

13344500 TUCANNON RIVER NEAR STARBUCK, WA

Lower Snake Basin
Lower Snake-Tucannon Subbasin

LOCATION.--Lat 46°30'20", long 118°03'55" referenced to North American Datum of 1927, in NE ¼ SW ¼ sec.21, T.12 N., R.38 E., Columbia County, WA, Hydrologic Unit 17060107, on right bank, 180 ft downstream from County road bridge, 0.5 mi downstream from Smith Hollow, 3.0 mi east of Starbuck, 3.3 mi downstream from Pataha Creek, and at mile 7.9.

DRAINAGE AREA.--431 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1914 to September 1917, August 1928 to September 1931, October 1958 to September 1990, October 1994 to current year. Monthly discharge only for October and November 1914, published in WSP 1317.

REVISED RECORDS.--WSP 1347: 1930.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 725.9 ft above NGVD of 1929, from plane-table survey. Nov. 8, 1914, to Sept. 30, 1917, nonrecording gage at site 2.8 mi upstream at different datum. Aug. 9, 1928, to Sept. 30, 1931, nonrecording gages at site 2.5 mi upstream at various datums, Oct. 1, 1931 to Oct. 1, 2007, at present site at datum 10 ft higher.

REMARKS.--Records good except those above 500 cfs, which are fair. No estimated daily discharges. Many small diversions for irrigation upstream from station. Water temperatures and sediment records October 1962 to June 1970. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--57 years (water years 1915-17, 1929-31, 1959-90, 1995-2013), 171 ft³/s, 123,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,980 ft³/s, Dec. 22, 1964, gage height, 9.84 ft, from rating curve extended above 2,500 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 15 ft³/s, July 11, 12, 1930.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 3	0600	*544	*10.51

Minimum discharge, 57 ft³/s, Aug. 28, 29, gage height, 8.83 ft.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	78	122	222	128	173	159	273	283	150	102	68	61
2	77	128	332	119	178	194	292	253	148	95	74	65
3	80	118	520	115	183	256	307	239	148	90	75	70
4	84	110	445	127	186	314	316	237	140	86	73	69
5	85	104	417	122	187	303	344	245	132	87	68	81
6	86	101	401	121	186	282	388	255	126	88	63	84
7	85	105	375	132	183	265	430	267	124	89	62	76
8	84	103	342	139	179	239	415	278	121	86	61	76
9	85	102	306	143	172	223	372	290	120	83	65	74
10	84	101	278	178	167	211	338	298	118	78	65	70
11	81	98	258	202	162	203	318	298	117	78	65	67
12	78	102	249	198	156	196	300	296	114	75	71	66
13	86	105	236	194	152	199	305	297	111	74	71	66
14	86	110	224	185	148	218	290	289	110	75	68	67
15	88	108	217	175	145	254	278	266	105	75	64	71
16	105	105	213	163	142	290	267	242	100	76	64	66
17	120	103	209	155	144	311	251	226	96	80	71	72
18	96	106	195	148	144	288	241	212	95	75	68	85
19	90	112	181	143	148	263	247	200	110	72	68	81
20	97	163	173	138	149	255	303	188	146	70	66	74
21	106	210	170	135	145	287	343	181	134	70	68	71
22	96	216	164	133	146	291	350	190	126	70	63	73
23	94	195	159	134	147	281	332	182	116	69	65	77
24	91	196	161	137	141	265	307	176	121	68	66	80
25	92	201	154	137	139	251	295	171	140	65	64	86
26	93	194	147	155	136	241	287	164	144	66	66	84
27	96	186	147	157	132	235	289	161	140	64	65	82
28	117	177	142	160	138	231	300	164	125	67	61	88
29	168	170	137	162	---	234	313	164	113	69	61	102
30	180	183	133	166	---	244	307	175	108	67	61	121
31	138	---	131	169	---	257	---	161	---	66	62	---
Total	3,026	4,134	7,438	4,670	4,408	7,740	9,398	7,048	3,698	2,375	2,052	2,305
Mean	97.6	138	240	151	157	250	313	227	123	76.6	66.2	76.8
Max	180	216	520	202	187	314	430	298	150	102	75	121
Min	77	98	131	115	132	159	241	161	95	64	61	61
Ac-ft	6,000	8,200	14,750	9,260	8,740	15,350	18,640	13,980	7,330	4,710	4,070	4,570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	82.4	107	156	208	243	248	287	304	205	84.2	61.1	69.5
Max	125	186	673	635	1,057	717	753	986	599	203	114	108
(WY)	(1960)	(1996)	(1965)	(1974)	(1996)	(1972)	(2009)	(1917)	(1974)	(1974)	(1974)	(1972)
Min	51.7	60.0	66.8	49.3	76.5	97.7	114	93.9	58.9	32.9	21.5	42.2
(WY)	(1930)	(1930)	(1915)	(1930)	(2005)	(2005)	(1977)	(1977)	(1930)	(1930)	(1931)	(1931)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1915 - 2013	
Annual total	88,825		58,292			
Annual mean	243		160		171	
Highest annual mean					327	1974
Lowest annual mean					84.4	2005
Highest daily mean	1,230	Mar 31	520	Dec 3	5,000	Feb 10, 1916
Lowest daily mean	63	Aug 14	61	Aug 8	15	Jul 11, 1930
Annual seven-day minimum	65	Aug 14	62	Aug 27	18	Jul 24, 1931
Annual runoff (ac-ft)	176,200		115,600		123,800	
10 percent exceeds	515		291		330	
50 percent exceeds	174		139		118	
90 percent exceeds	75		68		59	

