GILA RIVER BASIN

09517000 HASSAYAMPA RIVER NEAR ARLINGTON, AZ

LOCATION.--Lat 33°20'50", long 112°43'30", in NW$^1/_4$ sec.13, T.1 S., R.5 W., Maricopa County, Hydrologic Unit 15070103, at former U.S. Highway 80, 1.8 mi upstream from mouth and 2.8 mi northeast of Arlington.

DRAINAGE AREA.--1,471 mi^2.

PERIOD OF RECORD.--Water years 1961-77 (annual maximums only), October 1977 to September 1990 (discharge above 500 ft3/s only), October 1990 to current year.

REVISED RECORDS.--WDR AZ-81-1: 1969(M). WDR AZ-89-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 824.75 ft above sea level. Prior to Nov. 11, 1993 at datum 2.07 ft higher.

REMARKS.--Records include irrigation return flow past station. Small diversions above station for irrigation and livestock.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft^3/s Sept. 5, 1970, gage height, 8.40 ft, result of slope-area measurement of peak flow; no natural flow for most of time each year.

Annual peak discharges

Water year	Date	Annual peak discharge (ft^3/s)	Discharge codes	Water year	Date	Annual peak discharge (ft^3/s)	Discharge codes
1961	09-11-61	50	ES	1978	03-02-78	20,000	
1962	09-06-62	470		1979	11-11-78	3,300	
1963	08-00-63	1,930		1980	02-20-80	11,200	
1964	08-14-64	6,500		1983	09-30-83	3,300	
1965	02-07-65	3,000		1984	09-02-84	2,850	
1966	12-10-65	1,600		1985	12-28-84	372	
1967	09-05-67	5,270		1986	11-26-85	2,610	
1968	12-20-67	4,000		1987	10-10-86	404	
1969	09-15-69	500	ES	1988	11-01-87	2,800	
1970	09-05-70	[1]39,000		1989	08-11-89	1,510	
1971	08-11-71	1,230		1990	08-14-90	2,120	
1972	08-12-72	225		1991	03-02-91	7,010	
1973	10-07-72	12,300		1992	08-22-92	6,110	
1974	09-00-74	250		1993	01-08-93	11,400	
1975	00-00-75	0		1994	02-02-94	129	
1976	09-26-76	13,000		1995	02-15-95	3,900	
1977	10-24-76	4,300		1996	07-15-96	1,730	

[1]Highest since 1916.

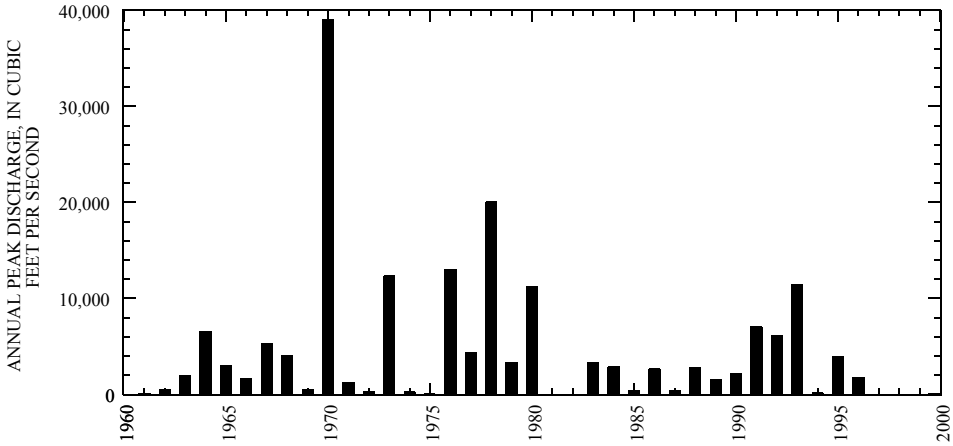
Discharge rating table developed December 1996

Gage height (ft)	Discharge (ft^3/s)	Gage height (ft)	Discharge (ft^3/s)
6.0	189	10.0	3,270
7.0	580	11.0	4,720
8.0	1,210	12.0	6,450
9.0	2,110	12.8	8,060

Magnitude and probability of instantaneous peak flow based on period of record 1961-80, 1983-96

Discharge, in ft^3/s, for indicated recurrence interval in years, and exceedance probablility, in percent					
2	**5**	**10**	**25**	**50†**	**100†**
50%	**20%**	**10%**	**4%**	**2%**	**1%**
3,010	7,340	12,000	20,500	29,200	40,500
Weighted skew	(logs) =	0.22			
Mean	(logs) =	3.50			
Standard dev.	(logs) =	0.45			

† Reliability of values in column is uncertain, and potential errors are large.

Basin characteristics

Main channel slope (ft/mi)	Stream length (mi)	Mean basin elevation (ft)	Forested area (percent)	Soil index	Mean annual precipitation (in)	Rainfall intensity, 24-hour 2-year (in)	Rainfall intensity, 24-hour 50-year (in)
39.9	93.6	3,010	2.7	2.0	15.9	1.9	4.0