12031000 CHEHALIS RIVER AT PORTER, WA

Washington Coastal Basin
Upper Chehalis Subbasin

LOCATION.--Lat 46°56′22″, long 123°18′47″ referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.21, T.17 N., R.5 W., Grays Harbor County, WA, Hydrologic Unit 17100103, at downstream end of left bank bridge pier, 30 ft downstream from Porter Creek, 0.1 mi west of Porter, and at mile 33.3.

DRAINAGE AREA.--1,294 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1952 to September 1972, water years 1973-75 (annual maximum), May 1975 to September 1985, October 1985 to September 1986 (monthly means only), October 1986 to current year. Daily routed values for October 1985 to September 1986 are available in the files of the U.S. Geological Survey.

REVISED RECORDS.--WSP 1716: Drainage area. WSP 1932: 1954, 1956, 1960(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 23.64 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records fair. Minor effect from regulation on Skookumchuck River by Skookumchuck Dam since January 1971. Up to 54 ft^3/s of Skookumchuck River is consumptively used at Centralia steam generating plant. Many small diversions for irrigation and domestic use upstream from station, including about 3 ft^3/s for municipal water supply for Centralia and Chehalis. U.S. Geological Survey satellite telemeter at station. Suspended sediment October 1961 to September 1971. Water temperatures July 1959 to September 1960, October 1961 to July 1972. Chemical analyses July 1959 to September 1973, October 1974 to September 1994.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--51 years (water years 1953-72, 1976-2006), 4,048 ft^3/s, 42.51 in/yr, 2,933,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,700 ft^3/s, Feb. 9, 1996, gage height, 25.22 ft; minimum discharge, 164 ft^3/s, Oct. 17, 1952, gage height, 2.25 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 28, 1937, reached a stage of 24.7 ft, from levels by Grays Harbor County. Flood of December 1933 reached a stage of 23.13 ft, from river profile by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 26	1700	21,000	20.25
Jan 13	0000	*43,200	*22.64
Feb 01	1300	42,700	22.58

Minimum discharge, 302 ft^3/s, Sep 8, 14, gage height, 3.34 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	505	5,700	4,350	20,100	39,900	4,470	3,500	1,860	1,380	626	393	314
2	753	6,340	4,270	19,100	32,700	4,270	4,010	1,730	1,600	612	390	318
3	717	5,200	4,810	16,400	27,200	3,920	3,890	1,620	2,410	595	383	319
4	690	5,910	4,500	14,200	23,900	3,630	3,680	1,540	2,180	584	373	315
5	653	8,310	4,000	12,400	21,800	3,440	3,460	1,480	2,220	576	368	312
6	588	9,680	3,610	11,800	19,600	3,300	3,240	1,420	1,980	575	362	309
7	578	8,970	3,300	12,700	15,300	3,400	3,000	1,440	1,680	569	355	307
8	573	6,650	3,030	13,900	11,600	4,010	2,870	1,480	1,480	566	352	306
9	637	5,070	2,770	14,700	8,950	5,880	3,080	1,470	1,380	551	368	313
10	640	4,120	2,550	19,400	7,370	7,640	3,060	1,360	1,340	535	365	312
11	622	3,660	2,390	25,700	6,400	7,330	2,830	1,280	1,270	528	362	311
12	598	4,120	2,290	36,100	5,710	6,540	2,670	1,230	1,200	540	362	311
13	592	5,410	2,200	39,600	5,220	5,740	2,540	1,200	1,140	568	358	309
14	583	5,660	2,090	32,000	4,810	5,100	2,630	1,150	1,140	578	355	306
15	619	4,990	1,980	26,800	4,440	4,670	3,310	1,110	1,110	558	343	306
16	643	4,170	1,870	20,700	4,130	4,560	4,210	1,070	1,110	529	338	313
17	711	3,610	1,790	18,200	3,880	4,670	5,080	1,000	1,100	500	335	333
18	697	3,180	1,700	19,700	3,650	5,000	4,790	960	1,050	481	337	374
19	669	2,850	1,720	17,800	3,440	4,940	4,330	929	997	466	332	379
20	668	2,590	2,060	16,000	3,300	4,550	3,910	902	947	449	329	394
21	709	2,380	2,820	16,700	3,180	4,240	3,580	894	901	439	320	480
22	749	2,200	5,580	15,700	3,140	3,990	3,290	993	862	428	315	461
23	684	2,040	10,600	12,800	3,350	3,920	2,980	1,170	821	420	325	457
24	634	1,910	15,600	10,200	3,700	3,970	2,720	1,380	793	413	334	431
25	609	2,060	19,200	8,360	3,660	4,230	2,520	1,460	762	398	335	402
26	606	3,450	20,600	7,480	3,380	4,080	2,350	1,540	727	391	338	382
27	628	3,820	20,300	7,920	3,330	3,840	2,220	1,610	694	387	333	366
28	754	3,280	19,200	10,100	3,840	3,630	2,080	1,730	669	384	323	349
29	859	3,120	18,700	15,200	---	3,420	1,970	1,860	650	380	313	338
30	1,180	4,020	18,700	24,100	---	3,300	1,900	1,770	634	385	315	333
31	2,580	---	19,600	30,500	---	3,280	---	1,510	---	392	315	---
Total	22,728	134,470	228,180	566,360	280,880	138,960	95,700	42,148	36,227	15,403	10,726	10,460
Mean	733	4,482	7,361	18,270	10,030	4,483	3,190	1,360	1,208	497	346	349
Max	2,580	9,680	20,600	39,600	39,900	7,640	5,080	1,860	2,410	626	393	480
Min	505	1,910	1,700	7,480	3,140	3,280	1,900	894	634	380	313	306
Ac-ft	45,080	266,700	452,600	1,123,000	557,100	275,600	189,800	83,600	71,860	30,550	21,280	20,750
Cfsm	0.57	3.46	5.69	14.1	7.75	3.46	2.47	1.05	0.93	0.38	0.27	0.27
In.	0.65	3.87	6.56	16.28	8.07	3.99	2.75	1.21	1.04	0.44	0.31	0.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,255	5,108	8,811	9,458	8,355	6,526	4,391	2,117	1,202	611	414	540
Max	4,627	12,770	17,710	19,050	20,550	12,920	9,130	4,202	2,456	1,295	838	1,879
(WY)	(1998)	(1956)	(1978)	(1971)	(1999)	(1972)	(1991)	(1984)	(1968)	(1983)	(1968)	(1978)
Min	196	376	1,273	1,360	1,711	2,287	2,025	1,024	528	350	223	228
(WY)	(1953)	(1953)	(1977)	(1977)	(1977)	(2001)	(1977)	(1994)	(1992)	(1992)	(1967)	(1967)

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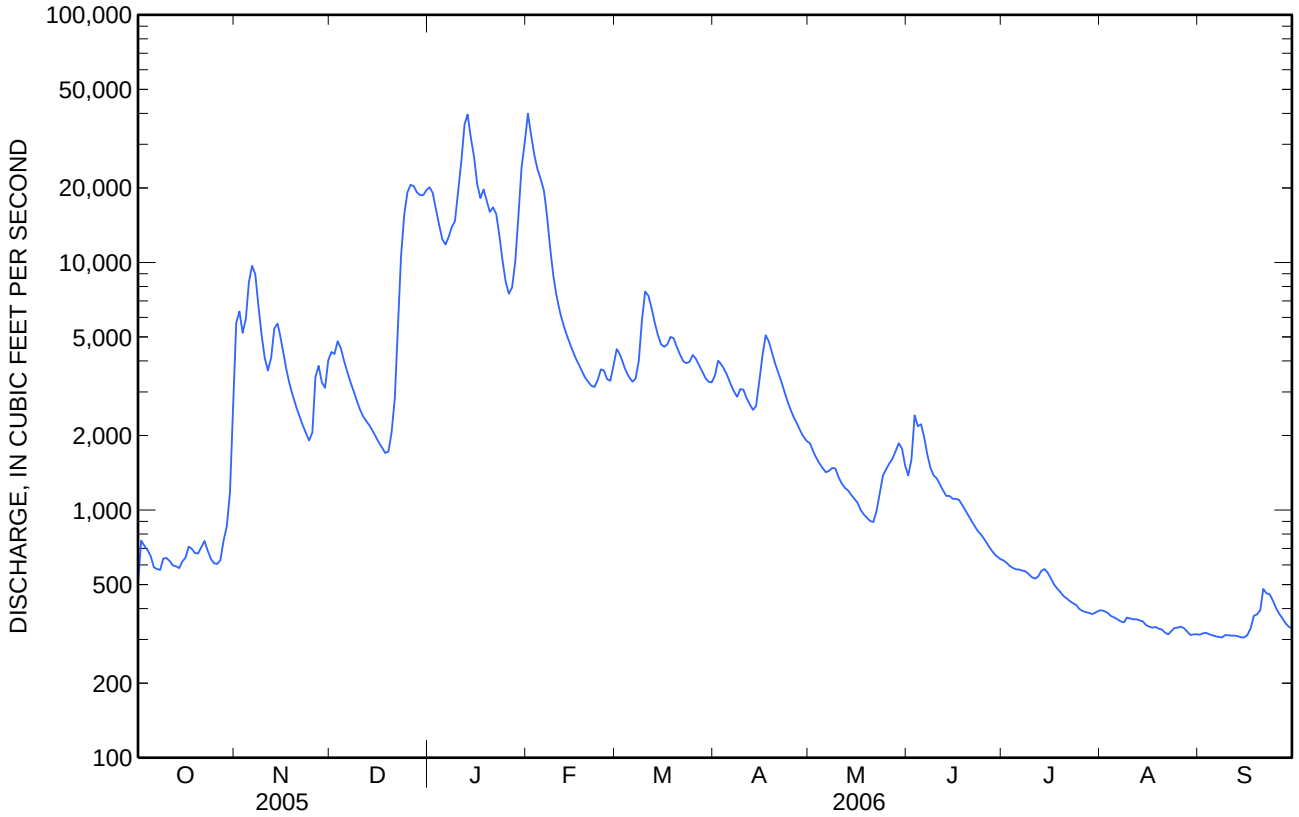
SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1953 - 2006	
Annual total	1,086,775		1,582,242			
Annual mean	2,977		4,335		4,048	
Highest annual mean					6,492	1999
Lowest annual mean					1,578	2001
Highest daily mean	21,500	Jan 20	39,900	Feb 1	55,000	Feb 9, 1996
Lowest daily mean	323	Sep 28	306	Sep 8	166	Oct 17, 1952
Annual seven-day minimum	333	Sep 22	310	Sep 8	169	Oct 6, 1952
Annual runoff (ac-ft)	2,156,000		3,138,000		2,933,000	
Annual runoff (cfsm)	2.30		3.35		3.13	
Annual runoff (inches)	31.24		45.49		42.51	
10 percent exceeds	5,940		14,000		10,600	
50 percent exceeds	1,860		1,870		1,980	
90 percent exceeds	410		347		376