

## 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 mi<sup>2</sup>.

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.

AVERAGE DISCHARGE.--61 years (water years 1942-2002), 79.9 ft<sup>3</sup>/s, 57,900 acre-ft/yr.

REMARKS.--No estimated daily discharges. Records fair except for those below 10 ft<sup>3</sup>/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 ft<sup>3</sup>/s Feb. 9, 1996, gage height, 6.89 ft (inside high-water mark), from rating curve extended above 1,500 ft<sup>3</sup>/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 ft<sup>3</sup>/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, 1,320 ft<sup>3</sup>/s Feb. 24, gage height, 4.46 ft; no flow part or all of each day July 12-18, Aug. 16 to Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	0.60	20	34	41	74	116	167	99	91	12	4.2	0.00	
2	0.60	13	35	43	68	87	150	108	81	12	4.5	0.00	
3	0.60	0.67	46	67	64	68	124	116	73	11	4.4	0.00	
4	0.60	0.22	47	87	59	59	136	97	66	11	4.4	0.00	
5	0.60	0.22	41	87	53	65	160		91	63	11	4.4	0.00
6	0.60	0.72	31	85	51	78	197	79	56	9.7	4.4	0.00	
7	0.60	0.22	35	182	77	76	194	79	51	8.7	4.4	0.00	
8	0.60	0.22	36	420	141	71	171	71	48	8.4	4.1	0.00	
9	0.60	0.22	37	393	125	70	162	71	51	8.0	3.6	0.00	
10	0.43	0.22	32	275	104	70	210	62	57	7.7	3.6	0.00	
11	0.60	0.22	27	188	92	90	251	61	48	7.4	3.6	0.00	
12	0.44	0.22	20	155	83	398	270	64	43	4.8	3.6	0.00	
13	0.22	0.22	98	134	68	409	326	79	32	0.00	3.9	0.00	
14	0.22	21	370	115	58	265	918	97	35	0.00	3.9	0.00	
15	6.0	17	213	96	59	198	679	96	29	0.22	3.9	0.00	
16	0.53	9.0	127	82	59	165	431	90	28	0.00	2.2	0.00	
17	0.61	15	104	74	61	138	315	89	25	0.00	0.00	0.00	
18	0.60	18	128	69	64	106	241	98	45	1.6	0.00	0.00	
19	0.60	13	127	76	67	103	194	122	37	2.9	0.00	0.00	
20	0.60	12	108	74	76	121	141	162	29	2.9	0.00	0.00	
21	0.60	12	89	76	84	121	119	122	21	2.9	0.00	0.00	
22	0.60	20	75	74	171	117	113	106	17	2.9	0.00	0.00	
23	4.6	360	67	69	443	108	122	97	17	2.9	0.00	0.00	
24	0.14	155	62	70	1070	164	105	86	15	2.9	0.00	0.00	
25	0.10	91	58	160	530	446	97	88	14	2.9	0.00	0.00	
26	0.10	69	53	256	347	421	95	90	12	2.9	0.00	0.00	
27	0.10	43	48	203	216	343	96	92	11	2.9	0.00	0.07	
28	0.10	33	49	151	149	249	85	127	11	2.9	0.00	0.00	
29	0.10	33	46	117	---	190	83	143	14	2.9	0.00	0.00	
30	0.10	35	43	101	---	160	89	132	14	3.3	0.00	0.00	
31	25	---	43	83	---	159	---	104	---	3.9	0.00	---	
TOTAL	47.79	992.37	2329	4103	4513	5231	6441	3018	1134	152.62	63.10	0.07	
MEAN	1.54	33.1	75.1	132	161	169	215	97.4	37.8	4.92	2.04	0.002	
MAX	25	360	370	420	1070	446	918	162	91	12	4.5	0.07	
MIN	0.10	0.22	20	41	51	59	83	61	11	0.00	0.00	0.00	
AC-FT	95	1970	4620	8140	8950	10380	12780	5990	2250	303	125	0.1	

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

MEAN	6.14	45.6	112	149	176	171	163	98.6	35.8	3.45	1.96	2.31
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	0.000	0.14	4.81	15.8	12.0	3.21	9.70	1.10	0.000	0.000	0.000	0.000
(WY)	1989	1988	1953	1944	1977	1947	1947	1968	1973	1973	1973	1985

## SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1941 - 2002
ANNUAL TOTAL	16114.95	28024.95	
ANNUAL MEAN	44.2	76.8	79.9
HIGHEST ANNUAL MEAN			182
LOWEST ANNUAL MEAN			18.1
HIGHEST DAILY MEAN	383	1070	3070
LOWEST DAILY MEAN	0.10	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.11	0.00	0.00
ANNUAL RUNOFF (AC-FT)	31960	55590	57900
10 PERCENT EXCEEDS	127	175	218
50 PERCENT EXCEEDS	18	46	29
90 PERCENT EXCEEDS	0.60	0.00	0.06