

WALLA WALLA RIVER BASIN

14015000 MILL CREEK AT WALLA WALLA, WA

LOCATION.--Lat 46°04'35", long 118°16'21", in NE 1/4 NW 1/4 sec.23, T.7 N., R.36 E., Walla Walla County, 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.

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 sea level (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.

AVERAGE DISCHARGE.--60 years (water years 1942-2001), 80.0 ft³/s, 57,940 acre-ft/yr.

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.

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, 467 ft³/s Feb. 5, gage height, 3.29 ft; no flow part or all of each day Oct. 12-20, 25-28, Nov. 1-4, 6-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	1.8	42	41	31	13	217	254	7.7	7.5	2.2	.93
2	56	.00	40	38	34	18	223	218	7.6	7.1	2.0	.60
3	39	.00	37	34	45	16	184	173	7.5	6.3	1.6	.60
4	33	1.3	35	32	71	15	157	141	6.9	6.8	1.6	.60
5	27	2.5	34	38	383	17	151	116	6.3	7.1	1.6	.60
6	11	1.3	30	52	301	24	164	98	4.0	9.3	1.6	.60
7	.05	.09	26	53	194	31	175	87	1.5	9.3	2.1	.60
8	.07	17	22	48	119	41	163	80	1.2	9.9	1.2	.60
9	1.8	26	21	43	93	54	139	77	1.2	11	1.8	.60
10	6.5	22	19	40	81	52	127	71	1.1	12	1.9	.60
11	6.8	19	16	37	68	45	195	63	1.5	10	1.4	.60
12	2.0	16	14	36	55	40	236	62	1.7	7.7	1.6	.60
13	.15	14	14	35	39	37	207	64	2.2	5.7	1.4	.60
14	.00	13	15	45	42	35	169	74	4.0	5.0	1.6	.60
15	.00	13	19	38	42	38	142	120	7.7	4.9	1.3	.60
16	.00	12	17	32	35	57	134	112	8.2	5.5	1.2	.60
17	.00	12	24	27	32	56	161	89	7.6	5.1	1.1	.60
18	.00	11	23	27	31	61	194	80	8.4	4.9	1.1	.60
19	.00	11	31	27	30	94	195	73	8.1	4.9	1.2	.60
20	.30	10	29	26	25	136	170	63	8.7	4.3	1.6	.60
21	21	9.9	25	30	26	119	138	55	8.7	3.6	.70	.60
22	15	9.9	28	57	26	100	112	44	8.0	4.0	.70	.60
23	9.8	9.9	43	63	26	91	97	31	7.9	3.7	.89	.52
24	5.9	12	72	65	27	87	91	29	9.1	3.6	1.1	.60
25	3.5	12	77	62	27	103	96	23	9.0	3.6	1.1	.60
26	1.3	13	68	58	21	104	114	18	9.4	3.6	1.1	.60
27	.03	34	61	53	16	92	131	16	14	2.8	1.1	.60
28	1.8	53	55	48	13	100	137	17	18	2.2	1.0	.60
29	6.4	46	52	42	---	111	106	13	12	2.3	.85	.60
30	5.0	41	49	38	---	109	146	9.5	11	2.4	1.1	.60
31	5.8	---	45	34	---	120	---	7.7	---	2.2	1.1	---
TOTAL	380.20	443.69	1083	1299	1933	2016	4671	2378.2	210.2	178.3	41.84	18.25
MEAN	12.3	14.8	34.9	41.9	69.0	65.0	156	76.7	7.01	5.75	1.35	.61
MAX	121	53	77	65	383	136	236	254	18	12	2.2	.93
MIN	.00	.00	14	26	13	13	91	7.7	1.1	2.2	.70	.52
AC-FT	754	880	2150	2580	3830	4000	9260	4720	417	354	83	36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2001, BY WATER YEAR (WY)

MEAN	6.21	45.8	112	149	176	171	162	98.7	35.7	3.43	1.96	2.35
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	.000	.14	4.81	15.8	12.0	3.21	9.70	1.10	.000	.000	.000	.000
(WY)	1989	1988	1953	1944	1977	1947	1947	1968	1973	1973	1973	1985

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14015000 MILL CREEK AT WALLA WALLA, WA--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1941 - 2001
ANNUAL TOTAL	24032.82	14652.68	
ANNUAL MEAN	65.7	40.1	80.0
HIGHEST ANNUAL MEAN			182 1974
LOWEST ANNUAL MEAN			18.1 1977
HIGHEST DAILY MEAN	555 Feb 15	383 Feb 5	3070 Feb 9 1996
LOWEST DAILY MEAN	.00 Jul 9	.00 Oct 14	.00 Nov 2 1954
ANNUAL SEVEN-DAY MINIMUM	.00 Sep 16	.02 Oct 13	.00 Jul 27 1963
ANNUAL RUNOFF (AC-FT)	47670	29060	57940
10 PERCENT EXCEEDS	177	119	218
50 PERCENT EXCEEDS	38	17	28
90 PERCENT EXCEEDS	.03	.60	.06