

13351000 PALOUSE RIVER AT HOOPER, WA

Lower Snake Basin
Palouse Subbasin

LOCATION.--Lat 46°45'31", long 118°08'52" referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.27, T.15 N., R.37 E., Whitman County, WA, 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,

SURFACE-WATER 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".SPECIFIC CONDUCTANCE:October 1961 to September 1971, August 1993 to September 1994, April 2002 to September 2004.WATER TEMPERATURE:October 1961 to September 1971, August 1993 to September 2004.SUSPENDED SEDIMENT DISCHARGE:October 1961 to September 1971, October 1992 to September 1999, November 2000 to March 2001.

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 FOR PERIOD OF RECORD.--75 years (water years 1898-99, 1901-06, 1909-11, 1914-15, 1952-2013), 599 ft³/s, 434,000 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 (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 1	1300	*2,380	*8.38

Minimum discharge, 29 ft³/s, Aug. 25.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	49	215	272	333	2,230	1,080	1,060	726	242	158	35	39
2	48	201	284	345	2,130	1,570	1,140	666	238	139	37	37
3	49	161	360	306	1,870	1,810	1,220	609	239	126	42	37
4	56	142	875	277	1,610	1,790	1,250	560	224	116	38	38
5	56	133	690	285	1,440	1,580	1,220	523	214	105	40	45
6	57	126	650	309	1,350	1,360	1,320	498	199	100	43	58
7	58	122	712	355	1,340	1,290	1,370	476	186	94	41	58
8	59	117	619	355	1,300	1,380	1,450	455	173	88	38	54
9	59	116	647	368	1,340	1,340	1,730	432	164	85	41	48
10	59	118	607	649	1,260	1,240	1,440	413	154	78	45	46
11	59	116	488	1,500	1,110	1,140	1,240	389	140	72	42	44
12	60	128	446	980	1,000	1,110	1,300	367	135	68	40	41
13	64	134	442	e810	966	1,120	1,200	348	138	63	38	40
14	65	135	492	e665	929	1,210	1,760	346	127	65	37	38
15	69	139	487	e580	999	1,420	1,610	333	118	63	36	39
16	72	154	451	e550	1,010	1,590	1,350	321	113	65	35	46
17	76	155	425	e505	947	1,780	1,150	305	111	65	34	46
18	78	156	416	e445	1,000	1,730	1,000	293	106	63	34	49
19	88	162	457	e425	1,040	1,500	913	288	105	59	33	49
20	92	192	463	e420	959	1,300	1,050	283	114	55	33	44
21	105	268	416	e400	928	1,270	2,010	274	142	51	33	41
22	96	605	387	e370	868	1,610	1,490	275	161	49	32	44
23	91	660	378	e365	873	1,440	1,350	275	203	46	31	47
24	88	470	400	e368	1,110	1,280	1,180	276	276	43	30	45
25	87	377	423	e408	1,070	1,140	1,050	285	230	39	30	43
26	88	422	407	e440	988	1,030	941	280	213	38	33	47
27	91	439	408	e830	1,040	965	859	276	216	37	34	59
28	95	354	402	e1,600	985	920	788	266	199	37	37	70
29	106	309	395	e1,400	---	904	744	255	193	36	37	78
30	120	285	368	1,080	---	909	710	251	176	36	36	78
31	182	---	336	1,790	---	965	---	247	---	35	36	---
Total	2,422	7,111	14,603	19,513	33,692	40,773	36,895	11,591	5,249	2,174	1,131	1,448
Mean	78.1	237	471	629	1,203	1,315	1,230	374	175	70.1	36.5	48.3
Max	182	660	875	1,790	2,230	1,810	2,010	726	276	158	45	78
Min	48	116	272	277	868	904	710	247	105	35	30	37
Ac-ft	4,800	14,100	28,970	38,700	66,830	80,870	73,180	22,990	10,410	4,310	2,240	2,870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	67.3	144	424	1,005	1,631	1,801	1,304	644	261	83.6	33.8	38.6
Max	151	349	2,198	4,602	5,744	6,660	4,127	1,639	982	291	97.4	116
(WY)	(1960)	(1956)	(1974)	(1974)	(1996)	(1910)	(1913)	(2011)	(1990)	(1902)	(1997)	(1997)
Min	17.7	39.6	36.9	46.6	162	216	203	102	41.6	3.72	0.06	3.90
(WY)	(1916)	(1905)	(1915)	(1915)	(1994)	(1977)	(1977)	(1992)	(1992)	(1968)	(1968)	(1967)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1898 - 2013	
Annual total	273,753		176,602			
Annual mean	748		484		599	
Highest annual mean					1,595	1997
Lowest annual mean					106	1977
Highest daily mean	9,750	Apr 1	2,230	Feb 1	27,800	Mar 2, 1910
Lowest daily mean	36	Sep 9	30	Aug 24	0.00	Jun 25, 1910
Annual seven-day minimum	38	Sep 8	32	Aug 19	0.00	Aug 10, 1968
Annual runoff (ac-ft)	543,000		350,300		434,000	
10 percent exceeds	2,110		1,330		1,610	
50 percent exceeds	350		276		180	
90 percent exceeds	44		40		31	

