Water-Data Report 2011

12117500 CEDAR RIVER NEAR LANDSBURG, WA

Puget Sound Basin
Lake Washington Subbasin

LOCATION.--Lat 47°23′38″, long 121°57′12″ referenced to North American Datum of 1927, in NW ¼ SW ¼ sec.17, T.22 N., R.7 E., King County, WA, Hydrologic Unit 17110012, on left bank 1.8 mi upstream from intake of Seattle water-supply system near Landsburg, 4.0 mi east of Maple Valley, 5.9 mi downstream from Taylor Creek, and at mile 23.4.

DRAINAGE AREA.--121 mi^2, excludes Walsh Lake diversion, which enters Cedar River at mile 19.5, and excludes 1.9 mi^2 of Walsh Lake drainage in Cedar River basin, which is normally diverted into Issaquah Creek.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1895 to current year (prior to October 1948, flow of Rock Creek included). Monthly discharge only for some periods, published in WSP 1316. Published as "near Seattle" 1895-98, "near Maple Valley" 1902, and as "near Ravensdale" 1898-1901, 1903-12.

REVISED RECORDS.--WSP 313: 1895-98, 1902-09. WSP 1286: 1912. WSP 1316: 1896-98(M), 1902-11(M). WSP 1736: 1960. WSP 1932: 1947, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 565.9 ft above NGVD of 1929. Prior to Oct. 1, 1898, nonrecording gage at site 2.2 mi downstream at different datum. Mar. 24, 1901, to May 15, 1913, nonrecording gage at site 2 mi downstream at datum 535.84 ft NGVD of 1929 (levels by City of Seattle). Apr. 30, 1914, to Oct. 22, 1928, water-stage recorder 0.2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. All diversions except Rock Creek returned to river upstream from station. Rock Creek, a tributary which entered naturally just upstream from station prior to 1932, is diverted during summer months to enter river at a point about 3.9 mi downstream from station. Some regulation by Chester Morse Lake (station 12115900) and Cedar Lake (station 12116060), 12.2 mi upstream. Chemical analyses July 1959 to July 1960. Water temperatures published August 1953 to September 1985. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--116 years (water years 1896-2011), 688 ft^3/s, 498,500 acre-ft/yr, unadjusted, includes data published in WSP 1316.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft^3/s, Nov. 19, 1911, gage height, 10.0 ft, from graph based on gage readings, site and datum then in use, by computation of peak flow over dam, peak caused by failure of flashboards at Chester Morse Lake; minimum discharge observed, 83 ft^3/s, Sept. 19, 1898.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,710 ft^3/s, Jan. 17, gage height, 5.97 ft; minimum discharge, 285 ft^3/s, Sept. 9-15, gage height, 1.07 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 12117500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/12117500.2011.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	490	658	899	834	1,760	597	1,510	790	946	718	344	297
2	493	757	648	826	1,720	612	2,040	801	1,050	709	339	296
3	489	620	592	805	1,640	612	1,920	805	1,000	704	335	295
4	488	559	804	693	1,550	605	1,840	785	956	697	332	293
5	483	523	792	624	1,470	624	1,760	777	934	675	332	293
6	478	794	777	705	1,470	605	1,920	800	953	639	330	292
7	476	1,080	771	903	1,610	594	1,970	869	1,040	625	328	289
8	478	1,030	822	878	1,800	597	1,950	907	1,090	558	326	289
9	488	1,010	926	785	1,900	676	1,910	879	1,130	548	322	287
10	616	1,000	1,140	796	1,850	1,020	1,900	899	1,260	521	322	289
11	475	995	876	1,130	1,570	872	1,910	896	1,240	461	319	287
12	434	988	1,440	1,250	1,440	963	1,880	901	1,230	439	321	285
13	415	986	1,570	1,460	1,390	1,000	1,870	869	1,200	478	318	285
14	409	1,040	1,410	1,430	1,340	1,020	1,810	865	1,040	457	316	285
15	509	1,130	1,530	1,320	1,100	1,010	1,670	1,190	944	445	314	292
16	523	1,210	1,520	2,260	944	1,020	1,690	1,190	916	444	314	330
17	516	1,190	1,680	4,290	828	956	1,670	1,370	900	468	310	331
18	511	1,180	1,620	4,480	719	921	1,660	1,370	939	443	308	353
19	510	1,140	1,600	4,010	679	949	1,620	1,340	969	437	307	374
20	501	1,100	1,600	3,500	662	1,210	1,600	1,320	956	430	307	340
21	492	1,070	1,630	3,440	648	1,230	1,540	1,310	969	434	306	332
22	493	1,050	1,560	3,790	645	1,090	1,320	1,300	951	387	304	343
23	490	1,020	1,330	3,600	632	908	1,290	1,290	940	376	323	387
24	539	1,000	1,330	3,770	619	876	1,290	1,270	978	369	308	386
25	586	1,000	1,360	3,720	606	883	1,280	1,270	971	365	303	389
26	539	1,020	1,320	2,380	606	874	958	1,240	945	368	300	407
27	635	1,040	1,280	2,200	600	879	837	1,080	912	360	300	428
28	555	1,020	1,160	1,810	623	883	832	1,070	793	354	296	406
29	518	996	1,060	1,870	---	899	813	1,040	727	348	296	397
30	492	981	880	1,880	---	1,410	817	1,010	729	347	300	417
31	504	---	853	1,810	---	1,570	---	898	---	345	300	---
Total	15,625	29,187	36,780	63,249	32,421	27,965	47,077	32,401	29,608	14,949	9,780	9,974
Mean	504	973	1,186	2,040	1,158	902	1,569	1,045	987	482	315	332
Max	635	1,210	1,680	4,480	1,900	1,570	2,040	1,370	1,260	718	344	428
Min	409	523	592	624	600	594	813	777	727	345	296	285
Ac-ft	30,990	57,890	72,950	125,500	64,310	55,470	93,380	64,270	58,730	29,650	19,400	19,780

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1895 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	397	739	943	992	889	789	778	788	740	478	344	322
Max	1,015	2,371	3,126	2,198	2,009	2,233	1,569	1,412	1,795	1,077	735	716
(WY)	(1960)	(1991)	(1934)	(1918)	(1982)	(1972)	(2011)	(1897)	(1917)	(1917)	(1954)	(1959)
Min	141	141	179	369	368	360	335	306	320	262	124	127
(WY)	(1905)	(1896)	(1953)	(1988)	(1988)	(1941)	(1941)	(1915)	(1992)	(1898)	(1898)	(1898)

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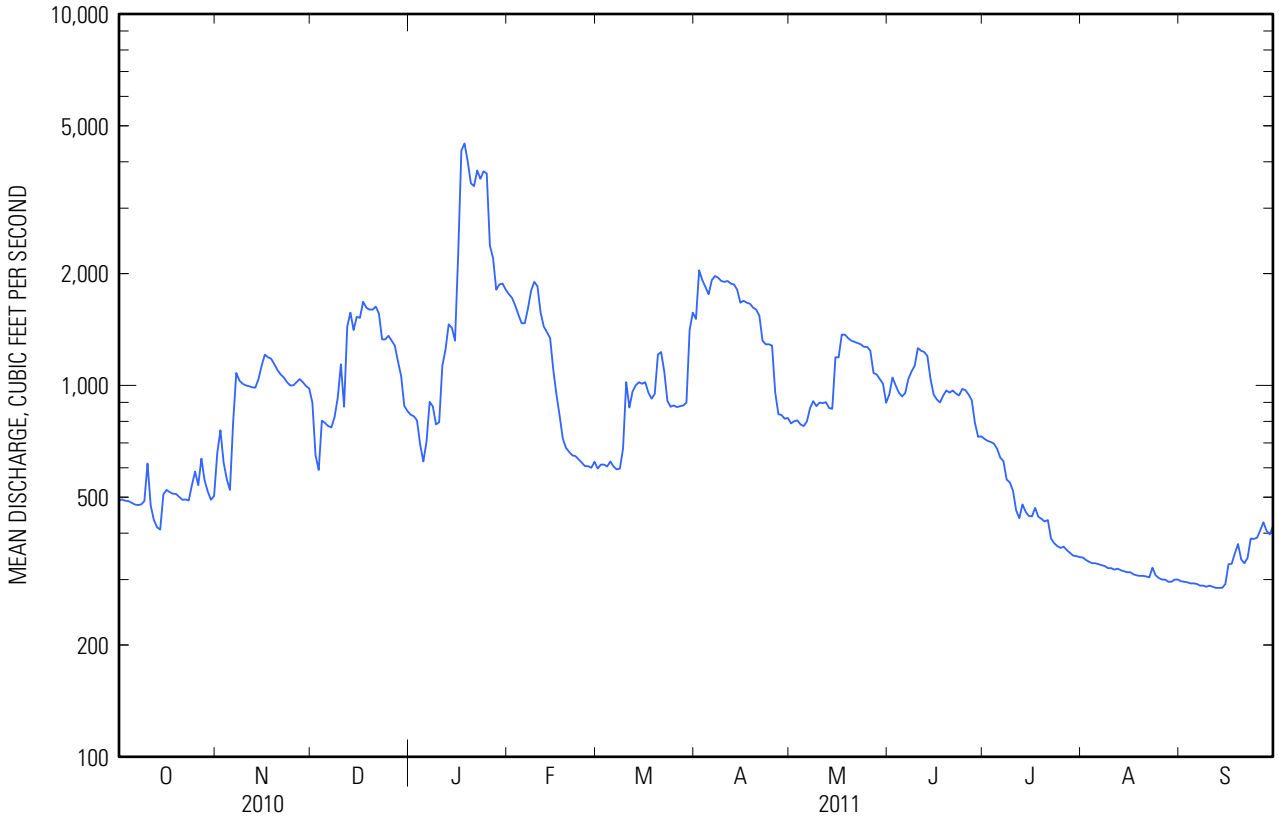
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1895 - 2011	
Annual total	239,057		349,016			
Annual mean	655		956		682	
Highest annual mean					1,066	1897
Lowest annual mean					340	1941
Highest daily mean	1,680	Dec 17	4,480	Jan 18	13,600	Nov 19, 1911
Lowest daily mean	289	Sep 15	285	Sep 12	83	Sep 19, 1898
Annual seven-day minimum	299	Sep 12	287	Sep 8	87	Sep 13, 1898
Annual runoff (ac-ft)	474,200		692,300		494,000	
10 percent exceeds	1,210		1,670		1,180	
50 percent exceeds	502		872		560	
90 percent exceeds	328		322		290