



Water-Data Report 2007

14015000 MILL CREEK AT WALLA WALLA, WA

Middle Columbia Basin
Walla Walla Subbasin

LOCATION.--Lat 46°04'35", long 118°16'21" referenced to North American Datum of 1927, in NE ¼ NW ¼ sec.23, T.7 N., R.6 E., Walla Walla County, WA, Hydrologic Unit 17070102, on left bank 200 ft downstream from diversion dam, 1.5 mi east of Walla Walla, and at mile 10.5.

DRAINAGE AREA.--95.7 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1941 to current year.

REVISED RECORDS.--WSP 1288: Drainage area. WSP 1348: 1943, 1945-46.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,165.49 ft above NGVD of 1929 (levels by U.S. Corps of Engineers). April 1941 to June 11, 1941, nonrecording gage, and June 11, 1941, to Jan. 22, 1957, water-stage recorder, at sites 0.8 mi downstream at different datum. U.S. Geological Survey telephone telemeter at station.

REMARKS.--No estimated daily discharges. Records fair except for those below 10 ft³/s, which are poor. Some regulation at diversion dam 200 ft upstream from station where water is diverted into Yellowhawk and Garrison Creeks for stock and irrigation. Since Nov. 19, 1941, water has been diverted 1.0 mi upstream into Mill Creek Reservoir for flood control with release of stored water after flood into Russell Creek, and is also diverted as required to replenish losses from seepage and evaporation from small recreation pool maintained in the reservoir. City of Walla Walla diverts water for municipal supply about 11 mi upstream. Other small diversions upstream from station for irrigation.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--65 years (water years 1942-2007), 79.0 ft³/s, 57,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,190 ft³/s, Feb. 9, 1996, gage height, 6.89 ft (inside high-water mark), from rating curve extended above 1,500 ft³/s; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31 or Apr. 1, 1931, discharge not determined, was greatest since at least 1913. A discharge of about 11,000 ft³/s, based on a slope-area measurement, was determined for the 1931 peak at old City of Walla Walla diversion dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 907 ft³/s, Nov. 7, gage height, 3.97 ft; minimum discharge, 0.10 ft³/s, on many days in October, July, August, and September.

Water-Data Report 2007

14015000 MILL CREEK AT WALLA WALLA, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.22	0.60	68	96	33	87	189	41	2.8	2.7	0.18	0.17
2	0.22	0.60	60	92	31	77	167	51	2.2	2.3	0.14	0.12
3	0.21	0.63	56	426	32	73	144	47	2.2	2.2	0.10	0.20
4	0.10	0.89	50	651	35	75	124	41	1.8	2.2	0.10	0.24
5	0.16	5.0	49	370	35	88	104	40	7.5	1.8	0.10	0.32
6	0.20	74	52	263	38	116	91	35	5.9	1.7	0.10	0.33
7	0.24	648	57	202	42	151	86	31	3.0	1.8	0.10	0.22
8	0.22	511	61	186	49	303	86	29	2.9	1.6	0.10	0.22
9	0.22	244	76	162	68	271	94	31	2.2	1.1	0.10	0.22
10	0.22	161	112	161	91	214	86	28	8.8	1.1	0.10	0.34
11	0.22	184	140	143	113	185	77	27	5.5	0.73	0.10	0.29
12	0.22	161	157	115	138	194	67	24	2.8	0.60	0.10	0.22
13	0.22	152	425	104	135	234	60	22	1.9	0.47	0.11	0.49
14	0.19	176	537	87	120	192	57	19	1.2	0.29	0.22	0.60
15	0.10	152	533	78	144	140	60	16	0.60	0.22	0.21	0.60
16	1.1	118	363	81	231	105	52	14	0.60	0.22	0.17	0.60
17	0.85	88	243	72	220	88	54	13	0.72	0.22	0.10	0.60
18	0.14	71	173	62	206	81	51	11	1.1	0.22	0.10	0.60
19	0.24	61	113	57	185	93	47	11	1.0	0.54	0.15	0.60
20	0.34	65	89	56	182	126	47	11	0.96	0.36	0.22	0.60
21	0.22	70	79	52	174	109	46	14	0.74	0.42	0.22	0.46
22	0.22	80	68	46	163	97	50	13	0.82	0.10	0.22	0.22
23	0.22	129	66	43	122	96	56	16	1.4	0.10	0.18	0.22
24	0.33	158	62	43	87	88	52	11	1.6	0.10	0.15	0.22
25	0.68	169	71	42	81	144	50	8.3	1.6	0.15	0.11	0.22
26	0.60	134	149	39	98	196	49	7.2	1.6	0.31	0.10	0.22
27	0.34	126	285	40	101	231	46	5.8	1.9	0.34	0.13	0.22
28	0.60	98	234	39	94	220	44	5.2	2.3	0.35	0.10	0.28
29	0.59	81	179	38	---	211	44	4.2	2.4	0.43	0.10	0.54
30	0.60	75	142	37	---	192	42	3.1	2.6	0.37	0.10	0.25
31	0.60	---	116	35	---	178	---	3.2	---	0.22	0.10	---
Total	10.63	3,993.72	4,865	3,918	3,048	4,655	2,222	633.0	72.64	25.26	4.11	10.43
Mean	0.34	133	157	126	109	150	74.1	20.4	2.42	0.81	0.13	0.35
Max	1.1	648	537	651	231	303	189	51	8.8	2.7	0.22	0.60
Min	0.10	0.60	49	35	31	73	42	3.1	0.60	0.10	0.10	0.12
Ac-ft	21	7,920	9,650	7,770	6,050	9,230	4,410	1,260	144	50	8.2	21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5.94	45.1	110	150	173	169	161	96.8	35.1	3.28	1.89	2.23
Max	96.0	233	433	372	627	393	381	344	179	18.4	7.64	11.5
(WY)	(1952)	(1996)	(1965)	(1974)	(1996)	(1997)	(1974)	(1948)	(1974)	(1981)	(1989)	(1971)
Min	0.00	0.14	4.81	15.8	12.0	3.21	9.70	1.10	0.00	0.00	0.00	0.00
(WY)	(1989)	(1988)	(1953)	(1944)	(1977)	(1947)	(1947)	(1968)	(1973)	(1973)	(1973)	(1985)

14015000 MILL CREEK AT WALLA WALLA, WA—Continued**SUMMARY STATISTICS**

	Calendar Year 2006	Water Year 2007	Water Years 1941 - 2007	
Annual total	32,524.38	23,457.79		
Annual mean	89.1	64.3	79.0	
Highest annual mean			182	1974
Lowest annual mean			18.1	1977
Highest daily mean	742	Apr 6	651	Jan 4
Lowest daily mean	0.10	Oct 4	0.10	Oct 4
Annual seven-day minimum	0.19	Sep 30	0.10	Aug 3
Annual runoff (ac-ft)	64,510		46,530	57,200
10 percent exceeds	247		178	215
50 percent exceeds	43		31	28
90 percent exceeds	0.59		0.19	0.07

