

Figure 64. Location of surface-water stations in the Walla Walla River Basin.

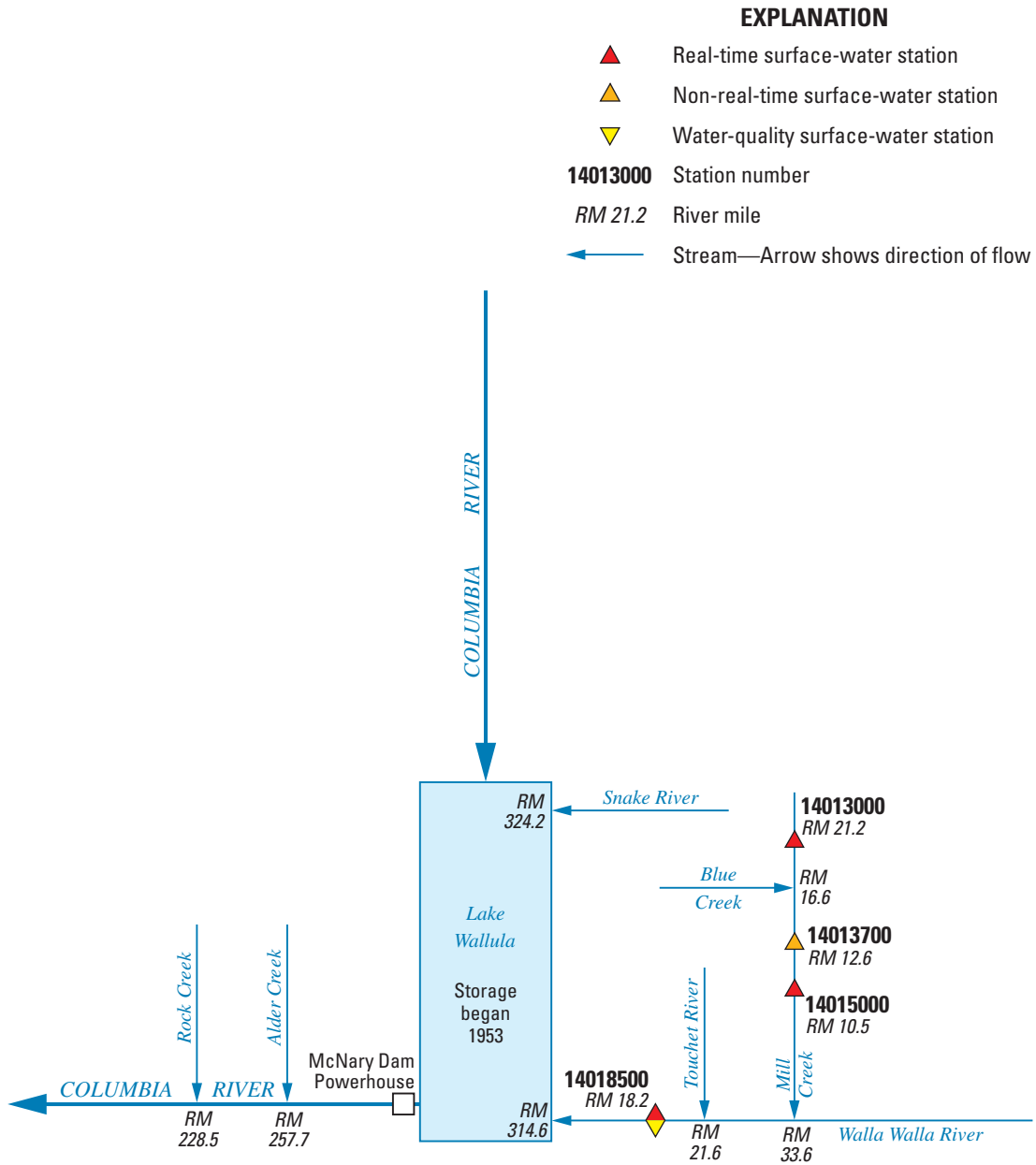


Figure 65. Schematic diagram showing surface-water stations in the Walla Walla River Basin.

14013000 MILL CREEK NEAR WALLA WALLA, WA

LOCATION.--Lat 46°00'29", long 118°07'03", in SW $\frac{1}{4}$ SW $\frac{1}{4}$, 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, except for estimated daily discharges, which are poor. 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.--67 years (water years 1914-17, 1940-76, 1980-2005), 95.6 ft³/s, 69,290 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)
Mar. 28	0215	*487	*15.87				

Minimum discharge, 27 ft³/s, Aug. 23, 24, and Sept. 23-26.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	38	64	51	55	45	152	56	51	32	32	30
2	31	46	60	49	51	47	148	54	45	32	31	29
3	31	70	57	46	51	44	144	52	41	32	31	29
4	31	53	58	45	54	44	175	51	39	31	32	29
5	31	53	58	44	52	44	179	51	43	31	33	30
6	32	52	54	44	51	43	168	68	43	31	33	30
7	36	50	60	45	50	43	172	71	45	31	33	29
8	32	46	119	45	46	43	169	65	38	31	32	30
9	40	44	135	43	45	43	142	66	34	33	32	31
10	38	44	200	41	44	41	117	75	34	32	32	32
11	34	46	362	41	44	41	115	107	34	32	32	31
12	32	44	349	40	45	41	111	109	34	31	31	30
13	32	44	229	39	52	42	110	97	34	30	30	30
14	32	43	197	38	47	43	106	86	33	30	30	30
15	32	40	197	37	45	44	100	88	34	30	30	30
16	32	39	172	38	44	44	101	135	33	30	30	31
17	35	39	143	41	44	44	143	177	33	30	32	31
18	49	46	122	154	44	44	143	170	35	30	32	31
19	40	46	105	212	44	44	135	146	33	30	32	30
20	36	43	92	181	44	46	123	129	33	31	32	30
21	58	41	81	148	43	47	110	111	33	32	32	30
22	59	41	75	126	41	47	98	111	33	32	31	30
23	65	40	69	110	41	46	93	99	32	32	29	28
24	54	87	65	96	39	46	88	91	32	32	30	28
25	49	243	63	86	39	46	83	83	33	32	31	28
26	48	187	61	78	39	52	77	73	34	32	31	28
27	43	125	58	73	39	178	73	64	35	32	30	28
28	40	96	55	68	42	427	68	57	35	32	32	29
29	38	78	55	65	---	311	63	54	34	32	32	30
30	38	69	54	62	---	232	59	50	33	32	31	32
31	39	---	53	59	---	174	---	49	---	33	30	---
TOTAL	1,219	1,933	3,522	2,245	1,275	2,476	3,565	2,695	1,083	973	971	894
MEAN	39.3	64.4	114	72.4	45.5	79.9	119	86.9	36.1	31.4	31.3	29.8
MAX	65	243	362	212	55	427	179	177	51	33	33	32
MIN	31	38	53	37	39	41	59	49	32	30	29	28
AC-FT	2,420	3,830	6,990	4,450	2,530	4,910	7,070	5,350	2,150	1,930	1,930	1,770

14013000 MILL CREEK NEAR WALLA WALLA, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2005, BY WATER YEAR (WY)												
MEAN	36.7	72.1	112	131	155	159	173	138	74.6	37.5	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)	(1917)	(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 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1914 - 2005			
ANNUAL TOTAL	35,963				22,851							
ANNUAL MEAN	98.3				62.6				95.6			
HIGHEST ANNUAL MEAN									180			
LOWEST ANNUAL MEAN									54.1			
HIGHEST DAILY MEAN	1,370				427				3,240			
LOWEST DAILY MEAN	24				28				9.5			
ANNUAL SEVEN-DAY MINIMUM	25				28				10			
ANNUAL RUNOFF (AC-FT)	71,330				45,320				69,290			
10 PERCENT EXCEEDS	190				131				201			
50 PERCENT EXCEEDS	71				44				57			
90 PERCENT EXCEEDS	29				30				28			

14013700 MILL CREEK AT FIVE MILE ROAD BRIDGE, NEAR WALLA WALLA, WA

LOCATION.--Lat 46°05'09", long 118°13'38", in SW¹/₄NE¹/₄ sec.18, T.7 N., R.37 E., Walla Walla County, Hydrologic Unit 17070102, on right bank 4.2 mi downstream from Blue Creek, 3.0 mi upstream from diversion to Bennington Lake, 6 mi east of Walla Walla, and at mile 12.6.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--November 1997 to April 2003 (seasonal records), October 2003 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,348 ft above NGVD of 1929 (levels by Walla Walla County).

REMARKS.--Records poor. No regulation. City of Walla Walla diverts water for municipal supply about 13 miles upstream.

AVERAGE DISCHARGE.--2 years (water years 2004-05), 99.9 ft³/s, 72,410 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, unknown, Feb. 1, 2003, gage height, unknown; maximum gage height, 9.91 ft, Feb. 24, 2002; minimum discharge, 18 ft³/s, Sept. 26, 27, 2005.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 602 ft³/s, Mar. 28, gage height, 7.51 ft; minimum discharge, 18 ft³/s, Sept. 26, 27.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	35	83	53	67	54	194	55	60	e36	e28	24
2	32	47	78	50	62	58	184	53	52	e38	e26	23
3	31	85	73	47	60	54	177	50	48	e36	e24	24
4	31	56	75	45	63	54	247	51	46	e35	e24	23
5	31	53	75	43	64	53	248	49	49	e36	e26	24
6	32	53	71	e41	60	53	226	60	51	e39	26	24
7	42	49	80	e44	58	52	217	71	52	e40	25	23
8	41	44	178	46	55	51	211	62	46	e42	26	21
9	50	43	219	44	53	51	174	66	41	e44	26	22
10	50	42	291	42	52	50	139	75	39	e42	25	24
11	45	43	438	40	51	49	135	125	39	e42	26	24
12	40	43	429	41	52	49	126	133	38	e38	25	23
13	40	42	308	40	64	49	128	112	e35	e39	26	23
14	39	42	262	38	57	50	120	92	e35	e40	26	23
15	39	40	261	36	53	50	112	102	e36	e36	25	23
16	40	39	231	38	52	50	111	215	e35	e36	26	23
17	45	e38	191	40	52	50	181	300	e36	e36	30	24
18	68	e46	158	170	51	50	183	277	e37	e34	29	24
19	57	52	137	297	51	50	172	236	e37	e32	28	22
20	48	47	114	257	53	51	154	205	e40	e32	28	22
21	71	43	96	213	51	54	136	172	e39	e35	27	22
22	91	44	86	180	50	54	117	174	e38	e36	27	22
23	92	44	76	156	49	54	107	156	e37	e32	25	20
24	76	104	71	135	48	54	98	137	e38	e30	25	20
25	62	302	68	118	48	54	89	121	e40	e30	27	20
26	56	275	65	104	48	58	81	104	e43	e30	26	20
27	50	185	61	95	48	194	75	87	e46	e30	25	20
28	43	136	57	88	52	512	68	74	e45	e30	26	20
29	40	104	57	82	---	379	62	68	e42	e30	26	21
30	38	93	57	77	---	305	59	61	e40	e30	25	24
31	38	---	55	72	---	233	---	58	---	e32	25	---
TOTAL	1,491	2,269	4,501	2,772	1,524	2,979	4,331	3,601	1,260	1,098	809	672
MEAN	48.1	75.6	145	89.4	54.4	96.1	144	116	42.0	35.4	26.1	22.4
MAX	92	302	438	297	67	512	248	300	60	44	30	24
MIN	31	35	55	36	48	49	59	49	35	30	24	20
AC-FT	2,960	4,500	8,930	5,500	3,020	5,910	8,590	7,140	2,500	2,180	1,600	1,330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	42.4	77.6	130	170	186	195	176	155	104	32.6	32.4	29.1
MAX	48.1	110	209	241	306	339	252	193	166	35.4	38.8	35.7
(WY)	(2005)	(2000)	(1999)	(2004)	(2003)	(2003)	(2002)	(2004)	(2004)	(2005)	(2004)	(2004)
MIN	36.8	37.8	58.7	71.4	54.4	96.1	108	116	42.0	29.8	26.1	22.4
(WY)	(2004)	(2003)	(2003)	(2001)	(2005)	(2005)	(1998)	(2005)	(2005)	(2004)	(2005)	(2005)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1998 - 2005

ANNUAL TOTAL	47,761	27,307		
ANNUAL MEAN	130	74.8		99.9
HIGHEST ANNUAL MEAN				125
LOWEST ANNUAL MEAN				74.8
HIGHEST DAILY MEAN	1,400	Jan 29	512	Mar 28
LOWEST DAILY MEAN	24	Aug 20	20	Sep 23
ANNUAL SEVEN-DAY MINIMUM	26	Jul 22	20	Sep 23
ANNUAL RUNOFF (AC-FT)	94,730		54,160	72,410
10 PERCENT EXCEEDS	276		177	211
50 PERCENT EXCEEDS	86		50	53
90 PERCENT EXCEEDS	30		25	28

14015000 MILL CREEK AT WALLA WALLA, WA

LOCATION.--Lat 46°04'35", long 118°16'21", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ 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 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.--63 years (water years 1942-2005), 79.2 ft³/s, 57,410 acre-ft/yr.

REMARKS.--No estimated daily discharge. Records fair, except for daily discharges and 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, 615 ft³/s, Mar. 30, gage height, 3.52 ft; minimum discharge, no flow part or all of each day Oct. 1-18.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	2.6	35	26	41	24	105	27	18	2.9	1.6	1.6
2	0.00	3.5	37	25	36	27	96	23	12	2.9	1.6	1.6
3	0.00	23	28	23	34	24	90	22	11	2.9	1.5	1.6
4	0.00	13	29	22	35	23	139	22	9.3	2.9	1.1	1.6
5	0.00	11	30	20	37	22	152	21	10	2.9	1.4	1.6
6	0.00	11	27	20	34	21	135	27	11	2.9	1.6	2.0
7	0.02	9.9	32	21	33	20	131	39	11	2.9	1.6	2.1
8	0.00	7.9	77	21	31	16	145	35	9.6	1.1	1.6	1.6
9	0.00	6.1	112	20	29	14	116	40	4.7	0.07	1.6	1.6
10	0.00	5.6	152	17	28	12	85	44	2.9	0.07	1.2	1.6
11	0.00	5.2	288	18	27	11	82	66	2.9	0.60	1.1	1.8
12	0.00	5.2	310	16	28	9.9	74	71	2.9	1.6	1.1	2.0
13	0.00	5.2	232	16	35	9.9	77	65	2.9	1.6	1.1	1.9
14	0.00	5.2	170	15	32	9.9	73	60	2.9	2.1	1.1	1.6
15	0.02	4.6	168	19	28	9.3	67	64	2.9	2.2	1.5	1.7
16	0.00	4.1	145	24	27	8.9	65	127	2.7	2.2	1.6	1.6
17	0.00	3.8	119	27	25	9.0	108	191	2.6	2.2	1.6	1.6
18	5.8	4.5	97	71	25	8.9	111	171	2.9	2.2	1.6	1.6
19	6.9	6.2	86	190	25	8.2	103	137	2.9	2.2	1.6	1.6
20	3.6	6.1	67	161	26	7.9	91	115	2.9	1.8	1.6	2.0
21	8.7	6.2	54	128	24	9.4	80	91	2.7	1.6	1.6	1.6
22	21	4.8	47	108	23	9.9	69	96	2.9	1.6	1.6	1.7
23	23	4.4	40	92	23	10	63	80	2.9	1.6	1.6	1.6
24	18	27	36	69	23	9.9	59	66	2.9	1.6	1.6	1.6
25	11	138	33	75	21	9.9	53	61	2.9	1.6	1.6	1.6
26	9.3	158	31	65	21	10	47	49	2.9	1.6	1.6	1.6
27	7.7	93	27	58	22	27	42	37	3.2	1.6	1.4	1.9
28	3.0	70	24	53	23	436	38	29	3.6	1.6	1.3	2.8
29	2.7	47	28	49	---	345	35	23	2.9	1.6	1.5	3.6
30	2.4	40	29	46	---	244	31	18	2.9	1.6	1.6	4.1
31	2.2	---	28	43	---	138	---	15	---	1.6	1.6	---
TOTAL	125.34	732.1	2,618	1,558	796	1,545.0	2,562	1,932	157.8	57.84	45.7	56.4
MEAN	4.04	24.4	84.5	50.3	28.4	49.8	85.4	62.3	5.26	1.87	1.47	1.88
MAX	23	158	310	190	41	436	152	191	18	2.9	1.6	4.1
MIN	0.00	2.6	24	15	21	7.9	31	15	2.6	0.07	1.1	1.6
AC-FT	249	1,450	5,190	3,090	1,580	3,060	5,080	3,830	313	115	91	112

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

MEAN	6.01	44.2	109	149	175	170	161	98.7	35.8	3.34	1.92	2.28
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)

WALLA WALLA RIVER BASIN

14015000 MILL CREEK AT WALLA WALLA, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	29,055.02		12,186.18			
ANNUAL MEAN	79.4		33.4		79.2	
HIGHEST ANNUAL MEAN					182	1974
LOWEST ANNUAL MEAN					18.1	1977
HIGHEST DAILY MEAN	1,230	Jan 29	436	Mar 28	3,070	Feb 9, 1996
LOWEST DAILY MEAN	0.00	Jul 8	0.00	Oct 1	0.00	Nov 2, 1954
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 17	0.00	Oct 8	0.00	Jul 27, 1963
ANNUAL RUNOFF (AC-FT)	57,630		24,170		57,410	
10 PERCENT EXCEEDS	191		96		215	
50 PERCENT EXCEEDS	44		11		28	
90 PERCENT EXCEEDS	0.00		1.6		0.06	

14018500 WALLA WALLA RIVER NEAR TOUCHET, WA

LOCATION.--Lat 46°01'40", long 118°43'43", in NW¼SE¼ sec.6, T.6 N., R.33 E., Walla Walla County, Hydrologic Unit 17070102, on left bank 0.8 mi upstream from Gardena Creek, 2.8 mi southwest of Touchet, 3.4 mi downstream from Touchet River, and at mile 18.2.

DRAINAGE AREA.--1,657 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1935: Drainage area. WDR WA-96-1: 1992(M), 1993(M), 1995 (M,P).

GAGE.--Water-stage recorder. Elevation of gage is 405 ft above NGVD of 1929, from topographic map. Prior to Nov. 27, 1951, nonrecording gage at same site and datum. U.S. Geological Survey satellite telemeter at station.

REMARKS.--Records fair except for estimated daily discharges and discharges less than 10 ft³/s, which are poor. Many diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--54 years (water years 1952-2005), 568 ft³/s, 411,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,400 ft³/s, Dec. 22, 1964, gage height, 18.90 ft, from rating curve extended above 15,000 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 20.58 ft, Feb. 10, 1996, from high-water mark; no flow July 30 to Aug. 8, Aug. 12, 13, 1968, Oct. 5-7, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 28	1730	*3,020	*8.51	No other peak greater than base discharge.			

Minimum discharge, no flow, Aug. 6-10, 12-14.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	57	338	455	481	324	830	237	179	28	9.9	18
2	45	67	319	446	464	311	718	219	179	24	8.1	19
3	36	124	308	437	441	289	673	192	152	23	7.6	20
4	40	188	306	417	447	262	854	172	142	21	7.7	24
5	43	149	300	382	450	239	1,140	180	127	21	2.5	27
6	30	121	299	372	443	213	993	175	138	19	1.2	28
7	30	109	319	413	430	191	873	263	132	16	2.0	26
8	34	105	422	418	419	173	895	270	129	16	0.56	24
9	37	104	728	401	408	159	802	287	110	19	0.18	21
10	40	106	777	388	400	149	652	327	93	27	1.6	22
11	41	107	1,100	377	392	137	559	405	76	47	2.3	32
12	35	101	1,610	377	390	129	568	507	62	38	0.86	37
13	29	103	1,420	374	398	118	537	444	60	26	1.8	32
14	31	106	1,100	359	404	111	505	382	54	18	2.6	34
15	28	107	1,040	320	386	110	461	372	46	21	7.2	34
16	29	117	1,000	348	373	104	427	840	43	33	8.4	21
17	28	120	886	332	364	105	600	1,650	42	32	6.6	22
18	46	128	776	455	364	108	774	1,440	42	29	5.1	26
19	71	144	694	1,250	366	103	749	1,250	40	22	12	29
20	92	144	637	1,180	371	100	693	997	50	17	22	23
21	71	136	603	1,020	371	96	631	842	38	17	20	21
22	71	136	560	901	362	93	549	754	27	18	16	19
23	118	135	536	814	355	106	474	810	24	17	13	24
24	113	137	503	735	352	103	477	652	25	22	11	20
25	99	386	489	690	318	102	446	562	24	22	11	19
26	86	1,060	471	642	336	95	e403	471	23	20	9.7	23
27	68	653	460	610	333	106	e353	392	25	17	7.3	22
28	65	485	458	580	321	2,100	e310	321	30	15	7.9	18
29	60	386	463	533	---	2,190	e274	277	46	12	6.3	14
30	55	342	464	519	---	1,630	260	233	51	12	6.8	15
31	59	---	458	498	---	1,140	---	195	---	12	11	---
TOTAL	1,681	6,163	19,844	17,043	10,939	11,196	18,480	16,118	2,209	681	230.20	714
MEAN	54.2	205	640	550	391	361	616	520	73.6	22.0	7.43	23.8
MAX (WY)	118 (1952)	1,060 (1996)	1,610 (1965)	1,250 (1965)	481 (1996)	2,190 (1972)	1,140 (1974)	1,650 (1993)	179 (1974)	47 (1974)	22 (1976)	37 (1959)
MIN (WY)	28 (1989)	57 (1988)	299 (1988)	320 (1979)	318 (1977)	93 (1977)	260 (1973)	172 (1968)	23 (1968)	12 (1968)	0.18 (1973)	14 (1994)
AC-FT	3,330	12,220	39,360	33,800	21,700	22,210	36,660	31,970	4,380	1,350	457	1,420

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2005, BY WATER YEAR (WY)

	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	79.3	290	783	1,081	1,287	1,194	1,062	723	262	42.0	19.3	40.4	392	1,056	2,890	2,698	3,700	3,105	2,437	1,544	1,130	139	82.7	181	(1952)	(1956)	(1965)	(1965)	(1996)	(1972)	(1974)	(1993)	(1974)	(1974)	(1976)	(1959)																		
MIN (WY)	9.20	55.3	190	306	286	339	242	60.6	21.2	5.85	3.07	3.07	(1989)	(1988)	(1988)	(1979)	(1977)	(1977)	(1973)	(1968)	(1968)	(1968)	(1968)	(1973)	(1994)																													

WALLA WALLA RIVER BASIN

14018500 WALLA WALLA RIVER NEAR TOUCHET, WA—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1952 - 2005	
ANNUAL TOTAL	226,910		105,298.20			
ANNUAL MEAN	620		288		568	
HIGHEST ANNUAL MEAN					1,212	1974
LOWEST ANNUAL MEAN					166	1977
HIGHEST DAILY MEAN	6,660	Jan 30	2,190	Mar 29	20,300	Dec 23, 1964
LOWEST DAILY MEAN	17	Aug 13	0.18	Aug 9	0.00	Jul 30, 1968
ANNUAL SEVEN-DAY MINIMUM	19	Aug 12	1.2	Aug 6	0.00	Jul 30, 1968
ANNUAL RUNOFF (AC-FT)	450,100		208,900		411,700	
10 PERCENT EXCEEDS	1,430		741		1,420	
50 PERCENT EXCEEDS	484		136		298	
90 PERCENT EXCEEDS	36		16		14	

e Estimated

WALLA WALLA RIVER BASIN

14018500 WALLA WALLA RIVER NEAR TOUCHET, WA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	9.4	8.4	8.8	17.3	15.5	16.4
2	---	---	---	---	---	---	9.6	7.9	8.6	17.3	16.0	16.6
3	---	---	---	8.7	7.8	8.3	11.5	8.7	9.9	18.7	15.4	17.0
4	---	---	---	8.8	7.8	8.3	11.7	9.7	10.9	19.9	17.2	18.4
5	---	---	---	9.0	7.6	8.3	11.0	8.8	9.7	18.9	17.6	18.3
6	---	---	---	10.4	8.3	9.4	12.5	9.7	10.8	18.1	16.3	17.4
7	---	---	---	11.9	9.3	10.6	12.6	11.4	12.0	17.7	14.8	16.4
8	---	---	---	12.7	10.0	11.4	12.6	10.0	11.2	17.4	16.2	16.8
9	---	---	---	13.1	10.4	11.8	12.3	10.5	11.1	16.3	15.5	16.1
10	---	---	---	13.7	11.3	12.5	12.0	9.0	10.4	15.6	14.6	15.0
11	---	---	---	12.8	10.9	12.0	13.4	10.7	12.0	17.1	14.1	15.4
12	---	---	---	12.6	11.2	11.8	13.3	11.6	12.5	19.0	16.0	17.3
13	---	---	---	11.7	9.8	10.6	12.5	9.7	10.7	19.8	17.4	18.6
14	---	---	---	10.7	8.8	9.8	11.5	8.8	10.2	20.5	18.8	19.7
15	---	---	---	10.7	9.2	9.9	11.5	9.1	10.4	20.5	18.7	19.5
16	---	---	---	10.1	8.7	9.5	11.8	10.6	11.2	18.7	14.3	16.6
17	---	---	---	9.8	7.3	8.5	13.4	10.9	12.1	14.3	12.3	13.3
18	---	---	---	9.8	7.8	8.8	12.9	10.8	11.9	14.6	13.1	13.8
19	---	---	---	10.3	9.2	9.7	12.4	10.1	11.2	16.7	13.6	14.9
20	---	---	---	11.6	9.1	10.3	12.8	10.3	11.5	16.4	14.9	15.4
21	---	---	---	11.7	9.9	10.7	14.5	11.8	12.9	15.4	13.6	14.5
22	---	---	---	10.5	8.8	9.5	16.2	12.8	14.3	16.4	14.0	15.2
23	---	---	---	9.1	8.5	8.7	16.3	14.3	15.0	17.0	14.1	15.6
24	---	---	---	9.1	7.9	8.4	14.7	12.6	13.8	17.7	14.5	16.1
25	---	---	---	9.7	7.6	8.6	15.8	13.6	14.6	18.7	15.5	17.0
26	---	---	---	9.2	8.8	9.0	---	---	---	19.7	16.6	18.1
27	---	---	---	10.6	8.8	9.7	---	---	---	20.9	18.5	19.6
28	---	---	---	10.1	8.4	9.0	---	---	---	22.6	20.5	21.5
29	---	---	---	8.6	7.5	8.1	---	---	---	24.3	21.5	22.8
30	---	---	---	8.3	6.8	7.5	17.2	14.6	15.9	24.0	20.9	22.4
31	---	---	---	8.9	6.6	7.7	---	---	---	21.9	18.1	19.9
MONTH	---	---	---	---	---	---	---	---	---	24.3	12.3	17.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.6	16.7	18.1	---	---	---	28.5	23.1	25.8	23.6	18.2	20.8
2	19.5	16.4	17.9	---	---	---	28.3	22.6	25.2	22.6	18.9	20.6
3	20.0	16.3	18.2	---	---	---	27.2	20.1	23.6	20.6	18.2	19.4
4	20.9	17.4	19.1	---	---	---	28.5	20.4	24.1	21.5	18.0	19.4
5	19.8	17.7	18.7	---	---	---	30.7	20.9	25.6	21.2	17.7	19.3
6	18.5	16.9	17.5	---	---	---	31.0	22.6	26.4	20.7	17.7	19.2
7	19.1	15.5	17.4	---	---	---	29.6	19.9	24.9	21.2	17.7	19.4
8	20.5	16.6	18.5	---	---	---	30.7	18.3	25.4	21.7	17.8	19.6
9	21.8	18.1	20.0	---	---	---	---	---	---	19.4	17.2	18.4
10	---	---	---	---	---	---	---	---	---	18.3	16.0	17.0
11	---	---	---	---	---	---	---	---	---	18.0	15.5	16.7
12	---	---	---	---	---	---	---	---	---	18.2	15.5	16.9
13	---	---	---	---	---	---	22.8	17.4	19.8	19.8	16.3	18.0
14	---	---	---	---	---	---	27.5	16.8	21.9	19.8	16.4	18.3
15	---	---	---	---	---	---	27.4	18.9	22.9	19.7	16.8	18.3
16	---	---	---	---	---	---	26.7	19.6	22.8	17.7	16.1	16.8
17	---	---	---	---	---	---	23.0	17.0	19.9	18.3	15.7	16.9
18	---	---	---	---	---	---	26.2	19.0	22.1	18.7	15.5	17.1
19	---	---	---	---	---	---	25.8	18.6	22.0	18.5	15.3	17.1
20	---	---	---	---	---	---	25.2	19.8	22.5	18.6	15.8	17.2
21	---	---	---	---	---	---	26.7	20.8	23.6	18.1	15.2	16.6
22	---	---	---	---	---	---	26.9	21.9	24.0	17.3	14.3	15.8
23	---	---	---	---	---	---	24.5	19.3	21.8	16.8	14.9	15.8
24	---	---	---	---	---	---	25.1	19.1	21.9	16.4	13.4	14.9
25	---	---	---	---	---	---	25.0	18.7	21.7	16.0	12.9	14.5
26	---	---	---	---	---	---	26.1	19.0	22.4	16.0	12.9	14.5
27	---	---	---	28.3	21.9	25.0	26.0	19.7	22.4	16.6	13.4	14.9
28	---	---	---	29.0	22.0	25.4	27.1	19.6	23.0	16.8	13.4	15.0
29	---	---	---	29.8	22.7	26.0	23.9	18.8	21.0	15.5	14.7	15.1
30	---	---	---	30.4	22.8	26.6	23.6	16.4	19.6	16.6	15.4	16.0
31	---	---	---	30.8	23.0	26.9	24.4	17.4	20.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	23.6	12.9	17.3