GILA RIVER BASIN

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ

LOCATION.--Lat 33°13'45", long 112°46'00", in SE1/4NE1/4 sec.28, T.2 S., R.5 W., Maricopa County, Hydrologic Unit 15070101, at Gillespie Dam, 8 mi downstream from Hassayampa River. Gila Bend Canal diverts from left end, and Enterprise Canal diverts from right end, of Gillespie Dam.

DRAINAGE AREA.--49,650 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1935 to Nov. 1939 (monthly discharge only published in WSP 1313), Dec. 1939 to Sept. 1971 (published with records for sta 09519500, Gila River below Gillespie Dam), 1972 and 1973 (water year estimates only, listed in REMARKS for sta 09519500), Oct. 1973 to current year. Low-flow records prior to Oct. 1970 are not equivalent as leakage less than 5 ft^3/s is not included.

09518500. Gila Bend Canal: May 1935 to Sept. 1971, Oct. 1973 to current year (since Oct. 1941, monthly discharge only). Published as "Gillespie Canal" prior to 1951.

09519000. Enterprise Canal: June 1935 to Sept. 1939 (discharge measurements and monthly estimates only), Oct. 1939 to Sept. 1971, Apr. 1974 to current year (since Oct. 1941, monthly discharge only).

GAGE.--Gila Bend Canal: Water-stage recorder 200 ft downstream from headgates. Enterprise Canal: Water-stage recorder 600 ft downstream from intake at dam.

REMARKS.--Records fair, no estimated daily discharges. Record is obtained by combining, on a daily basis, the flows of Gila Bend Canal, Enterprise Canal, and Gila River below Gillespie Dam.

Many large diversions above station for irrigation, municipal, and industrial use. Flow of Gila River and tributaries above this station is regulated: by San Carlos Reservoir on Gila River - capacity, 1,073,600 acre-ft; by a series of reservoirs on Salt River - capacity, 1,755,000 acre-ft; by Bartlett and Horseshoe Reservoirs on Verde River - capacity, 317,700 acre-ft; and by Waddell Dam (1992) on Agua Fria River - capacity, 816,000 acre-ft.

AVERAGE DISCHARGE.--69 years, 492 ft^3/s, 356,500 acre-ft/yr; median of yearly mean discharges, 140 ft^3/s, 101,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 130,000 ft^3/s, estimated, Jan. 9, 1993; no flow except for possible leakage of less than 5 ft^3/s Nov. 24–27, 1966, July 14, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 233 ft^3/s, Dec. 1. Minimum daily discharge, 20 ft^3/s, Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	79	233	139	133	168	71	50	44	56	65	48
2	55	92	219	155	134	156	110	50	42	64	69	43
3	72	104	160	158	164	158	207	60	63	55	56	38
4	74	75	134	174	180	151	171	52	57	46	70	34
5	64	74	121	204	145	167	224	50	54	42	76	41
6	70	97	114	189	116	142	157	49	62	42	87	40
7	95	92	123	171	95	121	117	52	74	62	75	20
8	106	117	137	138	89	125	109	54	84	30	52	38
9	90	72	135	156	134	139	126	55	96	63	46	41
10	86	66	128	141	149	133	139	61	86	43	58	57
11	91	60	106	154	138	111	129	72	98	40	45	65
12	109	66	120	166	121	121	117	71	91	31	37	52
13	90	66	150	149	142	98	86	72	54	40	33	56
14	84	61	157	126	167	94	83	68	82	34	50	56
15	69	67	190	108	170	135	103	58	81	71	58	72
16	61	64	176	129	180	149	99	66	84	85	83	70
17	53	66	169	136	118	139	95	77	93	129	80	76
18	33	71	160	137	127	140	111	71	111	132	58	74
19	51	73	123	154	125	143	130	80	117	113	43	77
20	52	71	94	144	141	145	126	69	84	99	50	94
21	73	69	96	148	150	119	89	73	107	76	51	86
22	79	97	79	154	151	111	74	63	104	81	47	64
23	89	195	110	142	194	122	65	75	110	51	49	78
24	88	190	124	157	172	116	104	72	103	66	66	97
25	68	148	144	161	142	82	129	75	73	50	60	103
26	58	140	162	153	164	84	118	70	51	40	46	84
27	68	144	149	162	169	77	88	66	45	41	43	73
28	66	213	156	142	162	83	68	66	51	52	65	76
29	78	225	176	126	156	83	51	62	51	53	55	84
30	89	203	145	119	---	62	48	56	56	57	46	84
31	92	---	130	131	---	58	---	56	---	53	44	---
TOTAL	2301	3157	4420	4623	4228	3732	3344	1971	2308	1897	1763	1921
MEAN	74.2	105	143	149	146	120	111	63.6	76.9	61.2	56.9	64.0
MAX	109	225	233	204	194	168	224	80	117	132	87	103
MIN	33	60	79	108	89	58	48	49	42	30	33	20
AC-FT	4560	6260	8770	9170	8390	7400	6630	3910	4580	3760	3500	3810
(*)	2340	707	5060	4480	4820	4720	3990	2190	3150	2670	2390	2120
(**)	899	831	904	922	883	934	892	954	901	824	859	902

CAL YR 2003 TOTAL 38748 MEAN 106 MAX 772 MIN 22 AC-FT 76860 (*) 37620 (**) 8120
WTR YR 2004 TOTAL 35665 MEAN 97.4 MAX 233 MIN 20 AC-FT 70740 (*) 39030 (**) 10710

(*) Diversions, in acre-feet, to Gila Bend Canal (09518500)
(**) Diversions, in acre-feet, to Enterprise Canal (09519000)

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ—CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Feb. 1926 to June 1927 and Mar. 1946 (partial-record station), Dec. 1950 to Sept. 1971, Dec. 1971 to June 1973 (partial-record station), Mar. 1974 to current year. Prior to Oct. 1967, published as 09519500, "Gila River below Gillespie Dam."

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Oct. 1964 to June 1968, Aug. to Sept. 1968, Feb. to Sept. 1969, Oct. 1970 to Sept. 1971, and Apr. 1974 to July 1981.

WATER TEMPERATURE: Dec. 1950 to Feb. 1968, May to Aug. 1969, Oct. 1970 to Sept. 1971, and Apr. 1974 to July 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, NTU (00076)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
DEC													
30...	1035	145	35	740	10.4	96	8.1	4930	21.0	9.4	630	930	214
APR													
01...	1020	73	52	737	8.2	95	8.1	6030	26.0	19.7	760	1100	251
MAY													
19...	0930	88	37	738	7.6	92	8.2	4820	30.0	22.3	700	1000	236

Date	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
DEC													
30...	213	96.0	96.0	13.0	10	730	297	362	<1	1080	1.8	690	3010
APR													
01...	241	111	111	11.0	12	900	327	399	<1	1270	2.0	870	3610
MAY													
19...	242	104	101	12.0	11	840	318	374	7	1200	1.9	810	3400

Date	Residue water, fltrd, tons/acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water unfltrd mg/L (71845)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Organic nitrogen, water, unfltrd mg/L (00605)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total nitrogen, water, unfltrd mg/L as NO3 (71887)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
DEC													
30...	4.41	3240	56	1.4	.77	.60	9.00	.80	1.00	10	46.0	18	E300k
APR													
01...	5.26	3870	72	.80	.13	.10	12.0	.70	.64	13	56.7	35	330
MAY													
19...	4.91	3610	61	1.4	.85	.66	12.0	.74	.62	13	59.3	42	E85k

Date	Antimony, water, fltrd, ug/L (01095)	Antimony, water, unfltrd ug/L (01097)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recoverable, ug/L (01007)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recoverable, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Boron, water, unfltrd recoverable, ug/L (01022)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, fltrd, ug/L (01030)
DEC													
30...	<1	8	8	13	56.0	68.0	<1	<1	2070	2070	<.5	<.5	<1
APR													
01...	<1	<1	6	6	70.0	82.0	<1	<1	2750	2770	<.5	<.5	<1
MAY													
19...	<1	<1	7	7	66.0	78.0	<1	<1	2370	2380	<.5	<.5	<1

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ—CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Chromium, water, unfltrd recoverable, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recoverable, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recoverable, ug/L (01051)	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recoverable, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recoverable, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recoverable, ug/L (01067)
DEC													
30...	3	<2	6	5	1450	<2	3	55	105	<.1	<.1	3	6
APR													
01...	4	<2	6	<2	1820	<2	<2	103	165	<.1	<.1	4	6
MAY													
19...	3	<2	6	<2	1460	<2	<2	76	154	<.1	<.1	4	6

Date	Selenium, water, fltrd, ug/L (01145)	Selenium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recoverable, ug/L (01077)	Strontium, water, unfltrd recoverable, ug/L (01082)	Thallium, water, fltrd, ug/L (01057)	Thallium, water, unfltrd ug/L (01059)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recoverable, ug/L (01092)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
DEC											
30...	1	<1	<1	<1	3440	<2	<2	6	14	54	7.0
APR											
01...	3	2	<1	<1	3920	<2	<2	<2	10	74	4.8
MAY											
19...	2	2	<1	<1	3850	<2	<2	<2	9	97	9.4

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
k -- Counts outside acceptable range