

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 mi².

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 and crest-stage gage. 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 ft³/s, 3.27 in/yr, 399,900 acre-ft/yr. 109 years (water years 1905-2013), 499 ft³/s, 361,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,800 ft³/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 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 21	0700	*6,390	*6.36

Minimum discharge, 21 ft³/s, July 17, gage height, 2.14 ft.

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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	211	406	332	318	863	352	1,380	651	303	143	51	111
2	185	353	354	309	958	547	1,390	463	248	126	95	122
3	182	355	638	297	915	1,150	1,480	363	203	129	115	110
4	187	352	825	285	788	1,620	1,570	332	196	118	93	123
5	195	339	946	287	669	1,350	1,540	324	196	119	96	141
6	196	347	1,190	282	592	1,060	1,670	332	207	118	97	159
7	201	339	1,060	288	542	866	1,780	321	209	120	95	158
8	201	348	846	317	492	737	2,050	323	207	108	105	120
9	196	350	687	318	428	671	1,920	292	204	96	118	115
10	193	359	564	421	372	614	1,610	264	203	88	122	110
11	197	361	510	579	346	575	1,450	262	205	79	121	113
12	191	363	593	539	336	583	1,370	268	212	69	107	109
13	205	373	639	484	334	669	1,230	282	200	66	104	130
14	212	368	589	450	341	1,020	1,180	283	205	69	94	125
15	223	366	525	419	347	1,400	1,050	266	202	75	91	131
16	240	374	464	396	337	1,720	925	263	203	69	93	173
17	249	360	416	378	351	1,770	769	220	194	63	101	154
18	254	359	383	369	380	1,550	624	225	164	61	100	148
19	239	377	373	360	357	1,210	539	233	150	58	104	149
20	228	422	346	352	337	962	3,090	221	151	62	89	159
21	234	496	349	339	333	953	5,030	218	173	66	94	158
22	252	670	362	329	335	1,130	3,210	264	140	68	93	165
23	255	656	358	322	345	1,050	2,430	292	134	62	102	178
24	245	426	413	323	355	907	1,890	261	149	58	107	183
25	244	404	413	327	332	742	1,510	258	178	52	103	192
26	239	451	399	355	325	601	1,240	258	218	49	110	206
27	249	428	387	504	333	518	1,090	242	223	54	125	188
28	258	369	374	556	346	534	1,020	271	213	53	104	201
29	316	342	357	420	---	803	949	300	178	56	101	213
30	557	334	344	390	---	1,150	861	291	150	49	100	222
31	533	---	335	515	---	1,310	---	336	---	45	102	---
Total	7,567	11,847	16,371	11,828	12,789	30,124	47,847	9,179	5,818	2,448	3,132	4,566
Mean	244	395	528	382	457	972	1,595	296	194	79.0	101	152
Max	557	670	1,190	579	958	1,770	5,030	651	303	143	125	222
Min	182	334	332	282	325	352	539	218	134	45	51	109
Ac-ft	15,010	23,500	32,470	23,460	25,370	59,750	94,900	18,210	11,540	4,860	6,210	9,060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	111	251	517	719	943	1,170	1,293	702	195	34.5	33.3	55.3
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 2012		Water Year 2013		Water Years 1905 - 2013	
Annual total	206,898		163,516			
Annual mean	565		448		499	
Highest annual mean					1,182	2011
Lowest annual mean					77.5	1977
Highest daily mean	3,390	Feb 23	5,030	Apr 21	15,600	Jan 30, 1965
Lowest daily mean	93	Sep 2	45	Jul 31	0.00	Jul 9, 1905
Annual seven-day minimum	98	Aug 28	51	Jul 26	0.00	Jul 9, 1905
Annual runoff (ac-ft)	410,400		324,300		361,600	
10 percent exceeds	1,580		1,050		1,380	
50 percent exceeds	340		321		169	
90 percent exceeds	110		100		7.9	

