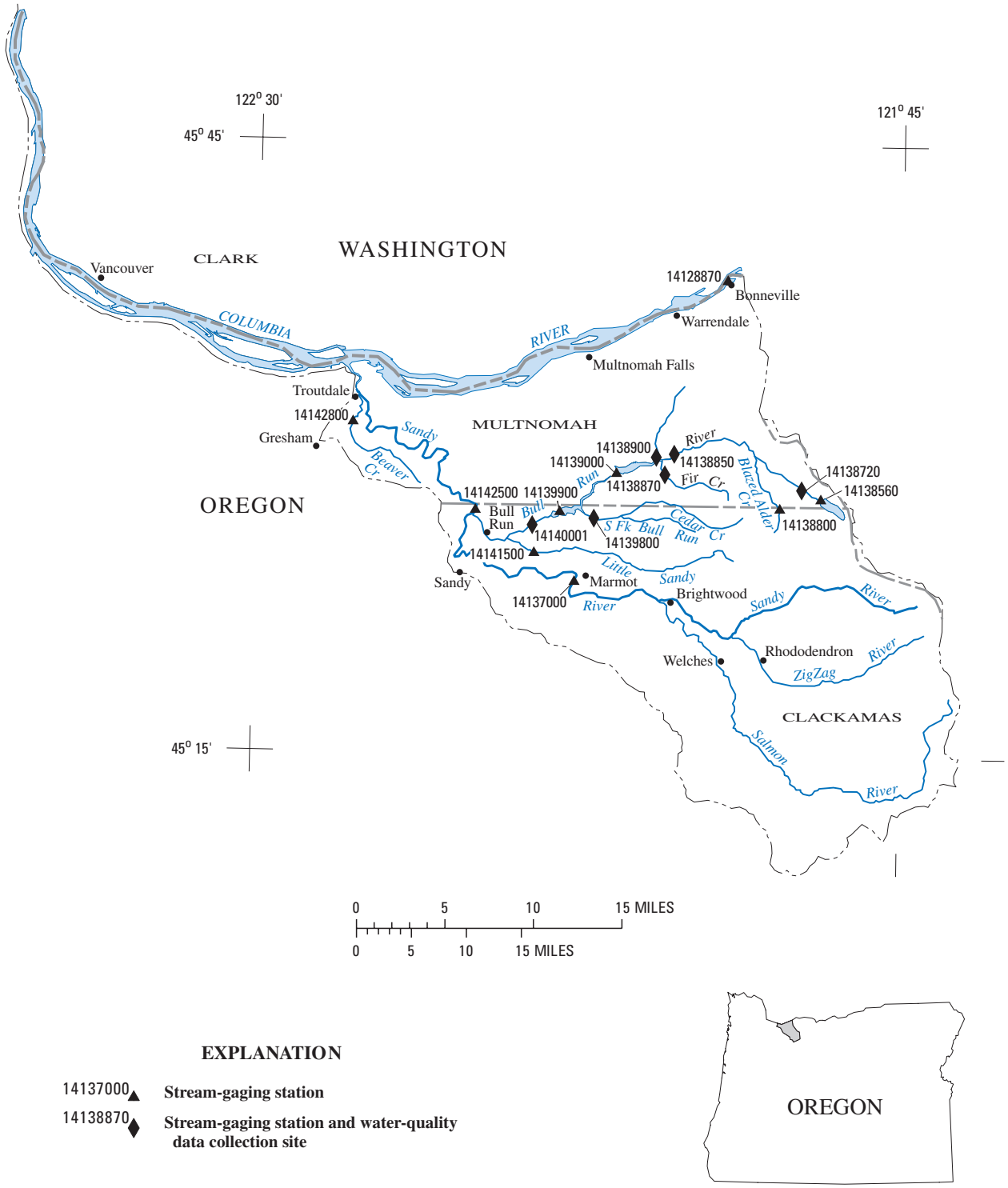


Figure 19. Location of surface-water and water-quality stations in the Columbia River between Bonneville Dam and confluence with the Willamette River and the Sandy River Basin.

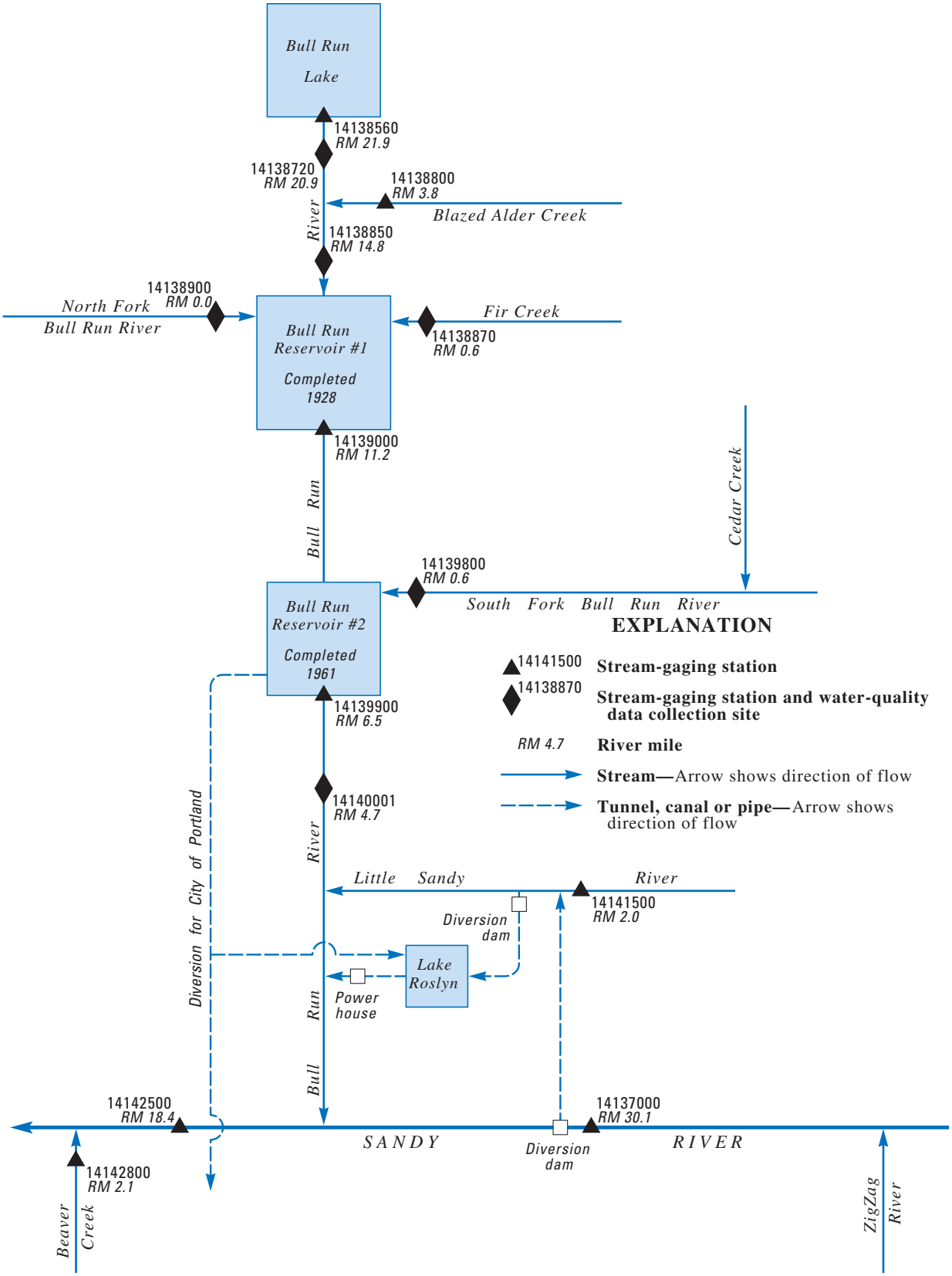


Figure 20. Schematic diagram showing gaging stations and diversions in the Sandy River Basin.

14128870 COLUMBIA RIVER BELOW BONNEVILLE DAM, OR

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

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

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

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

REMARKS.--Flow regulated by many reservoirs upstream.

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

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

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

14128870 COLUMBIA RIVER BELOW BONNEVILLE DAM, OR—Continued

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

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

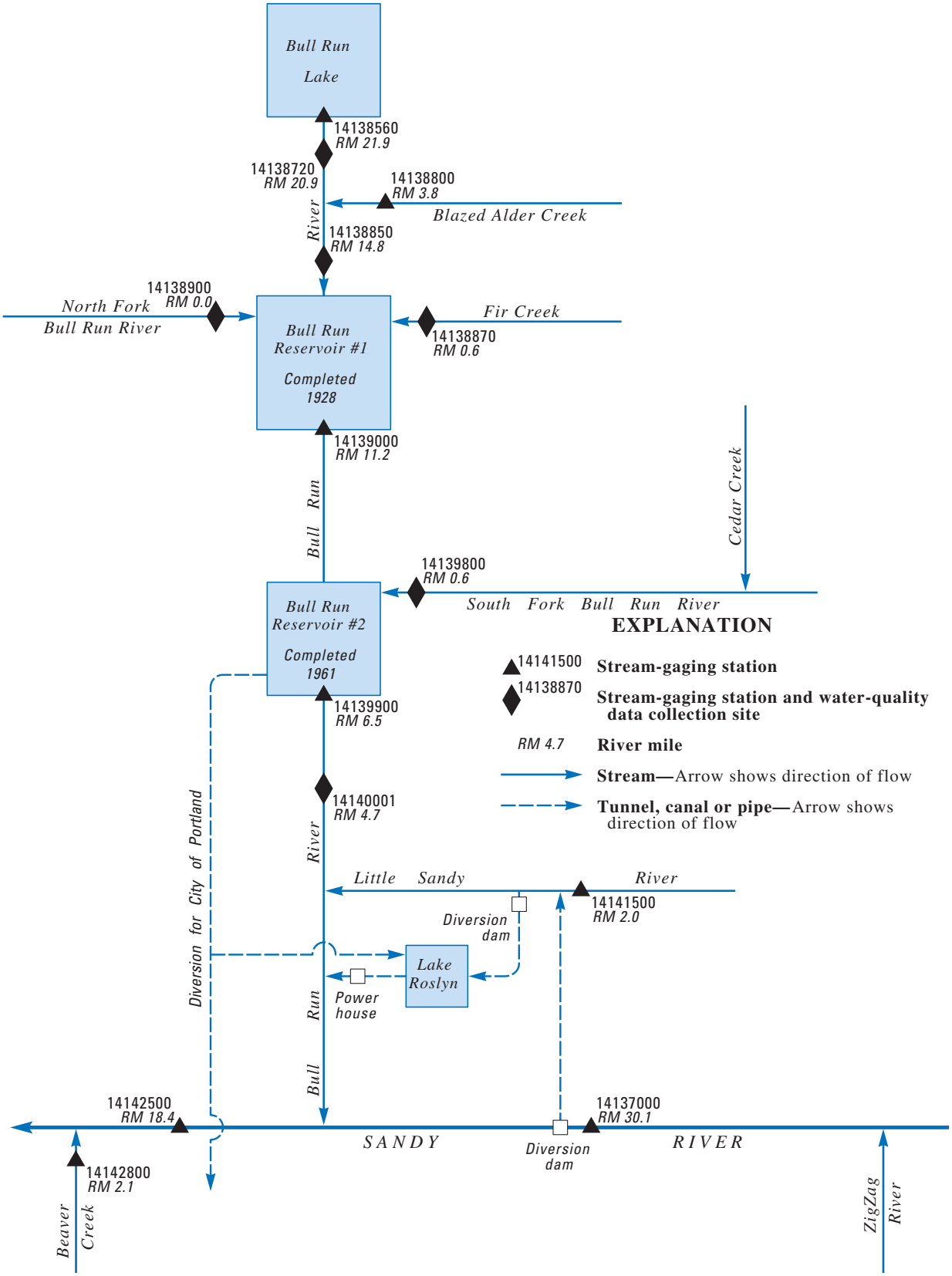


Figure 20. Schematic diagram showing gaging stations and diversions in the Sandy River Basin.

14137000 SANDY RIVER NEAR MARMOT, OR

LOCATION.--Lat 45°23'59", long 122°08'10", in NW $^1/_4$ sec.18, T.2 S., R.6 E., Clackamas County, Hydrologic Unit 17080001, on right bank 0.6 mi west/northwest of Marmot, 0.2 mi downstream from Marmot Dam of Portland General Electric Co., 7.7 mi downstream from Salmon River, and at mile 29.8.

DRAINAGE AREA.--263 mi^2, at dam.

PERIOD OF RECORD.--August 1911 to current year. Monthly discharges only, January to September 1916, October 1918 to June 1919, published in WSP 1318. Published as "at Marmot" October 1912 to September 1913. Records for January 1916 to June 1919, published as "below dam, near Marmot," obtained by combining records for Sandy River below dam, near Marmot, with records for Sandy River Canal near Marmot. Records for October 2002 to current year obtained by combining records for Sandy River Diversion above Marmot Dam (14137001) with records for Sandy River below Marmot Dam, near Marmot (14137002).

REVISED RECORDS.--WSP 594: Drainage area. WSP 1288: 1912(M), 1915, 1922, 1924, 1934(M). WSP 1318: 1932(M), WDR OR-97-1: Drainage Area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Portland General Electric). Aug. 15, 1911, to Dec. 20, 1915, and July 2, 1919, to Oct. 19, 1933, nonrecording gage at site 1.5 mi upstream at different datum. Oct. 20, 1933, to Sept. 30, 1958, water-stage recorder at site 1.1 mi upstream at different datum. Sept. 30, 1958 to Mar. 11, 1997, water-stage recorder at site 0.6 mi upstream, at different datum. March 11, 1997 to Oct. 1, 2002 water-stage recorder at site 0.5 mi upstream, at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Streamflow values include diversion at Marmot Dam. No other regulation or diversion upstream from station.

AVERAGE DISCHARGE.--92 years (water years 1912-15, 1917-18, 1920-2005), 1,340 ft^3/s, 69.22 in/yr, 970,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,400 ft^3/s Dec. 22, 1964, gage height, 17.05 ft, site and datum then in use, from rating curve extended above 7,000 ft^3/s; maximum gage height, 20.40 ft, Feb. 7, 1996, site and datum then in use; minimum, 190 ft^3/s Oct. 13, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,560 ft^3/s Mar. 27; minimum daily discharge, 238 ft^3/s Sept. 24, 25.

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	470	1,390	1,280	765	849	599	1,860	1,050	1,370	708	377	282
2	451	2,160	1,150	735	804	582	1,770	1,100	1,780	665	364	288
3	439	2,270	1,050	697	772	573	1,630	1,000	1,510	633	352	282
4	414	1,730	986	667	812	554	1,600	990	1,290	609	352	268
5	403	1,390	957	635	905	541	1,480	975	1,180	601	364	265
6	526	1,160	907	646	860	528	1,430	954	1,110	672	355	262
7	479	1,020	943	640	867	524	1,560	931	1,060	630	348	269
8	483	917	e2,170	628	816	526	1,700	933	997	580	341	271
9	719	834	e2,930	603	786	512	1,510	1,300	916	626	339	281
10	578	776	e3,960	583	766	505	1,360	1,590	858	586	333	361
11	507	730	e4,290	563	755	499	1,550	1,630	896	582	324	338
12	475	680	e3,100	584	785	492	1,500	1,450	1,060	565	322	276
13	461	648	e2,430	607	913	472	1,360	1,290	1,020	533	331	262
14	455	616	2,220	572	847	457	1,320	1,210	947	514	324	257
15	433	612	1,910	553	784	449	1,260	1,270	886	518	324	253
16	410	613	1,620	599	750	462	1,460	1,340	879	527	323	257
17	443	568	1,420	1,070	716	551	1,640	1,490	1,290	492	331	263
18	751	652	1,290	3,970	692	490	1,610	1,670	1,180	457	333	258
19	824	699	1,220	2,810	679	593	1,500	2,130	1,100	451	312	254
20	674	640	1,140	2,050	666	667	1,380	1,920	1,090	438	320	252
21	775	598	1,090	1,680	637	599	1,280	1,790	1,010	428	325	248
22	959	588	1,090	1,420	620	559	1,220	1,690	948	482	321	247
23	1,240	601	1,030	1,270	600	532	1,420	1,470	866	452	303	244
24	1,330	1,400	973	1,150	591	512	1,460	1,300	822	410	290	238
25	1,130	2,220	943	1,070	584	508	1,570	1,180	776	392	284	238
26	1,020	1,900	926	1,020	579	985	1,480	1,070	751	389	289	242
27	1,030	1,450	864	1,010	574	e4,680	1,340	1,000	767	385	293	241
28	932	1,180	816	930	601	e4,650	1,240	966	847	385	289	239
29	934	1,050	840	1,000	---	e2,970	1,150	910	795	378	322	247
30	1,240	1,030	828	980	---	2,230	1,120	886	744	370	307	490
31	1,540	---	787	905	---	1,820	---	892	---	379	288	---
TOTAL	22,525	32,122	47,160	32,412	20,610	30,621	43,760	39,377	30,745	15,837	10,080	8,173
MEAN	727	1,071	1,521	1,046	736	988	1,459	1,270	1,025	511	325	272
MAX	1,540	2,270	4,290	3,970	913	4,680	1,860	2,130	1,780	708	377	490
MIN	403	568	787	553	574	449	1,120	886	744	370	284	238
AC-FT	44,680	63,710	93,540	64,290	40,880	60,740	86,800	78,100	60,980	31,410	19,990	16,210
CFSM	2.76	4.07	5.78	3.98	2.80	3.76	5.55	4.83	3.90	1.94	1.24	1.04
IN.	3.19	4.54	6.67	4.58	2.92	4.33	6.19	5.57	4.35	2.24	1.43	1.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2005, BY WATER YEAR (WY)

MEAN	648	1,577	2,069	1,999	1,856	1,649	1,858	1,783	1,215	639	427	414
MAX	2,168	4,777	6,278	4,752	4,971	3,983	3,134	3,443	3,457	1,385	663	1,056
(WY)	(1960)	(1996)	(1965)	(1953)	(1996)	(1972)	(1962)	(1949)	(1917)	(1917)	(1974)	(1959)
MIN	239	236	445	498	464	631	658	743	420	354	268	244
(WY)	(1988)	(1937)	(1977)	(1937)	(1977)	(1941)	(1941)	(1992)	(1992)	(1992)	(1940)	(1994)

14137000 SANDY RIVER NEAR MARMOT, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1912 - 2005	
ANNUAL TOTAL	425,135		333,422			
ANNUAL MEAN	1,162		913		1,340	
HIGHEST ANNUAL MEAN					2,018	1996
LOWEST ANNUAL MEAN					766	1977
HIGHEST DAILY MEAN	6,510	Jan 29	4,680	Mar 27	41,400	Dec 22, 1964
LOWEST DAILY MEAN	358	Aug 21	238	Sep 24	193	Oct 13, 1994
ANNUAL SEVEN-DAY MINIMUM	381	Aug 15	241	Sep 22	196	Oct 7, 1994
ANNUAL RUNOFF (AC-FT)	843,300		661,300		970,800	
ANNUAL RUNOFF (CFSM)	4.42		3.47		5.09	
ANNUAL RUNOFF (INCHES)	60.13		47.16		69.22	
10 PERCENT EXCEEDS	2,000		1,600		2,590	
50 PERCENT EXCEEDS	1,110		767		994	
90 PERCENT EXCEEDS	450		317		350	

e Estimated

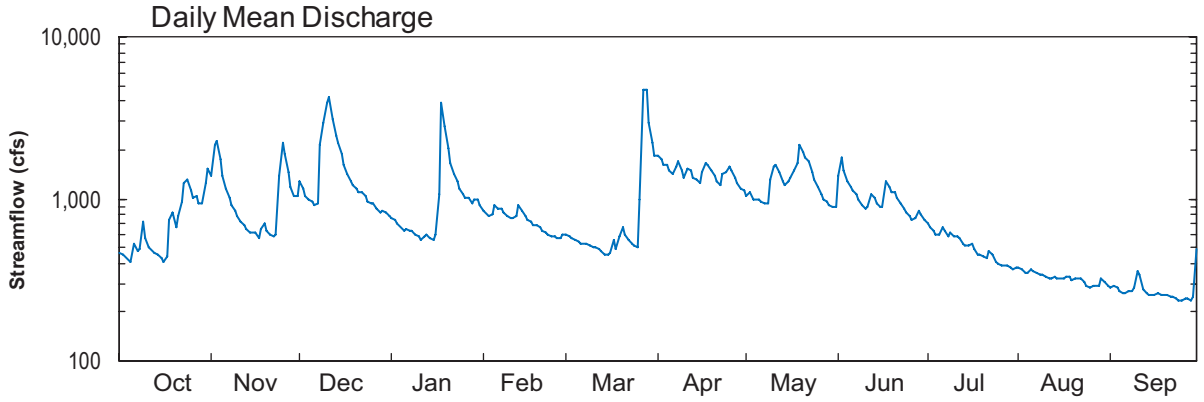
2005 Water Year

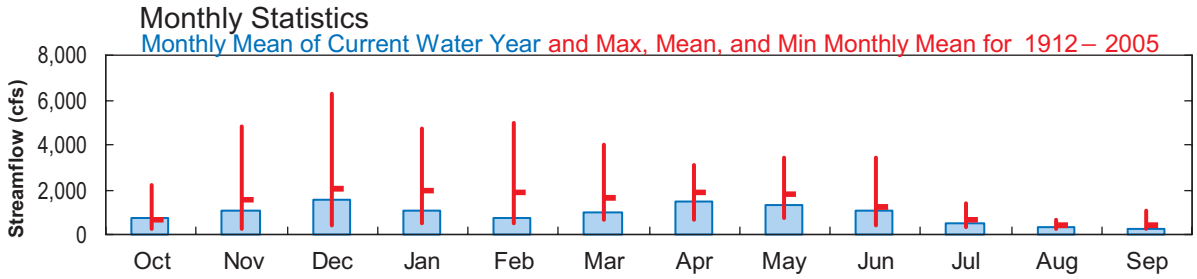
SANDY RIVER BASIN

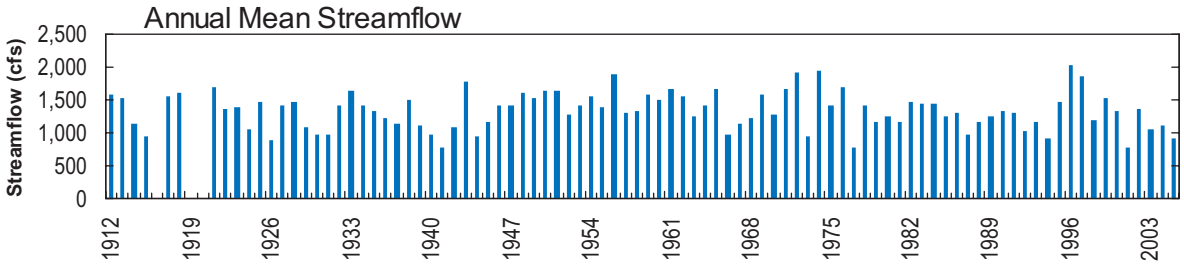
14137000 SANDY RIVER NEAR MARMOT, OR

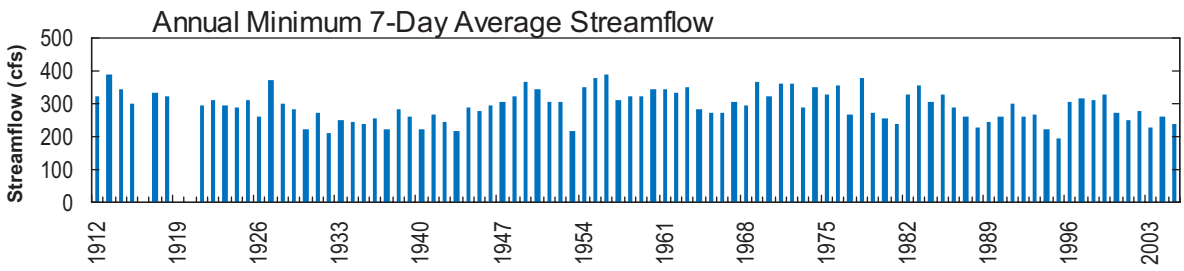
Latitude: 45°23'59" Longitude: 122°08'10" Hydrologic Unit Code: 17080001

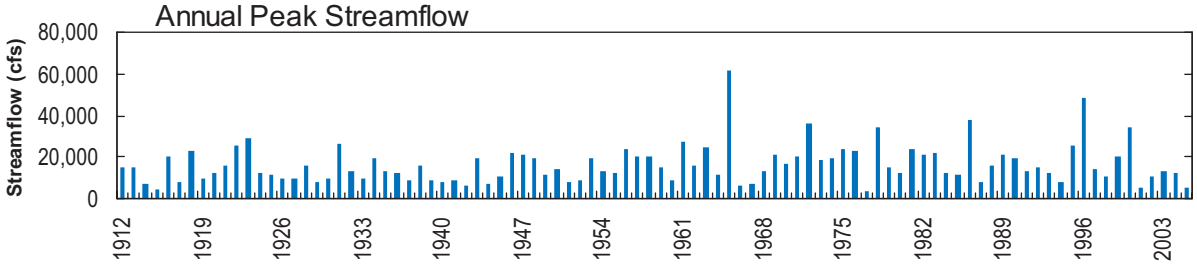
Clackamas County Datum: 0.00 feet Drainage Area: 263 mi²











14142500 SANDY RIVER BELOW BULL RUN RIVER, NEAR BULL RUN, OR

LOCATION.--Lat 45°26'57", long 122°14'38", in SW ¼ sec.30, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, on left bank 0.1 mi downstream from Bull Run River, 0.2 mi downstream from Dodge Park, 400 ft downstream from city of Portland water conduit crossing Sandy River and at mile 18.4.

DRAINAGE AREA.--436 mi^2.

PERIOD OF RECORD.--April 1910 to September 1914, October 1929 to September 1966, May 1984 to current year. Monthly discharge only for some periods during the 1911, 1912 and water years, published in WSP 1318.

REVISED RECORDS.--WDR OR-96-1: 1986 (P).

GAGE.--Water-stage recorder. Elevation of gage is 240 ft above NGVD of 1929, from topographic map. April 1910 to September 1914, staff gage at present site at different datum. October 1929 to September 1966, water-stage recorder at site 0.8 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1915 by Bull Run Lake, since 1929 by Bull Run Reservoir Number One (station 14139000), and since 1961 by Bull Run Reservoir Number Two (station 14139900). Some fluctuation caused by Bull Run powerplant of Portland General Electric Company. Portland Water Bureau diverted 148,900 acre-ft from Bull Run River, of which 40,549 acre-ft were used for power generation by Portland General Electric Company and returned to Bull Run River. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.-- 4 years (water years 1911-14) 2,321 ft^3/s, 1,681,000 acre-ft/yr. 58 years (water years 1930-66, 1985-2005), 2,259 ft^3/s, 1,637,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,400 ft^3/s Dec. 22, 1964, gage height, 22.3 ft, site and datum then in use; minimum discharge, 45 ft^3/s Sept. 26, 1962, minimum daily, 63 ft^3/s Oct. 12, Nov. 9, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft^3/s Dec. 11, gage height, 13.43 ft; minimum discharge, 231 ft^3/s Sept. 27-29.

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	798	2,360	2,640	1,330	1,420	821	3,690	1,600	2,100	905	464	327
2	824	4,240	2,150	1,280	1,290	794	3,710	1,630	3,080	830	446	347
3	812	4,560	1,730	1,220	1,160	784	3,450	1,470	2,600	787	433	350
4	766	3,330	1,660	1,110	1,250	755	2,870	1,440	2,500	759	450	312
5	783	2,490	1,660	1,120	1,570	739	2,660	1,440	1,710	737	452	306
6	907	2,040	1,520	1,110	1,500	725	2,640	1,400	1,470	786	447	302
7	883	1,740	1,590	1,110	1,470	717	2,710	1,370	1,490	753	419	308
8	880	1,540	3,850	1,090	1,320	718	3,100	1,370	1,520	685	423	341
9	1,180	1,450	5,170	1,060	1,220	703	2,590	1,830	1,670	755	420	307
10	993	1,420	7,400	1,030	1,160	690	2,170	2,940	1,210	704	416	446
11	890	1,390	8,740	1,000	1,130	661	2,570	3,240	1,270	691	386	413
12	811	1,360	6,380	1,020	1,170	667	2,780	2,670	1,440	663	387	334
13	837	1,310	4,790	1,050	1,640	656	2,250	2,100	1,510	628	402	332
14	829	1,270	3,830	1,010	1,340	640	2,300	2,070	1,530	604	396	301
15	794	1,270	3,340	985	1,200	635	2,210	2,170	1,300	605	364	297
16	778	1,290	2,770	1,030	1,130	632	2,890	2,170	1,260	612	395	299
17	844	1,180	2,380	1,420	1,070	733	3,500	2,520	2,040	584	391	304
18	1,190	1,070	2,040	7,440	964	652	3,420	3,330	1,690	564	408	300
19	1,320	1,150	1,930	5,910	994	792	2,920	4,250	1,640	526	379	263
20	1,060	1,060	1,890	3,660	921	882	2,600	3,950	1,640	538	350	302
21	1,260	1,010	1,780	3,100	909	793	2,180	3,460	1,460	582	416	263
22	1,440	1,010	1,750	2,590	877	744	2,040	3,080	1,280	591	394	288
23	1,830	1,010	1,640	1,970	834	720	2,240	2,760	1,160	591	370	258
24	2,090	2,050	1,530	1,590	814	692	2,440	2,050	1,080	515	398	257
25	2,370	3,010	1,500	1,490	805	699	2,480	1,600	1,010	500	381	293
26	1,680	2,600	1,590	1,500	797	1,140	2,550	1,500	971	495	354	263
27	1,660	2,040	1,500	1,500	788	6,550	2,140	1,360	1,000	491	380	240
28	1,530	1,730	1,380	1,400	825	7,800	1,900	1,300	1,130	491	324	335
29	1,600	1,500	1,410	1,640	---	6,240	1,720	1,220	1,110	480	371	235
30	1,990	1,530	1,390	1,850	---	4,380	1,690	1,190	975	468	404	488
31	3,010	---	1,330	1,560	---	3,520	---	1,220	---	467	340	---
TOTAL	38,639	55,010	84,260	56,175	31,568	47,674	78,410	65,700	45,846	19,387	12,360	9,411
MEAN	1,246	1,834	2,718	1,812	1,127	1,538	2,614	2,119	1,528	625	399	314
MAX	3,010	4,560	8,740	7,440	1,640	7,800	3,710	4,250	3,080	905	464	488
MIN	766	1,010	1,330	985	788	632	1,690	1,190	971	467	324	235
AC-FT	76,640	109,100	167,100	111,400	62,620	94,560	155,500	130,300	90,940	38,450	24,520	18,670

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

MEAN	1,100	2,994	3,768	3,436	3,357	2,987	3,256	2,754	1,770	790	494	517
MAX	4,086	7,882	10,700	8,955	8,793	6,426	5,176	5,357	4,887	1,756	731	1,947
(WY)	(1960)	(1996)	(1965)	(1953)	(1996)	(1932)	(1937)	(1949)	(1933)	(1955)	(1964)	(1959)
MIN	242	294	992	791	1,127	997	980	998	479	390	308	310
(WY)	(1988)	(1953)	(1953)	(1937)	(2005)	(1941)	(1941)	(1992)	(1992)	(1992)	(1992)	(1994)

14142500 SANDY RIVER BELOW BULL RUN RIVER, NEAR BULL RUN, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1930 - 2005	
ANNUAL TOTAL	739,370		544,440			
ANNUAL MEAN	2,020		1,492		2,259	
HIGHEST ANNUAL MEAN					3,456	1996
LOWEST ANNUAL MEAN					1,334	2001
HIGHEST DAILY MEAN	21,700	Jan 29	8,740	Dec 11	57,800	Dec 22, 1964
LOWEST DAILY MEAN	430	Aug 19	235	Sep 29	63	Oct 12, 1952
ANNUAL SEVEN-DAY MINIMUM	449	Aug 15	266	Sep 21	228	Oct 19, 1942
ANNUAL RUNOFF (AC-FT)	1,467,000		1,080,000		1,637,000	
10 PERCENT EXCEEDS	3,710		2,930		4,660	
50 PERCENT EXCEEDS	1,660		1,190		1,590	
90 PERCENT EXCEEDS	563		381		404	

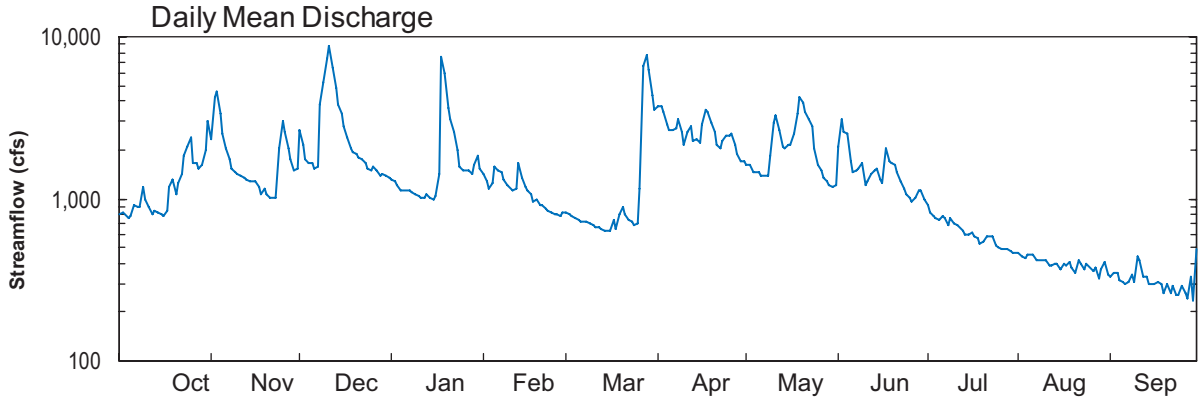
2005 Water Year

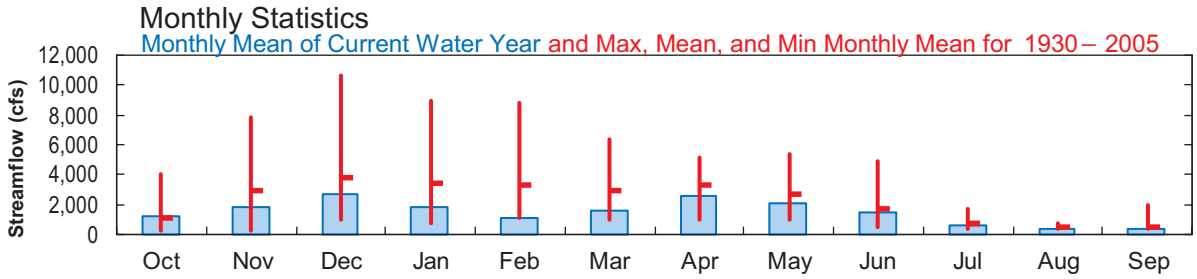
SANDY RIVER BASIN

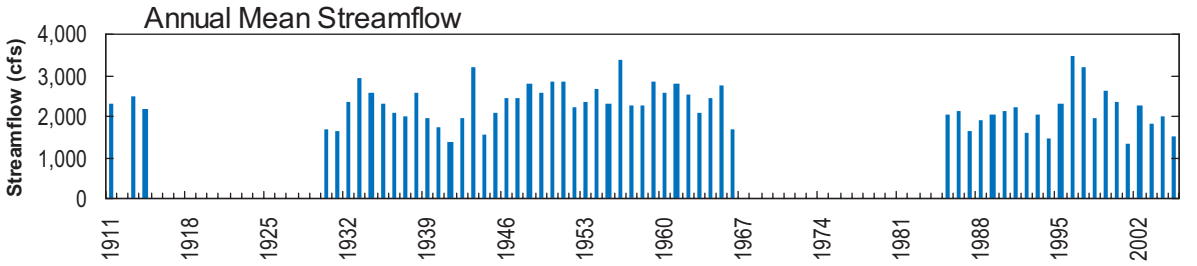
14142500 SANDY RIVER BLW BULL RUN RIVER, NR BULL RUN, OR

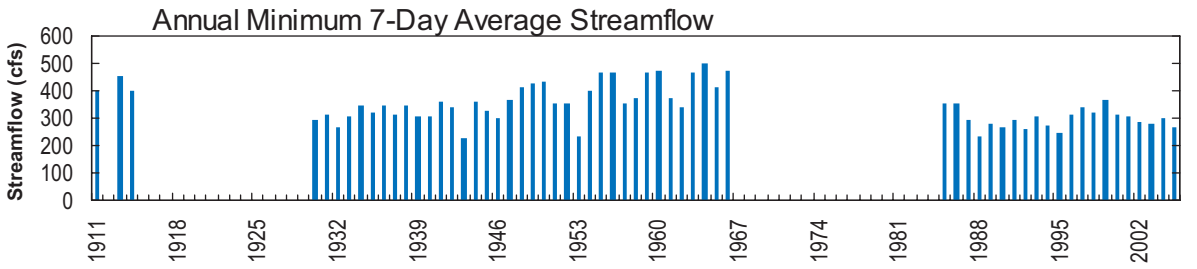
Latitude: 45°26'57" Longitude: 122°14'38" Hydrologic Unit Code: 17080001

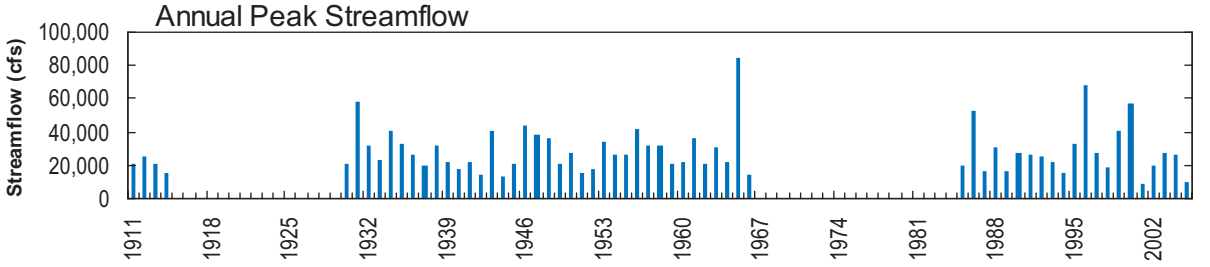
Clackamas County Datum: 240.00 feet Drainage Area: 436 mi²











14142800 BEAVER CREEK AT TROUTDALE, OR

LOCATION.--Lat. 45°31'10", long 122°23'16" in Land Grant parcel number 50, T.1 N., R.3 E., Multnomah County, Hydrologic Unit 17080001, on right bank, 100 ft downstream from Stark Street culvert outlet, and 2.1 mi upstream from mouth.

DRAINAGE AREA.--8.91 mi^2.

PERIOD OF RECORD.--October 1999 to current year.

Gage.--Water stage recorder. Datum of gage is 195 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for those below 2.0 ft^3/s, which are poor. No known diversions. Kelly Creek, an upstream tributary, is impounded at Mt. Hood Comumity College. The pond is approximately 10 acre-ft. Maintenance of the structure may effect downstream flow. Irrigation by the Gresham Golf Course, upstream from pond, may increase flow over the pond spillway during summer months.

AVERAGE DISCHARGE.--6 years (water year 2000-05), 21.4 ft^3/s, 32.70 in/yr, 15,540 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 872 ft^3/s Jan. 31, 2003, gage height, 12.01 ft; minimum discharge, 0.06 ft^3/s Aug. 29, 2000, Aug. 25, 30, 31, Sept. 6-11, 14, 2002.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 27	0700	*416	*9.85				

Minimum discharge, 0.27 ft^3/s, Aug. 8, gage height, 4.75 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	2.8	33	30	63	10	5.8	35	9.2	42	3.8	0.52	3.3
2	3.0	127	20	38	9.1	3.5	22	9.0	20	3.5	0.67	2.9
3	2.9	59	16	25	8.4	3.2	35	6.8	12	3.2	0.39	3.0
4	2.6	30	16	18	12	2.8	30	13	9.4	2.8	0.56	3.3
5	3.3	21	32	14	9.3	2.7	20	8.0	26	2.5	0.52	2.9
6	25	16	45	12	47	2.6	16	6.9	11	3.2	0.63	2.4
7	4.8	13	63	19	35	2.3	23	5.9	11	2.5	0.66	3.1
8	50	11	152	16	20	2.1	16	6.2	8.0	12	0.63	2.9
9	18	10	69	12	15	3.1	12	28	6.5	8.4	0.84	3.1
10	8.1	9.3	77	13	13	3.1	11	48	6.8	4.1	1.1	3.6
11	6.1	8.4	154	10	11	2.8	31	24	7.4	3.5	1.0	3.0
12	5.4	7.6	57	8.7	16	2.3	17	16	6.4	3.0	0.81	2.3
13	4.7	7.2	44	7.8	13	2.0	18	12	5.0	2.7	0.67	3.1
14	4.4	7.0	57	7.2	11	1.9	31	21	4.5	2.8	0.52	3.1
15	4.2	16	36	6.6	9.1	1.7	20	20	4.7	2.5	0.57	2.8
16	4.0	11	26	12	8.0	6.5	103	29	50	2.3	0.51	2.5
17	23	8.9	19	27	7.4	4.2	71	23	36	2.1	0.83	2.0
18	21	42	15	85	6.4	2.8	63	96	13	1.9	1.1	1.9
19	28	17	13	34	6.1	23	35	54	25	1.6	0.53	1.8
20	15	13	11	27	5.6	13	23	52	21	1.0	0.48	1.7
21	25	11	30	20	4.9	9.4	16	42	8.8	0.88	0.60	1.5
22	13	11	31	15	4.6	4.2	23	45	9.5	2.7	0.56	1.4
23	25	16	19	13	4.4	6.5	28	23	7.4	1.5	0.69	1.00
24	16	24	15	11	5.1	5.4	20	16	5.8	1.1	0.53	0.71
25	22	25	26	10	4.3	4.1	59	12	4.9	1.6	0.54	0.66
26	51	17	59	9.5	3.9	73	29	8.5	4.9	1.2	0.52	2.3
27	28	16	26	9.8	4.1	252	26	7.2	15	0.85	0.43	2.3
28	19	13	18	11	5.5	148	16	5.9	7.7	0.82	0.61	2.3
29	30	11	24	24	---	96	12	4.9	5.3	0.71	12	1.8
30	63	27	21	14	---	43	9.9	7.3	4.3	0.65	6.0	61
31	52	---	56	12	---	28	---	40	---	0.54	3.7	---
TOTAL	580.3	638.4	1,277	604.6	309.2	761.0	870.9	699.8	399.3	81.95	39.72	129.67
MEAN	18.7	21.3	41.2	19.5	11.0	24.5	29.0	22.6	13.3	2.64	1.28	4.32
MAX	63	127	154	85	47	252	103	96	50	12	12	61
MIN	2.6	7.0	11	6.6	3.9	1.7	9.9	4.9	4.3	0.54	0.39	0.66
AC-FT	1,150	1,270	2,530	1,200	613	1,510	1,730	1,390	792	163	79	257
CFSM	2.10	2.39	4.62	2.19	1.24	2.76	3.26	2.53	1.49	0.30	0.14	0.49
IN.	2.42	2.67	5.33	2.52	1.29	3.18	3.64	2.92	1.67	0.34	0.17	0.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	7.60	24.1	58.8	51.1	34.5	37.2	19.4	10.4	6.53	1.54	2.53	3.72
MAX	18.7	42.8	85.5	91.0	58.0	70.3	33.1	22.6	13.3	2.64	10.4	6.49
(WY)	(2005)	(2002)	(2002)	(2003)	(2000)	(2003)	(2003)	(2005)	(2005)	(2005)	(2004)	(2004)
MIN	3.22	4.40	25.7	12.5	11.0	16.5	5.19	4.48	2.83	0.92	0.18	1.60
(WY)	(2003)	(2003)	(2001)	(2001)	(2005)	(2004)	(2004)	(2004)	(2003)	(2003)	(2002)	(2001)

14142800 BEAVER CREEK AT TROUTDALE, OR—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	7,327.42		6,391.84			
ANNUAL MEAN	20.0		17.5		21.4	
HIGHEST ANNUAL MEAN					27.7	2003
LOWEST ANNUAL MEAN					11.6	2001
HIGHEST DAILY MEAN	212	Jan 24	252	Mar 27	612	Jan 31, 2003
LOWEST DAILY MEAN	0.15	Aug 20	0.39	Aug 3	0.06	Sep 11, 2002
ANNUAL SEVEN-DAY MINIMUM	0.30	Jul 24	0.55	Jul 31	0.08	Sep 6, 2002
ANNUAL RUNOFF (AC-FT)	14,530		12,680		15,540	
ANNUAL RUNOFF (CFSM)	2.25		1.97		2.41	
ANNUAL RUNOFF (INCHES)	30.59		26.69		32.70	
10 PERCENT EXCEEDS	50		42		56	
50 PERCENT EXCEEDS	8.9		9.5		6.8	
90 PERCENT EXCEEDS	0.92		1.1		0.63	

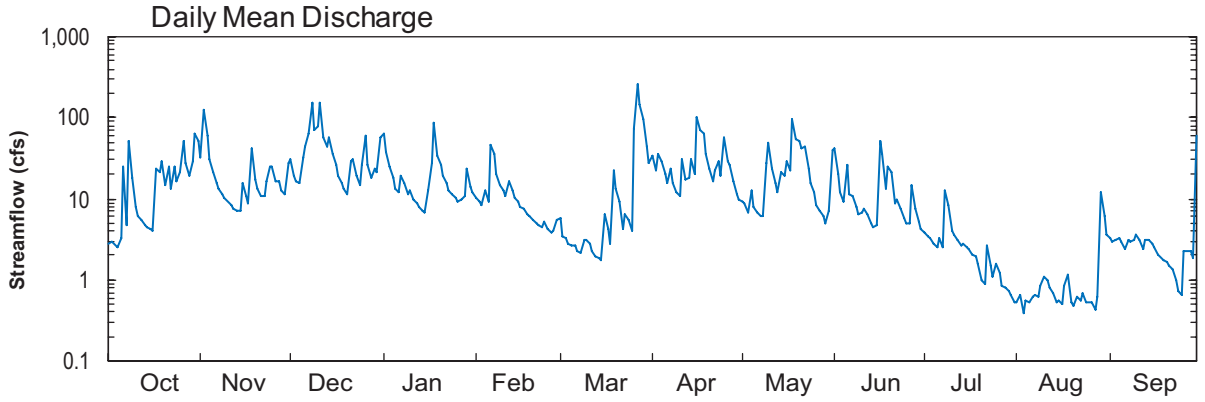
2005 Water Year

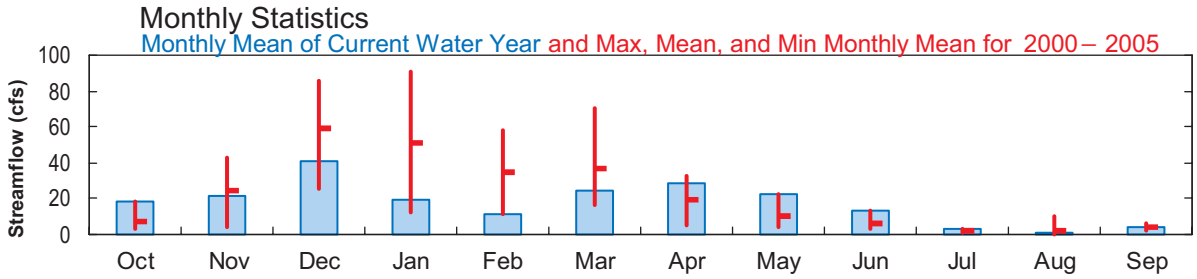
SANDY RIVER BASIN

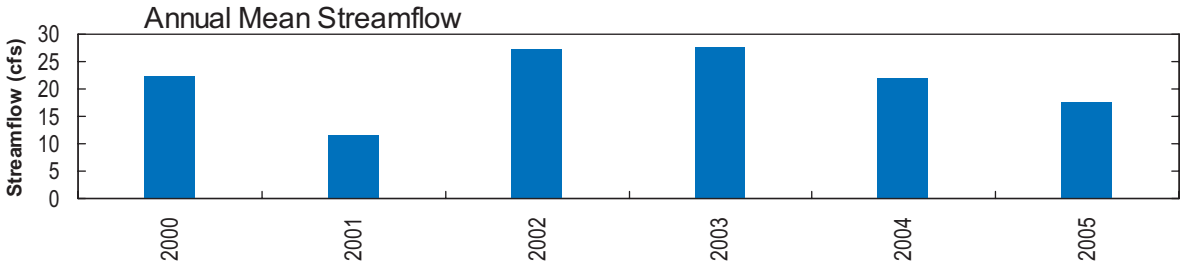
14142800 BEAVER CREEK AT TROUTDALE, OR

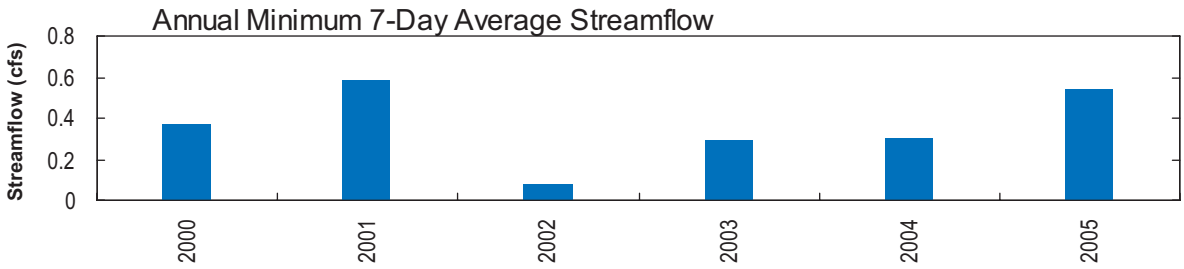
Latitude: 45°31'10" Longitude: 122°23'16" Hydrologic Unit Code: 17080001

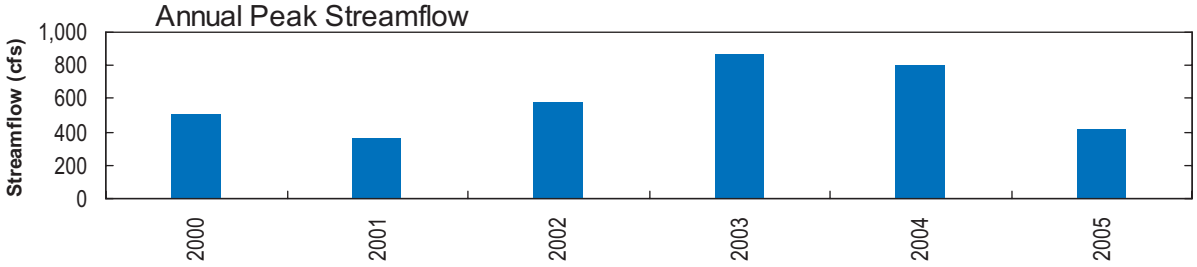
Multnomah County Datum: 195 feet Drainage Area: 8.91 mi²











14144700 COLUMBIA RIVER AT VANCOUVER, WA

LOCATION.--Lat 45°37'15", long 122°40'20", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.34, T.2 N., R.1 E., Clark County, Hydrologic Unit 17080001, near right bank in control house of Interstate Highway 5 bridge at south edge of Vancouver, 5.0 mi upstream from Willamette River, and at mile 106.5.

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

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

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

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

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

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

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

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

14144700 COLUMBIA RIVER AT VANCOUVER, WA—Continued

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

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