

PUYALLUP RIVER BASIN

12093500 PUYALLUP RIVER NEAR ORTING, WA

LOCATION.--Lat 47°02'22", long 122°12'24", in SW 1/4 SW 1/4 sec.17, T.18 N., R.5 E., Pierce County, Hydrologic Unit 17110014, on right bank 600 ft downstream from highway bridge, 4.0 mi south of Orting, 8.5 mi upstream from Carbon River, and at mile 26.4.

DRAINAGE AREA.--172 mi².

PERIOD OR RECORD.--September 1931 to current year.

REVISED RECORDS.--WSP 932: 1937-39. WSP 962: 1934. WSP 1246: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 352.5 ft above sea level. Prior to Feb. 6, 1946, at site 600 ft upstream at datum 8.93 ft higher. Supplementary water-stage recorder 200 ft upstream at datum 7.1 ft higher than present gage datum, used at times during period in 1942-46. Feb. 6, 1946, to Mar. 12, 1965, at present site at datum 5.0 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Up to 400 ft³/s diverted for Electron powerplant of Puget Sound Energy, which is returned to river 4.8 mi upstream from gage. Minor regulation by Electron powerplant. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--70 years (water years 1932-2001), 715 ft³/s, 56.45 in/yr, 517,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,300 ft³/s Feb. 8, 1996, from slope area measurement, gage height, 11.37 ft; minimum discharge, 25 ft³/s Nov. 28, 1952; minimum daily, 59 ft³/s Nov. 29, 1952.

EXTREMES FOR CURRENT YEAR.--No peak discharges greater than base discharge of 4,500 ft³/s. Maximum discharge, 4,520 ft³/s, Oct., gage-height, 7.95 ft, was not independent of the peak discharge that occurred Sept. 30, 2000; maximum independent discharge, 1,710 ft³/s, Feb. 4, gage-height, 6.32 ft; minimum discharge, 191 ft³/s, Dec. 14, Feb. 28, Mar. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3210	246	361	405	258	240	804	1230	736	643	459	588
2	1180	238	377	366	300	261	736	966	752	620	539	496
3	717	234	346	366	296	245	674	830	681	674	729	458
4	542	298	310	487	1030	237	587	746	536	794	627	441
5	449	277	289	667	954	240	545	764	467	767	485	361
6	e399	298	281	601	674	245	596	651	539	633	716	310
7	383	296	271	491	520	250	579	593	548	593	779	353
8	367	442	261	443	453	295	545	605	560	698	622	371
9	408	436	259	410	411	333	500	614	798	729	672	447
10	388	360	247	365	368	305	583	570	738	742	702	507
11	324	308	e235	335	334	287	838	558	1050	711	638	522
12	316	282	e230	313	305	274	721	663	1370	707	756	527
13	303	271	225	315	286	287	604	746	1300	690	842	556
14	347	258	226	309	274	308	538	781	1060	652	837	623
15	278	245	279	290	271	309	483	1050	883	594	855	632
16	294	e234	296	269	294	321	474	1230	765	535	876	549
17	485	e225	512	262	287	291	639	937	665	470	760	510
18	615	e218	351	296	283	404	604	755	595	439	547	439
19	432	e213	329	301	266	883	571	646	567	391	e437	409
20	828	e218	296	279	253	647	503	e596	618	418	e438	361
21	842	e213	290	329	249	520	464	e550	712	572	e434	390
22	558	e210	306	310	248	451	445	e800	762	631	811	461
23	440	e250	335	283	240	411	501	1050	694	671	899	534
24	419	304	359	279	243	423	517	1100	593	668	e524	552
25	350	296	324	267	229	697	594	972	539	638	e435	475
26	318	419	344	251	220	716	778	917	466	587	e478	635
27	291	641	451	240	215	628	883	819	751	552	520	393
28	359	464	402	233	217	755	858	698	1170	739	524	288
29	304	440	363	241	---	636	707	577	833	536	538	275
30	276	418	429	243	---	572	1080	469	692	441	553	293
31	260	---	448	272	---	710	---	509	---	432	580	---
TOTAL	16682	9252	10032	10518	9978	13181	18951	23992	22440	18967	19612	13756
MEAN	538	308	324	339	356	425	632	774	748	612	633	459
MAX	3210	641	512	667	1030	883	1080	1230	1370	794	899	635
MIN	260	210	225	233	215	237	445	469	466	391	434	275
AC-FT	33090	18350	19900	20860	19790	26140	37590	47590	44510	37620	38900	27290
CFSM	3.13	1.79	1.88	1.97	2.07	2.47	3.67	4.50	4.35	3.56	3.68	2.67
IN.	3.61	2.00	2.17	2.27	2.16	2.85	4.10	5.19	4.85	4.10	4.24	2.98

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2001, BY WATER YEAR (WY)

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	477	824	958	887	769	614	647	787	878	728	563	446																																																										
MAX	1291	2149	3015	2314	2291	1619	1038	1282	1470	1239	881	748																																																										
(WY)	1960	1996	1934	1934	1996	1972	1991	1936	1974	1933	1983	1968																																																										
MIN	210	92.8	205	205	280	266	303	494	311	483	373	283																																																										
(WY)	1953	1953	1953	1937	1977	1941	1975	1941	1934	1977	1957	1936																																																										

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SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1932 - 2001	
ANNUAL TOTAL	219217		187361		715	
ANNUAL MEAN	599		513		1174	
HIGHEST ANNUAL MEAN					1941	
LOWEST ANNUAL MEAN					1941	
HIGHEST DAILY MEAN	3210	Oct 1	3210	Oct 1	13400	Feb 8 1996
LOWEST DAILY MEAN	210	Nov 22	210	Nov 22	59	Nov 29 1952
ANNUAL SEVEN-DAY MINIMUM	219	Nov 16	219	Nov 16	66	Nov 25 1952
ANNUAL RUNOFF (AC-FT)	434800		371600		517700	
ANNUAL RUNOFF (CFSM)	3.48		2.98		4.15	
ANNUAL RUNOFF (INCHES)	47.41		40.52		56.45	
10 PERCENT EXCEEDS	890		802		1180	
50 PERCENT EXCEEDS	569		467		587	
90 PERCENT EXCEEDS	291		252		310	

e Estimated