

CHEHALIS RIVER BASIN

12020000 CHEHALIS RIVER NEAR DOTY, WA

LOCATION.--Lat 46°37'03", long 123°16'35", in NE 1/4 NW 1/4 sec.14, T.13 N., R.5 W., Lewis County, Hydrologic Unit 17100103, on right bank 1.3 mi south of Doty, 1.6 mi upstream from Elk Creek, 3.4 mi north of Pe Ell, and at mile 101.8.

DRAINAGE AREA.--113 mi².

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1316: 1943(M). WSP 1446: 1946(M). WDR-WA-72-1: 1945(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 301.1 ft above NGVD of 1929 (river-profile survey). Prior to Oct. 1, 1961, nonrecording gage and crest-stage gage at site 50 ft upstream at datum 1 ft higher. Oct 1, 1961 to Sept. 15, 1995, water-stage recorder at site 150 ft upstream at datum 1 ft higher. Prior to Feb. 24, 1999, at same site at datum 1 ft higher.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station. Chemical analyses July 1959 to September 1970, sediment records October 1961 to December 1964 (partial-record station).

AVERAGE DISCHARGE.--63 years (water years 1940-2002), 575 ft³/s, 69.16 in/yr, 416,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,900 ft³/s Feb. 8, 1996, gage height, 20.37 ft, from rating curve extended above 8,000 ft³/s on basis of slope-area measurement at gage height 18.36 ft; minimum discharge, 16 ft³/s Aug. 31, Sept. 3, 4, 7, 8, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 14	1300	14,500	14.67	Jan 07	2030	12,500	13.45
Dec 13	2030	9,170	11.28	Jan 25	0715	8,100	10.51
Dec 16	2300	*16,600	*15.90				

Minimum discharge, 25 ft³/s Aug. 29-31, Sept. 25-29.

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	36	822	5450	488	1140	470	458	249	137	162	37	26
2	34	586	4180	598	1030	440	421	236	123	126	37	26
3	33	420	2400	604	1260	401	381	226	115	108	36	28
4	31	323	2000	614	1220	374	348	209	110	99	39	26
5	31	294	1730	592	1070	359	330	224	108	92	54	26
6	30	243	1840	1640	1240	358	339	253	109	82	47	26
7	31	208	1780	10700	1930	331	337	237	99	77	42	27
8	34	181	1470	6650	1980	322	308	215	97	78	38	28
9	35	159	1350	3050	1720	338	345	203	95	73	36	30
10	37	142	1210	1950	1360	620	759	196	88	67	34	29
11	62	129	1220	1410	1170	3320	792	189	84	62	34	28
12	56	137	1190	1450	981	3060	1020	183	80	59	33	27
13	65	225	4370	1350	834	2710	1490	180	77	56	32	27
14	63	9740	5260	1170	719	2200	3420	188	73	54	31	26
15	66	4470	2780	983	629	1610	2010	169	71	53	30	26
16	56	2240	9200	880	594	1270	1670	158	70	52	30	28
17	54	1340	8070	795	557	1030	1430	153	72	50	30	30
18	50	942	3360	724	558	912	1110	142	103	49	29	30
19	48	975	2470	829	900	1120	889	136	98	49	29	29
20	51	2150	1940	1180	887	1680	737	140	81	49	29	29
21	52	2510	1540	1370	1930	1330	627	133	73	47	30	29
22	105	4150	1250	1190	1650	1070	549	123	69	44	29	28
23	410	3430	1010	1080	1290	917	482	117	67	43	29	27
24	281	2090	853	3090	1060	848	429	112	66	42	28	26
25	269	1420	734	6420	846	774	386	107	63	42	28	26
26	215	1070	644	3060	727	694	368	104	60	42	28	26
27	228	868	579	1950	628	653	362	102	59	42	28	25
28	224	1760	581	1370	532	637	319	127	74	41	26	25
29	178	3850	516	1050	---	598	290	253	429	42	25	26
30	166	2820	470	931	---	544	268	200	241	41	25	41
31	904	---	447	1160	---	496	---	157	---	38	25	---
TOTAL	3935	49694	71894	60328	30442	31486	22674	5421	3091	1961	1008	831
MEAN	127	1656	2319	1946	1087	1016	756	175	103	63.3	32.5	27.7
MAX	904	9740	9200	10700	1980	3320	3420	253	429	162	54	41
MIN	30	129	447	488	532	322	268	102	59	38	25	25
AC-FT	7810	98570	142600	119700	60380	62450	44970	10750	6130	3890	2000	1650
CFSM	1.12	14.7	20.5	17.2	9.62	8.99	6.69	1.55	0.91	0.56	0.29	0.25
IN.	1.30	16.36	23.67	19.86	10.02	10.37	7.46	1.78	1.02	0.65	0.33	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	(WY)
MEAN	275	920	1271	1225	1170
MAX	1121	2131	2486	2888	2940
(WY)	1998	1956	1995	1953	1999
MIN	20.5	57.6	217	176	278
(WY)	1988	1994	1977	1977	1993

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1940 - 2002
ANNUAL TOTAL	194665	282765	
ANNUAL MEAN	533	775	575
HIGHEST ANNUAL MEAN			911
LOWEST ANNUAL MEAN			253
HIGHEST DAILY MEAN	9740	10700	19200
LOWEST DAILY MEAN	30	25	16
ANNUAL SEVEN-DAY MINIMUM	32	26	17
ANNUAL RUNOFF (AC-FT)	386100	560900	416700
ANNUAL RUNOFF (CFSM)	4.72	6.86	5.09
ANNUAL RUNOFF (INCHES)	64.08	93.09	69.16
10 PERCENT EXCEEDS	1050	1940	1460
50 PERCENT EXCEEDS	250	241	259
90 PERCENT EXCEEDS	39	29	36