

PUYALLUP RIVER BASIN

12100000 WHITE RIVER AT BUCKLEY, WA

LOCATION.--Lat 47°10'28", long 122°01'09", in NE 1/4 SE 1/4 sec.34, T.20 N., R.6 E., Pierce County, Hydrologic Unit 17110014, on left bank 500 ft upstream from State Highway 410 bridge, 200 ft downstream from Boise Creek, 1.0 mi northeast of Buckley, and at mile 23.3

DRAINAGE AREA.--427 mi².

PERIOD OF RECORD.--July 1910 to November 1911, April 1977 to current year. February 1913 to September 1938 (records not equivalent as they include flow of White River flume, see REMARKS).

REVISED RECORDS.--WSP 1316: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 620 ft above NGVD of 1929, from topographic map. June 8, 1910, to Nov. 30, 1911, nonrecording gage at site 150 ft upstream at different datum, and Jan. 18, 1913, to Sept. 30, 1938, water-stage recorder at site 100 ft upstream at datum NGVD of 1929 (levels by Puget Sound Energy).

REMARKS.--No estimated daily discharges. Records fair. Since November 1911, White River Canal (station 12099000) has diverted from left bank 1.0 mi upstream for storage in Lake Tapps (station 12101000). Water is returned to White River 19.7 mi downstream via the Lake Tapps Diversion (station 12101100) after power development at White River Powerplant at Dieringer. Since 1942, flow regulated by Mud Mountain Lake (station 12098000) for flood control. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--25 years (water years 1978-2002), 547 ft³/s, 396,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--During water years 1911-12, 1914-19, 1921-23, 1935-38, maximum discharge, 23,100 ft³/s Dec. 18, 1917, during period of combined flows; minimum, not determined. River, excluding canal, since April 1977, maximum discharge, 14,900 ft³/s Nov. 24, 1986, gage height, 8.48 ft; minimum discharge, 25 ft³/s Nov. 19, 1979, gage height, 2.41 ft; minimum daily discharge, 31 ft³/s July 30, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,560 ft³/s Jan. 9, gage height, 6.49 ft; minimum discharge, 67 ft³/s Jan. 17, minimum daily discharge, 114 ft³/s Nov. 3.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	131	691	168	230	328	425	434	1400	565	299	321
2	239	118	677	172	224	320	459	503	1130	391	365	319
3	243	114	616	166	233	320	468	421	1010	354	874	321
4	240	134	566	166	225	323	473	399	978	352	927	309
5	240	140	508	166	231	322	499	404	1220	352	869	318
6	237	138	309	178	230	323	499	398	1450	373	845	310
7	238	137	191	1990	244	320	585	402	958	363	800	306
8	246	132	180	4910	230	319	755	400	657	351	785	297
9	237	134	184	5370	229	320	495	401	382	358	807	307
10	244	133	191	2830	234	325	497	397	284	384	874	313
11	242	134	182	1600	228	408	856	398	391	455	891	312
12	233	140	197	1370	226	515	1120	409	584	417	860	316
13	233	150	662	1140	228	331	1340	415	887	674	920	311
14	250	1630	2120	1030	222	323	2820	409	1490	662	973	314
15	248	3490	606	905	223	323	2940	402	1700	470	968	309
16	232	3180	1170	700	214	327	3110	398	1580	350	928	309
17	235	1810	2500	245	210	325	3010	403	1100	318	886	313
18	232	1550	1140	830	215	325	2100	403	782	319	825	308
19	237	1290	455	243	220	423	1070	404	834	310	796	313
20	233	1400	247	219	214	549	1430	656	1150	294	803	318
21	234	1090	207	221	342	336	512	888	674	381	762	299
22	237	1080	194	176	1430	329	486	927	737	423	770	307
23	251	1510	182	148	1440	326	464	1060	1190	314	784	316
24	240	1150	176	172	1040	331	400	847	892	313	798	316
25	242	836	170	441	371	334	405	665	753	321	595	313
26	232	713	166	247	237	329	404	803	791	318	304	308
27	244	612	165	182	227	322	439	1070	860	302	309	307
28	225	627	169	163	242	334	398	1560	963	297	310	311
29	227	729	167	150	---	326	406	2120	2100	315	311	310
30	236	659	165	150	---	326	417	2140	1230	302	298	297
31	257	---	171	162	---	327	---	1740	---	295	301	---
TOTAL	7418	25091	15324	26610	9839	10689	29282	22276	30157	11693	21837	9328
MEAN	239	836	494	858	351	345	976	719	1005	377	704	311
MAX	257	3490	2500	5370	1440	549	3110	2140	2100	674	973	321
MIN	225	114	165	148	210	319	398	397	284	294	298	297
AC-FT	14710	49770	30400	52780	19520	21200	58080	44180	59820	23190	43310	18500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2002, BY WATER YEAR (WY)

	185	677	913	707	871	447	455	557	691	449	366	206
MEAN	185	677	913	707	871	447	455	557	691	449	366	206
MAX	510	2557	4014	2888	3789	1363	1171	2165	1898	1473	825	511
(WY)	1986	1996	1978	1984	1996	1997	1989	1997	1984	1982	1978	1988
MIN	48.4	40.9	135	69.8	130	122	89.9	67.6	172	58.2	57.4	45.2
(WY)	1980	1980	2001	1979	1985	1985	1982	1977	1992	1978	1977	1979

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1977 - 2002

ANNUAL TOTAL		135130		219544								
ANNUAL MEAN		370		601						547		
HIGHEST ANNUAL MEAN										1228		1996
LOWEST ANNUAL MEAN										200		1994
HIGHEST DAILY MEAN		3490		Nov 15		5370		Jan 9		13500		Dec 3 1977
LOWEST DAILY MEAN		114		Nov 3		114		Nov 3		31		Jul 30 1978
ANNUAL SEVEN-DAY MINIMUM		130		Nov 1		130		Nov 1		37		Nov 10 1979
ANNUAL RUNOFF (AC-FT)		268000				435500				396300		
10 PERCENT EXCEEDS		454				1220				1330		
50 PERCENT EXCEEDS		349				336				197		
90 PERCENT EXCEEDS		142				182				76		