Water-Data Report 2011

12025000 NEWAUKUM RIVER NEAR CHEHALIS, WA

Washington Coastal Basin
Upper Chehalis Subbasin

LOCATION.--Lat 46°37′13″, long 122°56′38″ referenced to North American Datum of 1927, in SW ¼ SW ¼ sec.9, T.13 N., R.2 W., Lewis County, WA, Hydrologic Unit 17100103, on left bank 75 ft downstream from bridge, 3.0 mi southeast of Chehalis, and at mile 4.1.

DRAINAGE AREA.--155 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--March 1929 to September 1931, July 1942 to September 1981, October 1982 to current year.

REVISED RECORDS.--WSP 1012: 1943. WSP 1316: 1929-30(M), 1960(M). WSP 1716: Drainage area. WSP 1932: 1931(M), 1945-49, 1954(M), 1956(P), 1958(M), 1959-60.

GAGE.--Water-stage recorder. Elevation of gage is 190 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1929, nonrecording gage at same site at datum 1.0 ft higher. Oct. 1, 1929, to July 5, 1962, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharge. Records good except discharge above 2,000 ft^3/s, which are fair. During the 2011 calendar year the City of Chehalis diverted an average of 2.65 ft^3/s from the N. F. Newaukum River upstream of the station for municipal use. No regulation. Some diversion for irrgation upstream from station during summer months. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--70 years (water years, 1930-31, 1943-81, 1983-2011), 506 ft^3/s, 44.40 in/yr, 366,900 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft^3/s, Feb. 8, 1996, gage height, 13.54 ft, from outside high-water mark; maximum gage height, 13.62 ft, Dec. 9, 1953; minimum discharge, 12 ft^3/s, Sept. 13, 14, 1949, Aug. 29, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	0845	4,760	9.88
Jan 16	2000	*6,500	*11.08
Mar 10	1300	5,190	10.23

Minimum discharge, 33 ft^3/s, Sept. 11, gage height, 0.68 ft.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 12025000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/12025000.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	89	996	1,200	715	583	1,560	2,170	707	395	192	79	48
2	86	2,390	1,050	609	531	1,670	1,530	624	380	170	77	47
3	82	1,220	835	535	497	1,470	1,210	593	463	158	74	45
4	81	787	686	479	477	1,340	1,110	531	392	154	72	43
5	79	591	585	484	564	1,390	1,760	489	352	144	70	42
6	75	509	516	779	530	1,180	1,570	473	330	135	70	41
7	74	940	469	1,080	649	945	1,410	563	308	130	71	40
8	74	927	869	1,160	729	799	1,140	592	311	129	71	39
9	83	978	1,520	981	643	1,060	950	561	299	127	69	38
10	228	1,300	2,060	876	572	4,020	825	506	281	122	68	37
11	278	919	1,570	752	524	2,570	801	485	270	118	66	36
12	182	789	2,860	934	488	1,800	764	712	256	117	63	37
13	146	637	4,220	3,070	649	1,700	686	564	255	167	61	38
14	125	747	3,340	2,430	716	2,670	713	502	253	187	61	41
15	112	815	2,640	1,900	993	2,310	1,030	1,010	242	170	60	42
16	103	1,090	1,970	4,500	1,110	2,350	991	1,350	231	173	59	44
17	96	1,170	1,500	3,630	907	1,780	852	909	223	181	56	46
18	90	2,480	1,220	2,370	740	1,390	738	699	224	152	56	64
19	85	2,040	1,060	1,850	650	1,160	650	577	269	135	55	86
20	81	1,570	953	1,470	566	960	585	505	246	127	53	68
21	79	1,180	822	1,570	513	862	539	459	228	120	52	52
22	77	951	701	1,690	488	847	489	446	215	130	51	48
23	75	778	619	1,330	495	736	446	410	206	118	56	45
24	123	606	579	1,090	523	676	422	389	198	108	63	43
25	840	526	599	891	480	701	536	360	199	101	54	45
26	1,480	581	672	753	428	646	754	375	184	98	50	56
27	2,470	875	1,300	661	413	675	734	444	174	94	49	67
28	1,130	827	1,830	603	1,400	788	1,080	607	174	90	48	73
29	740	693	1,620	624	---	824	1,050	480	172	86	47	58
30	551	705	1,130	631	---	1,510	845	425	190	84	48	50
31	650	---	874	597	---	2,730	---	400	---	81	49	---
Total	10,464	30,617	41,869	41,044	17,858	45,119	28,380	17,747	7,920	4,098	1,878	1,459
Mean	338	1,021	1,351	1,324	638	1,455	946	572	264	132	60.6	48.6
Max	2,470	2,480	4,220	4,500	1,400	4,020	2,170	1,350	463	192	79	86
Min	74	509	469	479	413	646	422	360	172	81	47	36
Ac-ft	20,760	60,730	83,050	81,410	35,420	89,490	56,290	35,200	15,710	8,130	3,730	2,890
Cfsm	2.18	6.58	8.71	8.54	4.11	9.39	6.10	3.69	1.70	0.85	0.39	0.31
In.	2.51	7.35	10.05	9.85	4.29	10.83	6.81	4.26	1.90	0.98	0.45	0.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	182	746	1,064	1,123	950	773	550	305	194	90.6	55.8	70.3
Max	646	1,985	2,244	2,811	1,940	1,609	1,052	680	798	307	159	304
(WY)	(1998)	(2007)	(1997)	(2006)	(1999)	(1972)	(1991)	(1960)	(2010)	(1983)	(1968)	(2004)
Min	25.5	47.6	194	192	262	280	209	130	66.3	36.1	21.6	27.9
(WY)	(1988)	(1930)	(1977)	(1977)	(1977)	(1992)	(2004)	(1947)	(1992)	(1951)	(1951)	(1987)

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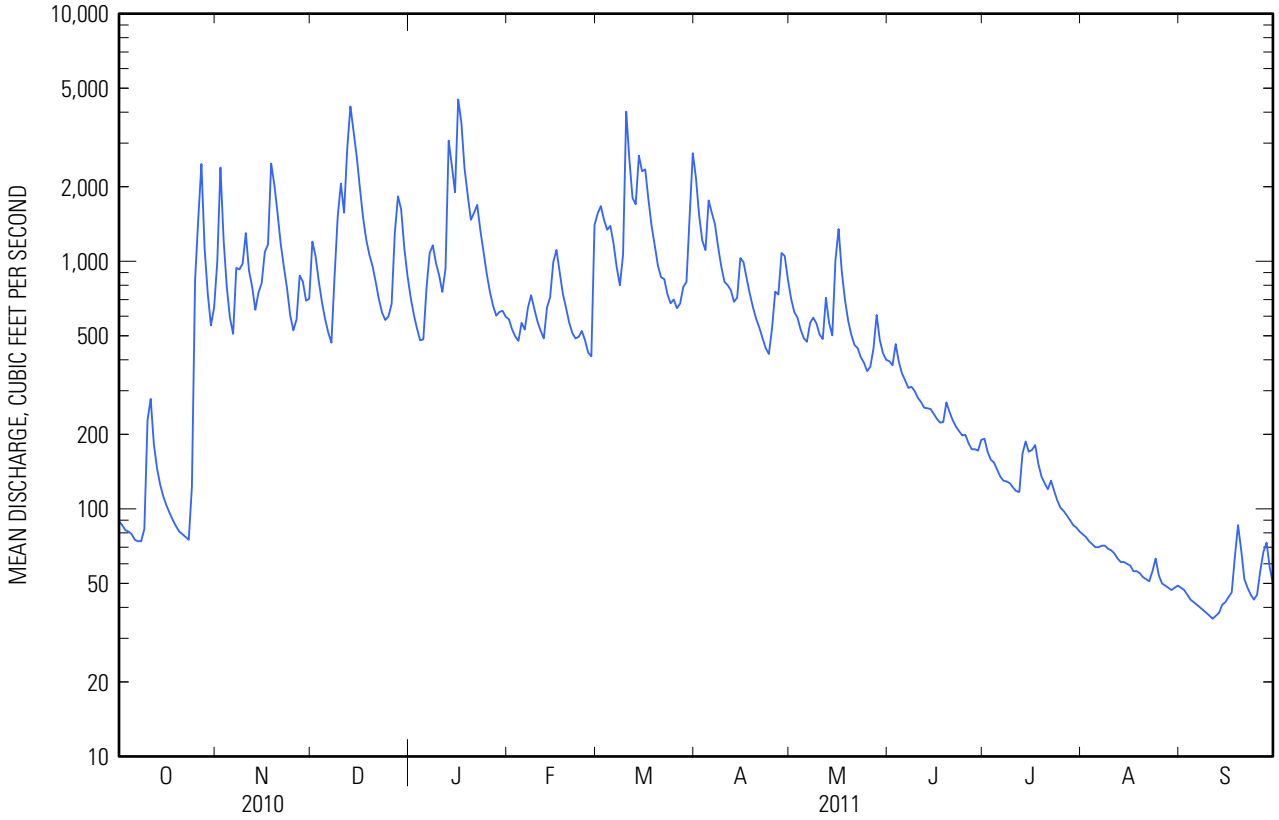
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1930 - 2011	
Annual total	219,595		248,453			
Annual mean	602		681		506	
Highest annual mean					795	1997
Lowest annual mean					244	1977
Highest daily mean	4,220	Dec 13	4,500	Jan 16	11,200	Jan 8, 2009
Lowest daily mean	50	Aug 27	36	Sep 11	14	Sep 13, 1949
Annual seven-day minimum	52	Aug 25	38	Sep 7	15	Aug 20, 1951
Annual runoff (ac-ft)	435,600		492,800		366,900	
Annual runoff (cfsm)	3.88		4.39		3.27	
Annual runoff (inches)	52.70		59.63		44.40	
10 percent exceeds	1,330		1,560		1,220	
50 percent exceeds	440		530		266	
90 percent exceeds	78		56		45