

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR

John Day Basin
Lower John Day Subbasin

LOCATION.--Lat 45°35'16", long 120°24'30" referenced to North American Datum of 1927, in NE ¼ NW ¼ sec.11, T.1 N., R.19 E., Sherman County, OR, Hydrologic Unit 17070204, on left bank, at McDonald Ferry, 0.8 mi downstream from Rock Creek, 10 mi east of Klondike and at mile 20.9.

DRAINAGE AREA.--7,580 mi², approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--December 1904 to September 1996, October 1997 to current year. Prior to Oct. 1, 1930, published as "at McDonald."

REVISED RECORDS.--WSP 1094: 1894(M), 1932(M). WSP 1448: 1908-9, 1912, 1916, 1920(M), 1922, 1932.

GAGE.--Water-stage recorder. Datum of gage is 392.27 ft above NGVD of 1929. Prior to Aug. 30, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good above 60 ft³/s and fair below, except for estimated daily discharges, which are poor. No regulation. Many diversions for irrigation upstream from station. Water-quality records for some periods have been collected at this location.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--106 years (water years 1906-96, 1998-2012), 2,075 ft³/s, 1,503,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft³/s Dec. 24, 1964, gage height, 13.59 ft, from floodmark, from rating curve extended above 11,000 ft³/s on basis of slope-area measurement of peak flow; no flow for part of Sept. 2, 1966, Aug. 15 to Sept. 16, 1973, Aug. 13, 14, 19-25, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1894 reached a stage of 12.8 ft, from floodmarks, discharge, 39,100 ft³/s, from rating curve extended above 22,000 ft³/s. Flood of Jan. 2, 1997, reached a stage of 15.25 ft, from floodmark, discharge, 43,300 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,900 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 17	1945	10,600	7.46
Apr 1	1700	7,950	6.47
Apr 28	0700	*14,300	*8.68

Minimum discharge, 43 ft³/s, Sept. 9, 12, 13, 14, gage height, 1.68 ft.

14048000 JOHN DAY RIVER AT McDONALD FERRY, OR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	223	488	525	635	1,240	1,350	7,640	7,460	1,940	1,100	183	53
2	234	485	537	857	1,240	1,290	7,540	7,780	1,870	1,040	170	56
3	250	481	528	955	1,150	1,270	6,540	7,160	1,860	1,010	162	58
4	279	489	523	810	1,120	1,160	5,590	6,420	1,980	953	150	58
5	322	487	499	727	1,030	1,110	5,130	6,530	2,330	908	137	54
6	347	489	e450	694	932	1,140	5,190	6,110	2,230	856	126	50
7	363	485	e430	664	907	1,250	4,790	5,590	2,890	805	116	49
8	414	496	e440	655	878	1,310	4,430	5,100	2,840	759	109	45
9	460	508	e455	636	850	1,260	4,000	4,710	2,490	712	107	47
10	512	502	e455	628	862	1,170	3,860	4,510	2,550	674	103	51
11	544	509	e450	602	894	1,230	3,970	4,540	2,570	647	95	52
12	529	501	e440	e550	902	1,450	4,350	4,450	2,450	635	90	46
13	529	499	e465	e520	1,030	1,810	4,930	4,130	2,210	605	80	43
14	537	500	e460	e500	1,270	1,930	5,190	3,890	2,010	553	73	45
15	547	498	e470	e440	1,170	1,850	4,900	3,780	1,950	493	68	48
16	557	517	e460	e420	1,060	1,960	4,790	3,830	1,910	467	65	53
17	536	532	e450	496	1,010	6,620	4,830	3,960	1,790	450	62	52
18	516	534	e460	554	971	8,670	6,170	4,050	1,690	532	62	52
19	509	526	e455	606	908	6,440	7,500	3,810	1,610	513	62	52
20	523	515	e455	e660	944	5,000	7,780	3,420	1,540	522	60	52
21	536	510	e465	907	984	4,180	7,970	3,140	1,550	461	60	55
22	524	563	e445	1,920	950	4,030	9,300	2,920	1,480	430	57	61
23	507	533	e455	2,850	967	5,190	9,570	2,870	1,400	400	55	62
24	494	493	e440	1,990	2,470	5,810	10,600	3,290	1,330	372	52	63
25	490	518	e410	1,580	2,610	5,290	11,100	3,180	1,300	347	51	63
26	483	575	e380	1,510	2,090	4,720	10,800	2,930	1,350	313	55	61
27	481	578	e440	1,520	2,050	4,490	10,500	2,790	1,240	274	54	58
28	481	570	471	2,250	1,780	4,550	13,200	2,590	1,170	251	52	58
29	481	566	500	1,950	1,550	4,420	10,500	2,360	1,170	228	51	60
30	481	541	523	1,470	---	4,620	8,580	2,200	1,180	208	51	59
31	483	---	551	1,280	---	5,360	---	2,050	---	192	54	---
Total	14,172	15,488	14,487	31,836	35,819	101,930	211,240	131,550	55,880	17,710	2,672	1,616
Mean	457	516	467	1,027	1,235	3,288	7,041	4,244	1,863	571	86.2	53.9
Max	557	578	551	2,850	2,610	8,670	13,200	7,780	2,890	1,100	183	63
Min	223	481	380	420	850	1,110	3,860	2,050	1,170	192	51	43
Ac-ft	28,110	30,720	28,730	63,150	71,050	202,200	419,000	260,900	110,800	35,130	5,300	3,210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	330	593	1,152	1,675	2,570	3,962	5,636	5,269	2,764	649	190	177
Max	892	2,310	7,030	6,402	9,736	11,450	11,900	13,180	9,531	2,131	700	923
(WY)	(1985)	(1974)	(1965)	(1965)	(1996)	(1983)	(1984)	(1917)	(1948)	(1984)	(1984)	(1984)
Min	59.9	157	221	217	374	557	964	533	285	88.0	5.70	23.8
(WY)	(1937)	(1937)	(1937)	(1937)	(1933)	(1977)	(1968)	(1934)	(1992)	(1926)	(1973)	(1934)

14048000 JOHN DAY RIVER AT MCDONALD FERRY, OR—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1906 - 2012	
Annual total	1,465,961		634,400			
Annual mean	4,016		1,733		2,075	
Highest annual mean					4,724	1984
Lowest annual mean					603	1977
Highest daily mean	30,500	May 17	13,200	Apr 28	39,400	Dec 24, 1964
Lowest daily mean	221	Sep 17	43	Sep 13	0.00	Aug 15, 1973
Annual seven-day minimum	230	Sep 14	47	Sep 8	0.00	Aug 15, 1973
Annual runoff (ac-ft)	2,908,000		1,258,000		1,503,000	
10 percent exceeds	11,100		4,950		5,780	
50 percent exceeds	1,660		635		787	
90 percent exceeds	311		60		140	

