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, except for estimated daily discharges, which are poor. 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.--67 years, 123 ft^3/s, 364,400 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, 420 ft^3/s, Sept. 9. Minimum daily discharge, 25 ft^3/s, Aug. 15 and Aug. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	121	161	218	182	189	254	156	33	e124	64	41
2	92	136	166	218	191	198	192	122	71	e143	34	30
3	97	151	174	165	207	221	153	148	73	e132	42	49
4	98	109	159	153	196	188	145	90	82	e96	36	41
5	93	104	160	158	170	164	113	113	62	e80	30	38
6	93	90	203	173	153	190	120	115	61	e91	50	40
7	137	84	182	188	144	230	103	119	49	e71	41	32
8	137	83	192	163	155	243	140	99	43	e66	37	331
9	146	57	191	173	152	192	139	104	55	e75	45	420
10	144	58	190	170	176	173	139	103	49	e74	41	129
11	136	51	173	156	192	207	142	99	30	e64	39	108
12	136	49	184	160	204	179	142	96	52	e83	52	89
13	131	26	203	168	192	175	141	107	59	e70	38	100
14	130	30	204	178	180	205	130	77	78	e49	33	105
15	159	56	206	162	181	211	99	48	78	e198	25	120
16	140	86	207	165	182	180	114	79	78	e138	32	99
17	130	132	216	163	184	185	100	55	66	e153	47	93
18	126	122	203	171	187	206	99	56	61	e150	51	106
19	111	125	188	153	172	224	98	77	42	e103	53	83
20	111	107	192	169	188	212	98	92	38	89	49	55
21	138	132	188	184	174	196	99	80	34	98	39	66
22	164	135	172	151	171	214	97	111	52	101	39	60
23	168	152	170	184	163	199	98	97	28	98	48	68
24	137	132	194	190	170	191	114	92	53	60	40	64
25	128	142	198	162	204	218	133	99	60	71	45	63
26	77	148	182	180	198	213	131	99	70	64	62	49
27	110	152	149	194	169	179	114	128	94	47	50	48
28	94	150	125	197	190	166	127	112	e101	58	62	50
29	124	165	136	213	---	161	128	72	e106	49	49	51
30	98	161	145	184	---	185	149	91	e127	81	29	53
31	113	---	213	170	---	202	---	49	---	52	25	---
TOTAL	3789	3246	5626	5433	5027	6096	3851	2985	1885	2828	1327	2681
MEAN	122.2	108.2	181.5	175.3	179.5	196.6	128.4	96.29	62.83	91.23	42.81	89.37
MAX	168	165	216	218	207	243	254	156	127	198	64	420
MIN	77	26	125	151	144	161	97	48	28	47	25	30
AC-FT	7520	6440	11160	10780	9970	12090	7640	5920	3740	5610	2630	5320
(*)	6460	4230	2900	7060	6400	7510	6160	4940	2340	3410	1920	2860
(**)	778	747	875	855	647	1300	621	537	695	718	674	773

CAL YR 2001 TOTAL 53397 MEAN 146.3 MAX 288 MIN 26 AC-FT 105900 (*) 55310 (**) 7940
WTR YR 2002 TOTAL 44774 MEAN 122.7 MAX 420 MIN 25 AC-FT 88810 (*) 56210 (**) 9220

e Estimated

(*) 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 TEMPERATURES: 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 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT													
04...	0930	98	25	740	8.0	97	8.1	4630	26.0	22.7	520	790	176
MAR													
22...	1145	219	15	741	8.8	95	8.0	4570	29.5	16.7	530	800	183
APR													
25...	1125	142	41	739	7.8	94	8.1	5630	33.5	22.0	630	940	221
AUG													
27...	1050	54	30	740	8.8	114	8.2	4840	44.0	26.0	610	870	201

Date	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT													
04...	179	84.0	84.0	11.0	11	680	262	320	<1	950	1.7	640	50
MAR													
22...	186	84.0	90.0	11.0	10	640	277	337	<1	940	1.6	620	23
APR													
25...	231	93.0	100	9.70	12	830	300	366	<1	1210	1.9	800	62
AUG													
27...	207	90.0	92.0	10.0	11	730	261	287	16	1120	1.6	710	67

Date	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4) (71845)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, TOTAL (MG/L AS NO3) (71887)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)
OCT													
04...	4.04	2970	2700	.90	.03	.04	10.0	.87	11	48.2	.79	24	E400k
MAR													
22...	3.98	2930	2650	1.0	.09	.12	10.0	.91	11	48.7	.94	20	E77k
APR													
25...	4.99	3670	3350	1.3	.22	.28	13.0	1.1	14	63.3	.42	14	E67k
AUG													
27...	4.47	3290	3090	1.4	.04	.05	10.0	1.4	11	50.5	.41	22	E73

Date	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BORON, DIS-SOLVED (UG/L AS B) (01020)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)
OCT													
04...	300	<1	<1	7	11	58.0	67.0	<1	2	2030	2120	<.5	2.0
MAR													
22...	170	<1	<1	6	6	56.0	65.0	<1	<1	1820	1940	<.5	<.5
APR													
25...	E270k	<1	<1	13	13	70.0	77.0	<2	<1	2620	2610	<.5	<.5
AUG													
27...	--	<1	<1	10	12	57.0	72.0	<1	<1	2280	2290	<.5	<.5

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

WATER-QUALITY RECORDS

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
OCT													
04...	<1	3	<2	5	2	1150	<2	2	13	70	<.10	<.1	4
MAR													
22...	1	3	<2	3	3	559	<2	<2	52	81	<.10	<.1	4
APR													
25...	<1	3	<2	5	6	1580	<2	<2	91	168	<.10	<.1	4
AUG													
27...	<1	2	<2	4	<2	800	<2	<2	3	84	<.10	<.1	3

Date	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	THAL-LIUM, DIS-SOLVED (UG/L AS TL) (01057)	THAL-LIUM, TOTAL (UG/L AS TL) (01059)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT												
04...	4	2	2	<1	2	3050	<2	<2	7	7	44	10.1
MAR												
22...	4	9	9	<1	<1	3060	<2	<2	7	7	22	7.6
APR												
25...	4	13	13	<1	1	4150	<2	<2	10	11	60	20.7
AUG												
27...	3	10	11	<1	<1	3540	<2	<2	2	10	41	4.5

Remark codes used in this report:
< -- Less than
E -- Estimated value
Value qualifier codes used in this report:
k -- Counts outside acceptable range