09484000 SABINO CREEK NEAR TUCSON, AZ

LOCATION.--Lat 32°19'00", long 110°48'35", in SE1/4NE1/4 sec. 9, T.13 S., R.15 E., Pima County, Hydrologic Unit 15050302, on left bank, 30 ft upstream from Lower Sabino Dam, 0.5 mi north of Coronado National Forest boundary and 12 mi northeast of Tucson City Hall.

DRAINAGE AREA.--35.5 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1904 to June 1912 (monthly discharge only); June 1932 to Sept. 1974 (continuous-record station); Oct. 1974 to Sept. 1989 (crest-stage partial-record station); Oct. 1989 to current year.

REVISED RECORDS.--WSP 1213: 1938, 1946. WSP 1283: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,720 ft above sea level, from topographic map. July 1904 to June 1912, water-stage recorder and sharp-crested weir at site 0.7 mi upstream at different datum. June 1932 to Sept. 1974 (water-stage recorder) and Oct. 1974 to Aug. 1981 (crest-stage gage) at site 1,000 ft upstream at different datum.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. No diversion above station except for domestic supply.

AVERAGE DISCHARGE.--60 years (water years 1905–11, 1933–74, 1990–2000), 14.6 ft^3/s, 10,580 acre-ft/yr; median of yearly mean discharges 8.9 ft^3/s, 6,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,400 ft^3/s July 15, 1999, gage height 8.25 ft from highwater marks, from rating curve extended above 3,000 ft^3/s on basis of slope-area measurement at gage height 9.65 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 13	1300	501	2.14	Aug. 23	1945	*3,140	*4.43
Mar. 16	2015	350	1.93	Aug. 26	1650	1,480	3.21
July 22	2115	822	2.55	Sept. 9	1815	938	2.68
July 24	2005	2,470	4.00	Sept. 25	0500	201	1.69
Aug. 18	1715	248	1.77				

Minimum daily discharge, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.45	0.00	0.00	e0.46	0.55	25	6.4	0.54	0.00	0.00	11	7.1
2	0.45	0.00	0.00	e0.45	0.60	21	6.4	0.53	0.00	0.00	3.6	3.6
3	0.38	0.00	0.00	e0.45	0.74	19	6.0	0.50	0.00	0.00	1.1	1.9
4	0.36	0.00	0.00	e0.44	0.74	24	5.3	0.49	0.00	0.00	0.67	1.8
5	0.27	0.00	0.00	e0.51	0.72	27	3.3	0.48	0.00	0.00	0.53	1.5
6	0.22	0.00	0.00	e1.5	0.69	25	2.9	0.47	0.00	0.00	0.48	1.2
7	0.17	0.00	0.00	e1.0	0.70	30	2.0	0.44	0.00	0.00	9.7	1.2
8	0.14	0.00	0.00	e1.3	0.64	35	1.8	0.41	0.00	0.00	9.7	7.2
9	0.12	0.00	0.00	e3.7	0.58	38	1.8	0.35	0.00	0.00	2.3	96
10	0.11	0.00	0.00	e6.5	0.51	39	1.8	0.34	0.00	0.00	1.8	e39
11	0.12	0.00	0.00	e1.3	0.47	40	1.7	0.28	0.00	0.00	0.74	e14
12	0.10	0.00	0.00	1.8	0.38	35	1.4	0.21	0.00	0.00	0.64	e7.1
13	0.08	0.00	0.00	1.7	99	31	1.1	0.19	0.00	0.00	0.50	e7.5
14	0.03	0.00	0.00	1.1	120	28	1.1	0.16	0.00	0.00	0.51	e5.0
15	0.02	0.00	0.00	0.80	49	25	1.1	0.14	0.00	0.00	3.5	e3.1
16	0.02	0.00	0.00	0.74	25	76	1.7	0.08	0.00	0.00	1.1	1.1
17	0.01	0.00	0.00	0.73	14	99	1.1	0.04	0.00	0.00	0.63	1.7
18	0.01	0.00	0.00	0.72	9.2	50	0.95	0.02	0.00	0.00	e17	1.1
19	0.01	0.00	0.00	0.70	6.5	38	0.84	0.01	0.00	0.00	e7.4	0.73
20	0.00	0.00	0.00	0.70	5.6	35	0.85	0.00	0.00	0.00	2.1	0.79
21	0.00	0.00	e0.12	0.80	3.7	36	0.90	0.00	0.00	0.00	0.93	1.2
22	0.00	0.00	e0.24	0.91	2.3	33	0.74	0.00	0.00	48	11	0.57
23	0.00	0.00	e0.38	e1.0	1.8	30	0.73	0.00	0.00	e22	e190	0.65
24	0.00	0.00	e0.48	e0.69	1.8	27	0.73	0.00	0.00	171	e48	43
25	0.00	0.00	e0.37	0.61	1.8	22	0.71	0.00	0.00	64	e56	69
26	0.00	0.00	e0.30	0.60	27	17	0.68	0.00	0.00	11	e131	21
27	0.00	0.00	e0.30	0.59	28	13	0.60	0.00	0.00	3.1	e159	10
28	0.01	0.00	e0.43	0.59	27	12	0.58	0.00	0.00	2.0	e34	6.9
29	0.01	0.00	e0.54	0.56	---	11	0.55	0.00	0.00	e6.8	26	5.9
30	0.01	0.00	e0.55	0.56	---	10	0.54	0.00	0.00	e7.5	26	3.6
31	0.00	---	e0.51	0.55	---	7.7	---	0.00	---	3.7	13	---
TOTAL	3.10	0.00	4.22	34.06	429.02	958.7	56.30	5.68	0.00	339.10	769.93	364.44
MEAN	0.10	0.000	0.14	1.10	15.3	30.9	1.88	0.18	0.000	10.9	24.8	12.1
MAX	0.45	0.00	0.55	6.5	120	99	6.4	0.54	0.00	171	190	96
MIN	0.00	0.00	0.00	0.44	0.38	7.7	0.54	0.00	0.00	0.00	0.48	0.57
MED	0.02	0.00	0.00	0.72	1.8	28	1.1	0.08	0.00	0.00	3.6	3.6
AC-FT	6.1	0.00	8.4	68	851	1900	112	11	0.00	673	1530	723
CFSM	0.00	0.00	0.00	0.03	0.43	0.87	0.05	0.01	0.00	0.31	0.70	0.34
IN.	0.00	0.00	0.00	0.04	0.45	1.00	0.06	0.01	0.00	0.36	0.81	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2003, BY WATER YEAR (WY)

MEAN	6.07	9.45	23.6	46.5	47.1	55.5	23.5	4.44	0.46	12.9	20.2	11.3
MAX	72.8	39.7	114	441	211	311	97.1	40.2	6.37	85.1	84.4	60.8
(WY)	2001	1995	1993	1993	1995	1991	1991	1988	1992	1999	1995	1995
MIN	0.000	0.000	0.000	0.000	0.000	0.11	0.005	0.000	0.000	0.000	1.13	0.009
(WY)	1989	1990	1990	1989	2000	2002	2002	1989	1988	1988	1991	1989

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1988 - 2003	
ANNUAL TOTAL	631.05		2964.55			
ANNUAL MEAN	1.73		8.12		21.6	
HIGHEST ANNUAL MEAN					64.6	1993
LOWEST ANNUAL MEAN					0.86	2000
HIGHEST DAILY MEAN	132	Aug 6	190	Aug 23	3180	Jan 8 1993
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 20	0.00	Oct 2 1987
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 5	0.00	Oct 20	0.00	Jun 3 1988
ANNUAL RUNOFF (AC-FT)	1250		5880		15670	
ANNUAL RUNOFF (CFSM)	0.049		0.23		0.61	
ANNUAL RUNOFF (INCHES)	0.66		3.11		8.28	
10 PERCENT EXCEEDS	1.6		27		52	
50 PERCENT EXCEEDS	0.06		0.53		0.74	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, NTU (00076)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
JUL													
23...	1230	9.8	2800	687	5.9	7.5	333	38.0	160	63	46.0	102	9.90

Date	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)	Residue water, fltrd, tons/acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)
JUL													
23...	21.0	11.0	.1	4.0	93	113	<1	6.00	.2	56.0	192	.41	303

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water unfltrd mg/L (71845)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water, fltrd, mg/L (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitrogen, water, unfltrd mg/L (00605)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)
JUL													
23...	1590	15	.04	.45	.35	.531	.12	.15	.070	.030	15	1.04	.34

Date	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total nitrogen, water, unfltrd mg/L as NO3 (71887)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)	COD, high level, water, unfltrd mg/L (00340)	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)
JUL													
23...	.27	6.80	15	66.7	38.5	147	108	2	1	5	20	57.0	720

Date	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)	Chromium, water, unfltrd recoverable, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recoverable, ug/L (01042)	Cyanide water, fltrd, mg/L (00723)	Cyanide water unfltrd mg/L (00720)	Iron, water, fltrd, ug/L (01046)
JUL													
23...	<1	4	97	137	<.5	2.2	<1	32	12	304	.09	.12	63

Date	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)	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)
JUL													
23...	36600	<2	202	780	7820	<.10	<.1	1	39	2	4	<1	<1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Strontium, water, unfltrd recover-able, ug/L (01082)	Thallium, water, fltrd, ug/L (01057)	Thallium, water, unfltrd ug/L (01059)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover-able, ug/L (01092)	Phenolic compounds, water, unfltrd ug/L (32730)
JUL						
23...	650	<2	<2	<2	366	E16n

Remark codes used in this report:
< -- Less than
E -- Estimated value
Value qualifier codes used in this report:
n -- Below the NDV