

Water-Data Report 2011

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM

Upper Gila Basin
Upper Gila-Mangas Subbasin

LOCATION.--Lat 32°38'53", long 108°50'43" referenced to North American Datum of 1927, in SE ¼ SW ¼ sec.18, T.19 S., R.19 W., Grant County, NM, Hydrologic Unit 15040002, on left bank at head of canyon 1.4 mi downstream from Blue Creek 10 mi east of Virden and 16 mi upstream from New Mexico-Arizona State line.

DRAINAGE AREA.--3,203 mi², excluding Animas basin near Lordsburg.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May to Nov. 1914, Mar. to Sept. 1915, July 1927 to current year. July 1927 to May 1931 monthly discharge only, published in WSP 1313, computed as sum of flow at Virden Bridge, 9 mi downstream, and in Sunset Canal. Published as "Gila River near Duncan, Ariz.," 1914-15 and as "Gila River at Fuller's Ranch, near Duncan, Ariz.," 1931-38.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1929, 1931-32(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,875 ft above sea level, from river-profile map. May 11, 1914, to Sept. 30, 1915, at site 6 mi downstream, 1,000 ft upstream from intake of Sunset Canal. June 1 to July 7, 1931, nonrecording gage at present site and datum. Since Apr. 18, 1980, supplementary gage on left bank 800 ft downstream at same datum. Since June 1980, crest-stage gages at supplementary gage site. Since Nov. 1990, water-stage recorder at supplementary gage (MANU).

REMARKS.--Records good except for discharges above 300 ft³/s, which are fair. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,700 ft³/s, Dec. 19, 1978, gage height, 29.00 ft, from rating curve extended above 38,000 ft³/s, on basis of slope-area measurement of peak flow; minimum, 1 ft³/s, July 14, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 740 ft³/s, Aug. 14, 2011 at 2045, gage height, 6.43 ft; minimum daily discharge, 1.7 ft³/s July 8, 2011.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	76	68	97	107	87	87	47	41	14	2.3	3.2	77
2	74	67	95	106	91	89	41	39	13	2.2	9.2	65
3	69	65	97	104	90	82	43	38	13	2.1	11	73
4	66	65	87	102	91	79	56	42	12	2.2	12	75
5	64	65	83	100	95	77	59	44	11	2.3	11	80
6	61	63	82	100	95	78	58	41	10	2.1	11	85
7	62	63	93	100	93	77	68	43	9.9	2.0	9.7	72
8	58	67	95	99	92	73	73	40	9.1	1.7	8.6	65
9	55	70	94	97	89	73	75	36	8.8	1.8	8.1	60
10	55	71	94	97	88	77	79	34	8.2	2.0	6.8	59
11	56	73	93	97	90	81	82	32	7.9	12	7.3	60
12	55	75	92	96	91	82	79	30	7.4	e9.5	73	60
13	54	71	89	96	92	83	75	28	6.6	e3.0	249	63
14	51	72	86	97	92	80	62	27	6.1	e2.6	430	63
15	50	78	81	96	90	72	51	26	5.7	e2.7	469	129
16	49	77	81	95	90	71	49	25	5.3	2.9	e361	106
17	50	74	83	96	90	69	47	25	4.9	2.7	e238	e110
18	54	72	85	94	86	62	54	22	4.7	2.9	e284	e100
19	55	70	88	89	81	60	59	22	4.3	3.1	370	e91
20	54	70	90	90	76	61	55	22	4.1	2.9	412	e75
21	53	71	93	88	78	65	48	24	3.9	2.8	361	65
22	52	73	94	84	78	72	43	23	3.6	2.9	310	61
23	65	79	96	74	78	70	42	27	3.3	2.8	e287	59
24	68	81	97	71	77	65	43	29	3.1	3.1	e292	56
25	69	84	99	84	71	55	52	29	2.9	3.1	e222	53
26	66	87	100	85	71	57	54	25	2.7	3.4	154	50
27	75	88	101	85	78	54	50	21	2.5	3.5	143	46
28	72	91	100	86	86	57	49	19	2.3	3.4	132	45
29	68	93	98	80	---	64	43	18	e2.3	3.3	115	37
30	70	95	103	82	---	61	37	17	2.4	3.1	89	35
31	67	---	106	84	---	56	---	14	---	2.9	80	---
Total	1,893	2,238	2,872	2,861	2,406	2,189	1,673	903	195.0	99.3	5,168.9	2,075
Mean	61.1	74.6	92.6	92.3	85.9	70.6	55.8	29.1	6.50	3.20	167	69.2
Max	76	95	106	107	95	89	82	44	14	12	469	129
Min	49	63	81	71	71	54	37	14	2.3	1.7	3.2	35
Ac-ft	3,750	4,440	5,700	5,670	4,770	4,340	3,320	1,790	387	197	10,250	4,120
Cfsm	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.01	0.00	0.00	0.05	0.02
In.	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.01	0.00	0.00	0.06	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	155	133	237	305	379	414	269	144	48.2	74.1	216	200
Max	1,667	1,040	2,485	4,158	3,402	1,464	1,138	977	298	366	1,750	1,507
(WY)	(1973)	(1995)	(1979)	(1993)	(2005)	(1973)	(1973)	(1992)	(1992)	(1986)	(2006)	(1975)
Min	5.39	34.9	47.6	64.0	61.1	45.1	27.7	13.5	4.43	3.20	8.75	4.89
(WY)	(1957)	(1957)	(1957)	(1981)	(1971)	(1971)	(1955)	(1956)	(1956)	(2011)	(2009)	(1953)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1932 - 2011	
Annual total	120,843		24,573.2			
Annual mean	331		67.3		210	
Highest annual mean					746	1993
Lowest annual mean					43.1	1956
Highest daily mean	2,450	Jan 23	469	Aug 15	33,100	Dec 19, 1978
Lowest daily mean	24	Jun 28	1.7	Jul 8	1.7	Jul 11, 1956
Annual seven-day minimum	30	Sep 14	2.0	Jul 4	2.0	Sep 26, 1956
Annual runoff (ac-ft)	239,700		48,740		151,900	
Annual runoff (cfsm)	0.103		0.021		0.065	
Annual runoff (inches)	1.40		0.29		0.89	
10 percent exceeds	917		97		441	
50 percent exceeds	114		67		92	
90 percent exceeds	50		3.4		22	

