12035000 SATSOP RIVER NEAR SATSOP, WA

LOCATION.--Lat 47°00'03", long 123°29'37", in NE ¼ SE ¼ 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 mi^2.

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.--No estimated daily discharges. 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.--74 years (water years 1930-2003), 2,044 ft^3/s, 92.87 in/yr, 1,481,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,600 ft^3/s Mar. 19, 1997, elevation, 38.87 ft; maximum elevation, 38.9 ft Jan. 22, 1935, from floodmarks, present datum; minimum discharge, 147 ft^3/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 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 2	1500	*18,600	*33.12	Mar 13	1200	16,500	32.61
Jan 26	1500	16,600	32.63	Mar 22	1300	18,400	33.06

Minimum discharge, 189 ft^3/s, Nov. 3, 4, 5, 6, gage height, 23.68 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	193	747	3,650	7,690	1,560	2,270	1,240	546	370	250	203
2	235	193	709	14,200	5,420	1,430	2,240	1,190	534	349	248	200
3	245	192	673	11,400	4,190	1,340	2,330	1,150	521	340	246	199
4	255	189	677	9,530	3,420	1,270	2,300	1,210	509	333	247	198
5	246	189	711	8,450	2,930	1,250	2,230	1,240	497	329	244	196
6	239	203	651	5,650	2,560	1,400	2,480	1,130	484	325	244	197
7	235	296	613	4,230	2,290	1,550	2,830	1,070	472	324	242	215
8	233	389	586	3,410	2,080	1,470	5,520	1,030	463	321	242	233
9	232	841	573	2,870	1,900	2,350	4,290	988	458	318	244	226
10	227	947	774	2,490	1,760	3,730	3,450	952	461	310	243	226
11	225	1,570	2,500	2,260	1,640	3,760	2,930	924	457	306	240	265
12	222	1,640	6,660	3,080	1,540	6,520	2,780	896	451	303	242	274
13	221	2,140	4,800	2,840	1,460	14,900	2,980	865	456	318	239	238
14	221	2,060	5,700	2,890	1,380	11,600	3,280	842	456	324	234	221
15	218	1,330	7,430	2,610	1,360	8,280	2,990	831	446	321	229	213
16	218	1,140	6,620	2,330	1,580	5,840	2,710	860	428	308	229	220
17	217	1,740	5,020	2,110	2,100	4,700	2,550	844	416	300	228	223
18	214	1,440	4,260	1,930	1,990	3,970	2,370	801	406	293	224	217
19	220	10,000	3,780	1,770	1,980	3,690	2,130	765	402	287	222	256
20	221	5,700	3,160	1,640	2,490	4,640	1,960	748	396	284	221	270
21	216	3,050	2,580	1,600	3,620	6,210	1,820	741	391	282	218	238
22	212	2,120	2,190	2,780	3,510	14,200	1,690	713	389	276	214	222
23	210	1,680	1,930	5,930	2,810	8,870	1,680	693	382	273	214	213
24	207	1,420	1,770	5,200	2,360	5,840	1,950	674	376	270	213	209
25	207	1,230	2,550	4,930	2,060	4,560	1,820	666	370	269	210	204
26	205	1,110	5,410	13,000	1,860	3,940	1,680	639	362	267	212	199
27	203	1,010	4,390	9,470	1,690	3,550	1,570	618	357	264	214	196
28	204	925	4,460	6,460	1,600	3,140	1,470	600	352	259	213	194
29	203	853	3,320	5,350	---	2,780	1,390	586	346	257	210	193
30	198	796	3,390	6,090	---	2,500	1,310	570	356	255	206	193
31	196	---	3,030	11,100	---	2,430	---	561	---	251	205	---
TOTAL	6,842	46,586	91,664	161,250	71,270	143,270	73,000	26,637	12,940	9,286	7,087	6,551
MEAN	221	1,553	2,957	5,202	2,545	4,622	2,433	859	431	300	229	218
MAX	255	10,000	7,430	14,200	7,690	14,900	5,520	1,240	546	370	250	274
MIN	196	189	573	1,600	1,360	1,250	1,310	561	346	251	205	193
AC-FT	13,570	92,400	181,800	319,800	141,400	284,200	144,800	52,830	25,670	18,420	14,060	12,990
CFSM	0.74	5.19	9.89	17.4	8.51	15.5	8.14	2.87	1.44	1.00	0.76	0.73
IN.	0.85	5.80	11.40	20.06	8.87	17.82	9.08	3.31	1.61	1.16	0.88	0.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2003, BY WATER YEAR (WY)

MEAN	1,135	3,003	4,305	4,194	3,831	3,017	2,076	1,143	702	453	331	432
MAX	3,814	6,887	9,553	9,598	8,123	7,785	4,038	2,696	1,686	1,133	674	1,791
(WY)	(1976)	(1991)	(1995)	(1953)	(1999)	(1997)	(1937)	(1948)	(2000)	(1983)	(2001)	(1978)
MIN	201	268	1,361	1,127	1,148	1,155	898	610	407	287	198	208
(WY)	(1988)	(1937)	(1986)	(1949)	(1993)	(1992)	(1942)	(1998)	(1992)	(1951)	(1994)	(1938)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1930 - 2003	
ANNUAL TOTAL	695,249		656,383			
ANNUAL MEAN	1,905		1,798		2,044	
HIGHEST ANNUAL MEAN					3,235	1997
LOWEST ANNUAL MEAN					1,199	1977
HIGHEST DAILY MEAN	19,000	Jan 7	14,900	Mar 13	51,800	Mar 19, 1997
LOWEST DAILY MEAN	189	Nov 4	189	Nov 4	147	Sep 1, 1994
ANNUAL SEVEN-DAY MINIMUM	193	Oct 30	193	Oct 30	154	Aug 27, 1994
ANNUAL RUNOFF (AC-FT)	1,379,000		1,302,000		1,481,000	
ANNUAL RUNOFF (CFSM)	6.37		6.01		6.84	
ANNUAL RUNOFF (INCHES)	86.50		81.66		92.87	
10 PERCENT EXCEEDS	4,790		4,660		4,780	
50 PERCENT EXCEEDS	841		765		1,150	
90 PERCENT EXCEEDS	239		213		282	