Water-Data Report 2013

12451000 STEHEKIN RIVER AT STEHEKIN, WA

Upper Columbia Basin
Lake Chelan Subbasin

LOCATION.--Lat 48°19′47″, long 120°41′26″ referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.26, T.33 N., R.17 E., Chelan County, WA, Hydrologic Unit 17020009, Lake Chelan National Recreation Area, on left bank 1,100 ft upstream from Boulder Creek, 1.4 mi upstream from Lake Chelan, and 2.1 mi northwest of Stehekin.

DRAINAGE AREA.--321 mi^2, Prior to 1979 published as 344 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1910 to October 1915, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1316.

REVISED RECORDS.--WSP 412: 1914. WSP 1316: 1911(M), 1914-15(M). WSP 1446: 1912(M). WSP 1933: Drainage area. WDR-80-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,098.5 ft above NGVD of 1912. To convert to NGVD of 1929, subtract 1.73 ft. Prior to Aug. 17, 1911, nonrecording gage 0.4 mi upstream from mouth at Lake Chelan at different datums (datum change made June 13, 1911). Aug. 17, 1911 to Oct. 31, 1915, nonrecording gage 0.2 mi downstream from Boulder Creek at different datum.

REMARKS.--Records fair. No known regulation or diversion. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--92 years (water years 1911-15, 1927-2013), 1,411 ft^3/s, 59.71 in/yr, 1,022,000 acre-ft/yr, includes monthly discharge values published in WSP 1316.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,000 ft^3/s, Oct. 20, 2003, gage height, 31.12 ft, from rating curve extended on basis of slope-area measurement at 18,800 ft^3/s; minimum discharge, 56 ft^3/s, Jan. 12, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft^3/s and (or) maximum (*):

Minimum daily discharge, 190 ft^3/s, Jan. 12.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 12	2145	*8,660	*24.02

Minimum daily discharge, 190 ft^3/s, Jan. 12.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	452	3,070	621	301	249	322	1,220	1,810	2,570	5,200	1,260	976
2	545	2,300	666	299	241	449	1,750	1,700	2,810	5,620	1,250	964
3	450	2,040	711	289	239	476	2,090	1,860	3,140	4,920	1,200	992
4	402	3,010	794	285	242	452	2,300	2,400	3,630	3,760	1,240	963
5	367	4,030	777	278	250	436	2,770	3,260	4,380	3,120	1,260	1,010
6	342	2,660	731	273	261	429	3,010	4,490	5,080	2,930	1,230	2,040
7	316	2,460	700	276	270	413	2,720	6,050	5,170	2,950	1,180	1,490
8	302	1,890	648	303	263	408	2,270	7,480	4,700	2,940	1,160	1,220
9	288	1,510	619	321	260	400	1,980	7,650	4,080	2,870	1,200	1,120
10	277	1,270	600	319	260	400	2,020	7,250	3,730	2,840	1,420	1,040
11	258	1,150	582	264	260	397	2,180	7,390	3,440	2,570	1,900	1,020
12	248	1,090	561	e190	260	427	1,990	8,090	2,940	2,080	1,660	1,010
13	347	1,020	527	226	277	640	1,810	7,930	2,750	1,690	1,310	1,020
14	1,190	953	511	262	280	1,010	1,600	6,460	2,720	1,600	1,180	1,030
15	1,560	887	493	234	286	1,210	1,440	4,750	2,790	1,550	1,190	1,030
16	1,890	837	488	226	293	1,250	1,300	4,070	3,200	1,530	1,270	1,200
17	1,070	813	489	220	297	1,180	1,220	4,020	3,950	1,780	1,130	992
18	832	779	467	214	294	1,080	1,160	3,960	4,030	1,960	1,040	869
19	2,190	911	446	209	287	983	1,180	3,780	3,710	1,850	991	738
20	1,690	966	415	208	276	961	1,280	3,710	3,560	1,730	901	642
21	1,120	897	424	208	272	882	1,330	4,580	3,060	1,700	835	618
22	905	821	423	207	284	811	1,270	4,210	2,890	1,750	826	650
23	790	825	409	211	280	755	1,250	3,300	3,130	1,720	857	831
24	703	779	393	209	264	708	1,240	2,780	3,540	1,680	836	707
25	638	726	379	209	271	673	1,320	2,480	3,400	1,540	773	597
26	593	677	371	211	254	647	1,610	2,320	2,890	1,400	786	523
27	583	643	362	212	249	642	2,130	2,220	2,890	1,300	856	477
28	1,280	627	352	209	255	650	2,360	2,320	3,290	1,210	947	889
29	2,190	617	347	210	---	700	2,340	2,570	4,590	1,200	1,450	1,950
30	2,930	602	330	234	---	799	2,040	2,540	4,860	1,200	1,480	1,750
31	3,660	---	312	246	---	943	---	2,440	---	1,220	1,090	---
Total	30,408	40,860	15,948	7,563	7,474	21,533	54,180	129,870	106,920	71,410	35,708	30,358
Mean	981	1,362	514	244	267	695	1,806	4,189	3,564	2,304	1,152	1,012
Max	3,660	4,030	794	321	297	1,250	3,010	8,090	5,170	5,620	1,900	2,040
Min	248	602	312	190	239	322	1,160	1,700	2,570	1,200	773	477
Ac-ft	60,310	81,050	31,630	15,000	14,820	42,710	107,500	257,600	212,100	141,600	70,830	60,220
Cfsm	3.06	4.24	1.60	0.76	0.83	2.16	5.63	13.1	11.1	7.18	3.59	3.15
In.	3.52	4.74	1.85	0.88	0.87	2.50	6.28	15.05	12.39	8.28	4.14	3.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	617	718	522	424	401	538	1,438	3,546	4,150	2,634	1,237	687
Max	2,072	3,192	1,896	1,856	1,209	1,757	4,644	5,810	7,738	5,479	2,716	1,399
(WY)	(2004)	(1991)	(1976)	(2005)	(1971)	(2007)	(1934)	(1958)	(1950)	(1950)	(1974)	(1959)
Min	218	148	125	86.0	115	194	549	1,475	1,412	1,034	611	392
(WY)	(2007)	(1930)	(1930)	(1930)	(1937)	(1937)	(1955)	(1977)	(2005)	(2005)	(2005)	(2005)

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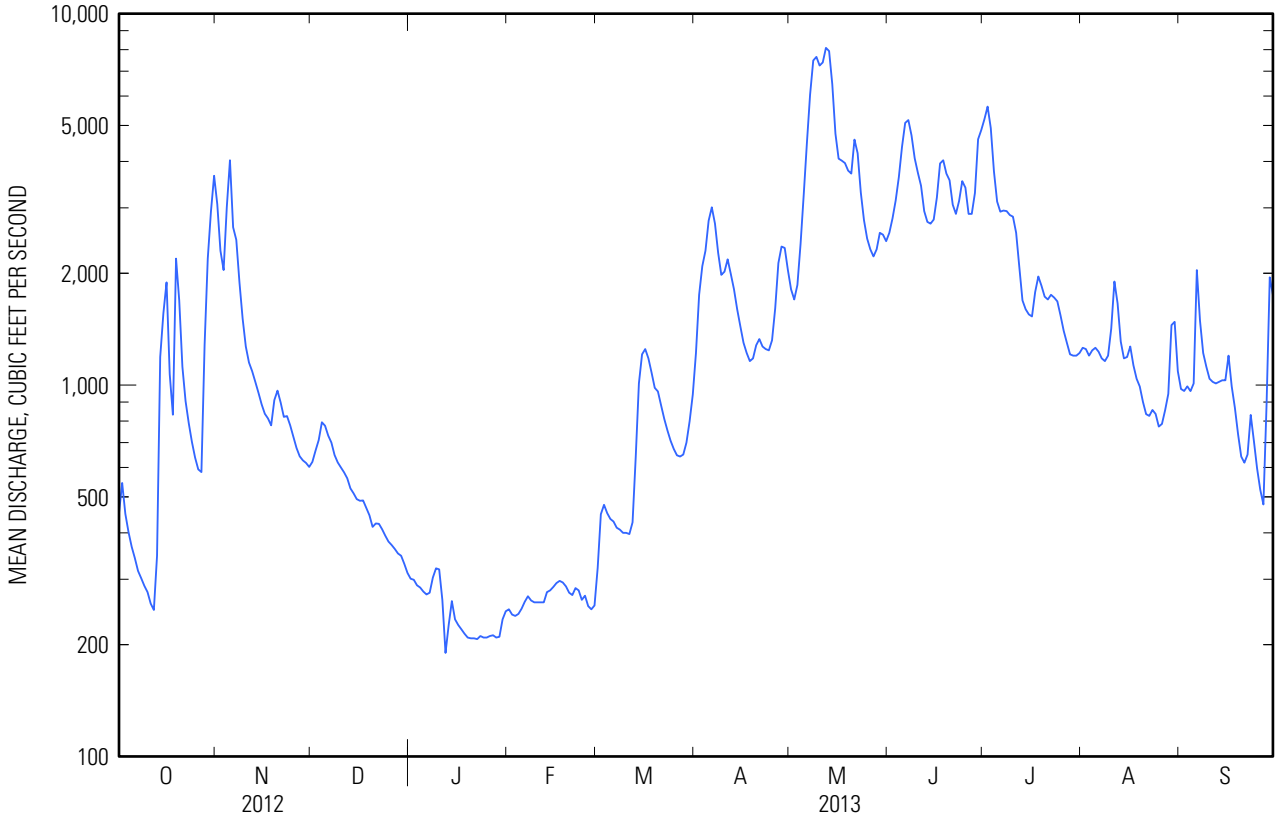
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1911 - 2013	
Annual total	650,483		552,232			
Annual mean	1,777		1,513		1,411	
Highest annual mean					2,008	1950
Lowest annual mean					864	2001
Highest daily mean	7,270	Jun 17	8,090	May 12	18,000	Nov 29, 1995
Lowest daily mean	207	Jan 24	190	Jan 12	58	Jan 12, 1930
Annual seven-day minimum	225	Jan 22	209	Jan 19	67	Jan 9, 1930
Annual runoff (ac-ft)	1,290,000		1,095,000		1,022,000	
Annual runoff (cfsm)	5.54		4.71		4.39	
Annual runoff (inches)	75.38		64.00		59.71	
10 percent exceeds	4,790		3,550		3,650	
50 percent exceeds	721		1,020		738	
90 percent exceeds	331		264		249