Water-Data Report 2013

12113000 GREEN RIVER NEAR AUBURN, WA

Puget Sound Basin
Duwamish Subbasin

LOCATION.--Lat 47°18′45″, long 122°12′10″ referenced to North American Datum of 1927, in NW ¼ NW ¼ sec.17, T.21 N., R.5 E., King County, WA, Hydrologic Unit 17110013, on left bank 1.2 mi east of Auburn, 1.8 mi downstream from Big Soos Creek, and at mile 32.0.

DRAINAGE AREA.--399 mi^2, excludes 3.67 mi^2 in the vicinity of Youngs Lake, flow from which has been diverted to Cedar River basin since about 1935.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1936 to current year.

REVISED RECORDS.--WSP 1932: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Oct. 19, 1936, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Since Dec. 5, 1961, flow regulated by Howard A. Hanson Reservoir (station 12105800), 32.5 mi upstream from station, for flood control and during summer months, to augment the natural river flow. City of Tacoma diverted an average daily discharge of about 89.6 ft^3/s from river at headworks near Palmer, 29 mi upstream from station, for municipal use. Minor diversions on upstream tributaries for domestic use. U.S. Geological Survey satellite telemeter at station. Water temperatures March 1952 to September 1986.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--52 years (water years 1962-2013), 1,345 ft^3/s, 974,600 acre-ft/yr, regulated. 25 years (water years 1937-61), 1,346 ft^3/s, 974,500 acre-ft/yr, unregulated.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,100 ft^3/s, Nov. 23, 1959, elevation, 69.75 ft; minimum discharge, 81 ft^3/s, Sept. 23, 1952; minimum elevation, 52.76 ft, Oct. 22, 29-31, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 8	0100	*4,720	*58.67

Minimum discharge, 278 ft^3/s, July 26, 27, Aug. 9, gage height, 53.16 ft.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 12113000, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/12113000.2013.pdf

12113000 GREEN RIVER NEAR AUBURN, WA—Continued

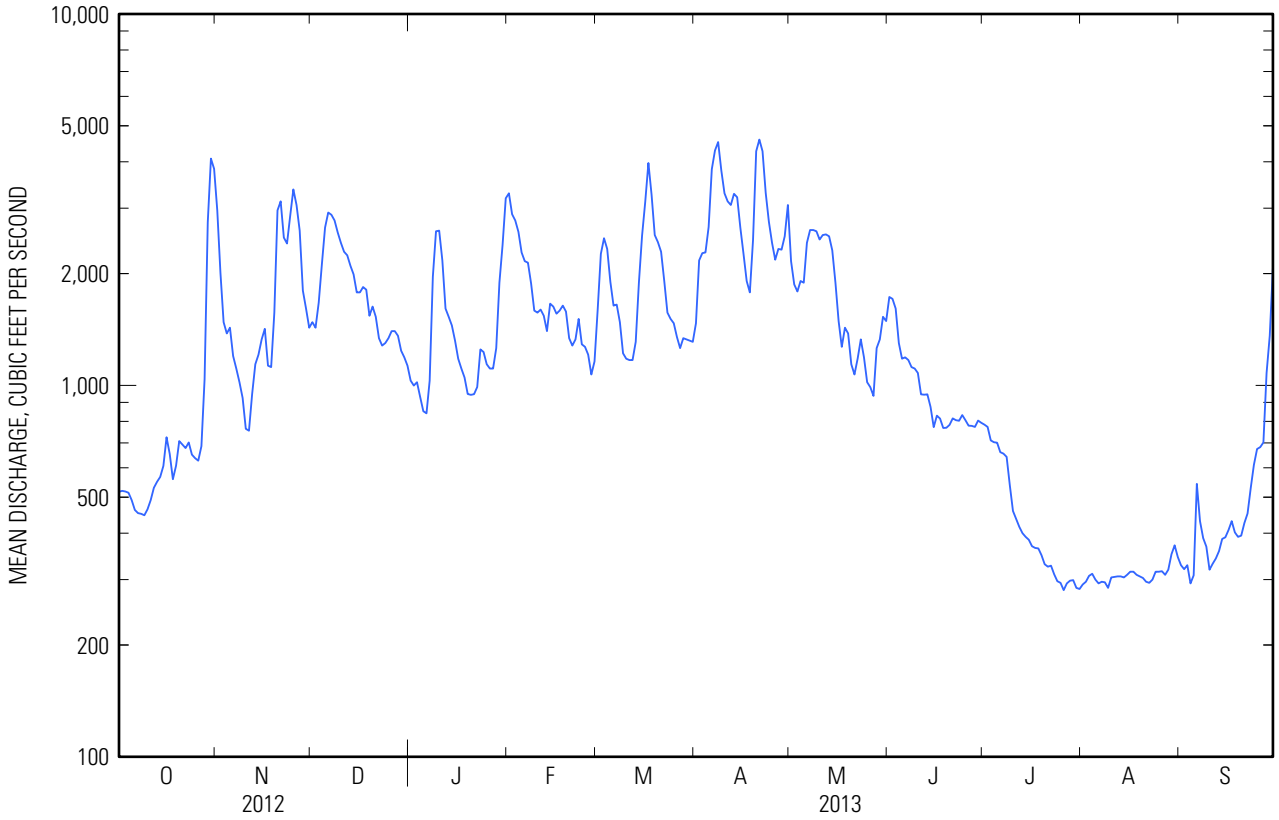
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	517	2,960	1,480	1,030	3,290	1,600	1,470	2,160	1,730	784	291	328
2	520	2,010	1,430	999	2,890	2,260	2,170	1,870	1,710	773	296	320
3	518	1,480	1,670	1,020	2,780	2,490	2,270	1,790	1,610	711	307	328
4	514	1,380	2,120	931	2,590	2,330	2,280	1,910	1,300	703	311	293
5	491	1,430	2,660	852	2,280	1,900	2,670	1,890	1,180	701	300	308
6	462	1,200	2,920	841	2,160	1,640	3,820	2,420	1,190	661	293	543
7	453	1,110	2,880	1,030	2,140	1,650	4,290	2,620	1,170	655	296	431
8	451	1,020	2,780	1,960	1,880	1,480	4,520	2,620	1,120	642	295	388
9	447	925	2,580	2,600	1,590	1,220	3,790	2,600	1,110	539	285	368
10	464	764	2,420	2,610	1,570	1,180	3,290	2,470	1,080	459	304	319
11	491	755	2,290	2,170	1,600	1,170	3,130	2,540	946	437	305	331
12	530	948	2,240	1,610	1,540	1,170	3,060	2,550	944	416	306	342
13	550	1,140	2,100	1,530	1,400	1,310	3,280	2,520	946	400	306	358
14	567	1,210	1,990	1,450	1,660	1,890	3,210	2,310	875	391	304	386
15	607	1,330	1,780	1,320	1,630	2,530	2,660	1,890	772	384	309	390
16	725	1,420	1,780	1,180	1,560	3,120	2,260	1,490	829	369	315	408
17	654	1,130	1,840	1,110	1,590	3,970	1,910	1,270	814	365	315	431
18	559	1,120	1,810	1,050	1,640	3,260	1,780	1,430	768	364	309	402
19	608	1,570	1,540	948	1,580	2,540	2,460	1,380	769	349	306	391
20	708	2,960	1,630	943	1,340	2,430	4,270	1,140	783	330	303	394
21	693	3,130	1,530	947	1,280	2,290	4,590	1,070	815	325	296	426
22	678	2,500	1,340	990	1,330	1,910	4,270	1,180	806	327	294	452
23	702	2,410	1,280	1,250	1,510	1,570	3,300	1,330	803	310	300	529
24	651	2,860	1,300	1,230	1,290	1,510	2,760	1,190	832	297	315	611
25	637	3,370	1,340	1,140	1,270	1,470	2,420	1,020	806	294	315	674
26	627	3,060	1,400	1,110	1,210	1,350	2,180	989	779	281	316	682
27	686	2,610	1,400	1,110	1,070	1,260	2,330	937	778	293	309	702
28	1,040	1,800	1,360	1,260	1,160	1,340	2,320	1,260	773	298	319	1,080
29	2,750	1,610	1,240	1,890	---	1,330	2,520	1,330	804	299	351	1,360
30	4,080	1,430	1,190	2,390	---	1,320	3,060	1,530	793	285	371	2,070
31	3,830	---	1,130	3,190	---	1,310	---	1,490	---	283	345	---
Total	27,210	52,642	56,450	43,691	48,830	57,800	88,340	54,196	29,635	13,725	9,587	16,045
Mean	878	1,755	1,821	1,409	1,744	1,865	2,945	1,748	988	443	309	535
Max	4,080	3,370	2,920	3,190	3,290	3,970	4,590	2,620	1,730	784	371	2,070
Min	447	755	1,130	841	1,070	1,170	1,470	937	768	281	285	293
Ac-ft	53,970	104,400	112,000	86,660	96,850	114,600	175,200	107,500	58,780	27,220	19,020	31,830

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	652	1,629	2,041	2,368	2,056	1,686	1,821	1,648	1,059	536	311	386
Max	1,364	5,045	5,654	5,059	4,969	4,994	3,023	3,527	2,849	1,069	514	955
(WY)	(1996)	(1991)	(1976)	(2009)	(1996)	(1972)	(1989)	(2008)	(1974)	(1972)	(1974)	(1968)
Min	173	194	403	703	720	496	601	603	330	253	227	210
(WY)	(1988)	(1988)	(2003)	(1988)	(1977)	(2005)	(1992)	(1994)	(1987)	(2003)	(1989)	(1989)

12113000 GREEN RIVER NEAR AUBURN, WA—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1962 - 2013	
Annual total	600,407		498,151			
Annual mean	1,640		1,365		1,345	
Highest annual mean					2,071	1972
Lowest annual mean					785	1977
Highest daily mean	9,680	Feb 23	4,590	Apr 21	11,600	Dec 3, 1975
Lowest daily mean	340	Sep 14	281	Jul 26	152	Oct 30, 1987
Annual seven-day minimum	345	Sep 3	290	Jul 26	157	Oct 20, 1987
Annual runoff (ac-ft)	1,191,000		988,100		974,600	
10 percent exceeds	2,890		2,660		2,690	
50 percent exceeds	1,540		1,190		996	
90 percent exceeds	355		315		275