.67 MEAN 9.15 MAX 80 MIN 0.11 AC-FT 6620 CFSM 1.46 IN. 19.78

e Estimated

14211400 JOHNSON CREEK AT REGNER ROAD, AT GRESHAM, OR

LOCATION.--Lat 45°29'12", long 122°25'14", in SW 1/4 NE 1/4 sec.15, T.1 S., R.3 E., Multnomah County, Hydrologic unit 17090012, on left bank at Regner Road, 1.5 mi southeast of Gresham City Hall, and at mile 16.3.

DRAINAGE AREA.--15.36 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 305 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--4 years (water years 1999-2002), 30.0 ft³/s, 26.52 in/yr, 21,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 629 ft³/s Feb. 27, 28, 1999, gage height, 8.58 ft; minimum discharge, 0.26 ft³/s Sept. 27, 28, 2000.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 5	0430	431	7.47	Jan. 25	1230	*535	*8.03
Dec. 13	2100	452	7.58	Mar. 11	2000	485	7.76

Minimum discharge, 0.33 ft³/s Sept. 14, 15, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	19	187	72	92	17	8.9	14	3.0	4.2	0.92	0.60
2	1.1	19	202	80	74	14	7.9	11	2.5	3.0	0.96	0.99
3	0.90	11	175	62	66	12	7.1	9.9	2.4	2.8	0.76	0.95
4	0.93	8.5	180	50	54	11	6.6	7.7	2.3	2.7	1.0	0.77
5	0.93	25	247	47	53	11	6.6	7.2	2.3	2.6	1.0	0.59
6	1.0	15	138	103	69	159	6.1	7.7	2.0	2.1	1.1	0.52
7	0.86	10	120	150	152	101	6.1	6.6	2.0	2.4	1.0	0.49
8	1.7	8.2	90	175	185	66	5.3	5.6	2.7	5.6	0.89	0.48
9	2.0	7.4	73	93	99	49	11	5.0	3.4	2.6	0.90	0.53
10	4.9	6.3	83	67	74	45	14	4.8	5.1	2.1	0.88	0.54
11	6.5	5.7	104	51	59	155	17	4.4	3.1	1.9	1.0	0.72
12	3.1	9.7	96	51	45	154	14	4.0	2.5	1.9	1.1	0.46
13	3.9	24	203	40	36	114	21	3.6	2.2	1.7	0.78	0.45
14	2.7	34	229	34	28	96	97	3.4	2.1	1.8	0.75	0.41
15	2.3	25	132	27	23	82	53	3.0	2.0	1.3	1.3	0.41
16	2.8	44	148	26	20	76	57	2.9	2.2	1.2	0.89	0.65
17	2.8	43	166	30	17	71	56	3.8	5.6	1.5	0.92	2.7
18	1.8	25	113	31	15	59	41	2.9	7.4	1.3	0.93	1.8
19	1.4	31	90	47	40	169	32	3.8	3.8	1.5	0.91	1.2
20	1.3	35	83	69	26	103	26	4.0	3.2	1.4	0.98	0.95
21	2.2	38	70	90	23	71	20	3.2	3.1	1.4	1.1	0.77
22	6.8	122	56	108	20	52	18	3.6	2.5	1.4	0.88	0.65
23	10	80	44	81	114	39	14	3.1	2.6	1.4	0.76	0.57
24	7.3	54	36	77	61	30	12	2.6	2.2	1.1	0.79	0.47
25	e4.0	42	29	298	44	25	11	2.6	2.0	1.2	0.87	0.50
26	e3.2	30	23	171	34	20	13	2.5	1.9	1.2	1.0	0.47
27	6.3	23	22	136	26	17	67	2.7	1.7	1.1	0.94	0.61
28	7.2	205	42	109	21	14	30	5.9	6.6	1.1	0.67	0.58
29	5.1	186	27	83	---	12	21	10	22	1.3	0.48	2.2
30	29	144	22	70	---	11	17	4.7	6.5	1.2	0.45	5.8
31	29	---	30	85	---	9.9	---	3.5	---	0.95	0.54	---
TOTAL	154.32	1329.8	3260	2613	1570	1864.9	716.6	159.7	112.9	58.95	27.45	28.83
MEAN	4.98	44.3	105	84.3	56.1	60.2	23.9	5.15	3.76	1.90	0.89	0.96
MAX	29	205	247	298	185	169	97	14	22	5.6	1.3	5.8
MIN	0.86	5.7	22	26	15	9.9	5.3	2.5	1.7	0.95	0.45	0.41
AC-FT	306	2640	6470	5180	3110	3700	1420	317	224	117	54	57
CFSM	0.32	2.89	6.85	5.49	3.65	3.92	1.56	0.34	0.25	0.12	0.06	0.06
IN.	0.37	3.22	7.90	6.33	3.80	4.52	1.74	0.39	0.27	0.14	0.07	0.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	1999	2000	2001	2002
MEAN	3.89	39.8	80.6	67.7
MAX	4.98	61.9	121	102
(WY)	2002	1999	1999	1999
MIN	3.09	8.49	30.2	16.8
(WY)	1999	2001	2001	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1999 - 2002

ANNUAL TOTAL	8329.62	11896.45		
ANNUAL MEAN	22.8	32.6		
HIGHEST ANNUAL MEAN			45.4	1999
LOWEST ANNUAL MEAN			13.4	2001
HIGHEST DAILY MEAN	247	298	412	Dec 28 1998
LOWEST DAILY MEAN	0.54	0.41	0.36	Sep 14 2000
ANNUAL SEVEN-DAY MINIMUM	0.74	0.50	0.43	Sep 23 2000
ANNUAL RUNOFF (AC-FT)	16520	23600	21720	
ANNUAL RUNOFF (CFSM)	1.49	2.12	1.95	
ANNUAL RUNOFF (INCHES)	20.17	28.81	26.52	
10 PERCENT EXCEEDS	55	100	89	
50 PERCENT EXCEEDS	9.7	7.4	8.4	
90 PERCENT EXCEEDS	0.90	0.89	0.96	

e Estimated

14211400 JOHNSON CREEK AT REGNER ROAD, AT GRESHAM, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: January 1999 to current year.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 23.0°C July 23, 2002; minimum, 1.5°C Dec. 29, 30, 1999.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 23.0°C July 23; minimum, 3.6°C Mar. 2.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.8	12.4	13.6	10.9	10.3	10.6	8.9	8.3	8.7	6.3	5.4	5.7
2	14.1	11.8	13.0	11.9	10.9	11.4	8.8	8.3	8.5	7.3	6.3	6.8
3	13.4	11.0	12.2	11.1	9.7	10.4	8.8	8.1	8.5	7.3	6.0	6.7
4	13.7	11.2	12.3	11.5	10.6	11.0	8.1	7.2	7.7	7.2	6.1	6.7
5	13.7	11.7	12.5	11.5	9.8	10.8	8.4	6.5	7.6	7.2	6.6	6.9
6	13.7	12.3	12.7	9.8	8.2	9.2	9.0	8.4	8.7	8.3	7.2	7.5
7	12.4	10.4	11.1	8.2	6.9	7.5	9.1	8.3	8.6	9.5	8.3	8.9
8	12.4	11.2	11.7	8.1	7.0	7.6	8.8	7.9	8.4	9.4	8.7	9.0
9	11.5	10.3	10.9	7.3	5.8	6.4	8.5	7.8	8.1	8.7	7.9	8.4
10	11.0	8.9	9.9	7.4	6.1	6.8	7.8	7.5	7.7	8.3	7.6	7.9
11	11.3	10.3	10.7	8.2	7.3	7.8	7.9	7.7	7.8	8.0	7.3	7.7
12	11.5	9.6	10.3	8.9	8.1	8.4	8.6	7.8	8.1	8.3	7.1	7.8
13	11.9	10.9	11.4	10.3	8.8	9.4	9.3	8.6	9.0	7.1	6.3	6.8
14	12.6	11.6	12.0	12.3	10.3	11.5	8.7	7.8	8.1	7.0	6.2	6.7
15	12.0	10.5	11.2	12.0	11.4	11.8	8.5	7.8	8.1	6.2	5.1	5.7
16	11.4	10.2	10.9	11.4	10.7	11.1	9.5	8.5	9.1	5.5	5.1	5.3
17	10.8	9.2	10.0	10.7	8.8	9.9	8.9	8.1	8.4	5.8	5.3	5.5
18	9.4	7.5	8.6	9.3	8.0	8.7	8.1	7.8	8.0	6.5	5.7	6.1
19	10.2	7.7	8.9	10.0	9.0	9.5	8.1	7.7	7.9	6.7	6.2	6.4
20	10.2	8.8	9.5	10.1	9.7	10.0	7.9	7.7	7.7	6.8	6.0	6.4
21	9.5	7.5	8.4	10.0	9.6	9.8	7.8	6.8	7.5	6.7	5.6	6.3
22	10.9	9.4	10.0	10.2	9.6	10.0	7.1	6.3	6.7	6.3	5.4	5.8
23	10.3	9.1	9.7	10.1	9.4	9.7	6.6	5.6	6.2	6.8	6.0	6.4
24	9.1	7.7	8.5	9.7	8.9	9.3	6.2	5.3	5.7	7.1	6.8	6.9
25	10.5	8.9	9.5	9.1	8.6	8.8	5.4	4.6	5.1	7.0	6.6	6.9
26	10.0	8.6	9.3	8.8	7.9	8.4	4.8	4.2	4.5	6.9	5.6	6.3
27	9.5	8.9	9.4	7.9	6.8	7.3	4.6	4.2	4.4	6.2	5.3	5.7
28	8.9	7.7	8.2	8.6	6.6	7.5	5.7	4.4	5.2	6.0	5.2	5.7
29	8.9	7.7	8.2	9.2	8.6	8.9	5.3	4.4	4.9	5.7	4.8	5.2
30	10.5	8.8	9.6	8.8	8.4	8.6	5.5	4.9	5.2	6.2	5.3	5.7
31	10.9	10.5	10.6	---	---	---	6.2	5.4	5.7	6.4	6.0	6.2
MONTH	14.8	7.5	10.5	12.3	5.8	9.3	9.5	4.2	7.3	9.5	4.8	6.6

WILLAMETTE RIVER BASIN

14211499 KELLEY CREEK AT 159TH DRIVE, AT PORTLAND, OR

LOCATION.--Lat 45°28'37", long 122°29'50", in SE 1/4 SE 1/4 sec.13, T.1 S., R.2 E., Multnomah County, Hydrologic unit 17090012, on right bank at southeast 159th Drive, 3.3 mi east of I-205, and at mouth.

DRAINAGE AREA.--4.69 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 2000 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 245 ft above NGVD of 1929, from topographic map.

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

AVERAGE DISCHARGE.--2 years (water years 2001-02), 5.88 ft³/s, 17.04 in/yr, 4,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 100 ft³/s Jan. 25, 2002, maximum gage height, 5.87 ft; no flow July 27, 2002.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 25	unknown	(a)	*5.87				
Minimum discharge, 0.00 ft ³ /s July 27.							
(a) Backwater from Johnson Creek.							

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.19	2.5	78	21	18	4.1	2.5	2.9	0.76	0.60	0.28	0.14
2	0.23	1.9	75	17	12	3.5	2.4	2.6	0.59	0.53	0.29	0.23
3	0.24	0.89	51	12	11	3.1	2.2	2.3	0.53	0.50	0.29	0.14
4	0.18	0.68	64	9.0	8.9	2.9	2.1	2.1	0.56	0.42	0.30	0.16
5	0.17	4.7	e80	11	9.4	3.1	2.3	1.9	0.54	0.41	0.25	0.18
6	0.16	1.7	36	36	23	87	2.1	1.8	0.55	0.47	0.28	0.12
7	0.18	0.81	26	85	73	27	2.2	1.7	0.54	0.39	0.27	0.14
8	0.25	0.58	16	e70	71	13	1.9	1.6	0.97	0.57	0.25	0.15
9	0.16	0.48	13	22	22	9.8	3.5	1.5	0.77	0.46	0.24	0.18
10	1.3	0.41	18	13	15	10	4.7	1.4	0.80	0.39	0.30	0.18
11	0.86	0.36	23	9.3	12	e65	4.0	1.2	0.61	0.37	0.28	0.22
12	0.32	1.8	21	9.9	9.1	e60	3.0	1.1	0.62	0.37	0.29	0.18
13	0.36	5.4	e50	7.8	7.2	35	6.0	0.98	0.50	0.38	0.32	0.09
14	0.20	8.2	e60	6.4	5.8	24	15	0.97	0.47	0.36	0.37	0.12
15	0.15	3.9	32	5.2	5.0	19	6.8	0.93	0.50	0.37	0.26	0.19
16	0.24	7.9	55	5.1	4.5	19	7.2	0.81	0.49	0.36	0.24	0.45
17	0.25	6.4	49	5.2	4.1	18	9.7	1.2	1.9	0.36	0.23	1.0
18	0.17	2.5	29	5.9	4.0	14	8.0	0.85	1.3	0.34	0.20	0.27
19	0.21	6.3	21	9.4	12	57	5.9	1.3	0.59	0.36	0.22	0.22
20	0.17	7.0	24	16	7.1	22	4.9	1.3	0.56	0.36	0.22	0.19
21	0.33	7.7	17	22	6.5	13	4.0	0.99	0.54	0.35	0.18	0.17
22	1.2	32	13	27	5.7	9.7	3.5	1.3	0.47	0.35	0.20	0.14
23	1.9	12	9.2	15	63	7.7	2.9	0.98	0.43	0.32	0.20	0.19
24	0.86	9.2	7.1	15	14	6.0	2.6	0.79	0.40	0.32	0.19	0.14
25	0.41	7.6	5.6	e100	9.4	5.0	2.4	0.72	0.40	0.31	0.20	0.17
26	0.27	5.0	4.7	47	7.1	4.4	5.0	0.65	0.43	0.33	0.19	0.21
27	1.5	3.7	5.0	38	5.8	3.8	16	0.72	0.37	0.29	0.23	0.21
28	0.88	e75	8.1	29	4.9	3.5	6.0	1.9	2.1	0.29	0.23	0.16
29	0.87	51	5.1	18	---	3.2	4.4	2.0	4.1	0.30	0.20	0.87
30	5.5	43	4.2	14	---	2.9	3.5	1.0	0.87	0.31	0.22	1.5
31	4.1	---	5.5	16	---	2.6	4.6	0.81	---	0.28	0.17	---
TOTAL	23.81	310.61	905.5	717.2	450.5	558.3	146.7	42.30	24.26	11.82	7.59	8.31
MEAN	0.768	10.35	29.21	23.14	16.09	18.01	4.890	1.365	0.809	0.381	0.245	0.277
MAX	5.5	75	80	100	73	87	16	2.9	4.1	0.60	0.37	1.5
MIN	0.15	0.36	4.2	5.1	4.0	2.6	1.9	0.65	0.37	0.28	0.17	0.09
AC-FT	47	616	1800	1420	894	1110	291	84	48	23	15	16
CFSM	0.16	2.21	6.23	4.93	3.43	3.84	1.04	0.29	0.17	0.08	0.05	0.06
IN.	0.19	2.46	7.18	5.69	3.57	4.43	1.16	0.34	0.19	0.09	0.06	0.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
MEAN	0.908	5.816	17.76	13.32	10.68	13.36	5.315	1.934	0.729	0.334	0.289	0.253
MAX	1.05	10.4	29.2	23.1	16.1	18.0	5.74	2.50	0.81	0.38	0.33	0.28
(WY)	2001	2002	2002	2002	2002	2002	2001	2001	2002	2002	2001	2002
MIN	0.77	1.28	6.30	3.50	5.27	8.71	4.89	1.36	0.65	0.29	0.24	0.23
(WY)	2002	2001	2001	2001	2001	2001	2002	2002	2002	2001	2002	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 2001 - 2002

ANNUAL TOTAL	2061.62	3206.90		
ANNUAL MEAN	5.648	8.786		5.883
HIGHEST ANNUAL MEAN				8.79
LOWEST ANNUAL MEAN				2.98
HIGHEST DAILY MEAN	80	Dec 5	100	Jan 25
LOWEST DAILY MEAN	0.08	Sep 17	0.09	Sep 13
ANNUAL SEVEN-DAY MINIMUM	0.15	Sep 16	0.15	Sep 3
ANNUAL RUNOFF (AC-FT)	4090		6360	4260
ANNUAL RUNOFF (CFSM)	1.20		1.87	1.25
ANNUAL RUNOFF (INCHES)	16.35		25.44	17.04
10 PERCENT EXCEEDS	13		23	14
50 PERCENT EXCEEDS	1.8		1.9	1.5
90 PERCENT EXCEEDS	0.19		0.20	0.20

e Estimated

14211499 KELLEY CREEK AT 159TH DRIVE, AT PORTLAND, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: January 2000 to current year.

INSTRUMENTATION.--Digital temperature recorder.

REMARKS.--Records excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 20.7°C Aug. 14, 2002; minimum, 2.2°C Dec. 12, 2000.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 20.7°C Aug. 14; minimum, 3.9°C Mar. 2.

DAY	WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002											
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.2	12.3	13.3	11.4	10.3	10.8	8.8	8.1	8.6	6.1	5.3	5.7
2	13.6	11.8	12.9	11.9	11.1	11.5	8.6	8.0	8.3	7.3	6.1	6.6
3	13.0	11.1	12.2	11.3	10.2	10.8	8.6	7.7	8.2	6.9	5.6	6.3
4	13.6	11.4	12.4	11.5	10.9	11.2	7.7	6.8	7.3	6.8	5.9	6.4
5	14.0	12.2	12.9	11.6	9.8	10.8	8.1	6.0	7.3	7.1	6.4	6.7
6	13.7	12.2	12.9	9.8	8.1	9.2	8.9	8.1	8.4	8.6	7.1	7.6
7	12.2	11.1	11.4	8.2	6.7	7.5	8.8	7.9	8.3	9.7	8.5	9.0
8	12.3	11.1	11.7	8.3	7.5	7.9	8.4	7.6	8.1	9.4	8.6	9.0
9	11.6	10.1	10.9	7.6	6.0	6.8	8.1	7.3	7.6	8.8	7.9	8.4
10	11.3	9.2	10.0	8.2	7.2	7.7	7.6	7.0	7.3	8.1	7.4	7.8
11	11.8	10.8	11.3	8.8	8.1	8.4	7.8	7.4	7.6	7.9	7.3	7.6
12	11.6	9.8	10.6	9.4	8.5	8.9	8.4	7.6	7.9	8.4	7.1	7.9
13	12.1	11.5	11.8	10.9	9.3	9.8	9.3	8.4	8.9	7.1	6.4	6.8
14	12.9	11.6	12.2	12.3	10.9	11.8	8.6	7.8	8.0	7.0	6.3	6.7
15	12.2	10.8	11.5	12.2	11.6	11.9	8.4	7.6	7.9	6.3	5.3	5.8
16	11.6	10.5	11.1	11.6	11.0	11.2	9.5	8.4	9.0	5.6	5.2	5.5
17	10.6	8.9	9.6	11.0	8.9	10.0	8.9	7.8	8.2	6.0	5.4	5.7
18	9.2	7.8	8.6	9.5	8.5	9.0	7.9	7.5	7.7	6.6	5.8	6.2
19	10.0	8.0	9.0	10.1	9.1	9.6	7.9	7.4	7.7	6.8	6.3	6.5
20	10.2	8.7	9.6	10.4	9.7	10.1	7.5	7.3	7.4	6.8	5.9	6.4
21	9.5	7.8	8.4	10.2	9.7	9.9	7.6	6.6	7.3	6.7	5.1	6.2
22	11.5	9.5	10.3	10.4	9.8	10.1	6.7	6.2	6.5	6.2	5.1	5.7
23	10.7	9.2	10.1	9.9	9.2	9.6	6.6	5.9	6.3	6.6	5.8	6.1
24	9.4	7.7	8.6	9.4	8.5	9.0	6.2	5.3	5.8	7.1	6.6	6.8
25	10.6	9.3	9.9	9.0	8.2	8.6	5.5	4.7	5.1	7.1	6.6	6.9
26	10.5	9.2	9.9	8.4	7.5	8.1	4.9	4.3	4.6	6.8	5.1	6.1
27	10.1	9.4	9.7	7.5	6.6	7.1	4.7	4.3	4.5	5.9	4.8	5.3
28	9.4	8.0	8.5	8.6	6.1	7.5	5.7	4.6	5.2	6.2	5.0	5.5
29	9.4	8.0	8.5	9.1	8.5	8.8	5.3	4.6	4.9	5.7	4.8	5.2
30	10.8	9.1	10.1	8.7	8.0	8.4	5.5	4.8	5.2	6.1	5.1	5.6
31	10.9	10.5	10.8	---	---	---	6.0	5.3	5.6	6.5	6.0	6.2
MONTH	14.2	7.7	10.7	12.3	6.0	9.4	9.5	4.3	7.1	9.7	4.8	6.6

14211500 JOHNSON CREEK AT SYCAMORE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April 1998 to current year.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 25.0°C July 28, 1998; minimum, 0.0°C Dec. 23, 24, 1998.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22.9°C July 23; minimum, 4.0°C Dec. 27.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.3	12.4	13.3	11.4	10.5	10.9	8.7	8.1	8.5	5.8	5.2	5.3
2	13.8	11.9	12.9	11.7	11.2	11.4	8.5	8.0	8.3	6.9	5.8	6.4
3	13.2	11.3	12.3	11.4	10.7	11.0	8.4	8.0	8.2	6.9	5.8	6.3
4	13.1	11.2	12.2	11.4	10.7	11.0	8.2	7.1	7.4	6.9	6.2	6.5
5	13.2	11.9	12.6	11.5	10.2	11.0	8.1	6.2	7.1	7.0	6.3	6.6
6	13.9	12.4	13.0	10.2	8.4	9.5	8.8	8.1	8.4	8.2	6.9	7.3
7	12.7	10.8	11.5	8.4	7.1	7.5	8.7	8.0	8.4	9.6	8.2	8.8
8	12.4	11.4	11.8	7.7	6.6	7.1	8.5	7.8	8.2	9.6	8.8	9.1
9	11.9	10.6	11.4	7.2	5.9	6.5	8.4	7.6	7.9	8.8	8.1	8.5
10	11.2	9.8	10.4	7.7	6.5	7.1	7.7	7.2	7.4	8.1	7.4	7.8
11	12.0	11.1	11.5	8.1	7.1	7.7	7.6	7.5	7.5	8.0	7.5	7.7
12	11.9	10.4	11.0	9.2	7.8	8.4	8.2	7.6	7.8	8.2	7.4	7.8
13	12.7	11.4	12.0	10.7	9.2	9.7	9.3	8.2	8.9	7.4	6.6	6.8
14	13.0	12.1	12.5	12.2	10.7	11.7	8.9	7.8	8.0	6.8	6.3	6.6
15	12.2	10.9	11.6	12.2	12.0	12.1	8.2	7.6	7.8	6.3	5.3	5.8
16	12.0	11.1	11.6	12.0	11.1	11.4	9.4	8.2	8.9	5.4	5.2	5.3
17	11.1	9.9	10.3	11.1	9.2	10.1	9.1	8.0	8.3	5.7	5.2	5.4
18	10.0	8.5	9.1	9.2	8.5	8.7	8.0	7.5	7.8	6.4	5.6	5.9
19	10.6	8.5	9.5	9.7	8.6	9.2	7.8	7.6	7.7	6.5	6.2	6.4
20	10.1	9.0	9.7	10.1	9.7	9.9	7.6	7.4	7.5	6.7	5.8	6.2
21	9.5	7.9	8.7	10.1	9.7	9.8	7.5	6.9	7.3	6.7	5.1	6.2
22	11.3	9.5	10.3	10.3	9.6	10.0	6.9	6.2	6.5	6.0	5.1	5.5
23	11.2	9.7	10.6	9.9	9.4	9.6	6.4	5.8	6.1	6.5	5.8	6.1
24	9.7	8.7	9.2	9.6	8.7	9.1	5.9	5.0	5.5	7.0	6.5	6.8
25	10.5	9.1	9.8	8.8	8.4	8.6	5.1	4.5	4.9	7.0	6.6	6.8
26	10.4	9.0	9.8	8.4	7.8	8.2	4.5	4.1	4.3	6.8	5.5	6.3
27	10.4	9.5	9.9	7.8	6.8	7.2	4.3	4.0	4.1	5.9	5.2	5.5
28	9.7	8.2	9.0	8.4	5.8	7.0	5.2	4.1	4.7	5.9	5.3	5.5
29	9.1	8.1	8.4	8.9	8.4	8.7	4.8	4.3	4.6	5.5	4.8	5.2
30	10.5	9.1	9.8	8.7	7.9	8.4	5.0	4.6	4.8	6.1	5.2	5.6
31	11.0	10.4	10.7	--	--	--	5.7	5.0	5.3	6.3	6.0	6.1
MONTH	14.3	7.9	10.9	12.2	5.8	9.3	9.4	4.0	7.0	9.6	4.8	6.5

14211542 CRYSTAL SPRINGS CREEK AT BYBEE STREET, PORTLAND, OR

WATER-QUALITY RECORDS

LOCATION.--Lat 45°28'27", long 122°38'27", Multnomah County, Hydrologic Unit 17090012, at Bybee Street in Portland, and at mile 1.0.

DRAINAGE AREA.--Not Determined.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1998 to current year.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 23.1°C June 13, 2002; minimum, 4.0°C Dec. 22, 1998.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 23.1°C June 13; minimum, 6.7°C Dec. 27.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	16.9	13.9	15.2	12.2	11.6	11.9	9.9	9.1	9.5	8.3	7.8	8.1
2	16.3	13.8	14.9	13.0	11.9	12.4	9.7	9.1	9.5	9.5	8.3	8.7
3	16.0	13.3	14.5	13.0	11.9	12.3	10.2	8.8	9.6	10.0	8.3	9.1
4	15.6	13.0	14.2	13.0	12.2	12.6	8.9	8.3	8.7	9.8	8.6	9.2
5	16.0	12.8	14.2	12.7	11.4	12.1	9.6	8.0	8.9	9.5	9.0	9.2
6	14.9	13.3	14.1	12.2	10.7	11.4	10.0	9.1	9.6	10.9	9.4	9.9
7	13.3	12.4	12.7	11.4	9.9	10.5	9.9	9.1	9.6	11.8	10.9	11.4
8	13.9	12.5	13.1	11.3	9.6	10.4	10.2	9.6	9.9	12.0	11.2	11.6
9	14.7	12.2	13.1	11.1	9.1	10.1	10.0	9.3	9.6	11.5	10.6	11.1
10	12.7	11.9	12.2	11.3	9.7	10.3	9.9	8.9	9.4	10.9	10.3	10.6
11	13.8	12.0	12.7	11.1	10.0	10.5	9.7	9.3	9.5	10.8	10.0	10.3
12	13.6	11.9	12.7	11.1	10.3	10.7	9.8	9.5	9.7	10.9	9.5	10.2
13	14.9	12.7	13.6	11.7	10.8	11.3	10.6	9.8	10.2	10.1	9.4	9.6
14	14.9	13.3	13.8	13.6	11.7	12.7	10.0	9.2	9.7	10.0	8.9	9.5
15	14.5	12.5	13.4	13.0	12.4	12.8	9.8	9.2	9.6	9.5	8.3	8.8
16	13.4	12.0	12.8	12.4	11.9	12.2	10.8	9.7	10.3	9.0	8.7	8.8
17	13.4	11.6	12.3	12.0	10.7	11.4	10.4	9.7	10.0	9.0	8.4	8.8
18	13.1	10.8	12.0	11.4	10.2	10.7	9.8	9.4	9.6	9.4	8.9	9.1
19	13.6	11.1	12.3	11.1	10.7	10.8	9.7	9.0	9.4	10.0	9.0	9.4
20	13.3	11.4	12.2	11.3	10.8	11.1	9.7	9.0	9.2	9.2	8.4	8.9
21	12.0	11.0	11.5	11.1	10.7	10.9	9.8	8.6	9.2	9.0	8.1	8.7
22	12.7	11.7	12.1	11.3	10.7	11.0	9.2	8.3	8.6	9.0	8.0	8.6
23	12.2	11.1	11.6	11.1	10.2	10.7	9.4	8.0	8.4	9.0	8.6	8.8
24	12.0	10.2	11.2	10.7	10.2	10.3	8.7	7.5	7.9	9.0	8.6	8.9
25	13.4	11.4	12.2	10.8	10.0	10.3	8.4	7.2	7.6	9.4	8.6	9.0
26	13.3	11.3	12.2	10.3	9.7	10.0	7.3	6.9	7.0	8.9	7.3	8.3
27	12.4	11.3	11.8	10.3	9.7	9.9	7.2	6.7	6.9	8.4	7.0	7.8
28	12.2	10.8	11.3	9.9	8.9	9.5	8.1	7.2	7.5	8.9	7.7	8.2
29	11.3	10.7	11.0	10.3	9.6	9.9	8.1	7.0	7.6	8.6	7.5	8.1
30	11.7	11.0	11.3	9.9	9.1	9.4	8.4	7.3	7.8	8.9	7.8	8.4
31	12.2	11.4	11.8	---	---	---	8.7	7.7	8.2	9.2	8.4	8.8
MONTH	16.9	10.2	12.7	13.6	8.9	11.0	10.8	6.7	9.0	12.0	7.0	9.2

WILLAMETTE RIVER BASIN

14211550 JOHNSON CREEK AT MILWAUKIE, OR

LOCATION.--Lat 45°27'11", long 122°38'31", in NE 1/4 SE 1/4 sec.26, T.1 S., R.1 E., Clackamas County, Hydrologic Unit 17090012, on the right bank upstream side of the Milport Road bridge, in the city limits of Milwaukie, and at mile 0.7.

DRAINAGE AREA.--53.17 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1989 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is NGVD of 1929, from State of Oregon.

REMARKS.--No estimated daily discharges. Records good. Small diversions for irrigation upstream from station. Significant portion of summer flow is from Crystal Springs, through Crystal Springs Creek, which enters 0.5 mi upstream from gage.

AVERAGE DISCHARGE.--13 years (water years 1990-2002), 80.0 ft³/s, 20.44 in/yr, 57,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft³/s Feb. 8, 1996, gage height 30.27 ft; maximum gage height, 34.43 ft, Feb. 9, 1996, backwater from Willamette River; minimum discharge, 10 ft³/s July 1, 3-5, 1994.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 25	1630	*782	*27.90	No other peak greater than base discharge.			
Minimum discharge, 12 ft ³ /s June 24-27, July 18, Aug. 3, 9, 15-21, 24, 25, 28, 29, 31, Sept. 1-3, 10-15, 24-26.							

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	54	334	121	155	46	31	38	16	22	13	13
2	14	56	426	155	119	41	29	34	16	20	13	13
3	14	37	348	117	110	37	28	31	15	18	13	13
4	14	30	306	89	91	34	26	27	14	18	15	13
5	13	71	503	90	90	36	29	26	14	18	15	13
6	14	46	247	197	114	337	28	26	14	17	14	13
7	14	34	236	335	284	224	27	26	14	17	14	13
8	14	27	153	439	439	126	25	23	16	27	13	13
9	15	25	135	183	195	94	39	21	24	21	13	13
10	34	23	138	124	137	94	69	21	20	17	13	13
11	33	21	174	94	116	219	49	20	17	16	13	13
12	20	33	170	95	88	403	42	19	15	15	13	13
13	20	68	332	77	74	227	53	18	14	15	13	13
14	18	106	518	66	62	186	158	18	13	15	13	13
15	16	63	249	56	56	147	91	17	13	16	13	13
16	16	92	298	52	53	145	91	17	13	15	13	17
17	20	100	350	62	46	136	111	21	20	15	13	32
18	16	59	220	56	44	116	87	18	42	15	13	18
19	15	77	178	87	93	296	66	20	19	15	13	16
20	15	92	164	114	66	196	57	26	16	15	13	14
21	16	88	143	149	58	129	50	19	15	15	13	14
22	30	210	111	196	54	98	44	19	15	15	13	13
23	45	170	87	142	272	80	40	19	14	14	13	13
24	33	109	71	123	125	67	35	17	14	14	13	13
25	21	89	61	546	89	58	32	16	13	14	13	13
26	18	68	55	341	71	52	32	16	13	14	13	13
27	33	55	53	260	59	46	128	16	13	14	13	13
28	35	328	82	206	53	42	66	25	27	14	13	13
29	26	415	57	151	---	39	51	45	84	13	13	20
30	87	262	49	122	---	35	44	23	30	13	13	46
31	87	---	59	130	---	33	---	18	---	14	13	---
TOTAL	780	2908	6307	4975	3213	3819	1658	700	583	501	409	463
MEAN	25.16	96.93	203.5	160.5	114.8	123.2	55.27	22.58	19.43	16.16	13.19	15.43
MAX	87	415	518	546	439	403	158	45	84	27	15	46
MIN	13	21	49	52	44	33	25	16	13	13	13	13
AC-FT	1550	5770	12510	9870	6370	7570	3290	1390	1160	994	811	918
CFSM	0.47	1.82	3.83	3.02	2.16	2.32	1.04	0.42	0.37	0.30	0.25	0.29
IN.	0.55	2.03	4.41	3.48	2.25	2.67	1.16	0.49	0.41	0.35	0.29	0.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	36.92	104.4	154.0	164.3	164.5	111.2	76.37	57.27	32.38	22.16	19.93	21.14	
MAX	73.2	244	411	277	386	225	137	111	49.8	36.6	31.5	39.3	
(WY)	1998	1997	1997	1997	1996	1997	1993	1998	1998	1997	1997	1997	
MIN	16.8	18.5	65.7	42.7	34.0	44.1	39.8	22.2	16.7	14.1	13.2	15.3	
(WY)	1994	1994	2001	2001	1993	1992	2000	1994	1992	1994	2002	2001	

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1990 - 2002

ANNUAL TOTAL	20123	26316	
ANNUAL MEAN	55.13	72.10	79.99
HIGHEST ANNUAL MEAN			137
LOWEST ANNUAL MEAN			38.7
HIGHEST DAILY MEAN	518	Dec 14	546
LOWEST DAILY MEAN	13	Sep 10	13
ANNUAL SEVEN-DAY MINIMUM	13	Sep 8	13
ANNUAL RUNOFF (AC-FT)	39910	52200	57950
ANNUAL RUNOFF (CFSM)	1.04	1.36	1.50
ANNUAL RUNOFF (INCHES)	14.08	18.41	20.44
10 PERCENT EXCEEDS	115	190	178
50 PERCENT EXCEEDS	33	32	40
90 PERCENT EXCEEDS	14	13	16

14211550 JOHNSON CREEK AT MILWAUKIE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1998 to current year.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 25.1°C July 10, 2002; minimum, 0.5°C Dec. 22, 1998.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 25.1°C July 10; minimum, 4.2°C Dec. 26, 27.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	18.3	14.2	16.2	12.0	11.1	11.5	9.3	8.9	9.1	6.0	5.3	5.7
2	17.6	13.8	15.7	12.8	11.6	12.1	8.9	8.7	8.8	7.1	5.7	6.5
3	17.1	13.4	15.2	12.8	11.7	12.2	8.9	8.2	8.7	6.9	6.1	6.6
4	16.4	13.1	14.8	13.1	12.1	12.6	8.2	7.6	7.9	7.3	6.3	6.8
5	16.7	13.0	14.8	12.6	10.8	11.8	8.4	6.9	7.5	7.3	6.5	7.0
6	15.9	13.9	14.8	11.1	9.6	10.5	9.3	8.4	8.9	8.9	7.3	7.7
7	13.9	12.2	12.9	9.9	8.2	9.1	9.2	8.7	8.9	10.0	8.9	9.3
8	14.6	12.8	13.6	10.0	8.2	9.1	9.0	8.7	8.8	9.9	9.2	9.6
9	15.1	12.1	13.3	9.7	7.5	8.6	8.7	8.1	8.5	9.2	8.4	9.0
10	13.2	11.1	11.9	10.2	8.1	9.2	8.1	7.8	8.0	8.4	8.0	8.3
11	13.5	11.6	12.4	10.6	9.2	9.8	8.3	7.9	8.1	8.5	7.9	8.1
12	13.7	11.4	12.5	10.6	9.7	10.0	8.7	8.1	8.3	8.7	7.6	8.2
13	14.9	12.8	13.8	11.3	9.7	10.3	9.9	8.7	9.4	7.8	7.0	7.4
14	15.4	13.4	14.2	13.1	11.3	12.4	9.6	8.1	8.6	7.5	6.4	7.0
15	14.9	12.4	13.7	13.1	12.4	12.7	8.6	7.9	8.2	6.7	5.5	6.2
16	13.9	12.1	13.0	12.4	11.6	12.1	9.8	8.6	9.3	6.2	5.8	6.0
17	13.2	11.0	12.1	11.6	9.6	10.8	9.6	8.3	8.7	6.3	5.7	6.0
18	13.2	10.2	11.6	10.2	9.1	9.6	8.3	7.8	8.1	6.9	6.2	6.5
19	14.0	10.6	12.2	10.3	9.4	9.8	8.0	7.7	7.9	7.4	6.5	6.8
20	13.5	11.1	12.3	10.7	10.1	10.4	7.7	7.6	7.7	6.8	6.2	6.5
21	11.9	10.3	11.2	10.6	10.2	10.4	7.7	6.9	7.4	6.7	5.9	6.5
22	12.9	11.5	12.1	10.9	10.2	10.5	6.9	6.3	6.6	6.0	5.3	5.8
23	12.0	10.4	11.1	10.4	9.9	10.1	6.9	5.9	6.3	6.6	6.0	6.3
24	11.4	9.2	10.3	10.0	9.2	9.6	6.2	5.1	5.7	7.3	6.6	7.0
25	13.3	10.9	12.0	9.6	8.8	9.1	5.7	4.5	5.1	7.4	6.8	7.1
26	13.4	10.8	12.1	9.1	8.5	8.8	5.1	4.2	4.6	6.9	5.7	6.5
27	12.5	10.4	11.5	8.6	7.8	8.3	4.9	4.2	4.5	5.8	5.2	5.5
28	11.1	9.6	10.2	8.7	6.7	7.5	5.5	4.6	5.0	6.2	5.4	5.7
29	10.7	9.6	10.2	9.3	8.7	9.1	5.5	4.5	4.9	5.6	5.1	5.4
30	10.8	10.2	10.5	9.1	8.6	8.9	5.8	4.8	5.3	6.2	5.4	5.7
31	11.5	10.8	11.2	--	--	--	6.3	5.3	5.7	6.8	6.1	6.4
MONTH	18.3	9.2	12.7	13.1	6.7	10.2	9.9	4.2	7.4	10.0	5.1	6.9

14211720 WILLAMETTE RIVER AT PORTLAND, OR
(National stream quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 45°31'07", long 122°40'00", in NW 1/4 NE 1/4 sec.3, T.1 S., R.1 E., Multnomah County, Hydrologic Unit 17090012, in pier at east end of drawspan, on upstream side of Morrison Bridge, in Portland, and at mile 12.8.

DRAINAGE AREA.--11,100 mi², approximately.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1975 to September 1981, November 2001 to September 2002.

WATER TEMPERATURE: November 1975 to September 1981, November 2001 to September 2002.

REMARKS.--Specific conductance and water-temperature records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily recorded, 120 microsiemens Feb. 8, 1977; minimum, 42 microsiemens Apr. 15, 16, 2002.

WATER TEMPERATURE: Maximum, 27.5°C July 29, Aug. 7, 8, 1978; minimum, 0.0°C Jan. 3-10, 1979.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 99 microsiemens Sept. 4-6; minimum, 42 microsiemens Apr. 15, 16

WATER TEMPERATURE: Maximum, 24.6°C July 18, 23, 24; minimum, 5.1°C Jan. 29, 30.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	66	62	63	76	74	74
2	---	---	---	83	78	80	65	64	65	78	75	76
3	---	---	---	80	78	79	65	64	64	79	78	79
4	---	---	---	80	77	79	67	65	66	79	76	78
5	---	---	---	79	72	75	70	67	68	76	73	75
6	---	---	---	74	72	72	71	70	71	73	73	73
7	---	---	---	74	71	73	70	66	68	74	73	74
8	---	---	---	75	73	74	67	60	63	74	65	70
9	---	---	---	76	75	76	61	59	60	65	63	64
10	---	---	---	78	76	78	64	61	63	63	62	62
11	---	---	---	80	78	79	66	64	65	63	62	63
12	---	---	---	81	79	80	69	66	68	64	63	64
13	---	---	---	83	80	81	70	69	69	65	64	65
14	---	---	---	83	80	83	70	64	66	65	64	65
15	---	---	---	84	81	83	65	58	61	65	64	65
16	---	---	---	---	---	---	58	55	57	66	65	65
17	---	---	---	---	---	---	58	57	58	69	65	67
18	---	---	---	---	---	---	58	57	57	70	69	69
19	---	---	---	---	---	---	59	57	58	71	70	70
20	---	---	---	---	---	---	60	58	59	72	70	71
21	---	---	---	---	---	---	61	60	60	72	70	71
22	---	---	---	---	---	---	62	61	62	70	63	68
23	---	---	---	---	---	---	62	62	62	63	62	62
24	---	---	---	---	---	---	63	62	62	68	63	65
25	---	---	---	---	---	---	65	63	64	68	66	68
26	---	---	---	---	---	---	68	65	66	66	61	64
27	---	---	---	67	65	66	69	67	69	61	58	59
28	---	---	---	67	66	66	71	69	70	61	58	59
29	---	---	---	67	65	66	74	71	72	66	61	63
30	---	---	---	71	65	69	75	73	74	69	66	68
31	---	---	---	---	---	---	74	72	73	73	69	72
MONTH	---	---	---	---	---	---	75	55	65	79	58	68
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	76	73	74	76	73	75	74	72	73	68	67	67
2	78	76	77	78	76	77	74	71	73	69	67	68
3	78	78	78	79	78	79	72	68	70	70	69	69
4	80	77	79	81	79	80	69	68	68	69	68	69
5	80	79	79	82	81	81	68	67	67	69	68	68
6	80	79	79	84	81	83	67	66	67	68	66	67
7	80	79	80	83	78	81	66	64	65	67	65	66
8	80	79	79	84	79	82	65	63	64	66	65	65
9	79	71	76	80	74	76	64	63	63	67	65	66
10	71	67	68	76	74	76	64	61	63	67	66	67
11	70	67	68	75	73	74	62	59	60	67	65	66
12	73	70	72	75	66	71	59	53	57	67	65	66
13	75	73	74	70	60	67	53	50	51	68	66	67
14	77	75	76	61	60	60	50	44	48	68	66	67
15	80	77	79	63	61	62	45	42	44	66	65	65
16	82	80	81	64	63	64	44	42	42	66	65	65
17	83	81	82	66	64	65	44	43	43	65	64	65
18	84	83	83	67	66	67	46	44	45	65	63	64
19	85	84	85	68	67	67	49	46	47	64	61	62
20	85	83	84	73	68	71	51	48	50	64	62	63
21	83	83	83	74	71	73	54	51	52	65	64	65
22	83	77	81	72	71	71	58	54	56	65	63	65
23	77	71	73	72	71	72	60	58	59	63	62	62
24	71	67	68	73	72	72	62	60	61	63	62	63
25	70	67	68	73	70	72	65	62	64	63	62	62
26	67	66	67	70	67	69	66	65	66	63	62	62
27	69	67	68	67	66	67	68	66	67	62	61	62
28	73	69	71	68	66	67	68	67	68	62	61	62
29	---	---	---	69	67	68	69	68	69	62	61	62
30	---	---	---	71	69	70	69	68	69	61	57	60
31	---	---	---	72	71	71	---	---	---	57	56	56
MONTH	85	66	76	84	60	72	74	42	60	70	56	65

WILLAMETTE RIVER BASIN

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	56	55	56	80	76	77	88	86	87	97	90	91
2	55	54	55	80	79	80	89	87	88	98	91	92
3	55	54	55	80	78	79	92	88	89	97	91	93
4	56	55	55	81	79	80	91	88	89	99	92	93
5	57	56	57	82	79	81	91	88	89	99	92	94
6	58	57	58	82	79	80	90	88	89	99	92	94
7	59	58	58	80	79	79	91	88	89	97	91	93
8	60	58	59	82	79	80	92	88	89	95	91	92
9	61	60	61	84	81	83	91	88	89	96	89	92
10	62	61	62	84	82	83	91	88	89	90	89	89
11	65	62	64	85	83	84	91	88	89	90	89	89
12	65	63	64	86	84	85	90	88	89	90	88	89
13	64	62	63	88	85	86	91	88	89	90	86	87
14	64	62	62	88	86	87	93	89	90	88	85	86
15	63	62	62	88	87	87	98	89	90	87	84	85
16	63	61	62	88	87	87	98	89	90	86	84	85
17	63	62	62	88	87	87	90	87	88	85	84	85
18	66	63	64	89	88	88	91	86	88	86	84	85
19	69	66	67	90	88	89	91	86	87	86	85	86
20	70	68	69	91	89	90	91	86	88	86	85	86
21	71	69	70	92	89	90	92	88	88	86	85	85
22	74	70	71	91	87	88	92	88	89	87	85	86
23	74	72	72	89	86	87	94	90	91	87	85	86
24	72	69	71	91	86	87	93	90	92	87	86	87
25	70	68	69	90	87	87	93	89	90	88	86	86
26	71	69	70	90	87	88	93	88	89	86	84	85
27	73	71	71	90	88	88	91	89	90	86	84	85
28	74	73	73	91	88	88	95	90	91	86	85	85
29	76	74	75	92	88	88	95	90	92	86	84	85
30	77	76	76	92	87	88	94	90	91	85	84	85
31	---	---	---	88	86	87	97	90	91	---	---	---
MONTH	77	54	64	92	76	85	98	86	89	99	84	88

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	8.0	7.8	7.9	6.1	5.7	5.9
2	---	---	---	11.3	10.8	11.0	8.0	7.8	7.8	6.5	6.1	6.2
3	---	---	---	11.2	10.7	10.8	8.0	7.8	8.0	6.7	6.5	6.6
4	---	---	---	11.4	11.1	11.2	7.8	7.8	7.8	6.9	6.7	6.7
5	---	---	---	11.3	11.3	11.3	7.8	7.4	7.6	6.9	6.9	6.9
6	---	---	---	11.3	11.3	11.3	7.4	7.2	7.3	6.9	6.7	6.9
7	---	---	---	11.3	11.1	11.2	7.6	7.2	7.4	7.8	6.9	7.2
8	---	---	---	11.1	11.1	11.1	7.8	7.6	7.8	8.8	7.8	8.5
9	---	---	---	11.1	10.8	11.0	7.8	7.6	7.7	9.0	8.8	8.9
10	---	---	---	11.1	10.8	10.8	7.6	7.3	7.4	8.8	8.4	8.6
11	---	---	---	10.8	10.6	10.7	7.3	6.9	7.1	8.4	8.0	8.2
12	---	---	---	10.6	10.2	10.4	7.1	6.9	6.9	8.0	7.6	7.8
13	---	---	---	10.2	9.8	10.0	7.3	6.9	7.1	7.6	7.2	7.4
14	---	---	---	10.2	9.6	9.9	7.3	7.1	7.2	7.2	7.0	7.1
15	---	---	---	9.8	8.9	9.7	7.5	7.1	7.3	7.0	6.5	6.7
16	---	---	---	---	---	---	7.1	7.1	7.1	6.5	6.2	6.3
17	---	---	---	---	---	---	7.5	7.1	7.2	6.2	5.8	6.0
18	---	---	---	---	---	---	7.5	7.3	7.5	5.8	5.6	5.7
19	---	---	---	---	---	---	7.5	7.1	7.2	5.8	5.6	5.7
20	---	---	---	---	---	---	7.1	6.9	6.9	6.0	5.8	6.0
21	---	---	---	---	---	---	6.9	6.9	6.9	6.2	6.0	6.2
22	---	---	---	---	---	---	6.9	6.8	6.9	6.0	5.8	6.0
23	---	---	---	---	---	---	6.8	6.4	6.6	6.0	5.5	5.7
24	---	---	---	---	---	---	6.4	6.1	6.2	5.6	5.5	5.6
25	---	---	---	---	---	---	6.1	5.7	5.9	6.2	5.6	6.0
26	---	---	---	---	---	---	5.7	5.4	5.5	6.3	6.2	6.3
27	---	---	---	8.6	8.4	8.5	5.4	5.2	5.3	6.3	5.8	6.0
28	---	---	---	8.4	8.0	8.2	5.4	5.2	5.4	5.8	5.3	5.5
29	---	---	---	8.0	7.6	7.8	5.5	5.4	5.4	5.3	5.1	5.2
30	---	---	---	8.0	7.4	7.7	5.7	5.5	5.5	5.3	5.1	5.2
31	---	---	---	---	---	---	5.9	5.7	5.9	5.5	5.3	5.3
MONTH	---	---	---	---	---	---	8.0	5.2	6.9	9.0	5.1	6.5

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.6	5.5	5.5	7.2	6.8	6.9	10.1	9.7	9.9	12.4	11.7	12.1
2	6.0	5.6	5.7	7.0	6.6	6.8	10.7	9.9	10.3	12.4	12.0	12.2
3	6.2	6.0	6.1	7.0	6.6	6.8	11.0	10.1	10.5	12.7	12.2	12.4
4	6.3	6.2	6.2	7.2	6.8	7.0	11.2	10.5	10.8	12.4	12.0	12.2
5	6.3	6.2	6.3	7.2	7.0	7.1	11.2	10.9	11.1	12.0	11.7	11.8
6	6.3	6.2	6.3	7.2	7.0	7.1	11.2	10.7	10.9	11.7	11.1	11.4
7	6.2	6.0	6.2	7.0	7.0	7.0	10.9	10.7	10.8	11.7	11.1	11.3
8	6.3	6.0	6.1	7.1	6.8	7.0	10.7	10.3	10.5	12.0	11.3	11.5
9	6.3	6.2	6.2	6.8	6.4	6.7	10.7	10.3	10.5	11.7	11.3	11.5
10	6.3	6.0	6.2	6.6	6.4	6.6	10.3	10.1	10.2	11.5	11.1	11.3
11	6.3	6.2	6.3	6.8	6.4	6.6	10.5	10.1	10.3	12.0	11.1	11.5
12	6.3	6.2	6.2	7.3	6.6	7.0	10.3	10.1	10.3	12.7	11.3	12.0
13	6.3	6.2	6.3	7.7	7.3	7.6	10.3	9.9	10.1	12.9	12.0	12.5
14	6.3	6.2	6.3	7.5	7.3	7.4	10.3	9.7	10	13.1	12.4	12.7
15	6.3	6.2	6.2	7.3	7.1	7.1	9.7	9.1	9.4	13.9	12.7	13.2
16	6.5	6.2	6.3	7.1	7.0	7.0	9.5	8.7	8.9	13.9	13.1	13.5
17	7.0	6.4	6.7	7.0	6.8	6.8	8.7	8.1	8.3	13.9	13.4	13.6
18	7.0	6.6	6.8	6.8	6.4	6.6	8.3	8.1	8.2	14.1	13.2	13.6
19	7.5	7.0	7.2	6.6	6.2	6.4	8.5	8.1	8.3	13.9	13.4	13.6
20	7.7	7.3	7.6	6.8	6.4	6.5	9.1	8.5	8.7	13.9	13.4	13.7
21	8.3	7.7	8.0	7.3	6.8	7.0	9.5	9.1	9.3	14.1	13.4	13.7
22	8.7	8.3	8.6	7.7	7.3	7.4	9.9	9.5	9.7	13.9	13.1	13.4
23	8.9	8.7	8.8	8.3	7.7	8.0	10.3	9.5	10	13.1	12.7	12.9
24	8.9	8.7	8.8	8.5	8.3	8.5	10.7	9.7	10.2	13.4	12.4	12.9
25	8.9	8.3	8.6	8.9	8.5	8.7	11.4	10.3	10.9	13.6	12.7	13.2
26	8.3	7.5	8.0	9.3	8.9	9.1	11.5	11.1	11.3	13.9	13.2	13.5
27	7.5	7.0	7.4	9.1	8.7	9.0	11.5	11.3	11.3	14.9	13.4	14.1
28	7.2	6.8	7.1	9.1	8.7	9.0	11.7	11.3	11.4	14.9	14.4	14.6
29	---	---	---	9.3	8.7	9.1	12.0	11.3	11.6	15.2	14.7	14.9
30	---	---	---	9.9	9.1	9.5	12.2	11.5	11.9	15.2	14.4	14.8
31	---	---	---	10.1	9.5	9.8	---	---	---	14.9	14.1	14.5
MONTH	8.9	5.5	6.9	10.1	6.2	7.5	12.2	8.1	10.2	15.2	11.1	12.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.9	14.1	14.5	20.7	19.6	20.0	23.7	22.9	23.2	21.8	21.4	21.5
2	15.5	14.4	14.7	20.4	19.7	20.1	23.3	22.5	22.9	21.8	21.1	21.3
3	15.5	14.7	15.1	20.0	19.7	19.8	22.9	22.1	22.6	21.8	21.1	21.3
4	15.7	14.9	15.4	19.7	19.4	19.5	22.5	22.1	22.3	21.8	21.1	21.4
5	16.0	15.5	15.7	19.7	19.1	19.4	22.9	22.1	22.3	21.8	21.4	21.6
6	16.0	15.7	15.9	20.1	19.1	19.6	22.5	21.8	22.1	21.4	21.1	21.3
7	16.0	15.7	15.9	20.4	19.7	20.0	22.1	21.8	21.9	21.1	20.7	21.0
8	16.0	15.7	15.8	20.7	19.7	20.0	22.1	21.4	21.8	20.7	20.4	20.7
9	16.3	15.7	15.8	21.1	20.0	20.5	22.2	21.4	21.8	20.7	20.4	20.5
10	16.5	15.6	15.8	21.8	20.4	20.8	21.8	21.4	21.6	20.7	20.4	20.5
11	15.9	15.6	15.8	21.9	20.8	21.3	21.8	21.1	21.4	20.4	20.0	20.2
12	16.5	15.6	16.0	22.3	21.2	21.7	21.8	21.1	21.3	20.4	19.7	20.0
13	17.1	15.9	16.4	23.0	21.9	22.5	22.2	21.1	21.5	19.7	19.4	19.6
14	17.9	16.5	17.1	22.6	22.2	22.4	22.5	21.4	21.8	19.7	19.1	19.3
15	17.9	17.3	17.7	23.0	22.2	22.5	22.9	21.8	22.2	19.4	19.1	19.1
16	18.2	17.9	18.1	23.8	22.6	23.0	22.9	22.1	22.3	19.1	18.8	19.1
17	18.2	17.9	18.0	24.2	23.0	23.3	23.3	22.1	22.7	19.4	19.1	19.1
18	18.2	17.6	17.9	24.6	23.4	23.7	22.9	22.5	22.6	19.4	19.1	19.3
19	17.9	17.6	17.7	24.2	23.8	23.8	23.3	22.5	22.7	19.7	19.1	19.4
20	17.6	17.0	17.2	24.2	23.4	23.9	22.9	22.5	22.7	19.4	19.1	19.2
21	17.6	17.0	17.1	23.8	23.4	23.5	22.5	22.5	22.5	19.1	18.4	18.6
22	17.7	17.1	17.3	24.2	23.0	23.5	22.5	22.1	22.5	18.4	17.8	18.2
23	18.0	16.8	17.4	24.6	23.4	23.9	22.5	22.1	22.2	17.8	17.5	17.7
24	18.3	17.4	17.6	24.6	23.4	23.9	22.5	21.8	22.1	18.1	17.5	17.6
25	19.3	18.0	18.5	24.2	23.4	23.9	21.8	21.4	21.8	18.1	17.5	17.6
26	20.3	19.0	19.6	24.2	23.4	23.9	21.8	21.4	21.4	18.1	17.5	17.8
27	20.0	19.6	19.8	23.8	23.4	23.5	21.8	21.1	21.3	18.1	17.8	17.8
28	19.6	19.6	19.6	24.2	23.4	23.6	21.8	20.7	21.1	17.8	17.5	17.7
29	19.9	19.6	19.7	24.1	23.3	23.6	21.4	20.7	21.0	17.8	17.5	17.7
30	19.6	19.3	19.5	23.7	23.3	23.4	21.4	20.7	21.0	17.8	17.5	17.5
31	---	---	---	23.7	23.3	23.4	21.8	21.1	21.3	---	---	---
MONTH	20.3	14.1	17.1	24.6	19.1	22.2	23.7	20.7	22.0	21.8	17.5	19.5

14211814 FAIRVIEW CREEK AT GLISAN STREET, NEAR GRESHAM, OR

LOCATION.--Lat 45°31'40", long 122°26'51", in Land Grant parcel number 58, T.1 N., R.3 E., Multnomah County, Hydrologic Unit 17090012, on right bank at upstream side of culvert on Glisan St., 0.4 mi east of the intersection of 202nd Ave. and Glisan St., 1.7 mi northwest of Gresham City Hall, and at mile 3.05.

DRAINAGE AREA.--4.94 mi².

PERIOD OF RECORD.--May 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 205 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. No regulation or diversion. High flows affected to an unknown degree by two small ponds just upstream from station.

AVERAGE DISCHARGE.--10 years (water years 1993-2002), 5.71 ft³/s, 15.71 in/yr, 4,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft³/s Nov. 19, 1996, gage height, 6.18 ft, but may have been greater during period of missing record Feb. 7, 1996; maximum gage height, 6.34 ft Nov. 1, 1994; minimum discharge, 0.24 ft³/s Sept. 15, 1995.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 29	0030	42	5.47	Dec. 17	0130	31	5.22
Dec. 1	2330	*43	5.48	Jan. 8	0400	39	5.39
Dec. 13	2230	40	5.42	Jan. 25	1300	*43	*5.49

Minimum discharge, 0.27 ft³/s Oct. 4-6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.41	7.4	29	14	8.2	3.8	3.0	2.8	2.0	2.4	0.92	0.63
2	0.38	6.5	32	19	6.4	3.2	3.0	2.6	1.8	1.8	0.89	0.63
3	0.35	2.9	27	14	6.0	3.2	2.9	2.6	1.6	1.6	0.87	0.59
4	0.31	1.5	21	12	5.9	3.0	2.8	2.5	1.6	1.6	0.85	0.57
5	0.27	5.7	28	10	5.3	3.1	3.0	2.2	1.6	1.6	0.81	0.55
6	0.28	5.3	18	18	6.9	18	3.2	2.2	1.5	1.5	0.81	0.52
7	0.29	2.1	19	26	16	13	3.2	2.6	1.5	1.4	0.81	0.50
8	0.30	1.2	13	31	20	6.7	3.0	2.4	1.7	2.0	0.81	0.50
9	0.31	0.86	13	18	10	5.1	3.6	2.3	2.9	2.0	0.81	0.50
10	0.56	0.71	13	14	7.3	5.7	9.1	1.9	2.3	1.5	0.81	0.50
11	2.0	0.67	17	12	7.9	11	6.5	1.9	2.0	1.3	0.80	0.48
12	1.4	0.93	15	13	6.0	17	4.2	2.0	1.6	1.2	0.78	0.48
13	1.2	6.0	22	14	5.0	11	4.9	1.8	1.5	1.3	0.78	0.50
14	0.89	13	30	11	4.7	8.8	11	2.0	1.4	1.3	0.78	0.50
15	0.66	7.2	19	9.4	4.3	6.7	5.9	2.0	1.4	1.3	0.78	0.50
16	0.54	8.3	24	8.5	4.0	7.0	5.7	2.0	1.4	1.2	0.78	0.52
17	0.55	9.5	26	11	4.0	8.2	9.0	2.6	1.9	1.2	0.71	1.2
18	0.57	4.2	19	9.9	3.9	6.9	8.3	2.5	6.3	1.2	0.72	1.3
19	0.51	4.6	18	13	7.0	11	4.8	2.5	3.2	1.2	0.69	0.96
20	0.47	10	16	14	6.4	8.6	3.9	3.1	1.9	1.2	0.67	0.75
21	0.44	9.5	16	16	4.8	5.8	3.3	2.8	1.6	1.2	0.63	0.64
22	0.57	16	13	19	4.2	4.9	3.2	2.3	1.5	1.1	0.63	0.54
23	1.5	12	12	14	14	4.4	3.0	2.3	1.4	1.1	0.65	0.50
24	2.3	6.7	9.8	12	9.0	4.2	2.7	2.1	1.4	1.1	0.67	0.50
25	1.3	5.8	8.2	32	5.4	4.2	2.6	2.0	1.4	1.1	0.68	0.48
26	0.79	3.9	7.7	24	4.4	3.9	2.7	1.9	1.4	1.1	0.68	0.49
27	0.79	2.2	7.5	17	4.0	3.6	11	1.8	1.4	1.0	0.65	0.53
28	2.1	20	13	12	4.0	3.3	6.1	2.8	1.9	0.97	0.65	0.57
29	1.5	30	11	8.4	---	3.2	3.6	7.5	12	0.97	0.65	0.95
30	7.0	23	8.5	6.7	---	3.2	3.1	3.9	5.0	0.93	0.65	4.3
31	13	---	9.0	6.3	---	3.1	---	2.4	---	0.93	0.64	---
TOTAL	43.54	227.67	534.7	459.2	195.0	204.8	142.3	78.3	70.1	41.30	23.06	22.18
MEAN	1.40	7.59	17.2	14.8	6.96	6.61	4.74	2.53	2.34	1.33	0.74	0.74
MAX	13	30	32	32	20	18	11	7.5	12	2.4	0.92	4.3
MIN	0.27	0.67	7.5	6.3	3.9	3.0	2.6	1.8	1.4	0.93	0.63	0.48
AC-FT	86	452	1060	911	387	406	282	155	139	82	46	44
CFSM	0.28	1.54	3.49	3.00	1.41	1.34	0.96	0.51	0.47	0.27	0.15	0.15
IN.	0.33	1.71	4.03	3.46	1.47	1.54	1.07	0.59	0.53	0.31	0.17	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2002, BY WATER YEAR (WY)

	3.05	6.69	9.79	10.5	9.85	8.73	6.01	5.18	3.78	2.19	1.48	1.51
MEAN	3.05	6.69	9.79	10.5	9.85	8.73	6.01	5.18	3.78	2.19	1.48	1.51
MAX	6.77	11.8	20.2	16.8	19.2	17.7	8.81	8.55	6.14	4.76	3.67	3.16
(WY)	1998	1997	1997	1997	1999	1999	1999	1996	1999	1997	1997	1996
MIN	1.18	1.42	4.39	2.13	2.54	4.74	3.42	2.47	1.33	0.47	0.53	0.44
(WY)	1994	1994	1994	2001	1993	1993	2001	1994	2001	2001	1994	2001

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1993 - 2002

ANNUAL TOTAL	1372.86	2042.15	
ANNUAL MEAN	3.76	5.59	5.71
HIGHEST ANNUAL MEAN			9.11
LOWEST ANNUAL MEAN			2.55
HIGHEST DAILY MEAN	32	Dec 2	71
LOWEST DAILY MEAN	0.26	Sep 12	0.26
ANNUAL SEVEN-DAY MINIMUM	0.27	Sep 8	0.27
ANNUAL RUNOFF (AC-FT)	2720		4140
ANNUAL RUNOFF (CFSM)	0.76		1.16
ANNUAL RUNOFF (INCHES)	10.34		15.71
10 PERCENT EXCEEDS	12		13
50 PERCENT EXCEEDS	1.3		3.6
90 PERCENT EXCEEDS	0.31		0.87

14211820 COLUMBIA SLOUGH AT PORTLAND, OR

LOCATION.--Lat 45°38'21", long 122°45'43", in NE 1/4 SE 1/4 sec.23, T.2 N., R.1 W., Multnomah County, Hydrologic Unit 17090012, on right bank, 0.25 mi upstream from mouth, and 1.25 mi upstream from confluence of Willamette and Columbia Rivers.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Acoustic velocity meter with water-stage and velocity-index recorder. Datum of gage is 1.53 ft above NGVD of 1929.

REMARKS.--Records poor. Flows affected by tide which can cause reverse direction during tidal cycle. Mean discharge values are based on a 24 hour day, not a tidal cycle.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,400 ft³/s Dec. 5, 1995, but may have been greater Dec. 2-4, 1995, Feb. 10-14, 1996; maximum gage height, 27.26 ft Feb. 9, 1996; minimum daily discharge, -6,700 ft³/s Feb. 7, 1996, but may have been less Nov. 29 to Dec. 3, 1995, Feb. 8, 9, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 311 ft³/s Feb. 10; maximum gage height, 13.20 ft Apr. 18; minimum daily discharge, -362 ft³/s Apr. 16, but may have been lower during period of missing record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	91	---	48	188	127	-4.1	29	---	-43	103	---
2	20	112	---	28	203	186	49	142	---	164	---	116
3	56	---	---	221	296	150	216	48	---	136	---	---
4	---	---	---	199	178	91	144	123	---	45	134	---
5	---	114	---	156	100	132	143	-50	-177	158	15	43
6	---	41	---	185	157	219	125	---	-118	170	-3.2	-67
7	---	116	---	101	162	135	20	---	58	155	84	-41
8	---	85	---	149	50	144	-43	---	-90	47	0.49	42
9	96	81	---	93	93	103	41	---	---	---	-34	-38
10	---	98	---	87	311	17	-72	---	---	---	101	-27
11	---	88	---	295	174	131	-89	---	-98	-54	-13	-34
12	164	19	---	199	56	-21	4.3	51	110	157	---	126
13	140	51	-17	123	200	-56	-75	---	---	10	---	146
14	---	-21	6.9	175	54	187	-235	---	---	-22	56	63
15	---	49	125	181	162	143	-50	24	---	-54	132	144
16	---	47	100	-95	202	129	-362	77	---	62	154	87
17	---	117	247	189	161	273	-314	66	---	119	195	-67
18	---	97	126	198	117	175	-59	7.5	125	-12	---	---
19	---	102	193	230	89	100	114	129	-109	181	38	---
20	---	56	300	108	172	176	257	---	-69	90	7.9	---
21	---	161	108	2.2	85	165	---	-82	-22	-104	35	---
22	---	95	292	104	113	164	---	-131	84	-62	---	---
23	---	202	242	12	226	154	---	-26	185	---	37	-69
24	---	95	273	70	101	97	66	-31	---	23	23	81
25	125	183	194	304	67	66	84	---	---	63	139	75
26	72	140	114	12	28	42	31	35	---	135	69	9.5
27	52	25	68	246	95	13	25	56	---	60	23	57
28	95	18	54	85	98	46	174	-123	---	96	24	128
29	43	5.1	63	63	---	72	86	-144	-172	28	---	---
30	89	222	62	185	---	130	---	40	-79	-59	---	---
31	121	---	58	127	---	80	---	24	---	135	---	---
TOTAL	---	---	---	4080.2	3938	3570	---	---	---	---	---	---
MEAN	---	---	---	132	141	115	---	---	---	---	---	---
MAX	---	---	---	304	311	273	---	---	---	---	---	---
MIN	---	---	---	-95	28	-56	---	---	---	---	---	---
AC-FT	---	---	---	8090	7810	7080	---	---	---	---	---	---

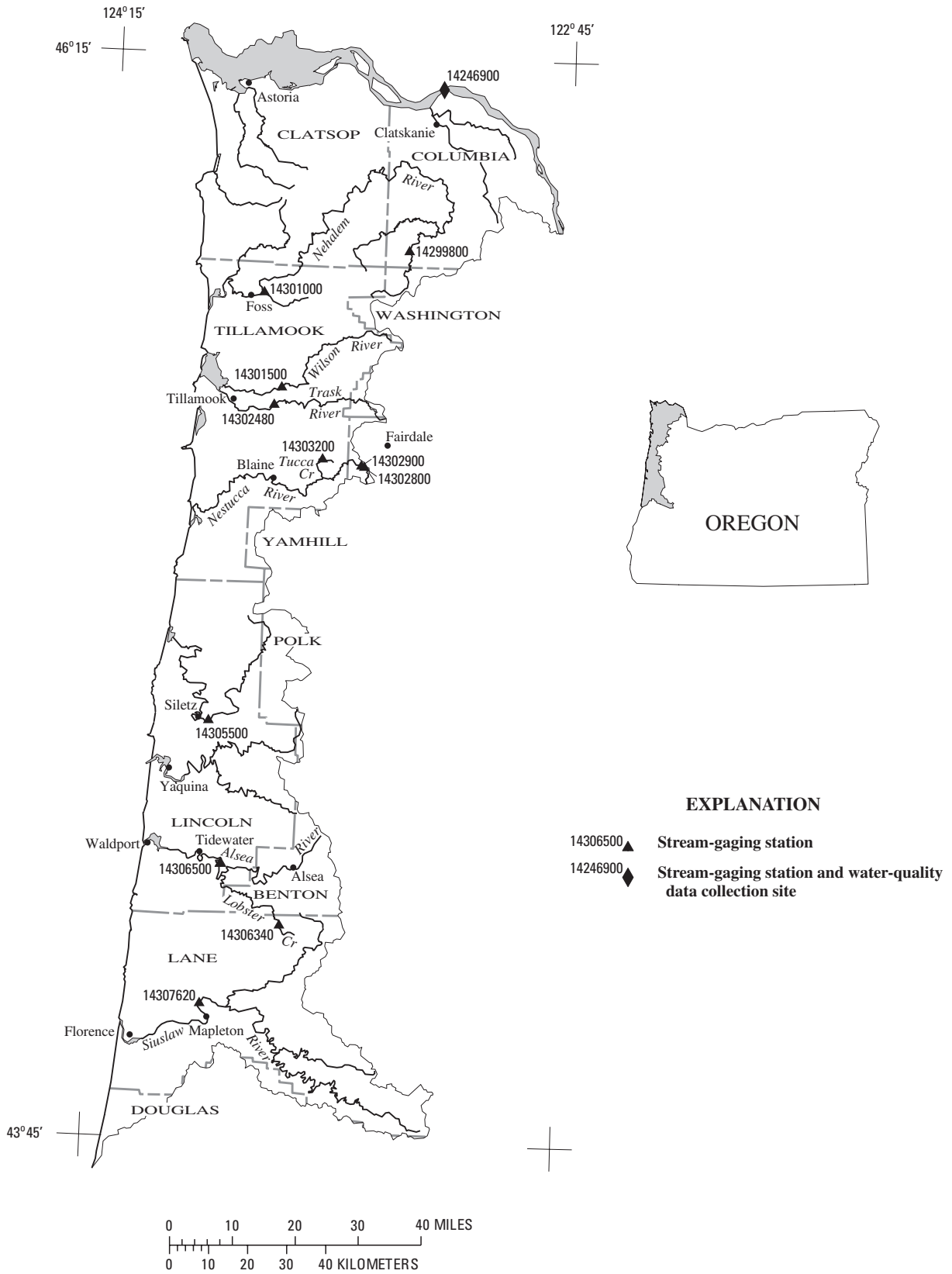


Figure 28. Location of surface-water and water-quality stations in the Oregon Coastal Drainages north of the Siuslaw River Basin and in the lower Columbia River.

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1967 to September 1970, October 1993 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1993 to current year.
WATER TEMPERATURE: August 1967 to September 1970. October 1993 to current year.
TURBIDITY: February 2001 to current year.

INSTRUMENTATION.--Temperature recorder August 1967 to September 1970. Water-quality monitor.

REMARKS.--Specific conductance, water temperature and turbidity records good. The probe was checked using a formazin standard. Since February, 1994, specific conductance and temperature sensors located near right bank. Prior to that time, sensors were located near left bank. It was determined that daily record collected prior to February 1994 is not representative of the cross section due to a seasonal influence from several upstream sloughs. Additional specific conductance and temperature data for the period October 1992 to September 1993 available in the files of the Portland field office. Boron values less than 16 UG/L have been designated as estimated due to a change in the minimum reporting level effective December 22, 1997.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 188 microsiemens Feb. 5, 1994, but may have been higher during periods of missing record; minimum recorded, 73 microsiemens Feb. 9, 1996, but may have been lower during periods of missing record.
WATER TEMPERATURE: Maximum, 24.0°C July 28, 1998; minimum, 0.0°C Jan. 31, Feb. 1, 1969.
TURBIDITY: Maximum, >130 NTU Dec. 17, 18, 2001, Jan. 8, 9, Apr. 15, 2002; minimum, <1 NTU Mar. 2, 2001.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 173 microsiemens Apr. 3; minimum recorded, 87 microsiemens Dec. 17.
WATER TEMPERATURE: Maximum, 21.8°C Aug. 14-17; minimum, 5.0°C Feb. 15.
TURBIDITY: Maximum, >130 NTU Dec. 17, 18, Jan. 8, 9, Apr. 15; minimum, 1 NTU many days October and August.

WATER-QUALITY DATA

Date	Time	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	TURBIDITY YSI-6920 (NTU) (00076)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, CENT SATUR-ATION (00301)	PH WATER (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 2001													
30...	1020	111000	3.6	--	754	--	--	7.8	150	12.9	--	--	--
NOV													
27...	1310	215000	11	11	772	--	--	7.8	122	9.0	43	11.1	3.58
DEC													
04...	1020	293000	25	--	--	--	--	7.7	112	8.0	--	--	--
18...	1140	364000	68	39	754	--	--	7.5	89	7.2	32	8.32	2.62
JAN 2002													
10...	1000	348000	65	--	--	--	--	7.5	108	7.2	--	--	--
16...	1210	250000	16	9.4	--	--	--	7.7	119	5.9	46	12.3	3.80
FEB													
14...	1340	218000	12	9.8	767	13.1	102	8.0	145	5.2	55	14.5	4.58
MAR													
12...	1230	222000	24	23	759	13.7	111	7.8	137	6.2	50	13.1	4.16
APR													
09...	1140	203000	7.0	--	757	--	--	8.3	142	8.8	--	--	--
15...	1340	375000	60	--	757	11.5	102	8.0	144	9.5	--	--	--
19...	1020	439000	--	--	769	12.4	107	8.0	158	9.5	--	--	--
MAY													
16...	1340	244000	6.0	6.1	764	11.8	110	8.1	124	12.2	50	13.5	4.00
JUN													
10...	1140	E380000	11	--	765	11.7	114	7.7	102	14.7	--	--	--
JUL													
16...	1220	242000	10	7.1	763	9.8	107	7.8	107	19.2	44	12.2	3.32
AUG													
13...	1050	151000	4.3	--	764	7.8	85	7.6	120	19.2	--	--	--
SEP													
10...	1150	90200	1.4	4.0	764	8.6	94	7.7	129	19.7	50	13.7	3.91

Date	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM PERCENT (00932)	ALKA-LINITY WAT DIS TOT IT FIELD (39086)	BICAR-BONATE WATER DIS IT (00453)	CAR-BONATE WATER DIS IT (00452)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT 2001													
30...	--	--	--	--	51	62	0	--	--	--	--	--	--
NOV													
27...	1.05	.4	5.85	22	44	53	0	3.96	E.1	11.0	8.2	.10	76
DEC													
04...	--	--	--	--	40	49	0	--	--	--	--	--	--
18...	.94	.3	4.23	22	30	36	0	3.35	E.1	11.2	6.0	.08	60
JAN 2002													
10...	--	--	--	--	39	47	0	--	--	--	--	--	--
16...	1.00	.4	5.62	20	44	54	0	3.72	.1	11.5	8.1	.10	74
FEB													
14...	1.12	.4	6.59	20	54	66	0	4.18	.1	11.0	10.9	.11	84
MAR													
12...	1.10	.4	6.27	21	49	60	0	3.86	E.1	11.2	10.1	.12	90
APR													
09...	--	--	--	--	54	66	0	--	--	--	--	--	--
15...	--	--	--	--	52	64	0	--	--	--	--	--	--
19...	--	--	--	--	59	72	0	--	--	--	--	--	--
MAY													
16...	1.05	.3	4.93	17	49	59	0	2.54	E.09	11.6	8.2	.10	75
JUN													
10...	--	--	--	--	40	48	0	--	--	--	--	--	--
JUL													
16...	.70	.2	3.26	14	43	52	0	2.26	E.06	7.99	6.0	.07	54
AUG													
13...	--	--	--	--	48	58	0	--	--	--	--	--	--
SEP													
10...	1.01	.3	5.55	19	48	58	0	3.88	.11	8.68	8.3	.11	77

E Estimated.

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL NEAR QUINCY, OR--Continued

WATER-QUALITY DATA

Date	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L) AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L) AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L) AS P) (00671)	PHOS- PHORUS TOTAL (MG/L) AS P) (00665)	PHOS- PHORUS SEDIMENT SUSP. PERCENT (30292)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L) AS C) (00694)	CARBON, INORGANIC, PARTIC. TOTAL (MG/L) AS C) (00688)	CARBON, ORGANIC DIS- SOLVED (MG/L) AS C) (00681)
OCT 2001													
30...	--	--	--	--	--	--	--	--	--	--	.2	<.1	2.4
NOV													
27...	73	.021	.15	.18	.397	.004	.024	.020	.050	.150	.3	<.1	2.1
DEC													
04...	--	--	--	--	--	--	--	--	--	--	.7	<.1	1.8
18...	57	E.013	E.09	.23	.556	.003	.019	.012	.128	--	.8	<.1	2.1
JAN 2002													
10...	--	--	--	--	--	--	--	--	--	--	.4	<.1	1.6
16...	75	.017	E.09	.17	.388	E.002	.019	.016	.046	--	.3	<.1	1.9
FEB													
14...	88	E.014	E.07	.16	.458	E.002	.019	.016	.043	.120	.3	<.1	1.5
MAR													
12...	82	.033	.14	.21	.450	.005	.016	.012	.071	--	.6	<.1	1.8
APR													
09...	--	--	--	--	--	--	--	--	--	--	.7	<.1	1.5
15...	--	--	--	--	--	--	--	--	--	--	.9	<.1	1.9
19...	--	--	--	--	--	--	--	--	--	--	1.2	<.1	1.8
MAY													
16...	76	<.015	E.10	.17	.196	E.002	.009	E.004	.043	.140	.5	<.1	2.0
JUN													
10...	--	--	--	--	--	--	--	--	--	--	.7	<.1	2.8
JUL													
16...	62	<.015	E.08	.17	.030	E.002	.009	<.007	.018	--	1.0	<.1	2.1
AUG													
13...	--	--	--	--	--	--	--	--	--	--	.5	<.1	2.4
SEP													
10...	75	E.010	E.09	.14	.097	.003	.017	.012	.017	.130	.4	<.1	2.6
Date	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L) AS C) (00689)	CARBON SED. SUSP. PERCENT (30244)	CARBON, ORGANIC SUS- PENDED, TOTAL (UG/L) AS AL) (50465)	ALUM- INUM, DIS- SOLVED (UG/L) AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L) AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L) AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L) AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L) AS BE) (01010)	BORON, DIS- SOLVED (UG/L) AS B) (01020)	CADMIUM DIS- SOLVED (UG/L) AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L) AS CR) (01030)	COBALT, DIS- SOLVED (UG/L) AS CO) (01035)	COPPER, DIS- SOLVED (UG/L) AS CU) (01040)
OCT 2001													
30...	.2	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
27...	.3	2.8	2.7	8	.11	.7	12	<.06	15	<.04	<.8	.04	1.0
DEC													
04...	.7	--	--	--	--	--	--	--	--	--	--	--	--
18...	.8	--	--	--	--	.3	--	--	16	--	--	--	--
JAN 2002													
10...	.4	--	--	--	--	--	--	--	--	--	--	--	--
16...	.3	--	--	--	--	.6	--	--	14	--	--	--	--
FEB													
14...	.2	2.3	2.3	4	.12	.7	17	<.06	13	E.02	<.8	.06	1.5
MAR													
12...	.6	--	--	--	--	.7	--	--	16	--	--	--	--
APR													
09...	.6	--	--	--	--	--	--	--	--	--	--	--	--
15...	.9	--	--	--	--	--	--	--	--	--	--	--	--
19...	1.2	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
16...	.5	2.6	2.5	4	.18	.7	18	<.06	9	<.04	<.8	.05	.9
JUN													
10...	.7	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	1.0	--	--	--	--	.6	--	--	8	--	--	--	--
AUG													
13...	.5	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
10...	.4	--	3.1	3	.08	.8	20	<.06	12	<.04	<.8	.04	1.0
Date	IRON, DIS- SOLVED (UG/L) AS FE) (01046)	LEAD, DIS- SOLVED (UG/L) AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L) AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L) AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L) AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L) AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L) AS SE) (01145)	SILVER, DIS- SOLVED (UG/L) AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L) AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L) AS V) (01085)	ZINC, DIS- SOLVED (UG/L) AS ZN) (01090)	ALUM- INUM SED,SUS PERCENT (30221)	AN- TIMONY SED. SUSP. (UG/G) (29816)
OCT 2001													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
27...	17	.09	2.4	1.6	.6	.46	<.3	<1	69.6	1.6	1	8.5	.9
DEC													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	20	--	1.8	--	--	--	<.3	--	50.7	1.4	--	--	--
JAN 2002													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	12	--	2.5	--	--	--	<.3	--	68.5	1.9	--	--	--
FEB													
14...	13	<.08	2.9	3.7	.7	.38	<.3	<1	81.6	1.9	3	8.3	.8
MAR													
12...	18	--	3.1	--	--	--	<.3	--	73.7	1.4	--	--	--
APR													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
16...	11	<.08	2.1	1.1	.6	.79	<.3	<1	71.1	2.3	2	7.5	.7
JUN													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	E8	--	1.4	--	--	--	<.3	--	59.2	1.8	--	--	--
AUG													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
10...	E6	E.06	1.9	.4	.7	.87	<.3	<1	71.9	2.2	2	7.3	.8

E Estimated.
< Actual value is known to be less than the value shown.

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL NEAR QUINCY, OR--Continued

WATER-QUALITY DATA

Date	ARSENIC SED. SUSP. (UG/G) (29818)	BARIUM SED. SUSP. (UG/G) (29820)	BERYL- LIUM SED. SUSP. (UG/G) (29822)	CADMIUM SED. SUSP. (UG/G) (29826)	CHRO- MIUM SED. SUSP. (UG/G) (29829)	COBALT SEDI- MENT SUSP. (UG/G) (35031)	COPPER SED. SUSP. (UG/G) (29832)	IRON SEDI- MENT SUSP. PERCENT (30269)	LEAD SED. SUSP. (UG/G) (29836)	LITHIUM SEDI- MENT SUSP. (UG/G) (35050)	MAN- GANESE SED. SUSP. (UG/G) (29839)	MERCURY SED. SUSP. (UG/G) (29841)	MOLYB- DENUM SED. SUSP. (UG/G) (29843)
OCT 2001													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
27...	10	510	1	.5	62	18	69	4.9	24	26	1400	.21	2
DEC													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 2002													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
14...	7.0	440	1	.7	51	17	150	4.3	19	26	1200	.11	2
MAR													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
16...	4.8	470	1	.7	51	15	37	3.5	16	23	1200	.06	2
JUN													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
10...	7.0	530	2	.5	59	17	48	3.9	20	22	1500	--	2

Date	NICKEL SED. SUSP. (UG/G) (29845)	SELE- NIUM SED. SUSP. (UG/G) (29847)	SILVER SED. SUSP. (UG/G) (29850)	STRON- TIUM SEDI- MENT SUSP. (UG/G) (35040)	TITA- NIUM SEDI- MENT SUSP. PERCENT (30317)	VANA- DIUM SED. SUSP. (UG/G) (29853)	ZINC SED. SUSP. (UG/G) (29855)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER, FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS- SOLVED REC, (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82673)
OCT 2001													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
27...	39	M	M	270	.560	140	170	<.002	<.004	<.002	<.005	E.006	<.010
DEC													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	<.002	<.004	<.002	<.005	.047	<.010
JAN 2002													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	.015	<.010
FEB													
14...	33	M	<.5	320	.490	110	140	<.006	<.006	<.004	<.005	.065	<.010
MAR													
12...	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	.018	<.010
APR													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
16...	29	M	<.5	380	.420	94	130	<.006	<.006	<.004	<.005	E.005	<.010
JUN													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	<.007	<.010
AUG													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
10...	37	1	<.5	320	.480	110	160	<.006	<.006	<.004	<.005	<.007	<.010

Date	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED REC (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED REC (UG/L) (39572)	DI- ELDRIN DIS- SOLVED REC (UG/L) (39381)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)
OCT 2001													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
27...	<.002	E.004	E.009	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009	<.005
DEC													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.002	<.041	<.020	<.005	<.018	<.003	E.004	<.005	<.005	<.02	<.002	<.009	<.005
JAN 2002													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.002	<.041	<.020	<.005	<.018	<.003	E.003	<.005	<.005	<.02	<.002	<.009	<.005
FEB													
14...	<.002	<.041	<.020	<.005	<.018	<.003	E.006	<.005	<.005	<.02	<.002	<.009	<.005
MAR													
12...	<.002	<.041	<.020	<.005	<.018	<.003	E.003	<.005	<.005	<.02	<.002	<.009	<.005
APR													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
16...	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	E.001	<.009	<.005
JUN													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009	<.005
AUG													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
10...	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009	<.005

E Estimated.
 < Actual value is known to be less than the value shown.
 M Presence verified, not quantified.

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL NEAR QUINCY, OR--Continued

WATER-QUALITY DATA

Date	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P, P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE FILTRED 0.7 U GF, REC (UG/L) (82669)
OCT 2001													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
27...	<.003	<.004	<.035	<.027	<.050	<.006	E.004	<.006	<.002	<.007	<.003	<.007	<.002
DEC													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.003	<.004	<.035	<.027	<.050	<.006	E.005	.017	<.002	<.007	<.003	<.007	<.002
JAN 2002													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
FEB													
14...	<.003	<.004	<.035	<.027	<.050	<.006	E.007	.008	<.002	<.007	<.003	<.010	<.004
MAR													
12...	<.003	<.004	<.035	<.027	<.050	<.006	E.004	E.005	<.002	E.006	<.003	<.010	<.004
APR													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
16...	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
JUN													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
AUG													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
10...	<.003	<.004	<.035	<.027	<.050	<.006	E.004	<.006	<.002	<.007	<.003	<.010	<.004

Date	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
OCT 2001													
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
27...	<.010	<.006	<.011	<.01	<.004	<.010	<.011	<.02	E.003	<.02	<.034	<.02	<.005
DEC													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.010	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.018	<.02	<.034	<.02	<.005
JAN 2002													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
FEB													
14...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.008	<.02	<.034	<.02	<.005
MAR													
12...	<.022	<.006	<.011	<.01	.005	<.010	<.011	<.02	.014	<.02	<.034	<.02	<.005
APR													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
16...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
JUN													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
16...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
AUG													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
10...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005

Date	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	URANIUM NATURAL DIS- SOLVED AS U (UG/L) (22703)	URANIUM MENT SUSP. (UG/G) (35046)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 2001						
30...	--	--	--	--	91	5.0 1500
NOV						
27...	<.002	<.009	.43	<50	95	13 7550
DEC						
04...	--	--	--	--	72	32 25300
18...	<.002	<.009	--	--	83	105 103000
JAN 2002						
10...	--	--	--	--	97	205 193000
16...	<.002	<.009	--	--	72	25 16900
FEB						
14...	<.002	<.009	.67	<50	78	17 10000
MAR						
12...	<.002	<.009	--	--	96	37 22200
APR						
09...	--	--	--	--	86	13 7130
15...	--	--	--	--	81	128 130000
19...	--	--	--	--	58	65 77000
MAY						
16...	<.002	<.009	.53	<50	49	19 12500
JUN						
10...	--	--	--	--	61	33 E33900
JUL						
16...	<.002	<.009	--	--	84	15 9800
AUG						
13...	--	--	--	--	90	9.0 3670
SEP						
10...	<.002	<.009	.40	<50	72	12 2920

E Estimated.
< Actual value is known to be less than the value shown.

COLUMBIA RIVER MAIN STEM

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	152	145	149	153	146	149	125	105	118	143	138	141
2	148	145	146	151	142	146	116	100	110	144	139	141
3	149	146	148	145	140	142	114	101	109	143	139	141
4	150	146	148	144	138	141	117	106	111	144	138	141
5	150	148	149	140	135	138	115	107	111	152	141	144
6	155	149	151	141	135	138	120	110	114	144	140	143
7	153	150	152	143	139	141	120	112	116	148	128	141
8	156	149	153	151	142	146	120	115	117	132	118	125
9	156	149	152	154	146	149	122	116	119	120	113	117
10	158	150	153	153	146	150	121	112	118	117	111	113
11	152	148	150	158	151	154	120	113	117	115	110	113
12	157	150	154	154	149	151	125	116	121	117	109	114
13	160	153	156	155	146	149	129	117	124	118	109	112
14	161	148	156	153	134	146	120	107	113	124	109	117
15	152	147	148	142	129	136	123	104	111	125	114	121
16	152	146	149	137	125	133	107	92	102	125	118	122
17	151	146	148	139	131	135	96	87	91	138	124	129
18	157	150	153	141	133	137	97	89	93	138	133	135
19	151	148	149	143	135	140	106	96	100	139	133	135
20	157	150	154	143	136	140	109	103	105	139	131	135
21	156	149	152	143	137	140	118	103	108	135	123	129
22	154	146	150	140	127	136	121	114	117	131	120	127
23	152	147	150	138	122	128	123	118	120	126	119	122
24	158	150	154	130	124	128	126	121	124	127	117	121
25	160	149	154	126	117	121	129	123	127	121	110	115
26	155	146	150	125	117	122	132	124	129	117	107	113
27	155	146	150	130	121	126	136	128	131	119	113	116
28	148	143	145	138	126	132	140	130	135	120	110	115
29	159	143	150	137	126	133	142	135	139	125	115	120
30	157	147	151	139	114	130	143	138	142	137	125	130
31	152	146	150	---	---	---	142	139	141	143	135	137
MONTH	161	143	151	158	114	139	143	87	117	152	107	127
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	143	138	140	145	137	140	157	145	151	128	123	125
2	142	137	138	149	141	144	160	149	155	126	122	124
3	142	139	141	152	143	147	173	159	168	126	120	123
4	142	136	139	154	144	149	169	159	164	124	121	122
5	141	137	139	159	154	157	160	152	157	125	120	123
6	149	139	145	160	154	157	157	148	152	120	118	119
7	151	140	146	162	154	157	152	146	149	119	117	118
8	142	131	137	163	151	158	149	142	145	120	117	119
9	138	131	134	154	148	152	144	137	141	121	117	119
10	141	135	138	153	147	149	143	138	140	124	118	120
11	136	126	134	152	145	148	141	135	138	128	121	123
12	140	127	134	151	134	141	144	137	139	131	124	127
13	155	140	146	137	130	133	141	134	138	127	123	125
14	154	145	149	133	128	130	141	133	137	130	121	124
15	156	147	151	132	127	129	148	136	143	127	121	124
16	157	153	155	139	128	132	145	133	139	125	120	123
17	158	149	154	143	136	139	157	145	152	127	122	125
18	151	143	148	142	133	138	163	155	159	126	123	125
19	151	145	148	145	129	138	159	154	157	128	124	127
20	157	148	151	140	130	135	158	152	155	129	125	127
21	158	149	154	142	128	133	154	148	151	128	124	125
22	156	142	148	135	128	132	152	149	150	127	122	125
23	152	140	146	140	134	137	150	143	146	125	121	123
24	145	136	140	145	136	142	145	137	142	123	117	121
25	144	128	137	143	137	139	144	132	137	124	119	122
26	139	127	133	142	136	138	133	127	130	123	114	118
27	138	131	134	141	133	138	132	127	130	118	113	116
28	143	135	140	142	134	137	132	126	129	118	114	116
29	---	---	---	148	134	140	131	123	127	118	113	115
30	---	---	---	151	144	147	127	122	124	115	110	112
31	---	---	---	152	145	148	---	---	---	110	106	107
MONTH	158	126	143	163	127	142	173	122	145	131	106	121

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	107	105	106	101	97	99	117	113	115	138	129	132
2	108	107	107	101	98	99	115	113	114	131	127	129
3	109	106	107	100	97	99	118	113	115	131	127	129
4	106	102	104	100	97	99	124	116	119	131	127	129
5	103	102	103	100	99	99	119	114	116	130	127	129
6	103	99	101	100	99	99	120	115	116	135	128	132
7	99	95	97	102	99	100	119	115	116	136	130	133
8	95	94	95	114	99	103	117	115	117	133	129	131
9	98	95	96	113	100	105	120	116	118	134	131	132
10	105	---	---	104	100	102	121	118	120	134	130	132
11	---	---	---	102	100	101	128	120	123	131	127	130
12	99	97	98	104	102	103	122	119	121	132	127	129
13	99	96	97	105	102	104	122	120	121	132	128	130
14	98	96	97	108	103	106	123	120	122	131	126	129
15	98	95	97	104	103	104	124	121	123	132	127	130
16	98	96	97	107	103	105	128	122	124	136	130	134
17	100	97	98	111	105	108	126	123	125	137	132	135
18	101	98	100	116	109	113	132	125	128	134	128	132
19	104	98	100	115	111	113	127	126	126	141	133	137
20	105	100	103	114	111	112	127	124	126	135	129	132
21	107	102	104	115	112	114	130	126	127	133	129	131
22	107	105	106	117	114	115	130	126	128	136	131	134
23	106	104	104	118	114	116	128	125	127	136	131	134
24	105	103	104	117	113	115	129	126	127	134	129	132
25	104	99	102	116	114	115	130	126	128	137	129	133
26	102	98	100	118	115	116	131	126	128	135	130	132
27	101	97	98	119	115	116	131	126	129	143	131	139
28	100	97	98	120	114	117	129	125	128	140	133	136
29	102	98	100	117	115	116	131	125	127	139	134	135
30	100	97	99	120	114	118	132	124	128	142	133	138
31	---	---	---	116	114	115	133	127	131	---	---	---
MONTH	---	---	---	120	97	108	133	113	123	143	126	132

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	18.5	18.2	18.5	12.6	12.4	12.6	8.2	8.0	8.2	5.7	5.5	5.5
2	18.5	18.2	18.4	12.4	12.2	12.4	8.2	8.0	8.1	5.9	5.7	5.7
3	18.5	18.2	18.5	12.4	12.2	12.3	8.0	8.0	8.0	5.9	5.7	5.9
4	18.5	17.9	18.2	12.4	12.2	12.4	8.0	7.6	7.9	6.2	5.9	6.0
5	17.9	17.9	17.9	12.4	12.2	12.4	7.8	7.6	7.6	6.2	6.2	6.2
6	17.9	17.6	17.8	12.4	12.2	12.4	7.8	7.4	7.7	6.5	6.2	6.4
7	17.9	17.6	17.6	12.2	11.9	12.0	7.9	7.8	7.8	7.2	6.5	6.7
8	17.6	17.3	17.5	11.9	11.7	11.9	7.9	7.9	7.9	7.2	7.0	7.1
9	17.3	16.7	17.0	11.9	11.5	11.6	7.9	7.7	7.9	7.2	7.0	7.1
10	16.7	16.4	16.6	11.5	11.0	11.3	7.9	7.5	7.7	7.4	7.0	7.2
11	16.4	16.1	16.1	11.3	10.8	11.0	7.7	7.5	7.6	7.2	7.0	7.1
12	16.2	16.1	16.2	10.8	10.8	10.8	7.5	7.5	7.5	7.0	6.9	7.0
13	16.2	16.0	16.1	10.8	10.5	10.7	7.7	7.5	7.6	7.0	6.8	6.9
14	16.0	16.0	16.0	10.7	10.5	10.6	7.7	7.5	7.7	6.8	6.4	6.5
15	16.0	15.7	16.0	10.7	10.5	10.7	7.6	7.4	7.5	6.4	6.1	6.2
16	16.0	15.7	16.0	10.7	10.7	10.7	7.8	7.4	7.5	6.1	5.9	6.0
17	15.7	15.7	15.7	10.9	10.7	10.7	7.8	7.4	7.6	5.9	5.7	5.7
18	15.7	15.2	15.5	10.7	10.5	10.6	7.4	7.2	7.3	5.7	5.7	5.7
19	15.2	14.9	15.0	10.5	10.3	10.4	7.2	7.0	7.2	5.9	5.7	5.8
20	14.9	14.6	14.9	10.5	10.3	10.3	7.2	7.0	7.1	5.9	5.7	5.8
21	14.9	14.6	14.8	10.3	10.1	10.3	7.0	6.8	7.0	5.9	5.7	5.9
22	14.6	14.4	14.5	10.1	9.9	10.1	6.8	6.7	6.8	5.9	5.7	5.8
23	14.4	14.1	14.3	10.1	9.9	10	6.8	6.5	6.7	5.9	5.7	5.8
24	14.4	14.1	14.1	9.9	9.6	9.8	6.6	6.4	6.5	6.1	5.7	5.9
25	14.1	13.8	13.9	9.6	9.2	9.4	6.4	6.2	6.3	6.2	6.1	6.1
26	13.9	13.6	13.7	9.2	9.0	9.1	6.2	6.1	6.1	6.2	5.9	6.1
27	13.6	13.4	13.4	9.0	8.8	9.0	6.1	5.9	6.0	5.9	5.5	5.7
28	13.4	13.1	13.2	9.0	8.6	8.8	5.9	5.9	5.9	5.7	5.5	5.6
29	13.4	12.9	13.1	9.0	8.8	8.8	5.9	5.7	5.8	5.5	5.4	5.5
30	13.1	12.9	12.9	8.8	8.2	8.5	5.7	5.5	5.5	5.4	5.4	5.4
31	12.9	12.6	12.7	---	---	---	5.5	5.5	5.5	5.4	5.2	5.2
MONTH	18.5	12.6	15.7	12.6	8.2	10.7	8.2	5.5	7.1	7.4	5.2	6.1

COLUMBIA RIVER MAIN STEM

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.4	5.2	5.3	5.9	5.7	5.8	8.2	7.8	8.1	11.1	10.9	11.0
2	5.4	5.2	5.4	5.9	5.5	5.7	8.4	8.0	8.2	11.1	10.7	10.8
3	5.6	5.4	5.5	5.9	5.5	5.8	8.4	8.0	8.2	10.9	10.7	10.8
4	5.7	5.4	5.5	6.1	5.7	6.0	8.6	8.0	8.4	10.9	10.7	10.7
5	5.5	5.4	5.5	6.1	6.1	6.1	8.8	8.4	8.6	10.9	10.7	10.7
6	5.5	5.2	5.4	6.1	5.9	5.9	8.6	8.3	8.5	11.0	10.7	10.8
7	5.5	5.4	5.4	5.9	5.7	5.7	8.8	8.5	8.6	10.8	10.4	10.6
8	5.6	5.4	5.4	5.7	5.5	5.6	9.0	8.3	8.6	10.8	10.4	10.6
9	5.6	5.2	5.4	5.9	5.7	5.8	9.0	8.7	8.8	10.8	10.6	10.7
10	5.5	5.4	5.4	6.1	5.9	5.9	9.2	8.7	8.9	11.2	10.6	10.9
11	5.7	5.4	5.5	6.2	6.1	6.1	9.2	9.0	9.0	11.5	11.0	11.2
12	5.7	5.4	5.4	6.2	6.1	6.2	9.2	9.0	9.1	12.2	11.4	11.8
13	5.4	5.2	5.3	6.2	6.1	6.2	9.5	9.2	9.3	12.2	12.1	12.2
14	5.4	5.2	5.2	6.4	6.2	6.3	9.8	9.4	9.5	12.5	12.0	12.2
15	5.2	5.0	5.2	6.4	6.2	6.4	9.5	9.3	9.5	12.5	12.0	12.1
16	5.4	5.2	5.3	6.4	6.1	6.2	9.3	9.0	9.1	12.9	12.2	12.2
17	5.6	5.4	5.5	6.2	5.9	6.0	9.3	8.8	9.1	12.9	12.2	12.5
18	5.7	5.5	5.6	6.1	5.9	6.1	9.6	9.1	9.3	13.2	12.7	13.0
19	5.9	5.7	5.8	5.9	5.7	5.9	9.7	9.2	9.5	13.2	12.9	13.0
20	6.1	5.7	6.0	6.2	5.9	6.0	9.9	9.4	9.7	13.2	12.9	13.0
21	6.2	5.9	6.0	6.4	6.1	6.2	9.9	9.9	9.9	13.4	12.9	13.1
22	6.6	6.1	6.3	6.6	6.2	6.3	10.0	9.8	9.9	13.4	13.2	13.3
23	6.6	6.2	6.4	6.6	6.2	6.4	10.2	9.7	9.9	13.7	13.2	13.3
24	6.6	6.4	6.5	6.8	6.4	6.6	10.2	10.0	10.1	13.9	13.4	13.6
25	6.6	6.2	6.4	7.3	6.6	6.9	10.4	10.2	10.3	14.2	13.9	13.9
26	6.4	6.1	6.2	7.4	7.0	7.1	10.4	10.0	10.2	14.4	13.9	14.1
27	6.2	5.9	6.0	7.2	7.0	7.1	10.2	10.0	10.1	14.7	14.2	14.5
28	6.1	5.7	5.8	7.4	7.2	7.3	10.6	10.0	10.2	14.7	14.4	14.7
29	---	---	---	7.6	7.2	7.4	11.2	10.4	10.7	14.7	14.2	14.4
30	---	---	---	7.6	7.4	7.6	11.2	10.9	11.0	14.4	13.9	14.2
31	---	---	---	8.0	7.4	7.7	---	---	---	14.7	14.2	14.3
MONTH	6.6	5.0	5.7	8.0	5.5	6.3	11.2	7.8	9.3	14.7	10.4	12.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	14.9	14.4	14.6	17.9	17.0	17.3	21.0	20.7	20.7	21.0	20.7	21.0
2	15.2	14.7	14.9	18.2	17.6	17.7	20.7	20.4	20.6	21.0	20.7	20.9
3	15.2	14.9	15.0	18.2	17.6	17.8	21.0	20.7	20.9	21.0	20.7	20.8
4	15.2	14.9	15.0	18.2	17.9	17.9	21.0	20.7	20.7	21.0	20.3	20.7
5	15.5	14.9	15.2	18.2	17.6	17.9	21.0	20.3	20.7	20.7	20.3	20.4
6	15.5	15.2	15.4	18.5	17.9	18.1	20.7	20.4	20.6	20.7	20.4	20.4
7	15.2	14.7	15.0	18.5	18.1	18.4	20.7	20.3	20.5	20.4	19.7	20.0
8	14.7	14.4	14.6	18.4	18.1	18.3	20.7	20.4	20.5	20.0	19.7	19.7
9	14.7	14.4	14.5	18.8	18.1	18.3	21.1	20.4	20.6	20.0	19.4	19.8
10	---	14.7	---	19.4	18.4	18.8	21.0	20.7	20.7	20.4	19.7	19.8
11	15.5	---	---	19.4	19.0	19.1	21.1	20.7	20.8	20.0	19.7	19.9
12	16.0	15.4	15.6	19.4	19.0	19.1	21.4	20.7	21.0	20.4	19.7	19.9
13	16.3	15.7	16.1	19.4	19.0	19.3	21.4	21.0	21.2	20.0	19.7	20.0
14	16.3	16.0	16.1	19.7	19.4	19.4	21.8	21.4	21.6	20.4	20.0	20.0
15	16.3	15.7	15.9	19.4	19.0	19.4	21.8	21.4	21.7	20.4	20.0	20.2
16	16.0	15.4	15.8	19.7	19.0	19.4	21.8	21.0	21.5	20.4	20.4	20.4
17	15.7	15.4	15.5	20.0	19.4	19.6	21.8	21.0	21.4	20.4	20.0	20.2
18	15.7	15.2	15.3	20.0	19.7	19.9	21.4	21.0	21.2	20.0	19.7	20.0
19	15.6	15.2	15.4	20.0	20.0	20.0	21.4	20.7	21.1	20.0	19.4	19.7
20	16.2	15.4	15.8	20.4	20.0	20.2	21.0	20.7	20.9	19.4	19.0	19.4
21	16.8	16.2	16.4	20.7	20.0	20.5	21.0	20.7	20.8	19.4	18.7	19.2
22	17.0	16.4	16.7	21.4	20.7	20.9	20.7	20.4	20.5	19.1	18.7	19.0
23	17.0	16.7	16.8	21.4	21.0	21.2	20.4	20.0	20.3	19.1	18.7	18.9
24	17.3	16.7	17.1	21.4	21.0	21.3	20.7	20.0	20.4	18.7	18.4	18.7
25	17.6	17.0	17.3	21.4	21.4	21.4	20.7	20.4	20.6	18.7	18.4	18.5
26	17.9	17.3	17.5	21.4	21.4	21.4	20.7	20.7	20.7	18.4	18.4	18.4
27	17.9	17.3	17.6	21.4	21.0	21.2	21.1	20.7	20.8	18.7	18.4	18.6
28	17.6	17.0	17.3	21.4	21.0	21.4	21.1	20.7	20.9	19.0	18.7	18.9
29	17.3	17.0	17.1	21.4	20.7	21.0	21.0	21.0	21.0	19.0	18.7	18.8
30	17.6	17.0	17.2	21.0	21.0	21.0	21.0	20.7	21.0	18.7	18.4	18.5
31	---	---	---	21.0	20.7	20.8	21.4	21.0	21.0	---	---	---
MONTH	---	---	---	21.4	17.0	19.6	21.8	20.0	20.9	21.0	18.4	19.7

COLUMBIA RIVER MAIN STEM

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6	1	3	17	5	7	52	15	24	14	7	11
2	5	1	3	15	7	10	60	29	44	14	7	10
3	4	1	3	10	6	8	60	24	35	15	8	12
4	5	1	3	10	6	8	39	20	30	16	8	12
5	4	1	2	10	6	7	38	23	29	14	8	11
6	5	1	2	8	5	7	32	19	23	13	7	11
7	4	1	2	8	5	7	24	16	21	84	8	12
8	4	1	2	8	5	6	23	14	19	>130	75	>130
9	4	1	2	8	5	6	23	12	18	>130	86	>130
10	4	1	2	8	5	6	24	10	19	123	50	104
11	4	1	3	8	5	6	21	11	18	95	44	77
12	4	1	3	9	6	6	21	10	15	77	30	52
13	4	1	3	9	6	7	23	9	14	61	32	47
14	5	2	3	30	5	14	98	14	37	56	22	36
15	6	2	3	130	16	72	91	26	43	47	15	28
16	6	2	3	72	21	35	63	24	35	39	17	24
17	6	2	3	34	12	22	>130	53	120	32	13	22
18	5	1	3	21	10	14	>130	61	95	31	13	20
19	6	2	3	15	8	11	89	39	58	28	13	20
20	5	2	3	14	8	10	60	37	43	29	13	22
21	5	2	3	20	11	14	49	29	36	31	13	23
22	6	2	3	24	14	18	34	21	29	30	15	21
23	7	2	4	61	17	29	34	20	25	25	12	19
24	6	2	3	64	18	33	25	15	21	32	15	22
25	8	2	4	30	14	22	22	12	19	86	29	43
26	7	1	4	27	13	20	21	10	17	76	33	56
27	7	2	4	26	12	18	19	10	16	47	24	33
28	6	2	4	18	10	15	18	9	14	39	22	31
29	6	2	4	38	10	17	18	8	13	35	19	29
30	9	2	6	34	15	25	18	8	13	30	14	22
31	8	6	7	---	---	---	16	7	12	21	12	17
MAX	9	6	7	130	21	72	>130	61	120	>130	86	>130
MIN	4	1	2	8	5	6	16	7	12	13	7	10

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	20	11	15	23	10	15	10	3	6	19	8	12
2	17	8	13	16	7	11	10	3	6	17	9	12
3	15	7	12	16	7	11	8	3	6	15	8	12
4	15	7	12	16	6	9	9	3	6	16	8	12
5	14	8	11	16	5	8	10	3	6	14	9	12
6	12	5	10	11	4	7	8	3	6	14	8	12
7	21	5	10	10	4	7	10	4	6	16	8	12
8	32	11	17	9	4	7	11	4	7	14	8	11
9	27	12	18	9	4	6	11	4	8	13	8	11
10	22	9	15	10	4	7	16	4	9	14	7	10
11	25	11	18	13	4	8	34	7	18	13	6	9
12	27	13	20	75	6	26	35	15	25	12	6	10
13	20	9	15	69	25	39	32	14	26	12	6	9
14	18	8	14	43	22	30	98	17	37	14	7	10
15	19	5	11	32	16	25	>130	41	81	15	6	9
16	15	5	9	28	14	22	89	36	55	18	7	12
17	13	6	9	23	11	17	57	39	47	16	6	9
18	21	7	10	19	9	15	49	31	41	18	6	9
19	15	6	10	18	8	14	40	29	34	16	7	12
20	13	5	9	27	9	16	43	17	28	16	6	12
21	13	5	9	22	10	17	29	16	24	11	6	8
22	57	6	10	16	7	11	26	18	23	11	6	8
23	74	21	37	16	6	10	25	15	20	12	6	9
24	68	26	42	17	7	11	26	13	19	13	5	9
25	46	16	34	15	6	10	22	9	17	12	5	9
26	34	14	24	14	5	10	22	11	17	12	4	8
27	31	10	20	13	4	9	19	9	15	---	---	---
28	33	10	18	15	5	8	19	8	14	---	---	---
29	---	---	---	11	4	7	16	8	13	---	---	---
30	---	---	---	16	4	8	17	8	12	---	---	---
31	---	---	---	10	4	7	---	---	---	---	---	---
MAX	74	26	42	75	25	39	>130	41	81	---	---	---
MIN	12	5	9	9	4	6	8	3	6	---	---	---

COLUMBIA RIVER MAIN STEM

14246900 COLUMBIA RIVER AT BEAVER ARMY TERMINAL, NEAR QUINCY, OR--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	---	---	---	20	7	10	8	1	5	9	4	6
2	---	---	---	15	7	10	8	2	5	9	4	6
3	---	---	---	14	6	11	8	1	4	10	4	6
4	---	---	---	14	6	10	8	2	4	16	4	7
5	---	---	---	18	3	9	7	1	4	12	4	7
6	---	---	---	13	3	8	8	1	5	11	4	7
7	---	---	---	12	2	7	8	1	4	12	4	7
8	---	---	---	12	2	7	7	1	5	11	4	7
9	---	---	---	11	2	6	9	1	5	10	4	7
10	---	---	---	9	2	5	8	2	4	14	4	6
11	---	---	---	11	2	6	7	2	4	17	4	6
12	14	8	11	10	2	6	7	1	4	8	3	5
13	16	7	10	10	2	6	7	1	4	8	3	5
14	18	7	10	14	2	6	8	2	4	9	3	5
15	18	7	9	14	2	6	7	2	4	12	3	6
16	16	6	9	---	---	---	7	2	4	9	3	5
17	16	7	10	---	---	---	7	2	4	8	3	5
18	16	5	9	---	---	---	6	2	4	11	3	5
19	14	6	9	---	---	---	7	2	4	8	3	5
20	15	6	10	---	---	---	7	2	4	7	3	5
21	16	6	10	---	---	---	8	2	4	8	3	5
22	14	6	10	---	---	---	8	2	5	7	3	5
23	14	5	8	---	---	---	8	2	4	7	3	5
24	11	3	8	---	---	---	8	2	4	8	3	5
25	13	5	8	---	---	---	10	2	5	9	3	4
26	11	3	7	---	---	---	8	3	6	6	3	4
27	14	4	7	---	---	---	9	3	6	6	2	4
28	11	5	7	---	---	---	9	4	6	8	2	4
29	15	5	8	---	---	---	10	4	6	5	2	4
30	22	7	10	---	---	---	11	4	6	7	2	4
31	---	---	---	8	2	5	8	4	6	---	---	---
MAX	---	---	---	---	---	---	11	4	6	17	4	7
MIN	---	---	---	---	---	---	6	1	4	5	2	4