Water-Data Report 2007

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.--52 years (water years 1953-72, 1976-2007), 4,062 ft^3/s, 42.65 in/yr, 2,943,000 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)
Nov 9	1200	*29,400	*21.85
Nov 25	0600	20,400	20.11
Dec 17	0100	25,100	21.12
Dec 28	1900	22,900	20.66
Jan 9	1500	26,200	21.31

Minimum discharge, 299 ft^3/s, Sept. 28, 29.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	329	351	8,050	8,200	3,140	8,410	5,140	2,070	888	784	403	367
2	323	378	7,270	7,710	2,960	7,880	4,710	2,140	862	721	377	366
3	320	751	6,550	11,700	2,830	7,830	4,370	2,250	840	681	359	369
4	323	2,370	5,930	16,200	2,880	8,450	4,060	2,430	821	642	353	401
5	323	5,220	5,440	15,600	2,860	8,260	3,810	2,360	827	601	352	403
6	326	9,160	5,030	17,300	2,710	7,500	3,570	2,150	838	581	353	403
7	333	20,300	4,690	21,900	2,630	6,770	3,450	2,010	835	565	356	382
8	333	24,000	4,440	24,200	2,620	6,700	3,710	1,900	809	549	366	364
9	340	28,000	4,270	25,500	2,630	6,710	4,040	1,790	817	543	357	349
10	337	22,700	4,200	23,000	2,650	6,580	4,530	1,690	877	529	357	341
11	334	18,100	4,560	17,400	2,630	9,940	4,550	1,610	948	508	352	335
12	330	19,300	8,200	12,800	2,680	15,100	4,250	1,550	939	492	351	326
13	325	19,700	12,400	9,730	2,820	16,800	4,030	1,490	862	478	344	325
14	319	20,900	17,400	7,880	2,760	14,800	3,830	1,430	807	472	333	329
15	392	20,000	22,600	6,720	3,460	10,600	3,650	1,380	782	469	327	339
16	484	16,900	24,400	6,010	5,670	8,030	3,440	1,330	773	470	321	343
17	526	17,200	23,900	5,560	6,090	6,680	3,330	1,290	772	492	318	364
18	556	12,800	17,400	5,250	5,400	6,040	3,350	1,250	764	537	321	358
19	541	8,960	11,300	5,210	5,630	5,530	3,320	1,230	758	574	360	363
20	521	7,830	8,300	5,470	10,100	5,420	3,160	1,240	732	665	374	346
21	593	8,510	7,440	5,610	16,200	5,750	2,970	1,360	708	727	405	348
22	517	13,800	8,610	5,300	15,100	5,330	2,970	1,440	707	788	401	336
23	447	16,700	9,880	5,000	11,000	5,010	3,050	1,300	680	744	383	324
24	411	19,200	11,200	4,700	8,650	6,560	2,830	1,210	710	704	369	322
25	396	20,100	13,600	4,430	8,610	12,000	2,670	1,150	758	650	351	316
26	384	17,200	17,200	4,200	9,420	15,100	2,570	1,110	794	586	349	311
27	382	14,800	19,300	3,980	8,960	12,300	2,450	1,080	770	531	336	309
28	376	13,100	22,000	3,770	8,490	9,060	2,350	1,040	719	491	330	313
29	372	10,100	20,700	3,590	---	7,160	2,230	1,000	744	468	325	306
30	363	8,470	14,800	3,430	---	6,090	2,100	968	771	447	331	353
31	358	---	10,500	3,290	---	5,450	---	926	---	427	357	---
Total	12,214	416,900	361,560	300,640	161,580	263,840	104,490	47,174	23,912	17,916	10,971	10,411
Mean	394	13,900	11,660	9,698	5,771	8,511	3,483	1,522	797	578	354	347
Max	593	28,000	24,400	25,500	16,200	16,800	5,140	2,430	948	788	405	403
Min	319	351	4,200	3,290	2,620	5,010	2,100	926	680	427	318	306
Ac-ft	24,230	826,900	717,200	596,300	320,500	523,300	207,300	93,570	47,430	35,540	21,760	20,650
Cfsm	0.30	10.7	9.01	7.49	4.46	6.58	2.69	1.18	0.62	0.45	0.27	0.27
In.	0.35	11.99	10.39	8.64	4.65	7.58	3.00	1.36	0.69	0.52	0.32	0.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,238	5,277	8,866	9,462	8,306	6,564	4,373	2,106	1,195	610	413	537
Max	4,627	13,900	17,710	19,050	20,550	12,920	9,130	4,202	2,456	1,295	838	1,879
(WY)	(1998)	(2007)	(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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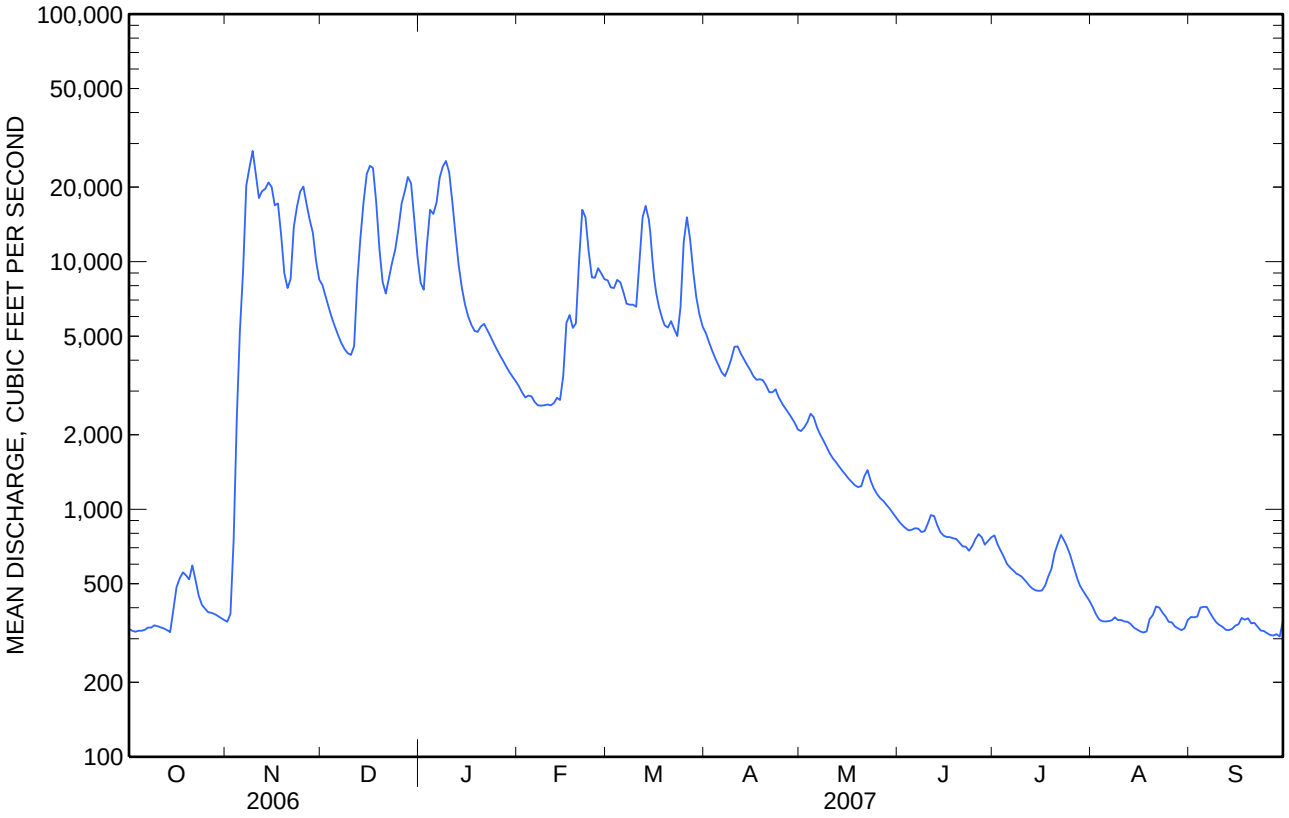
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1953 - 2007	
Annual total	1,987,538		1,731,608			
Annual mean	5,445		4,744		4,062	
Highest annual mean					6,492	1999
Lowest annual mean					1,578	2001
Highest daily mean	39,900	Feb 1	28,000	Nov 9	55,000	Feb 9, 1996
Lowest daily mean	306	Sep 8	306	Sep 29	166	Oct 17, 1952
Annual seven-day minimum	310	Sep 8	314	Sep 23	169	Oct 6, 1952
Annual runoff (ac-ft)	3,942,000		3,435,000		2,943,000	
Annual runoff (cfsm)	4.21		3.67		3.14	
Annual runoff (inches)	57.14		49.78		42.65	
10 percent exceeds	17,900		15,100		10,600	
50 percent exceeds	1,860		2,100		1,980	
90 percent exceeds	333		341		375