Water-Data Report 2011

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR

Willamette Basin
Mckenzie Subbasin

LOCATION.--Lat 44°16′05″, long 122°02′55″ referenced to North American Datum of 1927, Linn County, OR, Hydrologic Unit 17090004, (unsurveyed), Willamette National Forest, on left bank, 0.4 mi downstream from Trail Bridge Dam, 0.5 mi upstream from Anderson Creek, 5 mi north of town of Belknap Springs and at mile 81.5.

DRAINAGE AREA.--184 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,980.00 ft above NGVD of 1929 (levels by Eugene Water and Electric Board). Prior to Oct. 11, 1963, at datum 5.60 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1963 by Smith River Reservoir (station 14158795). Diurnal fluctuations by powerplants and by Trail Bridge Re-regulating Reservoir (active capacity, 2,100 acre-ft). Water is diverted from McKenzie River in SW ¼ sec.20, T.14 S., R.7 E., to Smith River Reservoir and returned to river upstream from station. Continuous water-quality records for periods November 1976 to September 1985 and July 1992 to September 1993 have been collected at this location.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--52 years (water years 1960-2011), 1,013 ft^3/s, 74.76 in/yr, 733,900 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft^3/s Dec. 22, 1964, gage height, 12.45 ft, from rating curve extended above 3,700 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 185 ft^3/s Feb. 3, 1963; minimum daily, 423 ft^3/s Nov. 22, 1993.

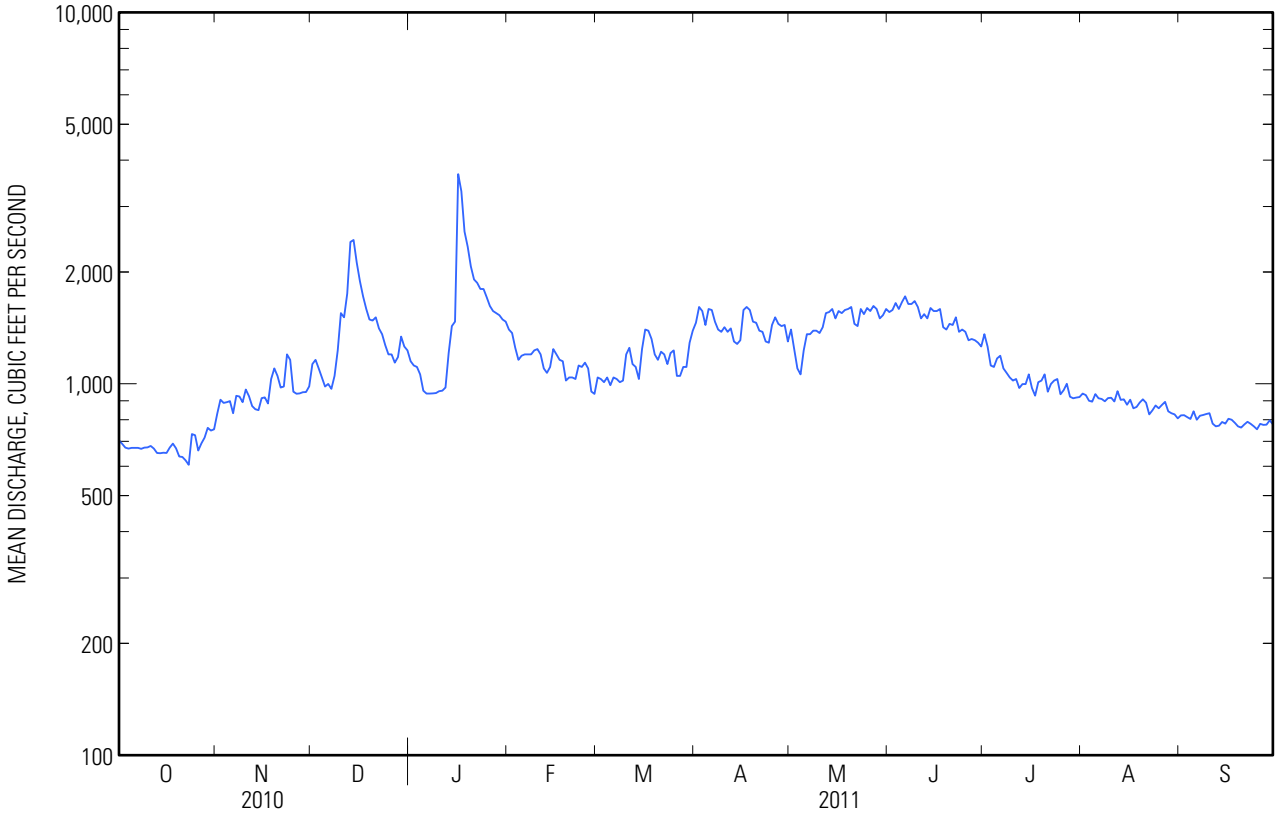
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,280 ft^3/s Jan. 16, gage height, 9.99 ft; minimum discharge, 421 ft^3/s Oct. 25.

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 14158850, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/14158850.2011.pdf

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR—Continued

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	704	831	1,130	1,150	1,400	1,040	1,460	1,400	1,560	1,360	941	822
2	689	906	1,160	1,120	1,370	1,030	1,610	1,240	1,580	1,260	932	823
3	673	888	1,100	1,110	1,250	1,010	1,570	1,100	1,650	1,120	900	813
4	669	892	1,040	1,060	1,160	1,040	1,440	1,060	1,590	1,110	895	804
5	672	898	983	958	1,190	991	1,590	1,230	1,660	1,170	938	843
6	672	833	999	941	1,200	1,040	1,580	1,360	1,720	1,190	914	800
7	672	928	969	941	1,200	1,030	1,470	1,360	1,640	1,100	910	820
8	668	924	1,050	942	1,200	1,010	1,400	1,390	1,640	1,070	897	824
9	673	892	1,230	944	1,230	1,020	1,380	1,390	1,670	1,040	915	829
10	674	965	1,550	955	1,240	1,200	1,420	1,370	1,610	1,020	917	833
11	680	926	1,510	958	1,200	1,250	1,380	1,420	1,500	1,030	896	781
12	669	871	1,750	977	1,100	1,130	1,410	1,550	1,540	974	955	768
13	651	854	2,410	1,210	1,070	1,110	1,300	1,560	1,500	998	905	771
14	650	849	2,440	1,430	1,110	1,030	1,280	1,590	1,600	998	908	789
15	652	915	2,120	1,470	1,240	1,240	1,310	1,500	1,570	1,060	878	781
16	651	919	1,890	3,670	1,200	1,400	1,580	1,570	1,570	974	906	805
17	673	885	1,720	3,300	1,160	1,390	1,610	1,550	1,590	929	859	800
18	690	1,030	1,590	2,570	1,150	1,320	1,580	1,580	1,420	1,010	866	785
19	670	1,100	1,490	2,340	1,020	1,200	1,470	1,590	1,400	1,020	890	768
20	637	1,050	1,480	2,070	1,040	1,160	1,460	1,610	1,450	1,060	908	762
21	635	977	1,510	1,910	1,040	1,220	1,390	1,450	1,440	952	889	777
22	622	983	1,410	1,870	1,030	1,200	1,380	1,430	1,510	999	827	790
23	605	1,200	1,360	1,800	1,120	1,130	1,300	1,590	1,380	1,020	848	780
24	732	1,160	1,270	1,800	1,110	1,210	1,290	1,540	1,400	1,030	874	768
25	727	952	1,200	1,710	1,140	1,230	1,440	1,600	1,380	937	859	754
26	661	940	1,200	1,620	1,100	1,050	1,510	1,570	1,310	961	877	780
27	691	942	1,140	1,570	953	1,050	1,450	1,620	1,320	1,000	894	775
28	716	949	1,180	1,550	939	1,110	1,430	1,590	1,310	923	843	776
29	761	950	1,340	1,530	---	1,110	1,440	1,500	1,290	914	833	797
30	748	984	1,260	1,490	---	1,290	1,300	1,530	1,260	918	827	778
31	754	---	1,230	1,470	---	1,390	---	1,590	---	921	807	---
Total	21,041	28,393	43,711	48,436	32,162	35,631	43,230	45,430	45,060	32,068	27,508	23,796
Mean	679	946	1,410	1,562	1,149	1,149	1,441	1,465	1,502	1,034	887	793
Max	761	1,200	2,440	3,670	1,400	1,400	1,610	1,620	1,720	1,360	955	843
Min	605	831	969	941	939	991	1,280	1,060	1,260	914	807	754
Ac-ft	41,730	56,320	86,700	96,070	63,790	70,670	85,750	90,110	89,380	63,610	54,560	47,200
Mean adjusted for change in contents, in Smith River Reservoir												
	688	938	1,409	1,560	1,155	1,150	1,436	1,479	1,497	1,059	890	791
CFSM adjusted for change in contents, in Smith River Reservoir												
	3.74	5.10	7.66	8.48	6.27	6.25	7.80	8.04	8.13	5.75	4.84	4.30
In. adjusted for change in contents, in Smith River Reservoir												
	4.31	5.69	8.83	9.78	6.54	7.21	8.71	9.27	9.08	6.63	5.58	4.79
Ac-ft adjusted for change in contents, in Smith River Reservoir												
	42,310	55,820	86,630	95,910	64,120	70,690	85,420	90,960	89,060	65,090	54,750	47,040

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR—Continued

	Calendar Year 2010	Water Year 2011
Total	374,595	426,466
Mean	1,026	1,168
Max	2,440	3,670
Min	605	605
Ac-ft	743,000	845,900
Mean adjusted for change in contents, in Smith River Reservoir	1,026	1,171
CFSM adjusted for change in contents, in Smith River Reservoir	5.57	6.36
In. adjusted for change in contents, in Smith River Reservoir	75.68	86.42
Ac-ft adjusted for change in contents, in Smith River Reservoir	742,500	847,800