

WALLA WALLA RIVER BASIN

14013000 MILL CREEK NEAR WALLA WALLA, WA

LOCATION.--Lat 46°00'29", long 118°07'03", in SW 1/4 SW 1/4 sec.7, T.6 N., R.38 E., Walla Walla County, Hydrologic Unit 17070102, on left bank 0.1 mi downstream from Railroad Canyon, 4.0 mi downstream from City of Walla Walla diversion dam, 4.4 mi upstream from Blue Creek, 11.5 mi southeast of Walla Walla, and at mile 21.2.

DRAINAGE AREA.--59.6 mi².

PERIOD OF RECORD.--August 1913 to September 1917, April to September 1938, October 1939 to September 1976, October 1979 to current year. Maximum discharge and occasional discharge measurements 1977-79.

REVISED RECORDS.--WSP 1398: 1946-48(M), 1950 (M). WSP 1935: 1959, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,995.85 ft above NGVD of 1929 (levels by U.S. Corps of Engineers). Prior to Oct. 1, 1938, nonrecording gages at about same site at different datums.

REMARKS.--No estimated daily discharges. Records fair. No regulation. City of Walla Walla diverts about 28 ft³/s 4.0 mi upstream from station for municipal use. Water temperatures March 1962 to July 1965. Sediment records March 1962 to July 1965. U.S. Geological Survey telephone telemeter at station.

AVERAGE DISCHARGE.--64 years (water years 1914-17, 1940-76, 1980-2002), 96.1 ft³/s, 69,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,350 ft³/s Feb. 9, 1996, gage height, 20.43 ft, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow; minimum daily discharge, 9.5 ft³/s Dec. 9, 10, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31 or Apr. 1, 1931, reached a discharge of about 11,000 ft³/s, based on slope-area measurement about 900 ft upstream at old City of Walla Walla diversion dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 24	0100	*1,380	*17.05	Apr. 14	1030	1,350	17.02

Minimum discharge, 23 ft³/s Aug. 16-18, 24, 25, 29, 30, Sept. 9.

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	27	48	77	55	83	154	253	132	113	41	28	26
2	28	46	77	60	80	129	227	146	100	39	28	26
3	28	41	87	82	78	109	204	155	87	39	28	26
4	28	39	86	94	74	101	201	131	80	36	28	26
5	28	38	79	93	73	99	235	120	79	36	28	28
6	28	37	76	97	75	111	287	97	75	34	28	29
7	28	35	77	199	94	118	278	91	71	33	27	27
8	30	34	77	462	123	117	250	84	70	36	27	27
9	27	34	78	356	119	111	239	90	72	33	27	25
10	28	34	76	235	110	109	304	81	75	30	27	25
11	50	34	74	158	104	140	343	80	69	30	26	25
12	35	34	70	134	98	410	371	83	64	30	26	26
13	30	34	220	121	93	379	430	107	59	30	26	26
14	34	64	428	109	90	297	1080	127	61	32	25	26
15	31	52	220	99	87	241	745	118	58	30	27	26
16	30	45	138	88	87	206	470	108	57	30	25	27
17	29	52	123	82	91	177	344	110	54	30	25	34
18	28	51	117	79	93	153	268	129	70	30	25	35
19	28	48	103	80	99	163	215	161	60	30	25	29
20	28	47	93	79	108	185	181	189	56	30	25	28
21	29	59	84	80	124	185	160	148	50	30	27	28
22	41	164	77	77	247	176	151	113	47	29	25	28
23	41	413	72	75	609	167	153	111	48	29	27	28
24	34	171	68	78	970	231	136	103	45	29	25	29
25	33	117	64	151	451	416	122	107	44	32	25	28
26	32	96	62	221	304	398	118	113	42	31	25	28
27	33	85	60	168	228	358	110	120	43	29	26	30
28	37	80	61	128	187	297	105	168	41	29	26	28
29	34	79	58	109	---	248	107	186	48	29	25	30
30	38	77	56	100	---	225	117	167	45	29	25	32
31	61	---	56	88	---	232	---	132	---	29	26	---
TOTAL	1016	2188	3094	4037	4979	6442	8204	3807	1883	984	813	836
MEAN	32.8	72.9	99.8	130	178	208	273	123	62.8	31.7	26.2	27.9
MAX	61	413	428	462	970	416	1080	189	113	41	28	35
MIN	27	34	56	55	73	99	105	80	41	29	25	25
AC-FT	2020	4340	6140	8010	9880	12780	16270	7550	3730	1950	1610	1660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2002, BY WATER YEAR (WY)

	36.8	73.1	113	130	155	159	175	138	75.2	37.8	30.9	31.4
MEAN	36.8	73.1	113	130	155	159	175	138	75.2	37.8	30.9	31.4
MAX	105	263	376	362	548	410	420	495	260	69.8	48.7	47.5
(WY)	1952	1996	1965	1965	1996	1997	1917	1974	1974	1974	1975	1959
MIN	19.4	24.1	32.9	33.7	44.3	45.4	46.5	40.1	27.7	23.0	20.4	20.7
(WY)	1940	1940	1966	1944	1994	1941	1941	1992	1992	1994	1987	1983

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1914 - 2002
ANNUAL TOTAL	25438	38283	
ANNUAL MEAN	69.7	105	96.1
HIGHEST ANNUAL MEAN			180
LOWEST ANNUAL MEAN			54.1
HIGHEST DAILY MEAN	428	Dec 14	1080
LOWEST DAILY MEAN	27	Sep 17	25
ANNUAL SEVEN-DAY MINIMUM	27	Sep 17	25
ANNUAL RUNOFF (AC-FT)	50460	75930	69610
10 PERCENT EXCEEDS	135	229	204
50 PERCENT EXCEEDS	51	75	58
90 PERCENT EXCEEDS	28	27	28