

PALOUSE RIVER BASIN

13351000 PALOUSE RIVER AT HOOPER, WA

LOCATION.--Lat 46°45'31", long 118°08'52", in NE 1/4 SE 1/4 sec.27, T.15 N., R.37 E., Whitman County, Hydrologic Unit 17060108, on left bank 150 ft downstream from bridge on State Highway 26 at Hooper, 0.3 mi upstream from Cow Creek, 3.5 mi downstream from right bank tributary, 6.0 mi downstream from Willow Creek, and at mile 19.6.

DRAINAGE AREA.--2,500 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to August 1897 (gage heights only), September 1897 to December 1899, April 1900 to April 1907, June 1908 to July 1912, March 1913 to March 1916, February 1951 to current year. Prior to 1904 sometimes published as "near Hooper."

REVISED RECORDS.--WSP 1287: 1897-1904, 1910(M), 1915-16(M). WSP 1447: 1910. WSP 1934: Drainage area. WSP 1447: 1906(M). WSP 1567: 1908-09(M).

GAGE.--Water-stage recorder. Datum of gage is 1,040.8 ft above NGVD of 1929. Apr. 1 to Aug. 31, 1897, nonrecording gage at site 2.5 mi upstream at different datum. Sept. 9, 1897, to March 1916, various nonrecording gages at site 1.5 mi upstream from present site at different datums. Feb. 8 to Mar. 28, 1951, nonrecording gage at present site and datum.

REMARKS.--Records good except for estimated daily discharges which are fair. Diversions upstream from station for irrigation and municipal use. U. S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--64 years (water years 1898-99, 1901-06, 1909-11, 1914-15, 1952-2002), 611 ft³/s, 442,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,500 ft³/s Feb. 4, 1963, gage height, 19.13 ft, from rating curve extended above 18,000 ft³/s on basis of slope-area measurement of peak flow; no flow part or all of each day June 25, 1910, Aug. 1-17, Aug. 28 to Sept. 4, 1968.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 26	1515	4,020	9.69	Mar. 25	0845	4,830	10.27
Mar. 13	0145	*6,080	*11.04	Apr. 16	0230	5,530	10.72

Minimum discharge, 22 ft³/s Aug. 20.

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	36	91	192	264	931	e800	2010	996	495	121	35	40
2	37	109	206	264	853	e700	2080	1060	449	123	35	40
3	40	112	213	277	789	e700	2040	1130	413	116	33	38
4	41	138	226	285	711	e1000	1890	1140	382	110	34	40
5	39	122	259	327	e680	1010	1800	1110	344	108	39	40
6	41	108	253	369	e600	1000	1850	1000	311	105	37	42
7	41	101	231	416	e550	1300	2090	971	291	96	36	41
8	44	96	222	1770	e900	1330	2250	906	276	94	35	41
9	46	91	227	2630	e1500	1070	2240	838	272	94	32	41
10	45	88	235	2110	e1600	1000	2040	757	280	97	30	38
11	50	86	243	1450	e1300	1200	1960	682	286	107	30	36
12	51	85	240	1110	e1100	4370	2260	626	290	105	31	36
13	54	82	245	919	e900	5280	2270	593	276	104	34	34
14	56	86	270	881	e750	3420	2650	596	256	98	31	36
15	65	88	1170	835	e600	2580	4250	680	232	102	31	37
16	71	90	1030	716	e550	2170	4660	788	214	90	28	36
17	81	103	663	625	e600	1930	2770	738	199	81	26	37
18	81	104	625	559	e700	1740	2060	687	193	75	25	40
19	91	131	667	530	e850	1560	1670	661	186	71	24	42
20	85	123	510	514	e1000	2020	1460	652	211	73	24	45
21	78	120	460	485	e2000	3070	1370	705	245	70	30	45
22	75	126	414	512	e2600	2590	1310	772	228	72	34	47
23	72	128	378	544	e2400	2300	1340	729	195	70	34	46
24	71	141	318	489	e3200	2280	1410	808	176	65	35	42
25	71	236	271	504	e1800	4270	1350	780	160	63	36	41
26	77	334	229	2830	e1300	3520	1200	677	147	64	39	43
27	78	260	e200	3080	e1200	2960	1110	609	135	57	41	44
28	92	233	e190	1970	e1000	2790	1070	591	123	51	41	44
29	88	215	e190	1340	---	2470	1040	594	123	49	43	45
30	88	192	e200	1120	---	2330	997	599	118	44	41	46
31	89	---	e240	1030	---	2100	---	549	---	38	42	---
TOTAL	1974	4019	11017	30755	32964	66860	58497	24024	7506	2613	1046	1223
MEAN	63.7	134	355	992	1177	2157	1950	775	250	84.3	33.7	40.8
MAX	92	334	1170	3080	3200	5280	4660	1140	495	123	43	47
MIN	36	82	190	264	550	700	997	549	118	38	24	34
AC-FT	3920	7970	21850	61000	65380	132600	116000	47650	14890	5180	2070	2430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2002, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	68.2	147	454	1037	1734	1833	1289	632	255	83.9	33.9	38.9																																																																																																		
MAX	151	349	2198	4602	5744	6660	4127	1560	982	291	97.4	116																																																																																																		
(WY)	1960	1956	1974	1974	1996	1910	1913	1975	1990	1902	1997	1997																																																																																																		
MIN	17.7	39.6	36.9	46.6	162	216	203	102	41.6	3.72	0.058	3.90																																																																																																		
(WY)	1916	1905	1915	1915	1994	1977	1977	1992	1992	1968	1968	1967																																																																																																		

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1898 - 2002

ANNUAL TOTAL	101151	242498	
ANNUAL MEAN	277	664	611
HIGHEST ANNUAL MEAN			1595
LOWEST ANNUAL MEAN			106
HIGHEST DAILY MEAN	1980	May 2	27800
LOWEST DAILY MEAN	15	Aug 19	0.00
ANNUAL SEVEN-DAY MINIMUM	17	Aug 17	0.00
ANNUAL RUNOFF (AC-FT)	200600	481000	442500
10 PERCENT EXCEEDS	692	2030	1640
50 PERCENT EXCEEDS	190	245	179
90 PERCENT EXCEEDS	28	39	31

e Estimated