GILA RIVER BASIN

09498800 TONTO CREEK NEAR GISELA, AZ

LOCATION.--Lat 34°07'44", long 111°15'17", in NE$^{1}/_{4}$ sec.18, T.9 N., R.11 E., Gila County, Hydrologic Unit 15060105, in Tonto National Forest, on left bank 0.2 mi upstream from Houston Creek, and 1.5 mi northeast of Gisela.
DRAINAGE AREA.--430 mi^{2}.

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
1965	01-07-65	12,600		1971	08-19-71	3,300	
1966	12-22-65	30,000		1972	10-17-71	2,750	
1967	12-07-66	8,280		1973	10-19-72	26,500	
1968	01-28-68	14,800		1974	08-06-74	2,400	
1969	01-26-69	10,100		1975	10-29-74	1,860	
1970	09-05-70	38,000					

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)	50-year (in)
126	29.6	5,810	79.0	3.0	24.7	2.8	5.5

GILA RIVER BASIN

09498800 TONTO CREEK NEAR GISELA, AZ--Continued

MEAN MONTHLY AND ANNUAL DISCHARGES 1966-75

MONTH	MAXIMUM (FT3/S)	MINIMUM (FT3/S)	MEAN (FT3/S)	STANDARD DEVIATION (FT3/S)	COEFFICIENT OF VARIATION	PERCENT OF ANNUAL RUNOFF
OCTOBER	761	7.8	118	238	2.0	8.2
NOVEMBER	326	11	67	97	1.5	4.6
DECEMBER	1,970	16	344	603	1.8	23.9
JANUARY	602	15	182	227	1.2	12.7
FEBRUARY	753	15	168	248	1.5	11.7
MARCH	1,160	15	242	343	1.4	16.8
APRIL	568	11	132	186	1.4	9.2
MAY	235	6.8	46	68	1.5	3.2
JUNE	39	3.3	14	9.6	0.68	1.0
JULY	49	8.3	22	13	0.59	1.5
AUGUST	103	6.7	40	30	0.77	2.7
SEPTEMBER	481	8.1	64	147	2.3	4.5
ANNUAL	377	24	120	112	0.93	100

MAGNITUDE AND PROBABILITY OF ANNUAL LOW FLOW
BASED ON PERIOD OF RECORD 1966-75

PERIOD (CONSECUTIVE DAYS)	DISCHARGE, IN FT3/S, FOR INDICATED RECURRENCE INTERVAL, IN YEARS, AND NON-EXCEEDANCE PROBABILITY, IN PERCENT					
	2 50%	5 20%	10 10%	20 5%	50# 2%	100# 1%
1	5.7	3.4	2.5	1.9	1.3	1.0
3	5.8	3.6	2.6	2.0	1.4	1.1
7	6.1	3.8	2.8	2.1	1.5	1.1
14	6.8	4.2	3.0	2.3	1.5	1.2
30	8.0	5.1	3.6	2.6	1.7	1.2
60	9.6	6.6	5.0	3.9	2.7	2.1
90	13	9.2	7.4	6.1	4.6	3.8
120	15	11	9.2	7.7	6.2	5.3
183	20	15	12	10	8.4	7.1

MAGNITUDE AND PROBABILITY OF INSTANTANEOUS PEAK FLOW
BASED ON PERIOD OF RECORD 1965-75

DISCHARGE, IN FT3/S, FOR INDICATED RECURRENCE INTERVAL IN YEARS, AND EXCEEDANCE PROBABILITY, IN PERCENT					
2 50%	5 20%	10 10%	25 4%	50# 2%	100# 1%
8,810	21,500	33,800	54,200	73,200	95,500

WEIGHTED SKEW (LOGS)= -0.14
MEAN (LOGS)= 3.93
STANDARD DEV. (LOGS)= 0.47

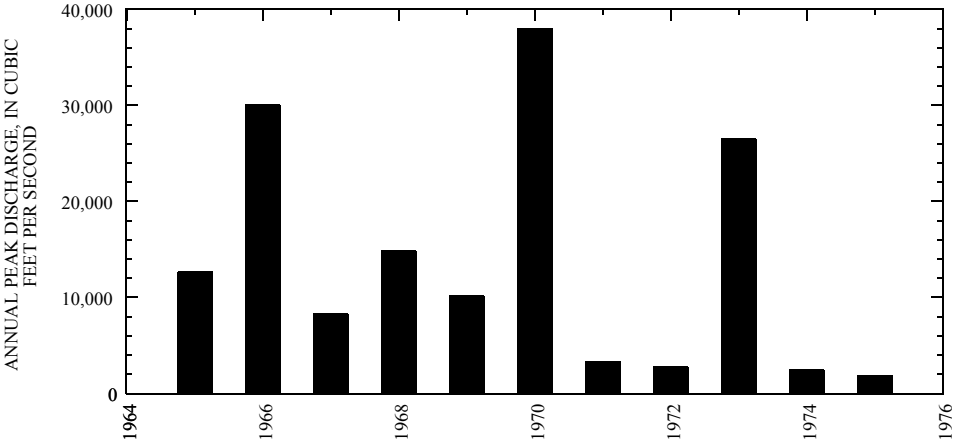
MAGNITUDE AND PROBABILITY OF ANNUAL HIGH FLOW
BASED ON PERIOD OF RECORD 1966-75

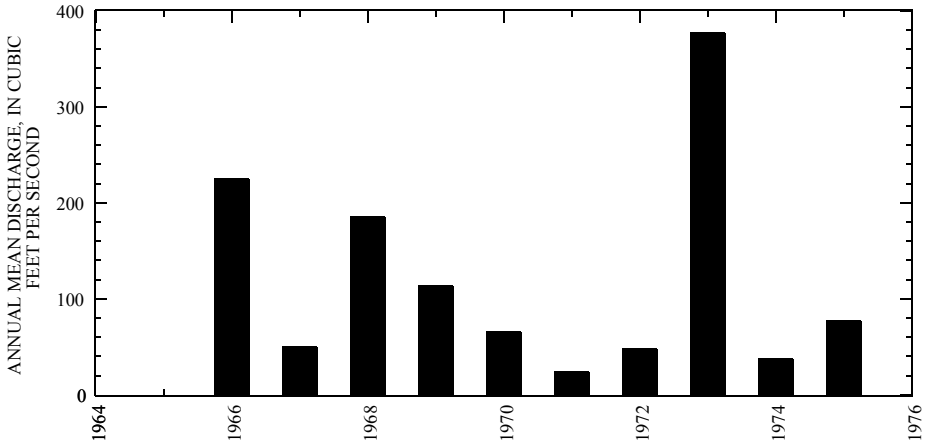
PERIOD (CONSECUTIVE DAYS)	DISCHARGE, IN FT3/S, FOR INDICATED RECURRENCE INTERVAL, IN YEARS, AND EXCEEDANCE PROBABILITY, IN PERCENT					
	2 50%	5 20%	10 10%	25# 4%	50# 2%	100# 1%
1	3,400	8,140	12,400	18,900	24,400	30,500
3	2,090	4,690	6,930	10,300	13,100	16,100
7	1,160	2,360	3,290	4,570	5,580	6,610
15	703	1,420	2,050	3,020	3,880	4,850
30	436	962	1,480	2,380	3,250	4,330
60	294	682	1,060	1,720	2,350	3,120
90	234	531	814	1,280	1,720	2,250

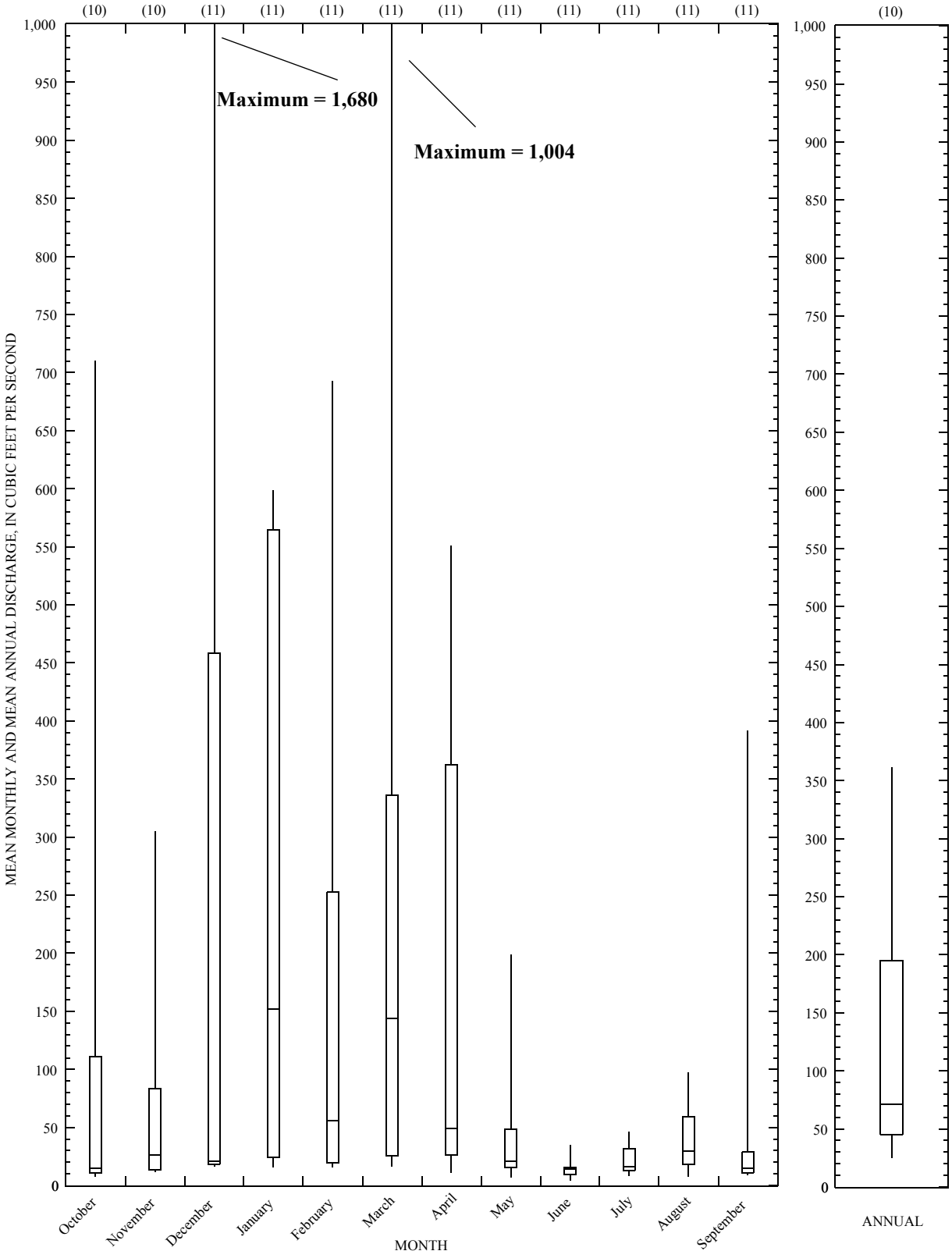
DURATION TABLE OF DAILY MEAN FLOW FOR PERIOD OF RECORD 1966-75

DISCHARGE, IN FT3/S, WHICH WAS EQUALED OR EXCEEDED FOR INDICATED PERCENT OF TIME																
1%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%	99.5%	99.9%
1,740	454	214	130	85	41	27	21	17	14	11	8.4	6.2	4.3	3.7	2.2	1.7

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


ANNUAL PEAK DISCHARGE, IN CUBIC FEET PER SECOND
40,000
30,000
20,000
10,000
0
1964
1966
1968
1970
1972
1974
1976


ANNUAL MEAN DISCHARGE, IN CUBIC FEET PER SECOND
400
300
200
100
0
1964
1966
1968
1970
1972
1974
1976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(11)
(11)
(10)
Maximum = 1,680
Maximum = 1,004
MEAN MONTHLY AND MEAN ANNUAL DISCHARGE, IN CUBIC FEET PER SECOND
1,000
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
October
November
December
January
February
March
April
May
June
July
August
September
MONTH
ANNUAL