

CHEHALIS RIVER BASIN

12035000 SATSOP RIVER NEAR SATSOP, WA

LOCATION.--Lat 47°00'03", long 123°29'37", in NE 1/4 SE 1/4 sec.36, T.18 N., R.7 W., Grays Harbor County, Hydrologic Unit 17100104, in west pier of bridge on old U.S. Highway 410, 0.6 mi west of Satsop, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--299 mi².

PERIOD OF RECORD.--March 1929 to current year.

REVISED RECORDS.--WSP 1286: 1930-35(M), 1937(M). WSP 1716: Drainage area. WSP 1932: 1945, 1949(M), 1951(M), 1956-57(M), 1959(M).

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Mar. 19, 1938, nonrecording gage at site 60 ft upstream at datum 20.9 ft higher.

REMARKS.--Records good. No regulation or diversion upstream from station. Chemical analyses July 1960 to September 1971, October 1974 to September 1975, October 1976 to June 1980; sediment records November 1961 to June 1965 (partial-record station). U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--73 years (water years 1930-2002), 2,047 ft³/s, 93.02 in/yr, 1,483,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,600 ft³/s Mar. 19, 1997, elevation, 38.87 ft; maximum elevation, 38.9 ft Jan. 22, 1935, from floodmarks, present datum; minimum discharge, 147 ft³/s Aug. 31, Sept. 1, 2, 1994; minimum elevation, 21.66 ft, present datum, Sept. 3-6, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1909 reached a stage of 37.1 ft, from high-water mark, at railroad bridge 300 ft downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 15	0300	21,500	33.68	Jan. 08	0000	23,000	34.03
Dec. 02	0200	15,500	32.18	Jan. 25	0600	18,200	32.88
Dec. 14	0300	23,700	34.17	Feb. 22	1600	21,100	33.58
Dec. 17	0400	*30,100	*35.49				

Minimum discharge, 237 ft³/s Sept. 28, 29, 30.

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	340	2910	10200	e2510	4780	2730	1610	1220	859	937	356	268
2	331	2950	11700	e3690	4080	2450	1520	1170	796	805	351	266
3	324	2540	6540	3760	4130	2250	1450	1130	755	726	346	272
4	319	2120	5260	3550	4110	2100	1380	1070	729	681	351	267
5	309	1880	4560	3230	3560	1970	1330	1080	738	658	373	263
6	305	1630	4490	5320	4590	1840	1340	1070	718	612	360	259
7	304	1430	4620	19000	6760	1740	1360	1030	681	586	346	258
8	308	1280	4230	17600	5260	1650	1280	980	669	568	338	263
9	305	1160	4640	9960	4400	1580	1300	942	645	548	332	291
10	340	1060	4090	6900	3720	1800	1940	913	631	529	325	279
11	428	974	3720	5470	3330	6030	2240	884	616	510	324	263
12	407	1020	3760	5020	2900	6420	3650	857	599	499	320	256
13	571	1360	11200	4450	2580	4960	6080	844	586	484	315	254
14	550	13300	17000	3810	2300	4180	10300	879	571	475	310	251
15	518	16700	8450	3270	2080	3530	7420	839	564	466	306	251
16	462	9260	18400	2840	1950	3150	5660	804	552	457	303	272
17	428	5980	22100	2540	1850	2760	4870	794	572	449	299	366
18	402	4340	10700	2330	1790	2520	3810	774	719	442	298	301
19	433	4060	8180	2320	2370	2540	3140	756	651	435	295	275
20	437	7050	6590	2720	2520	3030	2700	760	598	427	293	270
21	435	9360	5480	3040	6040	3060	2360	736	568	421	290	260
22	897	10400	4590	2950	18100	2760	2110	722	548	410	290	253
23	2950	7830	3890	2890	12000	2520	1900	700	541	401	288	248
24	2580	5480	3390	7580	7480	2360	1750	684	530	393	285	247
25	4430	4200	3030	15900	5360	2190	1630	674	512	392	283	243
26	3390	3420	2750	8900	4190	2060	1570	669	500	390	281	240
27	2720	2970	2540	6100	3510	2000	1570	661	494	386	280	240
28	2420	3380	2720	4660	3070	2000	1440	757	545	380	276	239
29	1930	6450	2660	3770	---	1910	1350	1280	1740	375	273	237
30	1660	5980	2420	3720	---	1800	1280	1140	1210	368	270	237
31	2730	---	2450	5330	---	1690	---	955	---	361	269	---
TOTAL	33963	142474	206350	175130	128810	83580	81340	27774	20437	15571	9626	7889
MEAN	1096	4749	6656	5649	4600	2696	2711	896	681	502	311	263
MAX	4430	16700	22100	19000	18100	6420	10300	1280	1740	937	373	366
MIN	304	974	2420	2320	1790	1580	1280	661	494	361	269	237
AC-FT	67370	282600	409300	347400	255500	165800	161300	55090	40540	30890	19090	15650
CFSM	3.66	15.9	22.3	18.9	15.4	9.02	9.07	3.00	2.28	1.68	1.04	0.88
IN.	4.23	17.73	25.67	21.79	16.03	10.40	10.12	3.46	2.54	1.94	1.20	0.98

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2002, BY WATER YEAR (WY)

	MEAN	1147	3023	4323	4180	3848	2996	2071	1147	705	455	332	435
MAX	3814	6887	9553	9598	8123	7785	4038	2696	1686	1133	674	1791	
(WY)	1976	1991	1995	1953	1999	1997	1937	1948	2000	1983	2001	1978	
MIN	201	268	1361	1127	1148	1155	898	610	407	287	198	208	
(WY)	1988	1937	1986	1949	1993	1992	1942	1998	1992	1951	1994	1938	

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1930 - 2002

ANNUAL TOTAL		722254		932944		
ANNUAL MEAN		1979		2556		2047
HIGHEST ANNUAL MEAN						3235
LOWEST ANNUAL MEAN						1199
HIGHEST DAILY MEAN		22100	Dec 17	22100	Dec 17	51800
LOWEST DAILY MEAN		304	Oct 7	237	Sep 29	147
ANNUAL SEVEN-DAY MINIMUM		311	Oct 3	240	Sep 24	154
ANNUAL RUNOFF (AC-FT)	1433000			1850000		1483000
ANNUAL RUNOFF (CFSM)		6.62		8.55		6.85
ANNUAL RUNOFF (INCHES)		89.86		116.07		93.02
10 PERCENT EXCEEDS		4130		6030		4780
50 PERCENT EXCEEDS		1220		1330		1160
90 PERCENT EXCEEDS		363		289		285

e Estimated