Water-Data Report 2012

09447000 EAGLE CREEK ABOVE PUMPING PLANT, NEAR MORENCI, AZ

Upper Gila Basin
Upper Gila-San Carlos Reservoir Subbasin

LOCATION.--Lat 33°03′52″, long 109°26′30″ referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.23, T.4 S., R.28 E., Greenlee County, AZ, Hydrologic Unit 15040005, on right bank 2 mi upstream from Freeport McMoRan Copper and Gold Inc. pumping plant, 5 mi west of Morenci, and 12 mi upstream from mouth.

DRAINAGE AREA.--622 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Apr. 1944 to current year.

REVISED RECORDS.--WSP 1850-C: 1966. WDR AZ-88-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,673.5 ft above sea level. Oct. 25, 1984, to Mar. 6, 1986, at site 1 mi upstream at datum 24.1 ft higher. Prior to Oct. 25, 1984, at various sites within 1 mi upstream from present site at different datums. Aug. 23, 1950, to Aug. 1, 1981, and since Mar. 6, 1984, supplementary gages at various sites within 1 mi upstream from present site at different datums. Feb. 7, 1993, to July 2, 1993, on right bank at different datum.

REMARKS.--Records fair except estimated daily discharges, which are poor. Diversions above station for irrigation of about 500 acres, mostly above Willow Creek. Water from Black River was pumped into Eagle Creek basin, 52 mi upstream from this station, and water was pumped from wells into Eagle Creek near Double Circle Ranch below Willow Creek. The monthly quantities pumped are shown in the table below. Diversion by pumping for industrial and municipal use in and near Morenci and Clifton are made from Eagle Creek, 3 mi downstream from this station and from San Francisco River near Clifton. Monthly quantities diverted are shown in the table below.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--68 years, 62.9 ft^3/s, 45,538 acre-ft/yr (mean of monthly discharge); median of monthly mean discharges, 37.8 ft^3/s, 27,366 acre-ft/yr. (unadjusted).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,800 ft^3/s Jan. 18, 1993, on basis of slope-area measurement; minimum, 2.9 ft^3/s June 25, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 628 ft^3/s Sept. 5, 2012 at 2015, gage height, 4.23 ft; minimum daily discharge, 18 ft^3/s Mar 26, 27; Apr. 2, 4, and 5; and Aug. 11 to 14 2012.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	25	28	29	29	26	26	19	24	25	25	24	22
2	24	29	31	29	26	27	18	24	24	26	22	21
3	31	29	30	29	27	25	19	24	24	27	32	22
4	30	30	30	29	28	26	18	24	24	42	23	31
5	32	30	29	28	28	25	18	23	24	92	24	46
6	31	32	28	27	29	26	20	23	25	70	22	43
7	30	32	30	27	29	26	22	23	25	64	21	93
8	29	33	30	27	29	27	23	23	25	62	21	63
9	29	32	29	27	29	26	24	25	25	e38	21	50
10	28	31	29	27	29	25	24	27	26	e28	20	44
11	28	30	29	27	29	25	25	27	28	27	18	41
12	29	30	31	27	29	26	25	26	28	25	18	41
13	29	30	36	27	29	e26	26	25	27	24	18	40
14	29	30	39	27	30	e26	27	24	27	23	18	39
15	28	30	31	26	30	e26	27	24	27	23	21	36
16	28	30	26	32	31	26	27	24	27	27	22	34
17	25	29	25	32	31	26	25	23	26	29	31	33
18	22	29	26	29	31	27	24	23	26	25	38	29
19	22	30	41	27	30	27	24	23	26	24	31	30
20	22	30	34	27	30	25	24	22	26	23	27	30
21	23	30	29	27	29	23	23	23	25	25	29	28
22	25	30	27	27	30	22	23	23	25	27	33	27
23	25	30	25	27	29	21	23	23	25	28	34	27
24	25	31	25	27	28	19	23	25	26	31	36	27
25	25	32	26	28	28	19	23	25	26	27	32	27
26	27	32	27	27	28	18	23	24	27	25	55	27
27	28	29	28	27	27	18	24	25	27	24	57	27
28	28	23	29	27	27	19	23	25	27	31	35	28
29	29	25	29	26	28	19	23	25	26	47	29	29
30	29	28	29	26	---	19	23	24	26	48	26	29
31	28	---	30	26	---	19	---	24	---	30	23	---
Total	843	894	917	855	834	735	690	747	775	1,067	861	1,064
Mean	27.2	29.8	29.6	27.6	28.8	23.7	23.0	24.1	25.8	34.4	27.8	35.5
Max	32	33	41	32	31	27	27	27	28	92	57	93
Min	22	23	25	26	26	18	18	22	24	23	18	21
Ac-ft	1,670	1,770	1,820	1,700	1,650	1,460	1,370	1,480	1,540	2,120	1,710	2,110
Cfsm	0.04	0.05	0.05	0.04	0.05	0.04	0.04	0.04	0.04	0.06	0.04	0.06
In.	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.05	0.06	0.05	0.06
(*)	341.10	381.40	635.20	575.70	624.40	466.60	657.36	1,082.80	1,169.80	1,162.74	1,487.50	1,518.50	1,439.50	1537.30
(**)	1387.41	1286.71	1197.68	1130.47	1136.28	1152.52	1032.29	1291.87	1203.54	1141.95	1159.13	1130.68	1144.74	1331.01

(*) Pumpage, in acre-feet, into Eagle Creek from Eagle Creek wells.

(**) Pumpage, in acre-feet, into Clifton Morenci, from San Francisco River and Eagle Creek.

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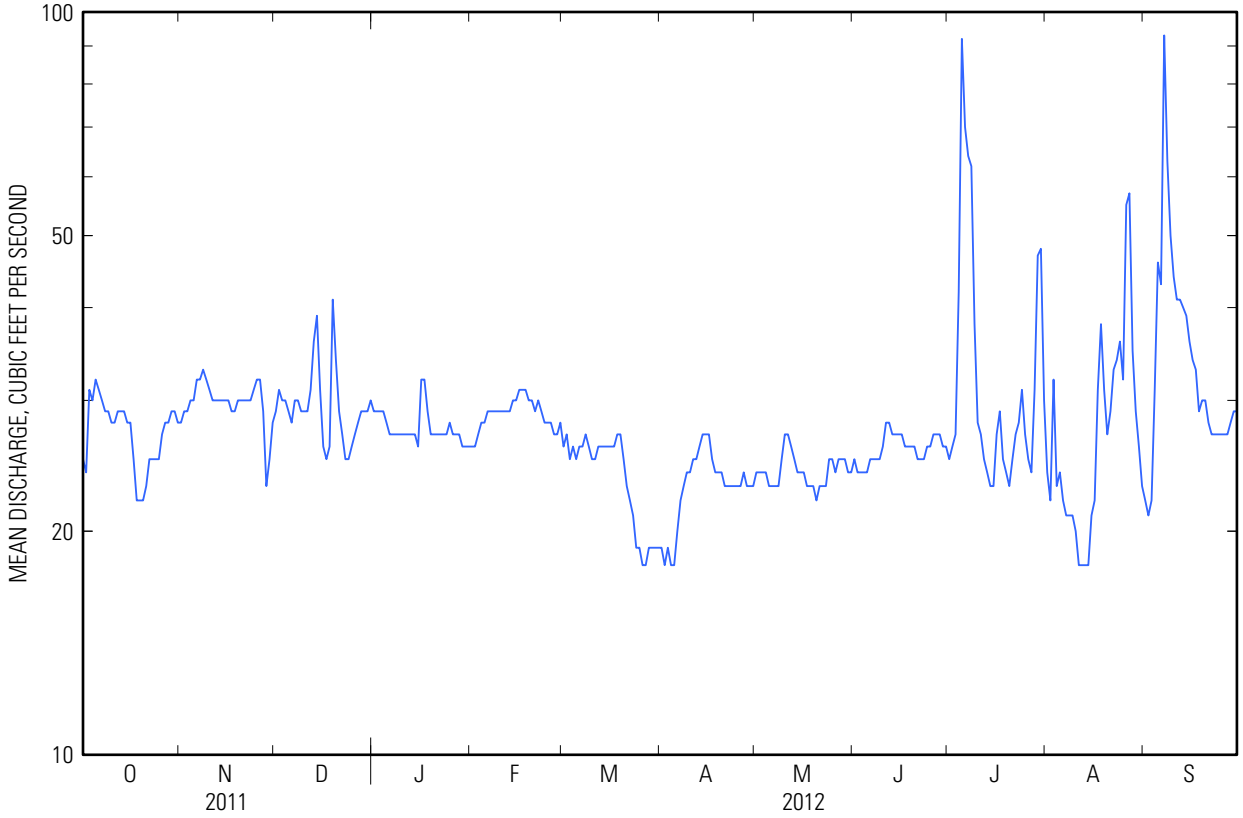
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	53.6	35.0	72.5	158	126	101	50.0	31.7	25.1	35.9	53.6	33.7
Max	1,171	228	884	4,440	1,755	709	214	83.9	49.4	98.4	255	114
(WY)	(1984)	(1979)	(1966)	(1993)	(1993)	(1991)	(1983)	(1992)	(1992)	(1964)	(2006)	(1958)
Min	13.0	10.3	11.2	10.5	10.7	14.2	10.8	9.09	5.34	14.4	17.4	12.7
(WY)	(1968)	(1968)	(1953)	(1959)	(1959)	(1946)	(1946)	(1946)	(1946)	(2009)	(2009)	(1953)

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1945 - 2012	
Annual total	10,004		10,282			
Annual mean	27.4		28.1		64.5	
Highest annual mean					568	1993
Lowest annual mean					16.8	1953
Highest daily mean	84	Jul 22	93	Sep 7	29,000	Jan 18, 1993
Lowest daily mean	19	Jun 23	18	Mar 26	3.2	Jun 25, 1982
Annual seven-day minimum	20	Jun 18	19	Mar 30	3.7	Jun 25, 1946
Annual runoff (ac-ft)	19,840		20,390		46,700	
Annual runoff (cfsm)	0.044		0.045		0.104	
Annual runoff (inches)	0.60		0.61		1.41	
10 percent exceeds	32		32		78	
50 percent exceeds	26		27		28	
90 percent exceeds	21		23		15