

## TUCANNON RIVER BASIN

13344500 TUCANNON RIVER NEAR STARBUCK, WA

LOCATION.--Lat 46°30'17", long 118°03'55", in NE 1/4 SW 1/4 sec.21, T.12 N., R.38 E., Columbia County, 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 mi<sup>2</sup>.

PERIOD OF RECORD.--October 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. Elevation of gage is 735.9 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.

REMARKS.--Records good. 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.--46 years (water years 1915-17, 1929-31, 1959-90, 1995-2002), 171 ft<sup>3</sup>/s, 124,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,980 ft<sup>3</sup>/s Dec. 22, 1964, gage height, 9.84 ft, from rating curve extended above 2,500 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum discharge, 15 ft<sup>3</sup>/s July 11, 12, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 15	0130	*789	*1.65	No other peak greater than base discharge.			

Minimum discharge, 41 ft<sup>3</sup>/s Aug. 17.

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	65	110	103	100	134	185	228	218	369	137	55	55
2	66	97	102	102	130	167	231	240	347	128	55	56
3	65	91	104	109	125	155	224	262	320	118	56	57
4	66	87	105	113	120	148	217	266	300	115	58	55
5	65	85	104	116	117	143	214	251	294	114	61	54
6	65	87	107	118	114	144	232	234	296	107	61	58
7	67	88	105	125	121	144	256	224	281	104	61	58
8	69	87	102	166	137	138	261	211	266	107	60	60
9	69	86	101	219	133	131	252	196	259	102	58	57
10	70	85	101	212	133	132	252	184	273	94	59	56
11	77	85	103	193	134	134	256	175	261	88	56	53
12	92	85	103	181	134	186	272	168	249	83	55	53
13	79	84	108	169	131	260	303	173	243	78	56	53
14	77	85	145	159	131	272	e500	200	245	76	54	56
15	83	90	153	150	129	255	e680	221	252	75	50	53
16	78	88	146	142	127	234	e515	221	254	73	46	55
17	74	91	143	136	125	216	e410	219	251	70	48	61
18	74	89	141	131	126	198	e345	232	262	69	51	67
19	73	87	138	130	126	186	e300	266	247	70	50	60
20	74	86	132	126	124	178	e270	318	218	72	49	61
21	76	92	128	125	123	168	e255	339	202	75	53	65
22	78	102	124	122	128	160	e240	302	191	72	60	65
23	83	128	119	117	149	158	e235	284	182	71	57	68
24	84	128	114	115	198	170	e250	268	177	66	54	67
25	77	118	110	128	241	208	e245	261	168	69	56	67
26	77	112	106	159	228	239	e225	267	158	68	55	65
27	78	107	106	159	213	266	e240	288	151	61	55	65
28	82	108	107	150	198	274	e235	330	143	61	54	66
29	83	106	105	144	---	263	e220	389	154	59	53	68
30	84	105	103	145	---	245	203	416	148	57	54	69
31	95	---	101	140	---	232	---	392	---	54	54	---
TOTAL	2345	2879	3569	4401	4029	5989	8566	8015	7161	2593	1704	1803
MEAN	75.6	96.0	115	142	144	193	286	259	239	83.6	55.0	60.1
MAX	95	128	153	219	241	274	680	416	369	137	61	69
MIN	65	84	101	100	114	131	203	168	143	54	46	53
AC-FT	4650	5710	7080	8730	7990	11880	16990	15900	14200	5140	3380	3580

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2002, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
1915	83.2	125	51.7	1960	109	186	60.0	1996	163	673	66.8	1915
1916	214	635	49.3	1974	214	635	49.3	1974	214	635	49.3	1974
1917	261	1057	84.0	1996	261	1057	84.0	1996	261	1057	84.0	1996
1918	245	717	103	1972	245	717	103	1972	245	717	103	1972
1919	274	668	114	1917	274	668	114	1917	274	668	114	1917
1920	296	986	93.9	1974	296	986	93.9	1974	296	986	93.9	1974
1921	84.3	203	32.9	1974	84.3	203	32.9	1974	84.3	203	32.9	1974
1922	60.7	114	21.5	1974	60.7	114	21.5	1974	60.7	114	21.5	1974
1923	70.4	108	42.2	1972	70.4	108	42.2	1972	70.4	108	42.2	1972
1924	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931

## SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1915 - 2002

ANNUAL TOTAL	39421	53054	
ANNUAL MEAN	108	145	171
HIGHEST ANNUAL MEAN			327
LOWEST ANNUAL MEAN			89.6
HIGHEST DAILY MEAN	373	680	5000
LOWEST DAILY MEAN	33	46	15
ANNUAL SEVEN-DAY MINIMUM	38	50	18
ANNUAL RUNOFF (AC-FT)	78190	105200	124000
10 PERCENT EXCEEDS	177	262	329
50 PERCENT EXCEEDS	101	121	118
90 PERCENT EXCEEDS	51	57	58

e Estimated