CHEHALIS RIVER BASIN

12031000 CHEHALIS RIVER AT PORTER, WA

LOCATION.--Lat 46°56'17", long 123°18'45", on north line of NE $^1/_4$ sec.28, T.17 N., R.5 W., Grays Harbor County, 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.

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 good. 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.--47 years (water years 1953-72, 1976-2002), 4,101 ft^3/s, 43.06 in/yr, 2,971,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,700 ft^3/s Feb. 9, 1996, gage height, 25.22 ft; minimum, 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 maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 16	1200	21,000	19.82	Jan 09	2200	28,300	20.57
Dec 03	0900	26,700	20.73	Jan 27	0500	30,500	20.93
Dec 19	0200	*41,200	*22.41				

Minimum discharge, 336 ft^3/s Sept. 26, 27.

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	460	2380	20600	4610	12500	5140	3930	2550	1310	1240	452	378
2	445	2730	24500	5450	11900	4640	3660	2420	1200	1000	446	377
3	432	2300	26100	5920	10400	4240	3420	2310	1130	876	441	382
4	425	1900	24900	5610	10100	3930	3200	2200	1100	810	451	390
5	422	1650	20300	5260	9220	3710	3020	2150	1080	780	471	399
6	415	1510	16800	5610	8600	3540	2910	2230	1070	743	467	400
7	412	1370	15000	12300	9170	3520	2890	2300	1040	715	481	402
8	418	1240	13200	23000	11800	3300	2790	2170	1010	703	467	422
9	419	1140	11000	27000	14400	3130	2700	2020	983	694	455	438
10	452	1060	9210	27300	13100	3240	3070	1900	955	668	450	429
11	506	1000	8230	21000	11000	5490	4350	1810	915	633	449	436
12	536	978	8190	13800	9260	13200	4870	1720	890	599	442	400
13	630	1060	10100	11800	7980	17600	5890	1660	864	570	433	384
14	653	5390	18400	10200	6900	19700	10400	1670	819	566	424	375
15	660	17200	23800	8730	6090	18000	16100	1660	787	557	415	369
16	656	20400	27100	7530	5540	13800	14400	1570	766	545	411	378
17	603	16000	29500	6780	5260	11300	12000	1570	774	537	412	391
18	562	9520	35300	6180	4980	9490	9910	1590	841	533	415	389
19	555	6750	37100	5960	5090	9350	8170	1520	851	527	419	389
20	548	7100	29900	6760	5990	12300	6770	1480	875	525	416	385
21	544	9550	24400	8370	6950	14000	5790	1500	800	524	419	373
22	658	12600	17900	9080	10600	11800	5070	1450	747	516	421	366
23	917	16500	13000	9240	10600	9520	4490	1390	712	507	411	361
24	1460	17900	10100	11700	10600	8060	4000	1330	689	496	407	358
25	1670	13800	8440	23500	9440	7010	3610	1270	669	490	407	348
26	1510	9520	7210	28200	7930	6220	3360	1230	649	491	413	341
27	1420	7300	6310	30000	6670	5600	3330	1210	634	489	393	344
28	1340	6750	5860	26000	5780	5260	3260	1280	673	486	386	345
29	1300	12600	5510	18700	---	4950	2980	1500	1000	489	384	346
30	1180	17900	4970	13400	---	4610	2740	1600	1340	479	382	351
31	1480	---	4650	11600	---	4250	---	1480	---	461	385	---
TOTAL	23688	227098	517580	410590	247850	249900	163080	53740	27173	19249	13225	11446
MEAN	764	7570	16700	13240	8852	8061	5436	1734	906	621	427	382
MAX	1670	20400	37100	30000	14400	19700	16100	2550	1340	1240	481	438
MIN	412	978	4650	4610	4980	3130	2700	1210	634	461	382	341
AC-FT	46990	450400	1027000	814400	491600	495700	323500	106600	53900	38180	26230	22700
CFSM	0.59	5.85	12.9	10.2	6.84	6.23	4.20	1.34	0.70	0.48	0.33	0.29
IN.	0.68	6.53	14.88	11.80	7.13	7.18	4.69	1.54	0.78	0.55	0.38	0.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)

MEAN	1246	5253	9044	9438	8487	6615	4424	2136	1212	617	411	538
MAX	4627	12770	17710	19050	20550	12920	9130	4202	2456	1295	838	1879
(WY)	1998	1956	1978	1971	1999	1972	1991	1984	1968	1983	1968	1978
MIN	196	376	1273	1360	1711	2287	2025	1024	528	350	223	228
(WY)	1953	1953	1977	1977	1977	2001	1977	1994	1992	1992	1967	1967

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1953 - 2002	
ANNUAL TOTAL	1227598		1964619			
ANNUAL MEAN	3363		5383		4101	
HIGHEST ANNUAL MEAN					6492	1999
LOWEST ANNUAL MEAN					1578	2001
HIGHEST DAILY MEAN	37100	Dec 19	37100	Dec 19	55000	Feb 9 1996
LOWEST DAILY MEAN	364	Aug 18	341	Sep 26	166	Oct 17 1952
ANNUAL SEVEN-DAY MINIMUM	367	Aug 15	348	Sep 24	169	Oct 6 1952
ANNUAL RUNOFF (AC-FT)	2435000		3897000		2971000	
ANNUAL RUNOFF (CFSM)	2.60		4.16		3.17	
ANNUAL RUNOFF (INCHES)	35.29		56.48		43.06	
10 PERCENT EXCEEDS	8210		14400		10800	
50 PERCENT EXCEEDS	1670		1810		2000	
90 PERCENT EXCEEDS	445		412		379	