

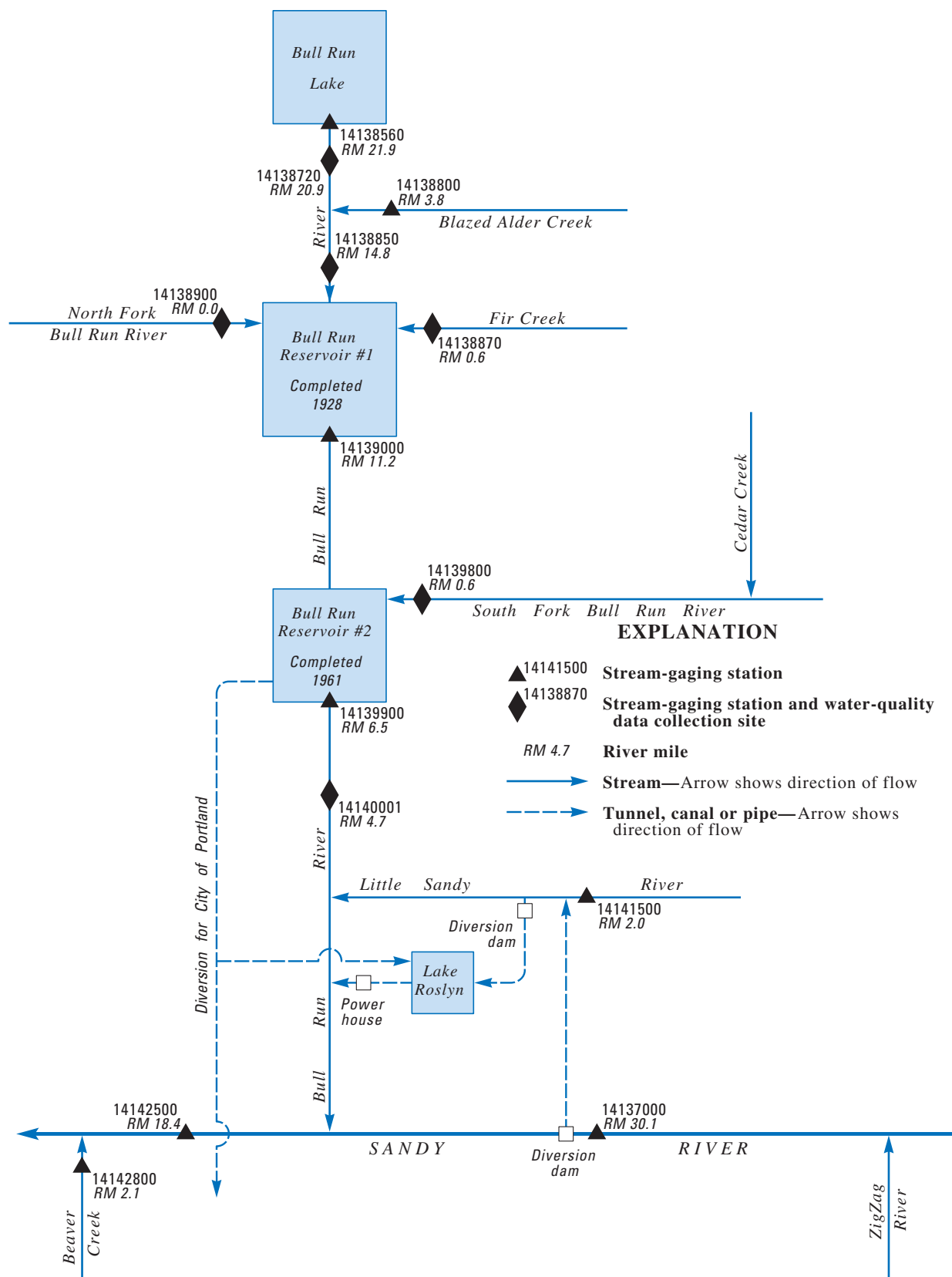


Figure 20. Schematic diagram showing gaging stations and diversions in the Sandy River Basin.

SANDY RIVER BASIN

14138560 BULL RUN LAKE NEAR BRIGHTWOOD, OR

LOCATION.--Lat 45°27'40", long 121°50'34", in SE ¼ SE ¼ sec.20, T.1 S., R.8 E., Multnomah County, Hydrologic Unit 17080001, in Mount Hood National Forest, in main cabin on northwest side of Bull Run Lake, near outlet structure, 10.7 mi northeast of Brightwood and at mile 21.9.

DRAINAGE AREA.--3.5 mi².

PERIOD OF RECORD.--October 1992 to current year.

REVISED RECORDS.--WDR OR-95-1: 1993, 1994.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929, Portland Water Bureau datum.

REMARKS.--Bull Run Lake was formed by natural processes, including a large landslide. A temporary log crib dam was constructed in 1917 to increase the capacity of the lake. In 1920 the log crib dam was reconstructed. A concrete dam and improved outlet valve were constructed in 1958. A lower outlet and tunnel was constructed in 1961. Portland Water Bureau releases water from the lake to augment streamflows during periods of low flow.

COOPERATION.--Capacity table provided by Portland Water Bureau, extended above 3,180 ft by U.S. Geological Survey, Oct. 1, 1996.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 48,340 acre-ft Feb. 9, 1996, elevation, 3,185.02 ft; minimum contents observed, 31,080 acre-ft Oct. 29, 1992, elevation, 3,143.97 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 41,380 acre-ft May 22, elevation, 3,169.41 ft; minimum contents, 37,480 acre-ft Sept. 29, elevation, 3,160.23 ft.

Capacity Table (elevation, in feet and contents, in acre-feet)

2,905	0	3,140	29,510
2,940	229	3,150	33,410
2,980	1,270	3,160	37,380
3,020	3,740	3,180	46,080
3,060	8,880	3,186	48,780
3,100	17,280		

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,166.89	3,166.80	3,166.73	3,168.06	3,168.53	3,167.03	3,167.62	3,168.99	3,169.04	3,167.78	3,165.26	3,162.47
2	3,166.78	3,167.09	3,166.68	3,167.99	3,168.48	3,167.00	3,167.64	3,168.98	3,169.03	3,167.70	3,165.16	3,162.38
3	3,166.71	3,167.18	3,166.63	3,167.93	3,168.42	3,166.94	3,167.73	3,168.94	3,168.98	3,167.62	3,165.05	3,162.29
4	3,166.63	3,167.19	3,166.60	3,167.74	3,168.46	3,166.87	3,167.78	3,168.94	3,168.93	3,167.54	3,164.97	3,162.20
5	3,166.54	3,167.18	3,166.60	3,167.72	3,168.43	3,166.81	3,167.79	3,168.91	3,168.92	3,167.45	3,164.88	3,162.11
6	3,166.57	3,167.16	3,166.58	3,167.70	3,168.44	3,166.74	3,167.82	3,168.87	3,168.90	3,167.41	3,164.78	3,162.03
7	3,166.48	3,167.14	3,166.62	3,167.67	3,168.38	3,166.68	3,167.95	3,168.84	3,168.88	3,167.31	3,164.69	3,161.94
8	3,166.49	3,167.09	3,166.87	3,167.60	3,168.30	3,166.62	3,167.98	3,168.89	3,168.83	3,167.24	3,164.60	3,161.87
9	3,166.48	3,167.05	3,167.21	3,167.52	3,168.25	3,166.56	3,168.00	3,168.93	3,168.77	3,167.21	3,164.51	3,161.86
10	3,166.42	3,167.01	3,167.74	3,167.45	3,168.19	3,166.49	3,168.02	3,168.97	3,168.71	3,167.16	3,164.42	3,161.83
11	3,166.35	3,166.94	3,168.21	3,167.33	3,168.12	3,166.42	3,168.14	3,168.96	3,168.70	3,167.08	3,164.31	3,161.74
12	3,166.28	3,166.88	3,168.45	3,167.36	3,168.10	3,166.36	3,168.16	3,168.94	3,168.68	3,167.01	3,164.22	3,161.66
13	3,166.17	3,166.81	3,168.42	3,167.31	3,168.08	3,166.28	3,168.17	3,168.91	3,168.67	3,166.92	3,164.13	3,161.58
14	3,166.10	3,166.76	3,168.57	3,167.24	3,168.03	3,166.22	3,168.18	3,168.90	3,168.63	3,166.84	3,164.03	3,161.49
15	3,166.02	3,166.73	3,168.62	3,167.20	3,167.93	3,166.14	3,168.21	3,168.94	3,168.54	3,166.76	3,163.93	3,161.41
16	3,165.95	3,166.65	3,168.61	3,167.15	3,167.88	3,166.14	3,168.33	3,169.00	3,168.60	3,166.67	3,163.83	3,161.34
17	3,166.01	3,166.59	3,168.60	3,167.54	3,167.82	3,166.08	3,168.45	3,169.01	3,168.57	3,166.57	3,163.77	3,161.26
18	3,166.19	3,166.58	3,168.58	3,168.38	3,167.75	3,166.00	3,168.47	3,169.16	3,168.58	3,166.49	3,163.68	3,161.17
19	3,166.17	3,166.55	3,168.59	3,168.54	3,167.69	3,166.05	3,168.48	3,169.27	3,168.54	3,166.40	3,163.59	3,161.09
20	3,166.17	3,166.49	3,168.54	3,168.67	3,167.63	3,166.01	3,168.49	3,169.33	3,168.47	3,166.31	3,163.50	3,161.01
21	3,166.29	3,166.41	3,168.57	3,168.72	3,167.53	3,165.96	3,168.50	3,169.38	3,168.43	3,166.22	3,163.42	3,160.92
22	3,166.34	3,166.36	3,168.52	3,168.74	3,167.48	3,165.91	3,168.55	3,169.39	3,168.37	3,166.16	3,163.32	3,160.84
23	3,166.44	3,166.33	3,168.48	3,168.75	3,167.41	3,165.84	3,168.69	3,169.35	3,168.30	3,166.07	3,163.23	3,160.75
24	3,166.51	3,166.47	3,168.42	3,168.73	3,167.33	3,165.78	3,168.72	3,169.32	3,168.24	3,165.98	3,163.12	3,160.67
25	3,166.53	3,166.71	3,168.38	3,168.71	3,167.26	3,165.71	3,168.89	3,169.25	3,168.17	3,165.89	3,163.04	3,160.59
26	3,166.58	3,166.77	3,168.38	3,168.67	3,167.18	3,166.10	3,168.95	3,169.19	3,168.10	3,165.81	3,162.95	3,160.51
27	3,166.57	3,166.76	3,168.30	3,168.67	3,167.08	3,166.87	3,169.01	3,169.15	3,168.06	3,165.72	3,162.86	3,160.43
28	3,166.56	3,166.74	3,168.24	3,168.65	3,167.09	3,167.18	3,168.98	3,169.09	3,168.01	3,165.62	3,162.76	3,160.34
29	3,166.53	3,166.73	3,168.21	3,168.65	---	3,167.47	3,169.01	3,169.03	3,167.93	3,165.53	3,162.72	3,160.26
30	3,166.71	3,166.74	3,168.16	3,168.61	---	3,167.47	3,169.00	3,168.97	3,167.85	3,165.44	3,162.64	3,160.49
31	3,166.72	---	3,168.09	3,168.57	---	3,167.48	---	3,169.00	---	3,165.35	3,162.55	---
MAX	3,166.89	3,167.19	3,168.62	3,168.75	3,168.53	3,167.48	3,169.01	3,169.39	3,169.04	3,167.78	3,165.26	3,162.47
MIN	3,165.95	3,166.33	3,166.58	3,167.15	3,167.08	3,165.71	3,167.62	3,168.84	3,167.85	3,165.35	3,162.55	3,160.26
(†)	40,220	40,220	40,810	41,020	40,380	40,540	41,200	41,200	40,700	39,630	38,440	37,580
(‡)	-110	0	+590	+210	-640	+160	+660	0	-500	-1,070	-1,190	-860
CAL YR2004	MAX 3,174.37	MIN 3,165.95	AC-FT‡	+740								
WTR YR2005	MAX 3,169.39	MIN 3,160.26	AC-FT‡	-2,750								

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

‡ Change in contents, in acre-feet.

SANDY RIVER BASIN

14138720 BULL RUN RIVER AT LOWER FLUME, NEAR BRIGHTWOOD, OR

LOCATION.--Lat 45°28'16", long 121°51'51", in SE ¼ NE ¼ sec.19, T.1 S., R.8 E., Multnomah County, Hydrologic Unit 17080001, at flume, 1.0 mi downstream from outlet structure at Bull Run Lake, 10.4 mi northeast of Brightwood and at mile 20.9.

DRAINAGE AREA.--5.08 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,840 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Regulation at times by Bull Run Lake.

AVERAGE DISCHARGE.--13 years (water years 1993-2005), 25.7 ft³/s, 18,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 148 ft³/s Feb. 7, 1996, gage height, 3.05 ft, from rating curve extended above 63 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 8.2 ft³/s Oct. 28, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39 ft³/s Jan. 18, gage height, 1.65 ft; minimum discharge, 13 ft³/s Sept. 20, 21, 25-30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	23	23	25	25	20	24	27	24	20	16	14
2	21	25	22	24	25	20	25	27	24	20	16	14
3	20	26	22	24	24	20	25	26	24	20	16	14
4	20	26	22	24	24	20	25	26	23	20	16	14
5	20	25	22	23	24	20	25	26	23	19	16	14
6	20	25	22	23	24	20	25	25	23	19	16	14
7	20	25	22	23	24	20	25	25	23	19	16	14
8	20	24	25	23	23	20	26	25	23	19	16	14
9	21	24	27	22	23	20	26	25	23	19	16	14
10	20	24	33	22	23	20	26	25	22	19	16	14
11	20	24	36	22	23	20	26	25	22	19	15	14
12	20	23	35	22	23	19	26	25	22	19	15	14
13	20	23	34	22	23	19	26	25	22	18	15	14
14	20	23	33	21	22	19	26	25	22	18	15	14
15	20	23	32	21	22	19	26	25	22	18	15	14
16	20	23	31	21	22	19	26	25	22	18	15	14
17	20	23	31	23	22	19	27	25	22	18	15	14
18	20	23	30	36	22	19	27	25	22	18	15	14
19	21	22	30	31	22	19	27	26	22	18	15	14
20	21	22	29	29	21	19	27	26	22	17	15	14
21	21	22	29	28	21	19	27	26	21	17	15	13
22	21	22	29	27	21	19	27	26	21	17	15	14
23	22	22	28	27	21	19	27	26	21	17	15	14
24	22	22	28	27	21	19	27	26	21	17	15	14
25	22	24	27	26	21	19	27	25	21	17	15	14
26	22	24	27	26	21	20	28	25	20	17	15	13
27	22	23	27	26	21	28	28	25	20	17	15	13
28	22	23	26	26	21	27	27	24	20	17	14	13
29	22	23	26	26	---	26	27	24	20	17	14	13
30	22	23	25	26	---	25	27	24	20	17	14	13
31	23	---	25	25	---	24	---	24	---	16	14	---
TOTAL	646	704	858	771	629	636	788	784	657	561	471	414
MEAN	20.8	23.5	27.7	24.9	22.5	20.5	26.3	25.3	21.9	18.1	15.2	13.8
MAX	23	26	36	36	25	28	28	27	24	20	16	14
MIN	20	22	22	21	21	19	24	24	20	16	14	13
AC-FT	1,280	1,400	1,700	1,530	1,250	1,260	1,560	1,560	1,300	1,110	934	821

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2005, BY WATER YEAR (WY)

MEAN	16.3	20.7	27.6	30.5	29.9	30.4	31.4	32.4	28.5	22.2	20.1	18.5
MAX	22.8	37.0	49.1	67.3	55.8	62.7	57.6	67.0	42.7	28.3	40.0	32.4
(WY)	(2000)	(1996)	(1996)	(1996)	(1996)	(1997)	(1997)	(1997)	(1999)	(2002)	(2000)	(2000)
MIN	10.5	11.9	16.0	15.3	15.6	18.2	21.5	21.2	18.5	16.2	13.4	11.6
(WY)	(1993)	(1994)	(2003)	(1993)	(1993)	(2001)	(2001)	(1994)	(1994)	(1994)	(1994)	(1994)

SANDY RIVER BASIN

14138720 BULL RUN RIVER AT LOWER FLUME, NEAR BRIGHTWOOD, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1993 - 2005	
ANNUAL TOTAL	9,452		7,919			
ANNUAL MEAN	25.8		21.7		25.7	
HIGHEST ANNUAL MEAN					37.5	1997
LOWEST ANNUAL MEAN					17.4	2001
HIGHEST DAILY MEAN	49	Jan 29	36	Dec 11	130	Feb 7, 1996
LOWEST DAILY MEAN	19	Jan 13	13	Sep 21	8.4	Oct 27, 1992
ANNUAL SEVEN-DAY MINIMUM	20	Jan 8	13	Sep 24	8.6	Oct 22, 1992
ANNUAL RUNOFF (AC-FT)	18,750		15,710		18,600	
10 PERCENT EXCEEDS	32		27		38	
50 PERCENT EXCEEDS	26		22		23	
90 PERCENT EXCEEDS	20		15		15	

SANDY RIVER BASIN

14138720 BULL RUN RIVER AT LOWER FLUME, NEAR BRIGHTWOOD, OR—Continued



2005 Water Year
SANDY RIVER BASIN

14138720 BULL RUN RIVER AT LOWER FLUME NR BRIGHTWOOD, OR

Latitude: 45° 28' 16"

Longitude: 121° 51' 51"

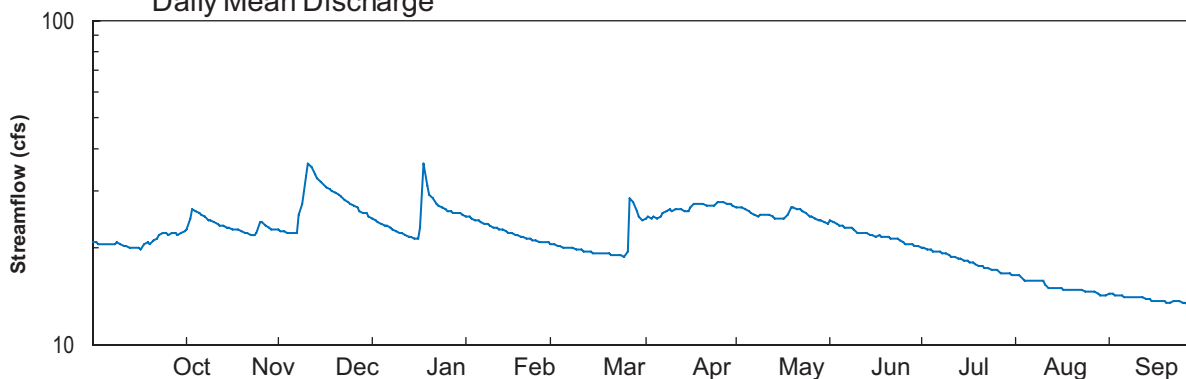
Hydrologic Unit Code: 17080001

Multnomah County

Datum: 2840 feet

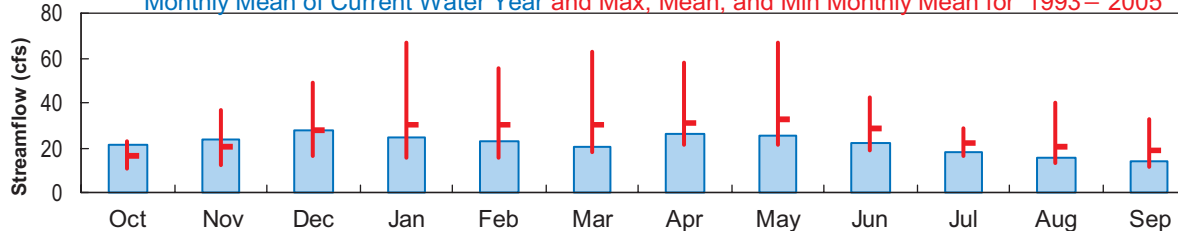
Drainage Area: 5.08 mi²

Daily Mean Discharge

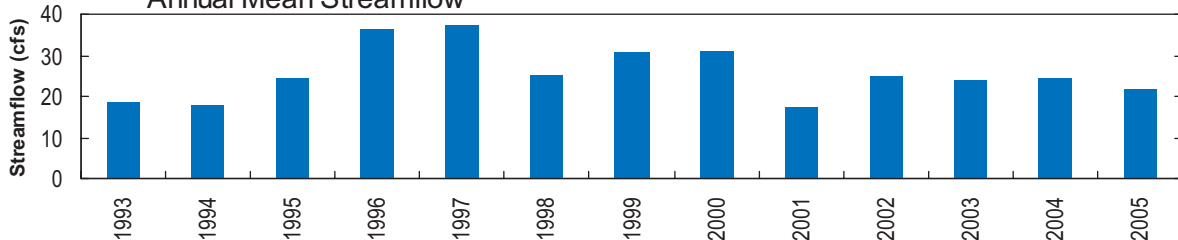


Monthly Statistics

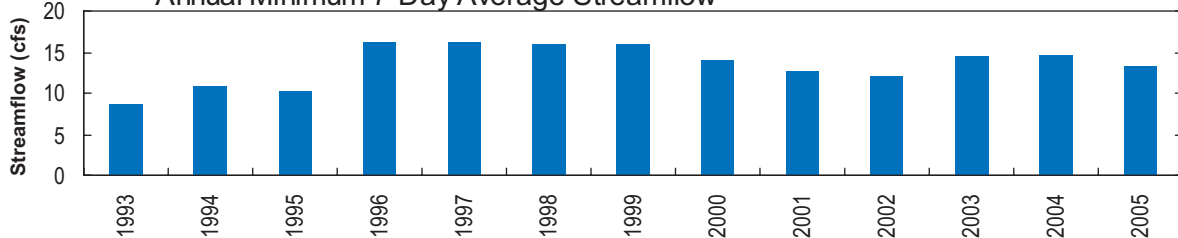
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1993–2005



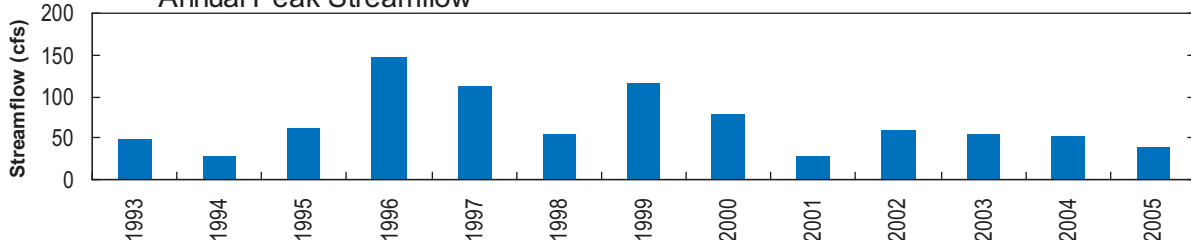
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



SANDY RIVER BASIN

14138720 BULL RUN RIVER AT LOWER FLUME, NEAR BRIGHTWOOD, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1996 to current year.

WATER TEMPERATURE: October 1995 to current year.

INSTRUMENTATION.--Water-quality monitor and data logger.

REMARKS.--

SPECIFIC CONDUCTANCE: Records good.

WATER TEMPERATURE: Records excellent.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 33 microsiemens Jan. 14, Mar. 26, Nov. 24, 2004; minimum, 18 microsiemens Dec. 27, 1998.

WATER TEMPERATURE: Maximum, 9.0°C several days in September, 2000; minimum, 3.0°C Feb. 6, 1996.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 33 microsiemens Nov. 24; minimum, 24 microsiemens Jan. 18.

WATER TEMPERATURE: Maximum, 7.3°C Mar. 2-26; minimum, 5.3°C Jan. 18.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	30	29	30	29	29	29	29	29	29	29	29	29
2	30	30	30	29	29	29	29	29	29	29	29	29
3	30	30	30	30	29	29	29	29	29	29	29	29
4	30	30	30	30	29	29	29	29	29	29	29	29
5	30	30	30	29	29	29	29	29	29	29	29	29
6	30	30	30	29	29	29	29	29	29	30	29	29
7	30	30	30	29	29	29	29	29	29	30	29	30
8	30	29	30	29	29	29	29	29	29	30	29	30
9	30	30	30	29	29	29	29	29	29	30	30	30
10	30	29	30	29	29	29	29	29	29	30	30	30
11	30	29	30	29	29	29	29	28	29	30	30	30
12	30	29	30	29	29	29	29	29	29	30	30	30
13	30	29	30	29	29	29	29	29	29	30	30	30
14	30	30	30	29	29	29	29	29	29	30	30	30
15	30	30	30	29	29	29	29	29	29	30	30	30
16	30	30	30	29	29	29	29	29	29	30	30	30
17	30	30	30	29	29	29	29	29	29	30	25	29
18	30	30	30	29	29	29	29	29	29	29	24	26
19	30	29	30	29	29	29	30	29	29	30	29	29
20	30	29	29	29	29	29	30	29	29	30	30	30
21	30	29	29	29	29	29	30	29	29	30	30	30
22	30	29	29	29	29	29	29	29	29	30	30	30
23	30	29	29	29	29	29	29	29	29	30	30	30
24	30	29	29	33	29	31	29	29	29	30	30	30
25	29	29	29	32	29	29	30	29	29	30	30	30
26	29	29	29	29	29	29	30	29	29	30	30	30
27	29	29	29	29	29	29	29	29	29	30	30	30
28	29	29	29	29	29	29	29	29	29	30	30	30
29	29	29	29	29	29	29	29	29	29	30	30	30
30	29	29	29	29	29	29	29	29	29	30	30	30
31	29	29	29	---	---	---	29	29	29	30	30	30
MONTH	30	29	30	33	29	29	30	28	29	30	24	30

SANDY RIVER BASIN

14138720 BULL RUN RIVER AT LOWER FLUME, NEAR BRIGHTWOOD, OR—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

SANDY RIVER BASIN

14138720 BULL RUN RIVER AT LOWER FLUME, NEAR BRIGHTWOOD, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	6.7	6.7	6.7	6.9	6.8	6.8	6.9	6.9	6.9	7.1	7.0	7.0
2	6.8	6.7	6.7	6.9	6.8	6.8	6.9	6.8	6.9	7.1	7.0	7.0
3	6.8	6.7	6.7	6.9	6.8	6.8	6.9	6.8	6.9	7.1	7.0	7.0
4	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.9	6.9	7.0	7.0	7.0
5	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.7	6.9	7.1	7.0	7.0
6	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.8	6.9	7.1	7.0	7.0
7	6.8	6.7	6.8	6.8	6.7	6.8	6.9	6.9	6.9	7.0	6.9	7.0
8	6.8	6.7	6.8	6.8	6.8	6.8	6.9	6.7	6.8	7.1	7.0	7.0
9	6.8	6.7	6.8	6.8	6.8	6.8	6.9	6.7	6.8	7.1	7.0	7.0
10	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.7	6.7	7.1	7.0	7.0
11	6.8	6.7	6.8	6.9	6.8	6.8	6.7	6.6	6.7	7.1	7.0	7.0
12	6.8	6.8	6.8	6.9	6.8	6.8	6.7	6.6	6.7	7.1	7.0	7.1
13	6.8	6.8	6.8	6.9	6.8	6.8	6.8	6.7	6.7	7.1	7.0	7.1
14	6.8	6.8	6.8	6.9	6.8	6.8	6.8	6.7	6.7	7.1	7.0	7.0
15	6.8	6.8	6.8	6.9	6.8	6.9	6.8	6.7	6.7	7.1	6.9	7.0
16	6.8	6.8	6.8	6.9	6.8	6.9	6.9	6.8	6.8	7.1	7.0	7.1
17	6.9	6.8	6.8	6.9	6.8	6.9	6.9	6.8	6.8	7.1	5.4	6.9
18	6.9	6.8	6.8	6.9	6.8	6.9	6.9	6.8	6.9	6.6	5.3	6.1
19	6.9	6.8	6.9	6.9	6.8	6.9	6.9	6.9	6.9	6.7	6.6	6.7
20	6.9	6.8	6.9	6.9	6.8	6.9	7.0	6.9	6.9	6.8	6.6	6.7
21	6.9	6.8	6.8	6.9	6.9	6.9	7.0	6.9	6.9	6.8	6.7	6.7
22	6.9	6.8	6.9	6.9	6.9	6.9	7.0	6.9	7.0	6.9	6.7	6.8
23	6.9	6.8	6.9	6.9	6.9	6.9	7.0	6.9	7.0	6.9	6.8	6.8
24	6.9	6.8	6.9	6.9	6.9	6.9	7.0	7.0	7.0	6.9	6.8	6.9
25	6.9	6.8	6.8	6.9	6.8	6.9	7.0	7.0	7.0	7.0	6.9	6.9
26	6.9	6.8	6.8	6.9	6.8	6.9	7.0	7.0	7.0	7.0	6.9	7.0
27	6.9	6.8	6.8	6.9	6.8	6.9	7.1	7.0	7.0	7.1	7.0	7.0
28	6.9	6.8	6.8	6.9	6.8	6.9	7.0	7.0	7.0	7.1	7.0	7.0
29	6.9	6.8	6.8	6.9	6.8	6.9	7.1	7.0	7.0	7.1	7.0	7.1
30	6.8	6.8	6.8	6.9	6.8	6.9	7.1	7.0	7.0	7.1	7.0	7.1
31	6.9	6.8	6.8	---	---	---	7.1	7.0	7.0	7.1	7.0	7.1
MONTH	6.9	6.7	6.8	6.9	6.7	6.9	7.1	6.6	6.9	7.1	5.3	6.9
FEBRUARY			MARCH			APRIL			MAY			
1	7.1	7.0	7.1	7.2	7.1	7.2	6.9	6.8	6.9	7.0	6.9	7.0
2	7.1	7.1	7.1	7.3	7.2	7.2	6.9	6.8	6.9	7.0	6.9	7.0
3	7.2	7.1	7.1	7.3	7.2	7.2	6.9	6.9	6.9	7.1	6.8	7.0
4	7.2	7.1	7.1	7.3	7.2	7.2	6.9	6.8	6.9	7.0	7.0	7.0
5	7.2	7.1	7.1	7.3	7.2	7.2	7.0	6.9	6.9	7.0	7.0	7.0
6	7.2	7.1	7.1	7.3	7.2	7.2	7.0	6.9	6.9	7.0	7.0	7.0
7	7.2	7.1	7.1	7.3	7.2	7.3	6.9	6.8	6.9	7.0	6.9	7.0
8	7.2	7.1	7.1	7.3	7.2	7.3	6.9	6.9	6.9	7.0	6.9	7.0
9	7.2	7.1	7.2	7.3	7.2	7.3	7.0	6.9	6.9	7.0	6.9	6.9
10	7.2	7.1	7.2	7.3	7.2	7.3	7.0	6.9	6.9	6.9	6.8	6.9
11	7.2	7.1	7.1	7.3	7.3	7.3	7.0	6.9	6.9	7.0	6.8	6.9
12	7.2	7.1	7.2	7.3	7.3	7.3	7.0	6.8	6.9	7.0	6.8	6.8
13	7.2	7.1	7.1	7.3	7.3	7.3	7.0	6.9	6.9	7.0	6.8	6.8
14	7.2	7.1	7.1	7.3	7.2	7.3	7.0	6.9	7.0	7.0	6.8	6.8
15	7.2	7.1	7.1	7.3	7.2	7.3	7.0	6.9	7.0	7.0	6.8	6.8
16	7.2	7.1	7.1	7.3	7.2	7.3	7.0	6.8	7.0	6.9	6.8	6.8
17	7.2	7.1	7.1	7.3	7.3	7.3	6.9	6.8	6.9	6.9	6.8	6.8
18	7.2	7.1	7.1	7.3	7.3	7.3	7.0	6.9	6.9	7.0	6.8	6.8
19	7.2	7.1	7.2	7.3	7.3	7.3	7.0	6.7	6.9	6.9	6.8	6.8
20	7.2	7.1	7.2	7.3	7.2	7.3	7.0	6.7	6.9	6.9	6.9	6.9
21	7.2	7.1	7.2	7.3	7.2	7.3	7.0	6.8	6.9	6.9	6.9	6.9
22	7.2	7.1	7.2	7.3	7.2	7.3	7.0	6.9	6.9	6.9	6.7	6.9
23	7.2	7.1	7.2	7.3	7.3	7.3	7.0	6.9	7.0	6.9	6.7	6.9
24	7.2	7.1	7.2	7.3	7.2	7.3	7.0	6.9	6.9	6.9	6.7	6.8
25	7.2	7.2	7.2	7.3	7.3	7.3	7.0	6.9	6.9	6.9	6.7	6.8
26	7.2	7.1	7.2	7.3	7.1	7.3	7.0	6.7	6.9	6.9	6.7	6.8
27	7.2	7.2	7.2	7.1	6.7	6.8	7.0	6.7	6.9	6.9	6.7	6.8
28	7.2	7.2	7.2	7.0	6.9	7.0	7.0	6.9	6.9	6.9	6.7	6.8
29	---	---	---	7.0	6.7	7.0	7.0	6.9	7.0	6.9	6.7	6.9
30	---	---	---	7.0	7.0	7.0	7.0	6.9	7.0	6.9	6.7	6.9
31	---	---	---	7.1	6.9	7.0	---	---	---	6.9	6.9	6.9
MONTH	7.2	7.0	7.1	7.3	6.7	7.2	7.0	6.7	6.9	7.1	6.7	6.9

SANDY RIVER BASIN

14138720 BULL RUN RIVER AT LOWER FLUME, NEAR BRIGHTWOOD, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6.9	6.7	6.9	6.8	6.7	6.7	6.8	6.7	6.7	6.8	6.6	6.7
2	6.9	6.7	6.9	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
3	6.9	6.7	6.8	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
4	6.9	6.7	6.8	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
5	6.9	6.7	6.8	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
6	6.9	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
7	6.9	6.7	6.7	6.8	6.5	6.7	6.8	6.7	6.7	6.7	6.6	6.7
8	6.9	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
9	6.9	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
10	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
11	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
12	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
13	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
14	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
15	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.7
16	6.8	6.7	6.7	6.8	6.5	6.7	6.8	6.7	6.7	6.7	6.6	6.7
17	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.7
18	6.8	6.8	6.8	6.8	6.7	6.7	6.8	6.5	6.7	6.7	6.6	6.7
19	6.8	6.8	6.8	6.8	6.7	6.7	6.8	6.6	6.7	6.7	6.6	6.7
20	6.8	6.8	6.8	6.8	6.7	6.7	6.8	6.6	6.7	6.7	6.6	6.7
21	6.8	6.8	6.8	6.8	6.7	6.7	6.8	6.6	6.7	6.7	6.6	6.7
22	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.7
23	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.7
24	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.7
25	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.7
26	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.7
27	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.7
28	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.7
29	6.8	6.8	6.8	6.8	6.7	6.7	6.8	6.6	6.7	6.7	6.6	6.7
30	6.8	6.7	6.8	6.8	6.7	6.8	6.7	6.6	6.7	6.7	6.6	6.7
31	---	---	---	6.8	6.7	6.8	6.7	6.6	6.7	---	---	---
MONTH	6.9	6.7	6.8	6.8	6.5	6.7	6.8	6.5	6.7	6.8	6.6	6.7
YEAR	7.3	5.3	6.9									

SANDY RIVER BASIN

14138800 BLAZED ALDER CREEK NEAR RHODODENDRON, OR

LOCATION.--Lat 45°27'10", long 121°53'25", in NW ¼ SE ¼ sec.25, T.1 S., R.7 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 600 ft downstream from the confluence of Bedrock and Hickman Creeks, 8.6 mi north of Rhododendron and at mile 3.78.

DRAINAGE AREA.--8.17 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 2,540 ft above NGVD of 1929, from topographic map.

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

AVERAGE DISCHARGE.--42 years (water years 1964-2005), 57.1 ft³/s, 94.90 in/yr, 41,340 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft³/s Dec. 22, 1964, gage height, 8.25 ft, from rating curve extended above 330 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 1.0 ft³/s Sept. 2-7, 2003.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 18	0330	*755	*4.36				
						No other peak greater than base discharge.	

Minimum discharge, 1.7 ft³/s, Sept. 8, 9, 27-29, gage height, 1.01 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	80	51	19	24	17	103	31	38	10	3.6	2.2
2	9.8	158	38	18	21	17	89	32	43	9.6	3.6	2.0
3	9.1	124	31	17	19	16	82	27	35	9.2	3.5	2.0
4	8.6	75	28	16	28	15	79	28	29	8.5	3.3	2.0
5	8.1	52	26	e15	30	14	63	27	29	7.9	3.3	1.9
6	15	40	24	15	25	14	60	25	28	10	3.1	1.9
7	12	32	33	15	22	13	94	26	28	8.9	3.2	1.9
8	20	27	188	14	20	13	104	29	27	8.3	3.1	1.8
9	35	23	187	14	18	12	69	46	23	11	3.1	2.9
10	23	21	289	13	17	12	53	60	21	9.2	2.9	7.1
11	18	19	264	e12	16	11	82	58	22	8.8	2.9	4.0
12	15	17	149	14	21	11	66	48	29	8.2	2.9	2.7
13	13	16	91	14	25	10	51	39	28	7.6	2.8	2.4
14	12	15	91	14	21	9.6	46	35	26	7.2	2.6	2.2
15	11	15	75	e13	19	9.3	43	39	22	6.8	2.4	2.2
16	11	16	59	e17	18	11	94	48	25	6.4	2.4	2.1
17	19	14	48	105	16	12	104	56	41	6.4	2.6	2.2
18	92	19	40	537	16	11	83	97	36	6.0	2.8	2.2
19	85	20	36	184	15	21	65	131	30	5.7	2.6	2.0
20	48	16	32	108	15	18	54	92	26	5.4	2.4	2.0
21	81	15	29	78	14	15	50	70	22	5.0	2.4	2.0
22	90	14	31	56	13	14	50	65	20	5.4	2.3	2.0
23	99	16	28	45	13	13	64	50	18	5.0	2.2	1.9
24	90	75	25	37	12	12	58	41	15	4.7	2.2	1.9
25	63	194	24	31	12	12	69	34	14	4.5	2.2	1.9
26	51	101	24	28	13	71	57	29	14	4.4	2.0	1.9
27	48	58	22	26	13	350	48	25	14	4.3	2.0	1.8
28	38	42	20	24	17	238	40	22	14	4.2	2.0	1.7
29	38	34	23	36	---	148	36	20	12	4.0	3.3	1.8
30	90	34	23	32	---	89	34	19	11	3.8	2.9	1.9
31	97	---	20	27	---	65	---	20	---	3.6	2.3	---
TOTAL	1,259.6	1,382	2,049	1,594	513	1,293.9	1,990	1,369	740	210.0	84.9	85.6
MEAN	40.6	46.1	66.1	51.4	18.3	41.7	66.3	44.2	24.7	6.77	2.74	2.85
MAX	99	194	289	537	30	350	104	131	43	11	3.6	1.9
MIN	8.1	14	20	12	12	9.3	34	19	11	3.6	2.0	1.7
AC-FT	2,500	2,740	4,060	3,160	1,020	2,570	3,950	2,720	1,470	417	168	170
CFSM	4.97	5.64	8.09	6.29	2.24	5.11	8.12	5.41	3.02	0.83	0.34	0.35
IN.	5.74	6.29	9.33	7.26	2.34	5.89	9.06	6.23	3.37	0.96	0.39	0.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2005, BY WATER YEAR (WY)

	MEAN	30.1	86.8	104	101	81.0	69.2	78.6	71.6	38.2	10.6	5.52	10.3
MAX	82.5	218	288	207	221	167	150	165	115	35.4	27.6	35.5	
(WY)	(1968)	(1996)	(1965)	(1974)	(1996)	(1972)	(1990)	(1969)	(1964)	(1983)	(1968)	(1977)	
MIN	1.57	12.5	22.6	19.2	17.5	17.7	33.1	18.1	4.74	3.38	1.53	1.67	
(WY)	(1988)	(1994)	(1977)	(1985)	(1969)	(1992)	(1983)	(1992)	(1992)	(2003)	(2003)	(1991)	

SANDY RIVER BASIN

14138800 BLAZED ALDER CREEK NEAR RHODODENDRON, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1964 - 2005	
ANNUAL TOTAL	18,351.5		12,571.0		57.1	
ANNUAL MEAN	50.1		34.4		88.1	
HIGHEST ANNUAL MEAN					33.5	
LOWEST ANNUAL MEAN					1974	
HIGHEST DAILY MEAN	900	Jan 29	537	Jan 18	1,810	Nov 25, 1999
LOWEST DAILY MEAN	2.1	Aug 21	1.7	Sep 28	1.0	Sep 3, 2003
ANNUAL SEVEN-DAY MINIMUM	2.3	Aug 15	1.8	Sep 23	1.0	Aug 31, 2003
ANNUAL RUNOFF (AC-FT)	36,400		24,930		41,340	
ANNUAL RUNOFF (CFSM)	6.14		4.22		6.98	
ANNUAL RUNOFF (INCHES)	83.56		57.24		94.90	
10 PERCENT EXCEEDS	97		82		130	
50 PERCENT EXCEEDS	36		19		31	
90 PERCENT EXCEEDS	5.7		2.4		3.3	

e Estimated

SANDY RIVER BASIN

14138800 BLAZED ALDER CREEK NEAR RHODODENDRON, OR—Continued



2005 Water Year
SANDY RIVER BASIN

14138800 BLAZED ALDER CREEK NEAR RHODODENDRON, OR

Latitude: 45° 27' 10"

Longitude: 121° 53' 25"

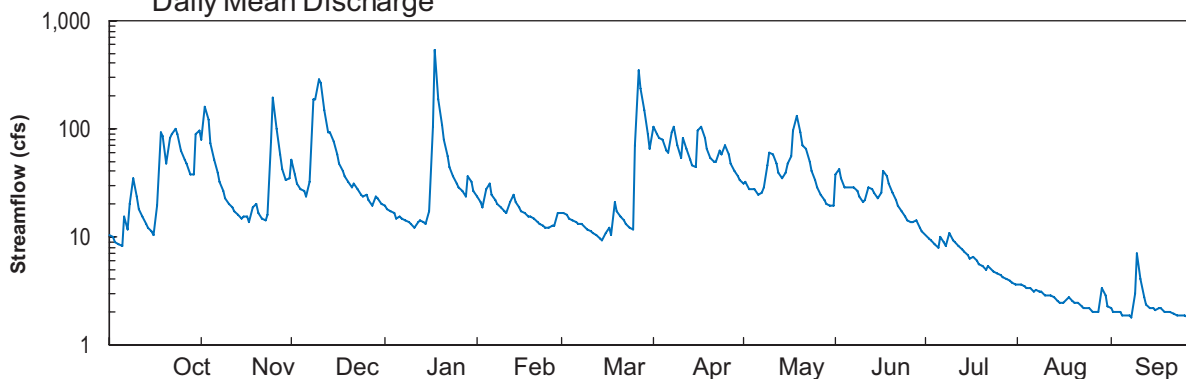
Hydrologic Unit Code: 17080001

Clackamas County

Datum: 2540.00 feet

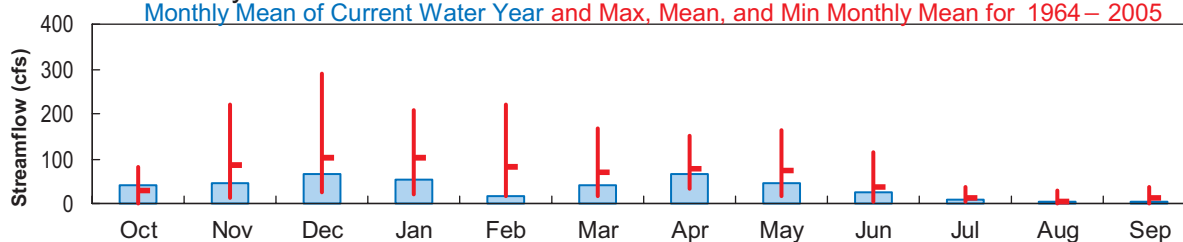
Drainage Area: 8.17 mi²

Daily Mean Discharge

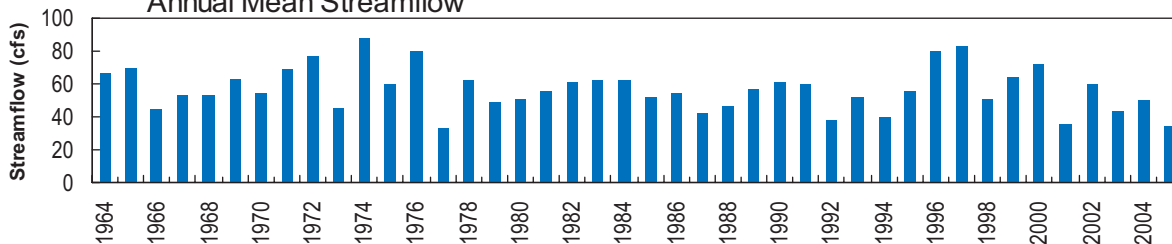


Monthly Statistics

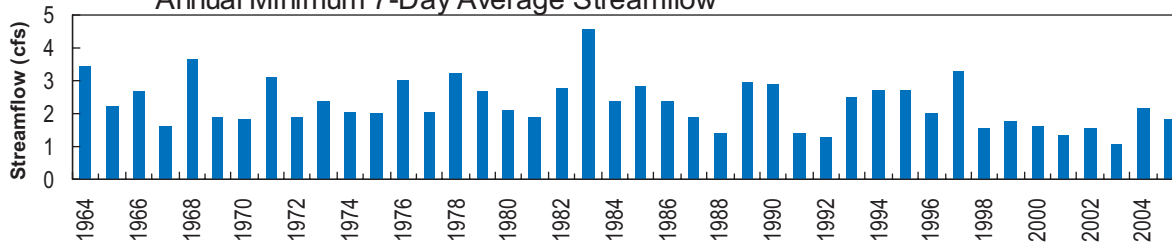
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1964–2005



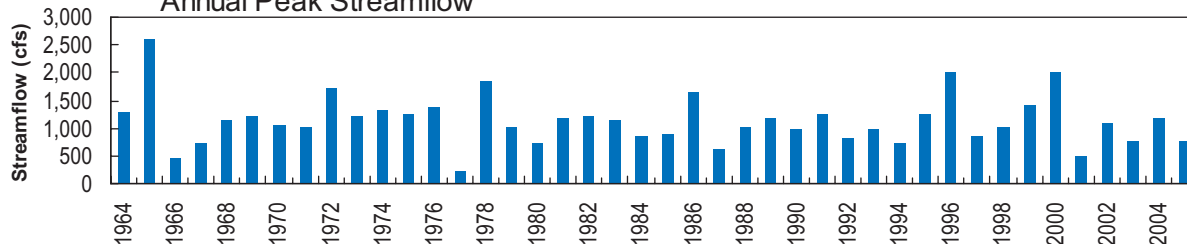
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



SANDY RIVER BASIN

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

LOCATION.--Lat 45°29'54", long 122°00'40", near center of sec.12, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 1.2 mi upstream from North Fork, 7.0 mi southeast of Multnomah Falls and at mile 14.8.

DRAINAGE AREA.--47.9 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR OR-91-I: 1990.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,080 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Regulation at times since 1915 by Bull Run Lake, usable capacity, 12,270 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--39 years (water years 1967-2005), 404 ft³/s, 114.46 in/yr, 292,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s Nov. 25, 1999, gage height, 14.46 ft; minimum discharge, 30 ft³/s Oct. 28-31, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 18	0330	*5,350	*9.94				

No other peak greater than base discharge.

Minimum discharge, 37 ft³/s, Sept. 27-29, gage height, 2.38 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	510	482	184	267	130	688	218	367	117	52	43
2	96	1,140	358	169	241	121	598	221	403	110	52	43
3	92	885	294	156	218	114	522	198	333	106	51	42
4	89	530	266	142	254	106	568	211	285	100	49	42
5	85	396	258	135	288	102	466	205	268	95	48	41
6	152	319	241	133	266	98	418	186	256	123	48	41
7	109	273	315	130	253	95	513	189	264	107	47	40
8	155	236	1,090	122	229	93	548	200	270	98	46	40
9	276	207	1,130	114	209	90	412	366	237	147	48	42
10	209	185	2,030	107	195	87	340	571	214	126	47	72
11	165	168	2,200	101	182	85	500	490	209	121	47	56
12	141	152	999	115	215	82	432	383	241	110	47	46
13	124	142	601	124	262	79	360	313	242	103	47	43
14	111	133	619	106	229	76	344	287	227	97	45	42
15	105	139	516	96	202	74	335	301	205	91	45	42
16	103	142	407	119	183	79	683	376	207	88	45	42
17	168	130	336	735	170	93	709	450	329	84	48	42
18	588	171	291	3,590	159	81	574	705	299	79	48	41
19	596	186	264	1,190	150	125	452	922	282	75	46	41
20	390	158	242	710	142	126	377	666	243	72	45	40
21	559	142	228	550	133	116	330	530	216	70	44	39
22	628	136	240	432	126	103	306	492	195	71	44	39
23	655	159	222	363	118	98	357	391	176	69	44	39
24	595	636	199	314	114	92	346	330	159	65	44	39
25	465	1,270	195	280	110	89	450	283	145	63	43	38
26	393	654	223	258	107	494	392	247	136	61	43	38
27	365	427	193	254	105	2,720	330	217	147	59	43	38
28	304	329	176	231	124	1,760	282	195	154	57	42	37
29	318	276	197	341	---	1,160	257	178	136	56	48	37
30	509	296	205	344	---	729	244	169	127	55	51	201
31	574	---	188	297	---	516	---	185	---	53	45	---
TOTAL	9,220	10,527	15,205	11,942	5,251	9,813	13,133	10,675	6,972	2,728	1,442	1,426
MEAN	297	351	490	385	188	317	438	344	232	88.0	46.5	47.5
MAX	655	1,270	2,200	3,590	288	2,720	709	922	403	147	52	201
MIN	85	130	176	96	105	74	244	169	127	53	42	37
AC-FT	18,290	20,880	30,160	23,690	10,420	19,460	26,050	21,170	13,830	5,410	2,860	2,830
CFSM	6.21	7.33	10.2	8.04	3.92	6.61	9.14	7.19	4.85	1.84	0.97	0.99
IN.	7.16	8.18	11.81	9.27	4.08	7.62	10.20	8.29	5.41	2.12	1.12	1.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2005, BY WATER YEAR (WY)

MEAN	238	595	706	680	593	508	509	434	279	112	81.9	117
MAX	535	1,325	1,434	1,238	1,216	1,120	834	885	699	292	231	294
(WY)	(1968)	(1996)	(1978)	(1975)	(1996)	(1972)	(1993)	(1969)	(1974)	(1983)	(1968)	(1977)
MIN	36.5	72.4	193	177	167	148	242	150	54.8	54.0	43.7	39.9
(WY)	(1988)	(1994)	(1977)	(1985)	(1993)	(1992)	(1967)	(1992)	(1992)	(1977)	(1967)	(2001)

SANDY RIVER BASIN

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1967 - 2005	
ANNUAL TOTAL	136,204		98,334			
ANNUAL MEAN	372		269		404	
HIGHEST ANNUAL MEAN					643	1974
LOWEST ANNUAL MEAN					249	1977
HIGHEST DAILY MEAN	5,880	Jan 29	3,590	Jan 18	11,900	Nov 25, 1999
LOWEST DAILY MEAN	44	Aug 19	37	Sep 28	30	Oct 29, 1987
ANNUAL SEVEN-DAY MINIMUM	45	Aug 15	38	Sep 23	31	Oct 25, 1987
ANNUAL RUNOFF (AC-FT)	270,200		195,000		292,300	
ANNUAL RUNOFF (CFSM)	7.77		5.62		8.42	
ANNUAL RUNOFF (INCHES)	105.78		76.37		114.46	
10 PERCENT EXCEEDS	654		563		845	
50 PERCENT EXCEEDS	282		183		258	
90 PERCENT EXCEEDS	61		45		57	

SANDY RIVER BASIN

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued



2005 Water Year
SANDY RIVER BASIN

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

Latitude: 45° 29' 54"

Longitude: 122° 00' 40"

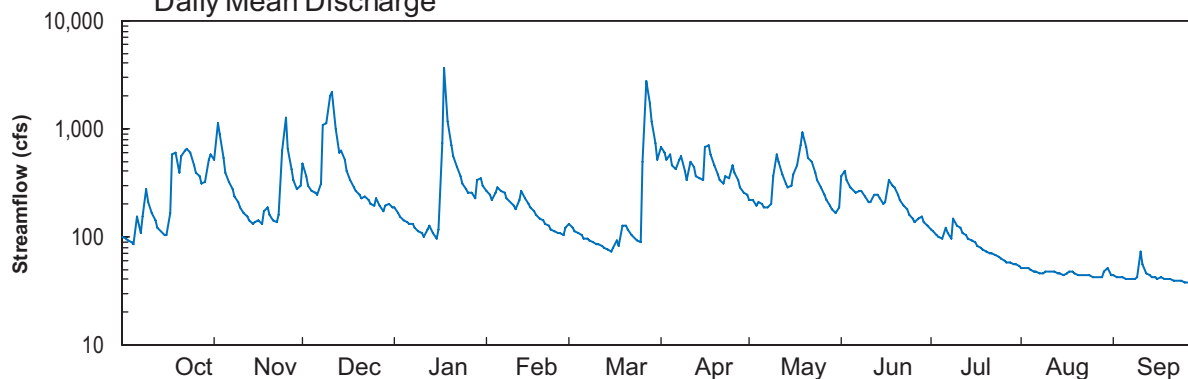
Hydrologic Unit Code: 17080001

Multnomah County

Datum: 1080.00 feet

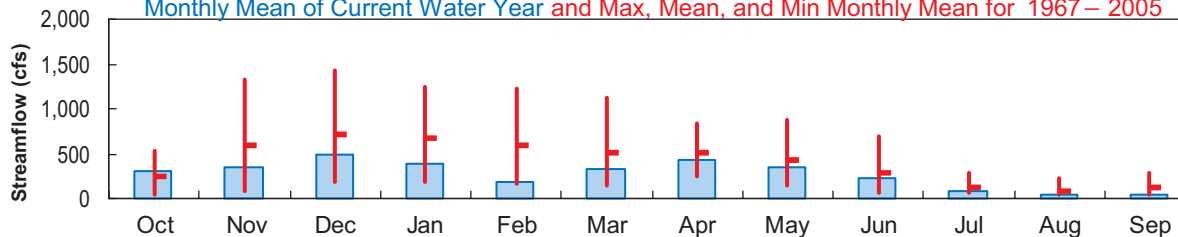
Drainage Area: 47.9 mi²

Daily Mean Discharge

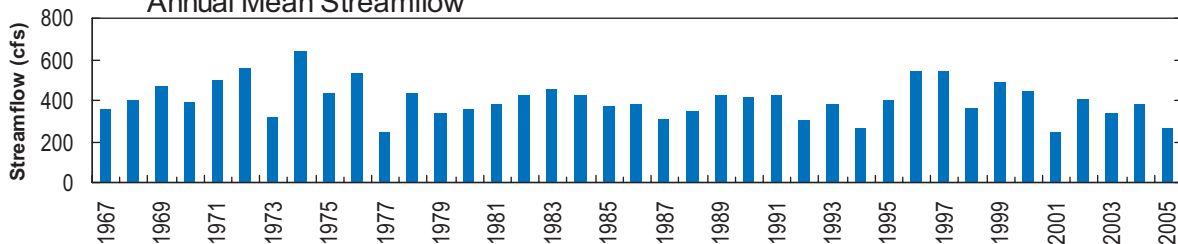


Monthly Statistics

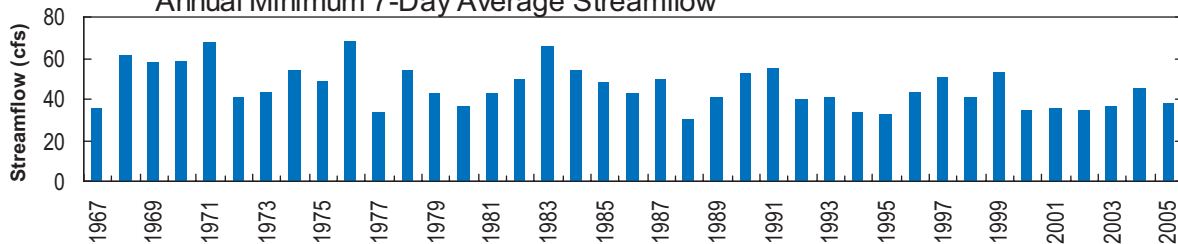
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1967 – 2005



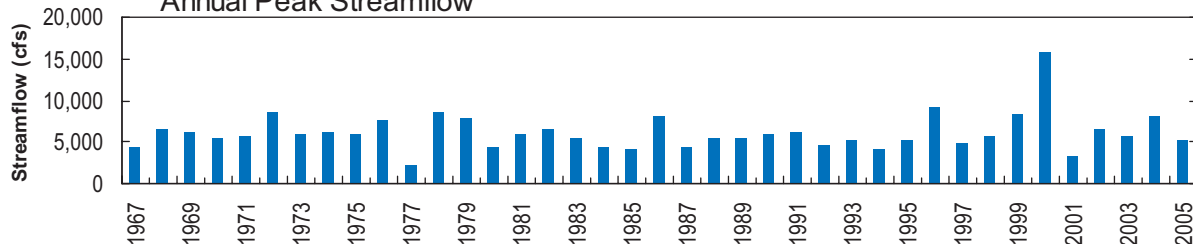
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



SANDY RIVER BASIN

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1977 to current year.

pH: August 1990 to September 1992.

WATER TEMPERATURE: October 1977 to current year.

TURBIDITY: August 1990 to July 1994.

SUSPENDED SEDIMENT DISCHARGE: October 1977 to September 1986.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--

SPECIFIC CONDUCTANCE: Records good.

WATER TEMPERATURE: Records excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 44 microsiemens Sept. 17, 1988; minimum recorded, 9 microsiemens Jan. 23, 1982, Feb. 23, 1986, Dec. 4, 1989, Apr. 14, 2002.

pH: Maximum recorded, 8.1 units Aug. 30, Sept. 1, 1990; minimum recorded, 5.7 units Jan. 18, 1991.

WATER TEMPERATURE: Maximum, 18.0°C June 22-25, 1992, July 23, 1994; minimum, 0.0°C on many days during winter periods.

TURBIDITY: Maximum recorded, 44 NTU Jan. 15, 1991; minimum recorded, 0.08 NTU Aug. 30, 31, 1992.

SEDIMENT CONCENTRATION: Maximum daily, 290 mg/L Dec. 2, 1977; minimum, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 5,930 tons Dec. 2, 1977; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 35 microsiemens Sept. 25; minimum, 14 microsiemens Jan. 18.

WATER TEMPERATURE: Maximum, 16.6°C July 28 minimum, 0.0°C Jan. 15.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

SANDY RIVER BASIN

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

SANDY RIVER BASIN

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.1	10.0	10.4	7.5	5.9	6.5	5.4	4.4	5.0	3.8	3.4	3.6
2	10.6	9.6	10.0	8.4	7.1	7.9	4.9	4.3	4.6	3.5	3.2	3.4
3	10.4	9.6	10.1	7.3	6.3	7.0	4.9	4.6	4.8	3.2	2.2	2.6
4	10.4	9.6	10.0	6.3	5.4	5.9	5.1	4.3	4.7	2.2	1.3	1.7
5	10.4	9.6	10.0	6.6	5.2	5.8	5.1	4.1	4.6	2.2	1.2	1.5
6	11.5	10.4	11.0	6.6	5.6	6.1	4.4	3.8	4.2	2.8	2.2	2.5
7	11.5	10.4	10.9	7.5	6.4	6.9	4.9	4.3	4.6	3.1	2.6	2.9
8	11.1	10.4	10.6	7.3	6.4	6.9	5.7	4.9	5.4	2.9	2.5	2.6
9	10.6	9.8	10.1	7.3	6.8	7.0	6.6	5.6	6.0	3.1	2.8	2.9
10	10.0	9.4	9.7	7.9	7.1	7.5	7.1	6.6	6.8	2.9	2.0	2.5
11	9.6	8.6	9.1	7.7	7.3	7.6	7.1	6.3	6.7	2.0	1.3	1.6
12	9.8	9.0	9.3	7.3	6.6	6.9	6.3	4.9	5.2	2.8	1.9	2.3
13	10.6	9.6	10	7.3	7.0	7.1	5.9	4.9	5.3	3.4	2.8	3.1
14	10.6	9.8	10.2	7.1	6.8	7.0	6.8	5.9	6.5	3.1	1.2	2.2
15	10.6	10.2	10.5	7.3	6.8	7.0	6.4	5.2	5.8	1.2	0.0	0.4
16	10.6	10.4	10.6	7.3	7.3	7.3	5.6	5.1	5.3	2.2	0.1	1.2
17	10.6	9.2	10.2	7.3	6.8	6.9	6.4	5.6	5.9	3.8	2.2	2.5
18	9.2	8.6	8.8	7.0	6.4	6.8	6.6	5.9	6.2	5.1	3.8	4.7
19	9.4	8.6	9.0	6.4	5.7	6.1	6.4	5.9	6.2	5.7	4.9	5.3
20	9.2	8.8	9.0	5.7	4.4	5.0	6.1	5.2	5.6	6.0	5.1	5.4
21	9.0	8.4	8.8	4.4	4.0	4.2	5.2	4.4	4.7	5.8	5.0	5.4
22	8.8	8.1	8.4	5.7	4.4	5.0	5.2	4.4	4.9	6.2	5.0	5.5
23	8.6	7.3	8.1	6.6	5.7	6.0	4.8	4.1	4.3	6.2	5.6	5.9
24	8.1	7.3	7.7	7.9	6.6	7.5	4.1	3.8	3.9	6.0	5.0	5.4
25	7.5	6.3	7.0	7.7	6.6	7.4	5.2	4.1	4.7	6.0	5.3	5.6
26	7.5	7.0	7.3	6.6	5.6	6.2	5.4	4.9	5.2	6.0	5.5	5.7
27	7.5	6.8	7.1	5.6	4.9	5.1	4.9	4.8	4.8	6.2	5.6	6.0
28	7.5	7.1	7.4	5.1	4.1	4.7	4.8	4.4	4.5	5.8	5.5	5.6
29	8.1	7.5	7.7	4.1	3.5	3.9	4.8	4.4	4.5	5.6	5.1	5.3
30	7.9	6.8	7.5	4.4	3.4	3.8	4.8	4.3	4.4	5.5	5.1	5.3
31	7.0	6.3	6.7	---	---	---	4.3	3.4	3.9	5.8	5.0	5.3
MONTH	11.5	6.3	9.1	8.4	3.4	6.3	7.1	3.4	5.1	6.2	0.0	3.7
FEBRUARY			MARCH			APRIL			MAY			
1	5.1	3.9	4.3	6.0	5.1	5.6	5.8	5.1	5.4	9.1	7.8	8.4
2	4.7	3.7	4.2	6.3	5.6	5.9	6.0	4.7	5.3	9.5	8.5	8.9
3	5.1	4.2	4.5	6.0	4.8	5.3	5.6	5.0	5.3	10.8	8.0	9.2
4	5.3	4.8	5.0	5.8	5.0	5.4	5.2	4.2	4.7	10.3	9.1	9.7
5	5.0	4.0	4.4	6.0	5.3	5.7	6.5	4.5	5.4	9.7	9.1	9.4
6	4.0	3.6	3.8	6.0	4.8	5.4	7.8	5.6	6.6	9.7	9.3	9.4
7	4.2	3.4	3.7	7.2	5.6	6.3	7.2	5.3	6.1	9.5	8.5	9.0
8	3.7	3.1	3.3	7.2	6.2	6.7	6.2	4.5	5.3	9.7	8.5	9.1
9	3.7	3.1	3.4	7.4	6.3	6.8	5.8	5.1	5.5	9.3	8.0	8.5
10	3.7	3.1	3.4	7.6	6.3	7.0	6.5	5.1	5.8	8.0	7.4	7.7
11	3.9	3.1	3.5	8.0	6.9	7.4	6.5	5.3	5.8	8.0	7.6	7.8
12	4.3	3.3	3.8	8.0	7.4	7.7	5.3	4.5	4.8	9.9	7.6	8.5
13	4.2	3.4	3.9	7.8	6.1	6.6	5.3	4.0	4.6	9.9	8.0	8.9
14	3.4	3.0	3.2	6.5	5.1	5.7	5.5	3.6	4.4	11.2	9.3	10.0
15	3.0	2.1	2.4	5.8	4.8	5.3	6.0	4.2	5.0	10.5	9.7	10.1
16	2.7	2.1	2.3	5.6	5.3	5.5	6.3	5.6	6.0	9.7	8.1	9.0
17	2.8	2.1	2.4	5.8	5.1	5.5	5.7	5.0	5.3	8.7	7.6	8.1
18	3.4	2.5	2.9	5.5	4.6	4.9	6.0	4.7	5.2	9.3	8.1	8.5
19	3.9	2.8	3.3	6.3	5.2	5.7	7.4	4.8	5.9	8.5	7.8	8.1
20	4.2	3.7	3.9	6.5	6.2	6.3	7.6	5.3	6.3	8.3	7.2	7.8
21	4.0	3.3	3.7	6.2	5.3	5.7	8.5	6.3	7.3	8.1	7.2	7.7
22	4.2	3.4	3.8	5.5	4.7	5.0	8.9	6.9	7.8	9.1	7.4	8.1
23	4.3	3.6	3.9	5.5	4.8	5.1	8.5	7.2	7.6	9.5	7.0	8.1
24	4.3	3.4	3.9	5.3	4.8	5.1	7.6	6.2	7.0	10.5	7.0	8.5
25	4.3	3.4	3.8	5.5	4.7	5.1	7.6	7.0	7.3	11.6	7.8	9.4
26	4.5	3.4	4.0	6.2	5.1	5.5	9.5	6.3	7.7	12.8	9.3	10.8
27	5.3	4.2	4.6	6.3	5.8	6.2	10.1	7.0	8.5	14.0	10.1	11.8
28	5.8	5.1	5.5	5.8	4.8	5.2	9.3	8.0	8.4	13.2	11.4	12.3
29	---	---	---	5.0	4.0	4.6	8.3	7.8	7.9	12.5	10.1	11.0
30	---	---	---	5.1	4.0	4.6	9.3	7.4	8.2	10.8	9.7	10.2
31	---	---	---	6.3	4.2	5.2	---	---	---	10.5	9.5	9.9
MONTH	5.8	2.1	3.7	8.0	4.0	5.7	10.1	3.6	6.2	14.0	7.0	9.2

SANDY RIVER BASIN

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.5	9.0	9.2	14.6	12.2	13.4	15.8	14.5	15.0	13.0	12.1	12.6
2	9.0	8.6	8.7	13.6	11.5	12.2	15.0	13.2	14.3	13.5	12.5	12.9
3	9.4	8.4	8.7	13.4	10.4	11.8	15.0	13.0	14.1	13.0	12.5	12.7
4	9.6	7.7	8.6	14.4	11.1	12.6	15.8	13.5	14.5	12.8	12.1	12.4
5	9.0	8.0	8.3	14.6	12.0	13.3	16.1	14.2	15.2	12.3	11.4	11.7
6	8.6	7.7	8.1	14.1	12.7	13.1	15.8	14.2	15.3	11.9	11.0	11.4
7	8.4	7.7	8.1	14.1	12.0	12.9	15.8	13.7	14.7	12.3	11.4	11.8
8	11.1	8.0	9.2	13.4	12.0	12.3	15.5	14.0	14.8	12.5	11.6	12.1
9	11.5	8.2	9.7	12.4	11.5	12.0	15.5	14.0	14.8	12.3	11.4	12.0
10	10.4	9.0	9.4	12.0	11.3	11.7	15.0	13.5	14.2	11.4	10.7	11.1
11	9.4	9.0	9.2	13.1	11.5	12.2	14.5	13.0	13.8	11.0	9.7	10.2
12	10.2	8.2	9.0	13.1	12.0	12.5	14.5	12.8	13.7	10.5	9.9	10.2
13	10.7	8.6	9.5	12.7	12.0	12.3	15.0	13.5	14.2	10.8	10.1	10.4
14	9.6	8.8	9.1	14.6	11.1	12.6	15.0	13.5	14.4	10.8	10.1	10.4
15	11.1	8.2	9.5	15.4	12.7	13.9	15.0	13.5	14.2	11.2	10.7	10.9
16	10.4	9.4	9.9	14.9	13.1	13.9	14.7	13.7	14.2	10.7	10.1	10.2
17	10.0	8.8	9.4	15.4	12.2	13.8	14.5	13.2	13.7	10.8	9.9	10.2
18	9.6	8.8	9.2	16.0	13.1	14.6	14.0	12.3	13.1	10.3	9.3	9.7
19	11.5	8.2	9.7	15.7	13.6	14.6	14.5	13.0	13.7	9.7	9.1	9.4
20	13.4	9.6	11.3	15.2	12.7	13.9	15.0	13.5	14.3	10.1	9.5	9.7
21	12.2	10.9	11.4	14.9	12.7	13.8	15.0	14.0	14.6	9.9	9.1	9.4
22	11.3	10.4	10.8	14.9	14.1	14.4	15.0	14.0	14.4	9.3	8.7	9.0
23	13.1	9.8	11.3	15.4	13.1	14.2	14.0	12.3	13.2	9.5	8.9	9.1
24	12.9	10.4	11.6	15.2	13.1	14.3	12.8	11.4	12.0	8.9	8.0	8.3
25	12.9	11.3	11.9	15.4	12.9	14.2	13.5	11.6	12.5	8.3	7.6	7.9
26	12.0	10.7	11.0	16.0	13.4	14.6	13.7	12.8	13.2	8.7	7.9	8.2
27	11.3	10.4	10.9	16.2	13.6	14.9	13.7	12.8	13.2	9.1	8.5	8.7
28	11.1	10.4	10.7	16.6	14.5	15.6	13.5	12.3	13.0	9.1	8.5	8.7
29	13.6	10.2	11.5	16.3	14.5	15.5	13.5	12.5	13.1	9.3	8.5	8.9
30	14.6	11.3	12.8	16.3	14.2	15.4	13.0	12.1	12.5	11.4	9.3	10.4
31	---	---	---	16.1	14.2	15.2	12.8	11.8	12.4	---	---	---
MONTH	14.6	7.7	9.9	16.6	10.4	13.6	16.1	11.4	13.9	13.5	7.6	10.4
YEAR	16.6	0.0	8.1									

SANDY RIVER BASIN

14138870 FIR CREEK NEAR BRIGHTWOOD, OR

LOCATION.--Lat 45°28'49", long 122°01'28", in NE ¼ SE ¼ sec.14, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, on right bank, 6.4 mi north of Brightwood and 0.6 mi above Bull Run Reservoir Number One.

DRAINAGE AREA.--5.46 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

REVISED RECORDS.--WDR OR-78-1: 1976. WDR OR-82-2: 1976(P), 1978-79(P), 1981, WDR OR-91-1: 1976. WDR-OR-04-1: 2000-02(P).

GAGE.--Water-stage recorder. Elevation of gage is 1,440 ft above NGVD of 1929, from topographic map.

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

AVERAGE DISCHARGE.--30 years (water years 1976-2005), 34.2 ft³/s, 85.13 in/yr, 24,780 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,690 ft³/s Nov. 25, 1999, gage height, 5.01 ft; minimum discharge, 1.4 ft³/s Sept. 5-7, 2003.

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. 18	0300	*303	*3.39				

Minimum discharge, 2.4 ft³/s, Sept. 6, 7, gage height, 1.18 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	47	48	18	19	12	69	19	24	12	5.2	2.6
2	8.8	93	35	17	18	11	55	20	31	12	5.1	2.6
3	8.3	79	28	16	16	10	49	18	25	11	4.9	2.6
4	8.0	49	25	15	18	9.9	48	19	21	11	4.8	2.5
5	7.7	36	23	14	18	9.5	42	18	20	10	4.7	2.5
6	13	28	22	14	18	9.2	39	17	20	13	4.4	2.5
7	9.9	24	28	14	17	8.8	46	18	21	11	4.3	2.5
8	15	22	95	13	17	8.5	45	18	22	10	4.1	2.5
9	22	19	90	12	16	8.2	35	30	20	15	4.1	3.0
10	18	18	139	12	15	7.9	29	49	18	13	4.0	6.4
11	15	17	169	11	15	7.6	42	47	18	13	3.9	4.6
12	14	15	87	11	17	7.4	36	36	20	12	3.7	3.4
13	12	15	53	11	20	7.1	31	28	20	11	3.6	3.0
14	11	14	53	11	18	6.9	31	25	19	11	3.5	2.9
15	11	14	45	10	17	6.7	31	26	17	10	3.4	2.8
16	10	14	37	12	16	7.1	73	33	19	9.9	3.2	2.8
17	16	13	31	57	15	7.9	73	40	29	9.4	3.6	2.8
18	45	17	27	193	14	7.1	54	71	26	8.9	3.5	2.8
19	47	17	24	78	14	10	45	84	26	8.5	3.2	2.7
20	31	15	22	47	13	10	37	55	23	8.2	3.1	2.6
21	42	14	21	36	13	9.7	31	44	20	7.8	3.0	2.6
22	47	14	22	29	12	8.8	28	41	18	7.5	2.9	2.6
23	54	16	21	24	11	8.3	31	32	16	7.2	2.8	2.8
24	48	59	20	21	11	7.9	28	27	15	6.8	2.8	2.7
25	37	95	19	19	11	7.7	37	23	14	6.6	2.6	2.7
26	33	54	21	18	10	42	32	21	13	6.3	2.5	2.7
27	29	37	19	18	10	186	27	19	15	6.1	2.5	2.6
28	25	28	18	16	11	136	23	17	16	6.1	2.5	2.6
29	29	24	19	24	---	101	21	16	14	5.8	3.0	2.6
30	45	25	19	24	---	65	21	15	13	5.5	3.2	16
31	51	---	18	21	---	49	---	15	---	5.3	2.8	---
TOTAL	772.1	932	1,298	836	420	794.2	1,189	941	593	290.9	110.9	100.0
MEAN	24.9	31.1	41.9	27.0	15.0	25.6	39.6	30.4	19.8	9.38	3.58	3.33
MAX	54	95	169	193	20	186	73	84	31	15	5.2	16
MIN	7.7	13	18	10	10	6.7	21	15	13	5.3	2.5	2.5
AC-FT	1,530	1,850	2,570	1,660	833	1,580	2,360	1,870	1,180	577	220	198
CFSM	4.56	5.69	7.67	4.94	2.75	4.69	7.26	5.56	3.62	1.72	0.66	0.61
IN.	5.26	6.35	8.84	5.70	2.86	5.41	8.10	6.41	4.04	1.98	0.76	0.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2005, BY WATER YEAR (WY)

	18.7	53.2	63.0	54.2	54.3	44.8	45.5	33.5	22.5	9.12	5.17	8.07
MAX	44.8	110	133	96.9	126	91.5	73.2	53.0	58.6	27.3	13.0	27.7
(WY)	(1996)	(1996)	(1978)	(1976)	(1982)	(1997)	(1993)	(1977)	(1981)	(1983)	(1978)	(1977)
MIN	1.97	6.09	15.3	15.8	15.0	14.0	22.2	14.6	3.80	3.50	2.13	2.40
(WY)	(1988)	(1994)	(1977)	(2001)	(2005)	(1992)	(2004)	(1992)	(1992)	(1992)	(2003)	(2001)

SANDY RIVER BASIN

14138870 FIR CREEK NEAR BRIGHTWOOD, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1976 - 2005	
ANNUAL TOTAL	11,178.3		8,277.1		34.2	
ANNUAL MEAN	30.5		22.7		53.5	
HIGHEST ANNUAL MEAN					19.6	
LOWEST ANNUAL MEAN					1,150	
HIGHEST DAILY MEAN	456	Jan 29	193	Jan 18	Nov 25, 1999	
LOWEST DAILY MEAN	2.8	Aug 19	2.5	Aug 26	Sep 6, 2003	
ANNUAL SEVEN-DAY MINIMUM	2.9	Aug 15	2.5	Sep 2	Aug 31, 2003	
ANNUAL RUNOFF (AC-FT)	22,170		16,420		24,780	
ANNUAL RUNOFF (CFSM)	5.59		4.15		6.27	
ANNUAL RUNOFF (INCHES)	76.16		56.39		85.13	
10 PERCENT EXCEEDS	57		47		73	
50 PERCENT EXCEEDS	22		16		21	
90 PERCENT EXCEEDS	5.4		3.1		3.5	



2005 Water Year
SANDY RIVER BASIN

14138870 FIR CREEK NEAR BRIGHTWOOD, OR

Latitude: 45° 28 ' 49"

Longitude: 122° 01 ' 28"

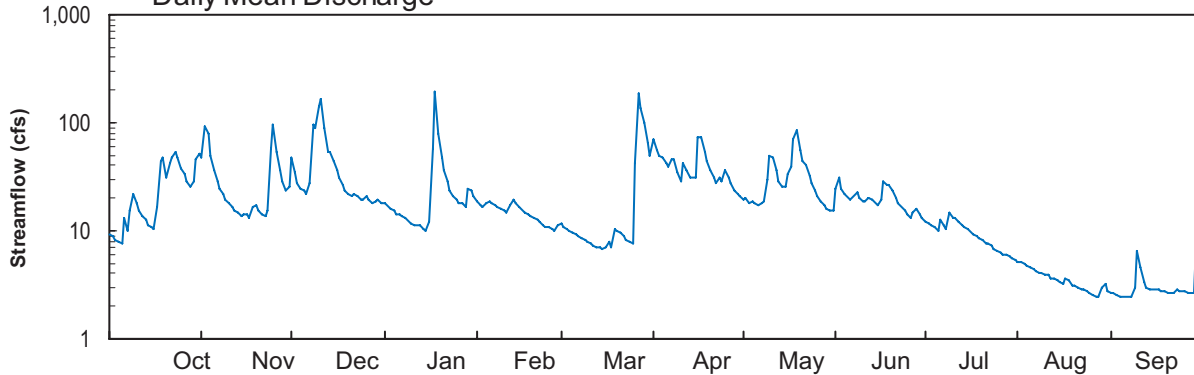
Hydrologic Unit Code: 17080001

Multnomah County

Datum: 1440.00 feet

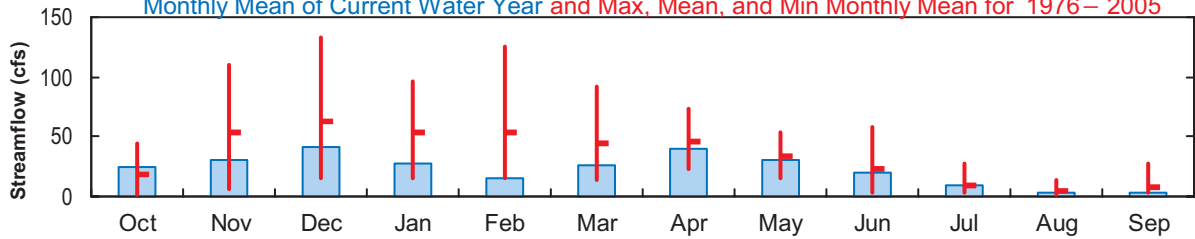
Drainage Area: 5.46 mi²

Daily Mean Discharge

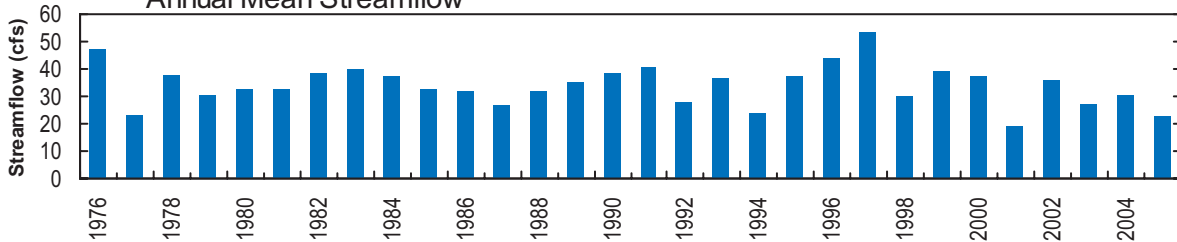


Monthly Statistics

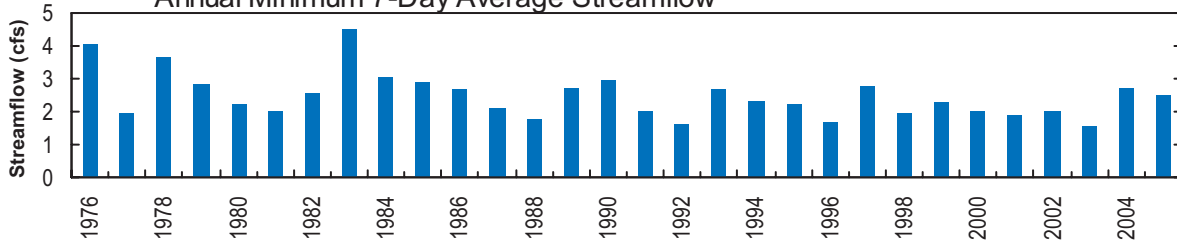
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1976–2005



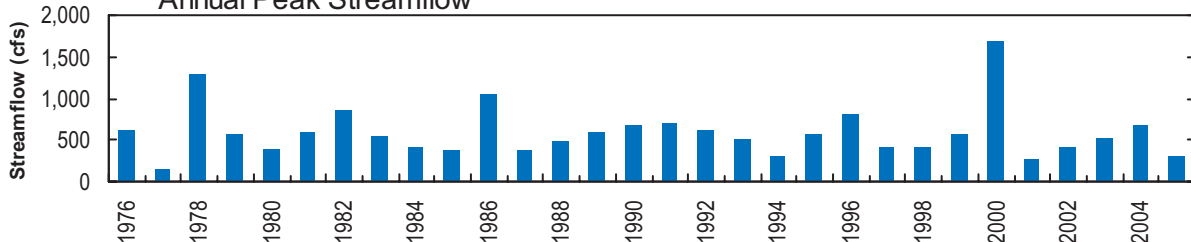
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



SANDY RIVER BASIN

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1977 to current year.

pH: August 1990 to September 1992.

WATER TEMPERATURE: October 1977 to current year.

TURBIDITY: August 1990 to September 1994.

SUSPENDED SEDIMENT DISCHARGE: October 1977 to September 1986.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Turbidity data prior to October 1990 are available in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Records good.

WATER TEMPERATURE: Records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 49 microsiemens May 6, 1988, Aug. 13, 1990; minimum, 7 microsiemens Nov. 30, 1994.

pH: Maximum recorded, 7.7 units Sept. 13, 1990, but may have been higher during periods of missing record; minimum recorded, 6.0 units Sept. 5, 6, 8, 1991, but may have been lower during periods of missing record.

WATER TEMPERATURE: Maximum recorded, 16.0°C Sept. 1, 1987, June 23, 24, July 18, 19, 1992; minimum recorded, 0.0°C on several days during winter periods most years.

TURBIDITY: Maximum recorded, 11 NTU Nov. 25, 1991; minimum recorded, 0.04 NTU Feb. 15, 16, 1993.

SEDIMENT CONCENTRATION: Maximum, 200 mg/L Jan. 23, Feb. 20, 1982; minimum, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum, 345 tons Dec. 2, 1977; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 29 microsiemens several days in September; minimum, 14 microsiemens Jan. 18.

WATER TEMPERATURE: Maximum, 14.3°C July 28, 30, 31, Aug. 5, 6; minimum, 0.8°C Jan. 15.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

SANDY RIVER BASIN

14138870 FIR CREEK NEAR BRIGHTWOOD, OR—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

SANDY RIVER BASIN

14138870 FIR CREEK NEAR BRIGHTWOOD, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9.8	9.2	9.6	7.4	6.2	6.7	5.6	4.7	5.2	4.3	4.0	4.1
2	9.7	8.9	9.4	8.0	7.1	7.5	5.2	4.9	5.1	4.0	3.4	3.8
3	9.7	9.1	9.4	7.1	6.4	7.0	5.2	4.9	5.1	3.4	2.9	3.2
4	9.7	9.1	9.4	6.4	6.1	6.2	5.4	4.9	5.2	2.9	2.1	2.5
5	9.7	9.1	9.4	6.6	6.1	6.3	5.4	4.6	4.9	2.8	2.1	2.3
6	10.3	9.7	10	6.7	6.2	6.4	4.7	4.4	4.6	3.4	2.8	3.1
7	10.1	9.5	9.8	7.3	6.6	6.9	5.2	4.7	5.0	3.5	2.9	3.3
8	9.9	9.5	9.7	7.1	6.7	6.9	5.7	5.2	5.4	3.4	3.1	3.2
9	9.7	9.1	9.4	7.1	6.7	7.0	6.4	5.7	6.0	3.4	3.2	3.3
10	9.1	8.7	8.9	7.5	7.1	7.3	6.8	6.2	6.5	3.2	2.5	2.8
11	8.8	8.4	8.6	7.3	7.1	7.3	6.9	6.2	6.6	2.5	1.9	2.2
12	8.9	8.6	8.7	7.1	6.7	6.9	6.2	5.4	5.7	3.1	2.4	2.8
13	9.3	8.8	9.1	7.3	6.9	7.1	6.4	5.6	5.9	3.4	3.1	3.2
14	9.5	9.1	9.3	7.3	6.7	6.9	6.6	6.4	6.5	3.1	1.6	2.5
15	9.7	9.3	9.5	7.3	6.9	7.1	6.4	5.7	6.0	1.6	0.8	1.3
16	9.7	9.5	9.5	7.1	7.1	7.1	5.9	5.6	5.8	2.6	1.5	2.3
17	9.5	8.6	9.1	7.1	6.6	6.8	6.4	5.9	6.2	3.6	2.6	2.9
18	8.6	8.2	8.5	6.9	6.2	6.5	6.6	6.2	6.3	5.2	3.6	4.7
19	8.8	8.6	8.6	6.2	5.4	5.9	6.4	6.1	6.3	5.7	5.2	5.4
20	8.8	8.2	8.5	5.4	4.6	5.0	6.1	5.2	5.7	6.0	5.5	5.7
21	8.6	8.0	8.4	4.7	4.4	4.5	5.2	4.7	5.0	6.0	5.7	5.8
22	8.4	8.0	8.1	5.6	4.7	5.3	5.4	4.7	5.2	6.2	5.7	5.9
23	8.2	7.4	7.9	6.4	5.6	5.9	4.7	4.6	4.6	6.5	6.0	6.2
24	7.8	7.3	7.6	7.3	6.4	7.0	4.7	4.4	4.6	6.2	5.7	5.9
25	7.4	6.7	7.1	7.3	6.6	7.1	5.4	4.7	5.1	6.5	5.8	6.1
26	7.4	7.1	7.3	6.6	5.7	6.3	5.4	4.9	5.2	6.5	6.2	6.3
27	7.3	6.7	7.0	5.7	5.2	5.4	5.1	4.9	5.0	6.5	6.0	6.3
28	7.3	7.1	7.2	5.2	4.7	5.1	5.1	4.7	4.8	6.2	5.8	6.0
29	7.6	7.3	7.4	4.7	4.3	4.5	5.1	4.7	5.0	6.0	5.5	5.6
30	7.5	6.7	7.2	4.7	4.1	4.4	4.9	4.6	4.7	5.5	5.3	5.4
31	6.9	6.4	6.7	---	---	---	4.6	3.8	4.2	6.3	5.3	5.6
MONTH	10.3	6.4	8.6	8.0	4.1	6.3	6.9	3.8	5.4	6.5	0.8	4.2
FEBRUARY			MARCH			APRIL			MAY			
1	5.3	4.5	4.9	5.7	5.2	5.4	5.6	5.1	5.3	7.9	7.0	7.5
2	5.0	4.5	4.8	6.0	5.5	5.7	5.7	4.9	5.3	8.1	7.5	7.7
3	5.3	4.9	5.1	5.5	4.9	5.2	5.4	4.9	5.3	8.7	7.2	8.0
4	5.7	5.3	5.4	5.8	4.9	5.4	5.1	4.4	4.8	8.7	7.9	8.3
5	5.3	4.2	4.8	5.8	5.2	5.5	6.1	4.9	5.4	8.5	7.9	8.2
6	4.2	3.8	4.0	5.7	4.9	5.3	6.6	5.6	6.1	8.3	7.9	8.2
7	4.2	3.8	4.0	6.5	5.5	6.0	6.2	5.1	5.7	8.3	7.5	7.9
8	3.9	3.8	3.8	6.4	5.9	6.2	5.7	4.6	5.2	8.5	7.7	8.0
9	4.1	3.8	3.9	6.8	6.1	6.4	5.7	5.2	5.5	7.9	7.4	7.7
10	4.1	3.8	3.9	6.9	6.1	6.5	6.1	5.1	5.6	7.4	7.0	7.1
11	4.2	3.6	4.0	7.1	6.4	6.8	5.9	4.8	5.5	7.2	7.0	7.1
12	4.7	3.9	4.3	7.3	6.4	6.9	5.1	4.5	4.8	8.3	7.0	7.6
13	4.4	3.8	4.1	6.4	5.6	6.1	5.1	4.2	4.6	8.5	7.4	8.0
14	3.8	3.3	3.7	5.9	5.1	5.6	5.0	3.7	4.4	8.9	8.1	8.5
15	3.3	2.9	3.1	5.6	4.6	5.2	5.5	4.3	5.0	8.9	8.3	8.7
16	3.2	2.9	3.1	5.7	5.1	5.4	5.6	5.3	5.5	8.3	7.5	7.9
17	3.3	2.9	3.2	5.4	4.8	5.1	5.5	4.8	5.1	7.7	7.2	7.4
18	3.9	3.2	3.5	5.1	4.4	4.8	5.6	4.7	5.1	8.1	7.5	7.7
19	4.4	3.5	3.9	5.7	5.1	5.4	6.3	4.8	5.5	7.7	7.4	7.5
20	4.4	4.1	4.2	6.1	5.4	5.8	6.5	5.5	6.0	7.7	7.0	7.3
21	4.4	3.8	4.1	5.6	4.9	5.2	7.0	6.0	6.6	7.5	6.8	7.2
22	4.4	3.8	4.0	5.1	4.6	4.9	7.5	6.3	7.0	7.7	7.0	7.3
23	4.5	3.9	4.2	5.1	4.6	4.9	7.2	6.5	6.8	7.9	6.6	7.3
24	4.7	4.1	4.3	5.1	4.4	4.8	6.8	6.0	6.5	8.7	6.8	7.7
25	4.5	3.9	4.2	5.2	4.4	4.8	6.8	6.5	6.6	9.4	7.4	8.3
26	4.7	3.8	4.2	5.7	4.9	5.2	7.5	6.1	6.9	10.4	8.3	9.1
27	5.2	4.2	4.8	6.1	5.6	5.9	8.1	6.8	7.5	11.1	8.9	9.9
28	5.7	5.2	5.4	5.6	5.1	5.2	7.9	7.2	7.6	10.9	9.4	10.1
29	---	---	---	5.2	4.8	5.1	7.5	7.0	7.2	9.8	8.9	9.2
30	---	---	---	5.4	4.6	5.1	7.9	7.0	7.3	9.1	8.8	8.9
31	---	---	---	6.1	4.9	5.5	---	---	---	8.9	8.4	8.7
MONTH	5.7	2.9	4.2	7.3	4.4	5.5	8.1	3.7	5.9	11.1	6.6	8.1

SANDY RIVER BASIN

14138870 FIR CREEK NEAR BRIGHTWOOD, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.6	8.2	8.4	11.8	10.1	10.9	13.5	12.8	13.2	12.2	10.9	11.7
2	8.2	8.0	8.1	10.5	9.9	10.2	13.3	11.7	12.6	12.2	11.5	11.8
3	8.2	7.6	7.9	11.2	8.9	10	13.3	11.5	12.5	11.9	11.5	11.7
4	8.2	7.3	7.8	11.8	9.5	10.6	14.0	12.2	13.1	11.7	11.1	11.4
5	7.8	7.3	7.6	12.3	10.1	11.1	14.3	12.6	13.5	11.3	10.4	10.9
6	8.0	7.1	7.4	11.4	10.8	11.1	14.3	12.8	13.5	11.3	10.2	10.8
7	7.6	7.1	7.4	11.2	10.3	10.7	13.8	12.1	13.1	11.7	10.6	11.2
8	8.8	7.3	8.0	10.8	10.3	10.5	14.0	12.6	13.3	11.7	10.9	11.4
9	9.3	7.5	8.4	10.5	9.9	10.3	13.8	12.4	13.2	11.5	10.6	11.1
10	8.8	7.8	8.3	10.5	9.9	10.2	13.3	11.9	12.6	10.6	9.8	10.3
11	8.4	7.8	8.1	11.0	10.1	10.5	13.1	11.7	12.3	10.0	9.2	9.7
12	8.6	7.6	8.0	11.0	10.3	10.6	12.8	11.5	12.3	10.4	9.4	9.8
13	8.8	7.8	8.3	10.8	10.1	10.4	13.5	12.1	12.8	10.2	9.4	9.9
14	8.4	7.8	8.1	12.1	9.7	10.8	13.5	12.1	12.9	10.2	9.4	9.9
15	9.3	7.3	8.3	12.5	10.8	11.6	13.5	12.1	13.0	10.4	9.8	10.1
16	9.0	8.4	8.7	12.0	11.2	11.6	13.5	12.6	13.0	9.8	9.4	9.7
17	8.8	8.0	8.4	13.0	10.8	11.8	12.8	12.4	12.5	10.0	9.4	9.7
18	8.6	7.5	8.1	13.4	11.4	12.4	12.8	11.5	12.3	9.4	8.8	9.3
19	9.0	7.1	8.1	13.2	11.4	12.3	13.3	11.9	12.7	9.4	9.0	9.2
20	10.3	8.2	9.3	13.0	11.0	11.9	13.5	12.1	13.0	9.6	9.0	9.3
21	9.7	9.1	9.4	13.2	10.8	12.1	13.8	12.6	13.1	9.2	8.7	9.0
22	9.3	8.9	9.1	12.7	12.0	12.3	13.1	12.6	12.8	9.0	8.5	8.8
23	10.3	8.6	9.4	13.2	11.4	12.2	12.6	11.7	12.0	8.8	8.2	8.6
24	10.6	8.9	9.7	13.0	11.4	12.1	12.2	10.6	11.5	8.2	7.6	7.9
25	10.1	9.5	9.7	13.0	11.2	12.1	12.6	11.3	12.0	8.2	7.5	7.9
26	9.5	9.1	9.3	13.4	11.6	12.5	12.8	11.7	12.4	8.6	7.8	8.2
27	9.5	8.9	9.2	13.9	11.8	13.0	12.6	11.5	12.2	8.8	8.2	8.4
28	9.5	9.1	9.2	14.3	12.6	13.4	12.6	11.5	12.2	8.6	8.0	8.4
29	10.8	8.9	9.7	14.0	12.4	13.3	12.4	11.5	11.9	9.1	8.4	8.7
30	11.8	9.5	10.5	14.3	12.6	13.4	11.9	11.3	11.5	10.1	9.1	9.8
31	---	---	---	14.3	12.4	13.4	11.9	10.8	11.4	---	---	---
MONTH	11.8	7.1	8.6	14.3	8.9	11.6	14.3	10.6	12.6	12.2	7.5	9.8
YEAR	14.3	0.8	7.6									

SANDY RIVER BASIN

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

LOCATION.--Lat 45°29'40", long 122°02'05", near line between SE 1/4 and SW 1/4 sec.11, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, Mount Hood National Forest, on left bank 7.0 mi southeast of Multnomah Falls and at mouth.

DRAINAGE AREA.--8.32 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1965 to current year.

REVISED RECORDS.--WDR OR-91-1: 1976.

GAGE.--Water-stage recorder. Elevation of gage is 1,060 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1978, and from June 13, 1989 to July 1990 (during bridge construction), at site 700 ft upstream at datum 18.7 ft higher. From Oct. 1, 1978 to June 13, 1989, and July 1990 to present, site located 5 ft upstream from bridge, on left bank wing wall.

REMARKS.--No estimated daily discharges. Records good. Regulation at times since 1958 by North Fork Reservoir, capacity, about 1,030 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--40 years (water years 1966-2005), 72.6 ft³/s, 118.59 in/yr, 52,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft³/s, probably affected by surge from release of water temporarily impounded by landslide upstream from station, Jan. 20, 1972, gage height, 9.89 ft. from floodmark, from rating curve extended above 850 ft³/s on basis of estimate of peak flow from slope-area survey; minimum discharge, 8.6 ft³/s Oct. 19-29, 1987.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 18	0230	*632	*4.78				

Minimum discharge, 8.5 ft³/s Sept. 24-29, gage height, 1.77 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	82	107	37	47	24	131	38	64	23	13	10
2	22	188	69	35	41	23	99	38	58	22	13	9.8
3	21	142	57	33	38	22	100	34	46	21	12	9.8
4	20	89	50	30	47	21	98	38	40	20	12	9.6
5	20	70	47	29	48	20	83	34	41	20	12	9.6
6	30	59	46	29	46	19	74	31	40	23	12	9.5
7	23	50	63	28	45	19	93	30	47	21	11	9.4
8	39	44	164	27	40	18	89	32	48	20	11	9.4
9	50	39	167	26	37	18	70	52	40	29	11	9.8
10	35	36	323	25	35	18	62	126	35	24	11	11
11	29	33	401	24	34	17	100	79	34	23	11	10
12	26	31	191	25	44	17	74	61	37	21	11	9.7
13	25	29	114	25	44	16	65	50	37	20	11	9.5
14	23	27	143	24	37	16	65	51	32	19	11	9.4
15	22	30	99	23	34	16	68	58	30	18	11	9.3
16	23	30	77	27	31	18	150	76	34	18	11	9.3
17	48	30	65	102	30	22	125	82	51	17	11	9.3
18	126	38	56	430	29	19	104	156	44	17	11	9.2
19	118	34	51	185	28	28	80	168	42	16	11	9.1
20	71	29	45	115	27	24	68	120	35	15	10	9.1
21	106	27	44	92	27	24	58	89	32	15	10	9.0
22	106	27	47	71	26	21	52	88	30	15	10	8.9
23	105	34	43	60	25	19	58	67	29	15	10	8.9
24	93	122	39	52	25	18	53	57	27	15	10	8.8
25	73	215	38	46	24	18	75	49	26	14	10	8.8
26	66	103	48	42	23	106	61	43	25	14	9.9	8.7
27	56	72	38	44	22	377	52	38	31	14	9.8	8.6
28	49	59	35	40	25	273	46	35	31	13	9.8	8.6
29	51	50	39	71	---	211	45	32	27	13	11	8.6
30	78	61	39	67	---	139	42	32	25	13	11	36
31	79	---	37	55	---	101	---	37	---	13	10	---
TOTAL	1,656	1,880	2,782	1,919	959	1,702	2,340	1,921	1,118	561	338.5	306.7
MEAN	53.4	62.7	89.7	61.9	34.2	54.9	78.0	62.0	37.3	18.1	10.9	10.2
MAX	126	215	401	430	48	377	150	168	64	29	13	36
MIN	20	27	35	23	22	16	42	30	25	13	9.8	8.6
AC-FT	3,280	3,730	5,520	3,810	1,900	3,380	4,640	3,810	2,220	1,110	671	608
CFSM	6.42	7.53	10.8	7.44	4.12	6.60	9.38	7.45	4.48	2.18	1.31	1.23
IN.	7.40	8.41	12.44	8.58	4.29	7.61	10.46	8.59	5.00	2.51	1.51	1.37

SANDY RIVER BASIN

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2005, BY WATER YEAR (WY)												
MEAN	42.7	104	129	128	107	89.6	87.4	72.8	47.9	24.2	17.5	23.0
MAX	95.9	222	285	309	231	200	147	137	111	62.7	39.3	54.4
(WY)	(1998)	(1996)	(1976)	(1975)	(1996)	(1972)	(1993)	(1972)	(1974)	(1983)	(2004)	(1977)
MIN	9.08	16.9	33.4	32.1	34.2	28.8	49.5	28.3	14.6	12.6	10.6	10.2
(WY)	(1988)	(1994)	(1977)	(1979)	(2005)	(1992)	(1967)	(1992)	(1992)	(1992)	(1994)	(2005)
SUMMARY STATISTICS												
	FOR 2004 CALENDAR YEAR					FOR 2005 WATER YEAR				WATER YEARS 1966 - 2005		
ANNUAL TOTAL	24,726					17,483.2						
ANNUAL MEAN	67.6					47.9				72.6		
HIGHEST ANNUAL MEAN										121		
LOWEST ANNUAL MEAN										44.3		
HIGHEST DAILY MEAN	793					430				1,910		
LOWEST DAILY MEAN	12					8.6				8.6		
ANNUAL SEVEN-DAY MINIMUM	12					8.7				8.7		
ANNUAL RUNOFF (AC-FT)	49,040					34,680				52,610		
ANNUAL RUNOFF (CFSM)	8.12					5.76				8.73		
ANNUAL RUNOFF (INCHES)	110.55					78.17				118.59		
10 PERCENT EXCEEDS	122					100				150		
50 PERCENT EXCEEDS	50					33				47		
90 PERCENT EXCEEDS	16					10				14		

SANDY RIVER BASIN

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued



2005 Water Year
SANDY RIVER BASIN

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

Latitude: 45° 29' 40"

Longitude: 122° 02' 05"

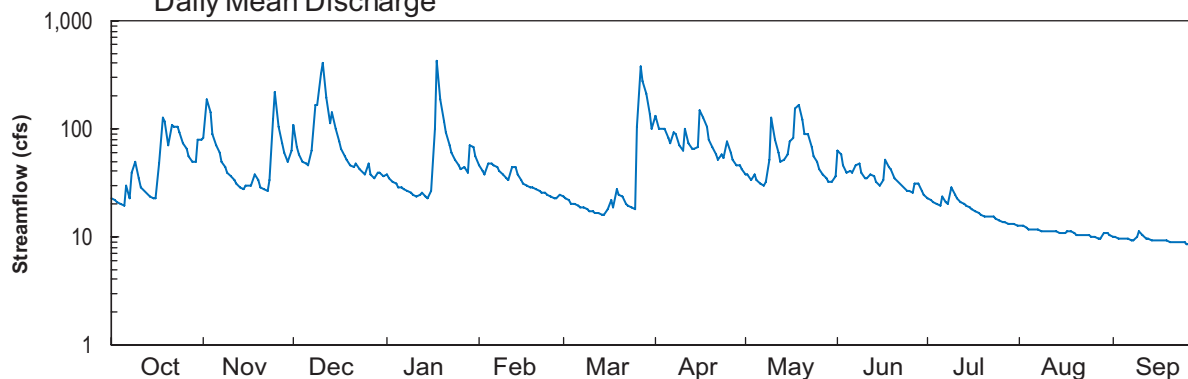
Hydrologic Unit Code: 17080001

Multnomah County

Datum: 1060.00 feet

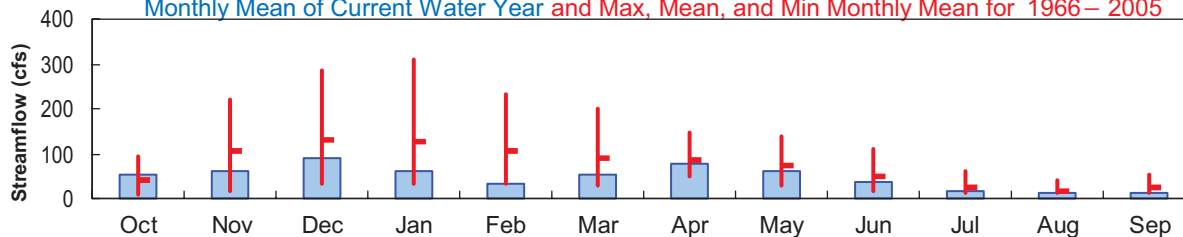
Drainage Area: 8.32 mi²

Daily Mean Discharge

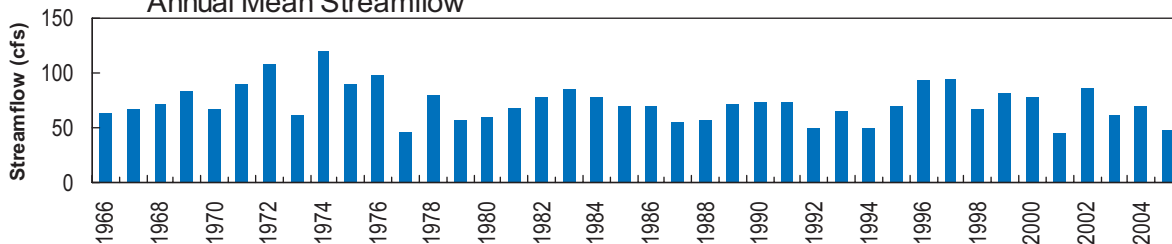


Monthly Statistics

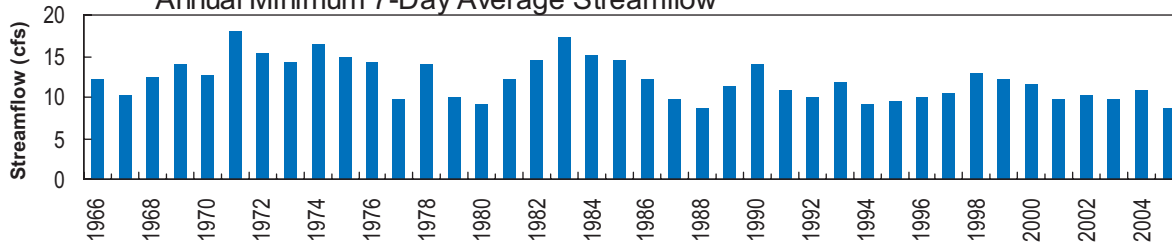
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1966–2005



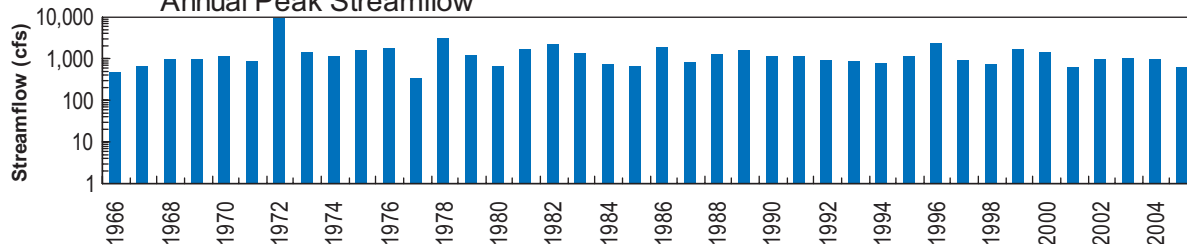
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



SANDY RIVER BASIN

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1978 to current year.

pH: October 1980 to September 1981, August 1990 to September 1992.

WATER TEMPERATURE: October 1978 to current year.

TURBIDITY: August 1990 to September 1994.

SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1986.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Turbidity data prior to October 1990 are available in the files of the Portland field office.

SPECIFIC CONDUCTANCE: Records excellent.

WATER TEMPERATURE: Records excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 103 microsiemens Jan. 13, 1981 (cement spill); minimum, 7 microsiemens Jan. 31, Feb. 19, 1995.

pH: Maximum recorded, 9.8 units Jan. 13, 1981 (cement spill); minimum recorded, 6.3 units June 19, 1981.

WATER TEMPERATURE: Maximum, 15.0°C July 28, 1998; minimum, 0.0°C on several days during winter periods.

TURBIDITY: Maximum recorded, 25 NTU Nov. 24, 1990; minimum recorded, 0.06 NTU Sept. 7, 13, 14, 1992.

SEDIMENT CONCENTRATION: Maximum daily, 205 mg/L Dec. 25, 1980; minimum, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 765 tons Feb. 23, 1986; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 43 microsiemens Sept. 16, 19, 23; minimum, 14 microsiemens Dec. 11, Mar. 27, 28.

WATER TEMPERATURE: Maximum, 13.6°C July 27, 30; minimum, 1.5°C Jan. 15.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	32	31	32	22	19	21	22	18	20	28	27	27
2	33	32	32	19	17	18	22	19	20	28	27	28
3	33	32	33	19	17	18	22	21	21	29	28	28
4	34	33	33	20	19	20	23	22	22	29	28	29
5	34	33	34	21	20	21	23	22	23	30	29	29
6	34	30	32	22	21	22	24	23	23	30	29	30
7	34	33	33	23	22	23	24	20	22	30	29	30
8	34	27	32	25	23	24	20	17	18	31	30	30
9	28	26	27	25	24	25	18	15	18	31	30	31
10	29	28	28	26	25	25	16	15	15	32	31	31
11	30	29	30	27	26	26	18	14	16	32	31	32
12	31	30	30	28	26	27	20	17	19	32	31	32
13	32	31	31	28	27	28	21	19	20	32	31	32
14	33	32	32	29	28	28	20	19	19	32	31	32
15	33	32	32	29	27	28	21	20	20	33	32	32
16	33	32	32	29	26	28	22	21	21	33	31	32
17	32	24	29	29	27	28	23	22	23	31	19	27
18	24	20	22	29	25	27	24	23	23	19	16	17
19	21	20	20	28	26	27	24	24	24	19	18	18
20	22	21	22	28	27	28	26	24	25	21	19	20
21	22	20	20	29	28	28	26	25	26	22	20	21
22	21	19	20	31	29	29	26	25	25	23	21	22
23	20	20	20	30	25	28	26	25	26	24	23	23
24	21	20	20	25	20	21	27	26	27	25	23	24
25	22	21	21	20	16	18	27	26	27	26	24	25
26	22	21	22	21	18	20	26	25	26	27	25	26
27	23	22	23	23	20	21	28	26	27	26	25	26
28	24	23	24	23	21	22	28	27	28	28	26	26
29	25	23	24	23	22	23	28	26	27	26	22	24
30	24	21	22	24	19	22	27	26	27	24	22	23
31	22	21	21	---	---	---	28	27	27	24	23	24
MONTH	34	19	27	31	16	24	28	14	23	33	16	27

SANDY RIVER BASIN

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

SANDY RIVER BASIN

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.3	9.1	9.8	7.6	6.1	6.6	5.4	4.8	5.1	4.2	3.7	3.9
2	10.3	8.9	9.7	8.3	7.2	7.8	5.3	4.6	4.8	3.8	3.2	3.6
3	10.3	9.3	9.7	7.2	6.3	6.9	5.1	4.6	4.9	3.4	2.8	3.1
4	10.1	9.1	9.7	6.5	5.4	5.9	5.3	4.5	4.9	2.8	2.3	2.6
5	10.1	9.1	9.6	6.5	5.3	5.9	5.1	4.3	4.7	2.9	2.1	2.4
6	10.7	9.7	10.2	6.8	5.8	6.2	4.6	4.0	4.4	3.5	2.8	3.1
7	10.3	9.5	9.9	7.4	6.3	6.8	5.0	4.3	4.7	3.7	2.9	3.3
8	10.5	9.5	9.9	7.2	6.3	6.7	5.1	4.6	4.9	3.5	3.1	3.2
9	10.3	9.5	9.9	7.2	6.5	6.8	6.3	5.0	5.5	3.7	3.2	3.4
10	9.7	9.1	9.5	7.6	6.8	7.2	7.2	6.0	6.7	3.4	2.8	3.1
11	9.5	8.3	9.0	7.7	7.0	7.3	7.6	6.3	6.9	2.8	2.2	2.5
12	9.7	8.7	9.2	7.4	6.5	6.9	6.3	4.8	5.2	3.5	2.6	3.1
13	10.1	9.1	9.5	7.6	7.0	7.2	6.0	4.8	5.4	3.8	3.3	3.5
14	10.3	9.3	9.7	7.2	6.7	7.0	6.7	5.8	6.4	3.3	2.0	2.7
15	9.7	9.5	9.6	7.2	6.7	7.0	6.5	5.5	6.0	2.1	1.5	1.8
16	9.7	9.5	9.5	7.2	6.8	7.0	6.0	5.1	5.6	3.0	2.1	2.6
17	9.7	9.1	9.4	7.2	6.5	6.9	6.5	5.6	6.0	3.4	2.5	3.1
18	9.1	8.7	8.8	7.0	6.3	6.7	6.8	6.0	6.4	4.5	3.1	4.0
19	9.3	8.7	8.9	6.5	5.6	6.1	6.7	5.8	6.1	5.7	4.5	5.1
20	9.1	8.5	8.8	5.6	5.0	5.3	6.0	5.1	5.5	5.9	4.9	5.4
21	8.9	8.3	8.7	5.3	4.5	4.9	5.1	4.3	4.7	5.9	5.2	5.6
22	8.5	8.1	8.3	6.0	5.0	5.5	5.3	4.5	4.8	6.2	5.2	5.7
23	8.5	7.6	8.0	6.5	5.6	6.1	4.8	4.2	4.5	6.4	5.7	6.0
24	7.7	7.2	7.6	7.7	6.3	7.4	4.8	4.0	4.4	6.0	5.2	5.7
25	7.6	6.6	7.1	7.7	6.7	7.4	5.1	4.3	4.9	6.4	5.4	5.8
26	7.4	7.0	7.2	6.8	5.6	6.3	5.1	4.6	4.9	6.4	5.7	6.0
27	7.6	6.8	7.2	5.6	5.1	5.3	5.1	4.5	4.8	6.4	5.7	6.1
28	7.4	7.0	7.2	5.1	4.5	4.9	5.0	4.5	4.7	6.2	5.7	5.8
29	7.9	7.2	7.5	4.6	4.0	4.4	5.0	4.6	4.9	5.9	4.9	5.2
30	7.6	6.8	7.3	4.8	3.7	4.2	4.8	4.3	4.6	5.5	4.7	5.1
31	7.0	6.3	6.7	---	---	---	4.3	3.7	4.2	5.9	4.7	5.3
MONTH	10.7	6.3	8.8	8.3	3.7	6.4	7.6	3.7	5.2	6.4	1.5	4.1
FEBRUARY			MARCH			APRIL			MAY			
1	5.0	4.1	4.6	6.2	5.2	5.6	5.6	5.0	5.3	9.1	7.8	8.4
2	5.4	4.2	4.7	6.2	5.5	5.8	6.0	4.6	5.4	9.1	8.3	8.8
3	5.5	4.4	4.9	6.0	4.9	5.5	5.8	5.0	5.5	10.3	7.9	8.9
4	5.5	4.7	5.0	6.0	5.0	5.6	5.1	4.3	4.8	10.3	8.7	9.4
5	4.7	3.7	4.4	6.2	5.2	5.8	6.1	4.6	5.5	9.5	8.7	9.3
6	4.1	3.6	3.7	6.4	4.9	5.7	7.6	5.8	6.7	9.3	8.7	9.1
7	4.4	3.3	3.8	7.1	5.7	6.4	7.0	5.6	6.4	9.3	8.3	8.8
8	4.1	3.1	3.6	7.3	6.0	6.6	6.1	4.6	5.5	9.5	8.3	8.8
9	4.2	3.3	3.8	7.5	6.2	6.8	6.1	5.5	5.8	8.9	8.3	8.7
10	4.4	3.3	3.8	7.8	6.2	6.9	6.5	5.5	6.0	8.3	7.8	7.9
11	4.5	3.4	3.9	7.8	6.4	7.1	6.5	5.6	6.1	8.1	7.8	7.9
12	4.4	3.6	4.0	8.0	6.7	7.3	5.6	4.6	5.2	9.5	7.8	8.5
13	4.1	3.4	3.9	7.3	5.9	6.4	5.6	4.3	4.8	9.7	7.9	8.9
14	3.8	3.0	3.5	6.6	5.2	5.9	5.1	3.9	4.5	10.7	9.1	9.8
15	3.4	2.4	2.9	6.4	5.0	5.7	5.6	4.3	5.1	10.5	9.7	10.1
16	3.6	2.5	2.9	6.2	5.4	5.8	6.3	5.6	5.9	9.7	8.5	9.2
17	3.8	2.5	3.1	6.0	5.0	5.5	6.0	5.1	5.5	8.9	8.1	8.4
18	4.1	3.0	3.4	5.5	4.7	5.1	6.0	4.6	5.3	9.4	8.2	8.8
19	4.5	3.1	3.8	6.0	5.5	5.7	7.4	5.1	6.2	9.0	8.0	8.6
20	4.6	3.8	4.2	6.2	5.5	6.0	7.6	6.1	6.8	8.6	7.7	8.1
21	4.7	3.6	4.2	5.9	5.0	5.5	8.1	6.7	7.4	8.4	7.7	8.1
22	4.9	3.8	4.3	5.4	4.7	5.1	8.9	7.4	8.1	8.6	7.7	8.1
23	5.0	3.9	4.4	5.5	4.9	5.2	8.3	7.8	8.1	9.0	7.1	7.9
24	5.2	3.7	4.5	5.5	4.7	5.1	7.9	6.8	7.4	10.0	7.5	8.5
25	5.0	3.8	4.5	5.7	4.7	5.2	8.1	7.6	7.8	10.9	8.0	9.2
26	5.2	3.8	4.5	6.4	5.2	5.6	9.1	6.8	8.0	11.7	9.0	10.1
27	5.7	4.5	5.1	6.7	6.0	6.5	9.9	7.8	8.9	12.7	9.8	11.0
28	5.9	5.4	5.5	6.0	4.5	5.2	9.3	8.5	8.8	12.2	10.6	11.3
29	---	---	---	5.0	3.9	4.4	8.5	7.9	8.3	11.1	9.8	10.3
30	---	---	---	5.0	3.8	4.4	9.1	7.8	8.4	10.2	9.6	9.9
31	---	---	---	6.1	4.3	5.3	---	---	---	9.8	9.2	9.4
MONTH	5.9	2.4	4.1	8.0	3.8	5.8	9.9	3.9	6.5	12.7	7.1	9.0

SANDY RIVER BASIN

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.6	9.0	9.3	12.6	10.3	11.1	12.4	10.9	11.6	11.5	9.4	10.2
2	9.2	8.8	9.0	10.8	9.9	10.3	12.6	10.2	11.1	11.5	9.8	10.3
3	9.2	8.2	8.7	11.9	9.3	10.3	12.7	10.0	11.1	10.9	9.6	10.0
4	9.2	7.8	8.4	12.3	9.5	10.7	13.1	10.4	11.5	10.6	9.4	9.8
5	8.8	7.8	8.2	12.6	9.9	11.1	13.4	10.9	11.8	10.6	8.6	9.5
6	8.4	7.7	8.0	11.4	10.8	11.1	13.4	10.9	11.8	10.4	8.6	9.5
7	8.6	7.7	8.0	11.9	10.3	11.0	12.7	10.4	11.4	11.1	9.2	9.9
8	10.2	8.0	8.9	11.0	10.1	10.4	12.9	10.4	11.5	11.1	9.0	10
9	10.6	8.0	9.2	11.4	10.1	10.8	12.9	10.4	11.4	10.2	9.2	9.6
10	9.6	8.4	9.1	11.0	10.1	10.6	12.6	10.2	11.0	9.6	8.8	9.2
11	9.2	8.6	8.9	11.6	10.3	10.9	12.2	10.0	10.8	9.8	8.2	8.8
12	9.4	8.2	8.7	11.4	10.5	10.9	12.2	9.6	10.6	10.0	8.2	8.9
13	10.0	8.4	9.1	11.0	10.1	10.5	12.7	10.2	11.1	10.0	8.2	9.0
14	9.2	8.4	8.8	12.3	9.5	10.7	12.9	10.2	11.1	10.0	8.2	9.0
15	10.1	7.7	8.9	12.8	10.3	11.5	12.4	10.2	11.1	9.6	8.8	9.1
16	9.7	8.7	9.2	12.1	10.8	11.3	12.7	10.4	11.1	8.8	8.0	8.4
17	9.7	8.9	9.4	13.0	10.1	11.3	11.1	10.2	10.5	9.2	8.2	8.6
18	9.7	8.5	9.2	13.3	10.5	11.8	12.2	9.8	10.7	9.2	7.5	8.2
19	10.5	8.1	9.3	12.8	10.5	11.5	12.4	10.2	11.1	9.4	7.6	8.3
20	11.9	8.9	10.2	12.6	10.1	11.1	12.7	10.4	11.3	9.6	8.0	8.6
21	11.0	9.9	10.5	12.8	10.1	11.3	12.7	10.4	11.4	9.2	7.3	8.2
22	10.5	9.7	10.0	12.1	11.2	11.5	11.5	10.4	10.9	8.9	7.2	7.9
23	11.9	9.3	10.2	13.0	10.5	11.5	10.4	9.6	10.0	8.9	7.4	7.9
24	11.6	9.5	10.4	12.8	10.3	11.2	11.1	8.8	9.7	8.1	6.6	7.3
25	11.0	9.9	10.4	12.8	10.1	11.2	11.7	9.2	10.3	8.3	6.6	7.4
26	10.3	9.5	9.9	13.3	10.3	11.5	12.0	9.8	10.5	8.7	7.0	7.8
27	10.3	9.5	9.9	13.6	10.6	11.9	12.0	9.6	10.4	8.9	7.4	8.0
28	10.1	9.7	9.8	13.4	11.3	12.2	11.7	9.6	10.4	8.9	7.4	7.9
29	11.6	9.5	10.3	13.4	10.9	11.9	10.6	9.8	10.1	8.5	7.6	8.0
30	12.6	9.7	10.9	13.6	10.9	11.9	10.9	9.6	10	10.3	8.3	9.4
31	---	---	---	13.4	10.6	11.8	11.3	9.0	9.9	---	---	---
MONTH	12.6	7.7	9.4	13.6	9.3	11.2	13.4	8.8	10.9	11.5	6.6	8.8
YEAR	13.6	1.5	7.5									