14033500 UMATILLA RIVER NEAR UMATILLA, OR

Middle Columbia Basin
Umatilla Subbasin

LOCATION.--Lat 45°54′11″, long 119°19′33″ referenced to North American Datum of 1927, in SW ¼ NW ¼ sec.21, T.5 N., R.28 E., Umatilla County, OR, Hydrologic Unit 17070103, on left bank, 1.2 mi southeast of Umatilla, 1.6 mi downstream from West Extension main canal of Umatilla project and at mile 2.1.

DRAINAGE AREA.--2,290 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1903 to current year.

REVISED RECORDS.--WSP 794: Drainage area. WSP 1398: 1909, 1911, 1914, 1928, 1935.

GAGE.--Water-stage recorder. Datum of gage is 330.47 ft above NGVD of 1929. Oct. 21, 1903 to Jan. 25, 1931, nonrecording gage.

REMARKS.--No estimated daily discharges. Records fair. Some regulation since 1927 by McKay Reservoir (active capacity, 71,500 acre-ft). Many diversions upstream from station for irrigation of lands upstream and downstream from station; Brownell Canal diverts downstream from station. Diversions since 1908 to Cold Springs Reservoir (active capacity, 44,600 acre-ft), an off-channel reservoir. Continuous water-quality records for period October 1962 to September 1969 have been collected at this location.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--23 years (water years 1905-27), 552 ft^3/s, 3.27 in/yr, 399,900 acre-ft/yr. 107 years (water years 1905-2011), 499 ft^3/s, 361,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,800 ft^3/s Jan. 30, 1965, gage height, 10.75 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 17	2345	*9,590	*7.36
Apr 3	0700	7,040	6.58
Apr 18	0415	8,010	6.89
May 17	1530	6,890	6.53
Jun 3	1245	5,560	6.06

Minimum discharge, 45 ft^3/s, July 20, gage height, 2.40 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 14033500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/14033500.2011.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	167	303	267	899	1,350	563	5,820	1,700	2,510	225	118	112
2	171	306	311	887	1,130	543	5,760	1,630	2,510	212	124	112
3	169	299	379	950	1,030	742	6,170	1,750	5,010	221	125	113
4	164	296	412	885	1,110	1,180	4,850	1,680	4,840	217	129	121
5	161	292	410	632	1,010	1,180	4,510	1,700	3,810	207	128	113
6	174	291	389	622	1,010	1,220	5,500	1,800	3,130	205	130	108
7	195	293	370	569	1,160	1,290	4,740	2,020	2,680	205	142	120
8	233	301	361	567	1,330	1,220	3,690	2,390	2,240	219	142	144
9	268	308	598	628	1,360	1,090	2,940	2,420	2,060	232	124	168
10	279	310	759	563	1,210	1,190	2,440	2,130	1,790	249	139	179
11	264	306	922	606	1,140	1,800	2,000	1,980	1,560	242	156	177
12	267	304	847	588	1,110	1,940	1,950	2,210	1,390	217	158	171
13	265	302	1,450	600	1,080	1,770	1,840	2,440	1,150	204	145	166
14	261	309	2,860	837	1,090	1,770	1,820	2,490	906	178	143	164
15	256	325	2,370	1,450	1,180	1,990	1,710	3,310	698	130	138	172
16	245	392	1,630	2,340	1,400	2,550	1,780	4,790	544	76	138	186
17	244	405	1,120	6,990	1,580	2,960	4,350	6,450	389	73	134	196
18	245	394	792	7,220	1,570	2,550	7,090	5,570	317	68	136	195
19	246	365	613	4,100	1,460	2,180	4,950	4,300	417	66	121	201
20	246	334	492	2,800	1,380	1,930	4,020	3,350	535	70	136	205
21	245	316	386	2,250	1,270	1,740	3,300	2,890	378	73	131	212
22	245	316	346	3,360	1,140	1,760	2,980	2,620	291	67	124	214
23	246	307	324	3,870	1,060	1,690	2,510	2,410	261	60	113	215
24	254	273	325	3,090	1,020	1,630	2,350	2,270	265	72	110	210
25	258	230	328	2,630	898	1,580	2,290	1,800	276	73	125	211
26	279	235	320	2,820	700	1,550	2,130	2,520	251	80	126	232
27	272	252	318	2,660	611	1,510	1,900	3,470	242	77	122	233
28	282	249	316	2,300	616	1,440	1,780	3,520	210	84	123	234
29	280	251	1,520	2,150	---	1,450	1,750	3,290	203	119	120	242
30	286	247	1,790	1,920	---	2,200	1,690	2,960	230	123	110	238
31	296	---	1,130	1,720	---	4,520	---	2,740	---	120	114	---
Total	7,463	9,111	24,455	63,503	32,005	52,728	100,610	86,600	41,093	4,464	4,024	5,364
Mean	241	304	789	2,048	1,143	1,701	3,354	2,794	1,370	144	130	179
Max	296	405	2,860	7,220	1,580	4,520	7,090	6,450	5,010	249	158	242
Min	161	230	267	563	611	543	1,690	1,630	203	60	110	108
Ac-ft	14,800	18,070	48,510	126,000	63,480	104,600	199,600	171,800	81,510	8,850	7,980	10,640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	108	249	519	722	949	1,172	1,286	706	194	33.3	32.0	53.7
Max	481	1,302	1,948	2,402	3,786	3,678	4,339	4,673	1,688	220	130	179
(WY)	(1928)	(1928)	(1974)	(1918)	(1996)	(1972)	(1917)	(1917)	(1906)	(1913)	(2011)	(2011)
Min	4.18	22.6	31.2	89.3	80.8	154	4.56	1.55	1.33	0.42	0.00	0.17
(WY)	(1978)	(1924)	(1919)	(1930)	(1911)	(1977)	(1968)	(1977)	(1979)	(1907)	(1906)	(1909)

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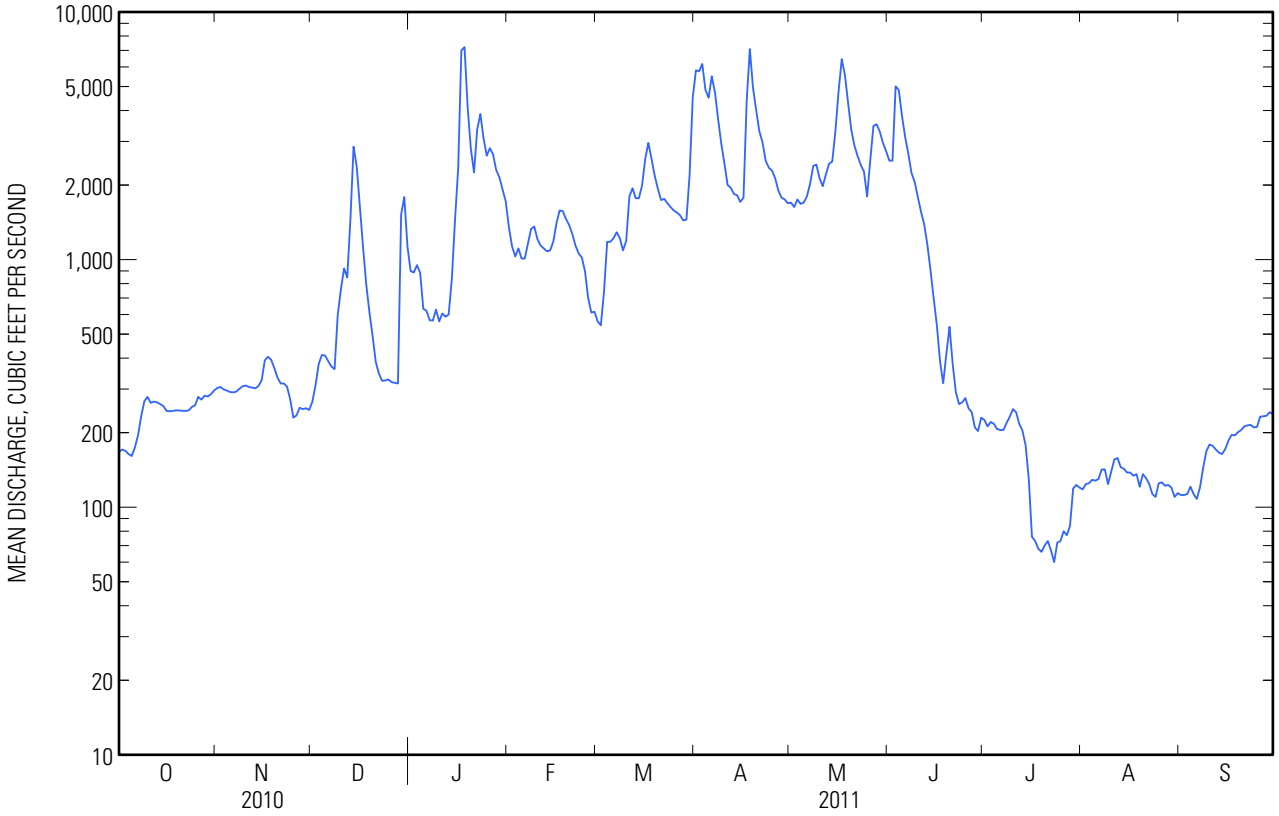
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1905 - 2011	
Annual total	160,156		431,420			
Annual mean	439		1,182		499	
Highest annual mean					1,182	2011
Lowest annual mean					77.5	1977
Highest daily mean	4,460	Jun 4	7,220	Jan 18	15,600	Jan 30, 1965
Lowest daily mean	81	Aug 19	60	Jul 23	0.00	Jul 9, 1905
Annual seven-day minimum	88	Aug 16	68	Jul 18	0.00	Jul 9, 1905
Annual runoff (ac-ft)	317,700		855,700		361,800	
10 percent exceeds	798		2,950		1,380	
50 percent exceeds	337		492		164	
90 percent exceeds	100		125		7.6