

09498500 SALT RIVER NEAR ROOSEVELT, AZ

Salt Basin
Upper Salt Subbasin

LOCATION.--Lat 33°37'10", long 110°55'15" referenced to North American Datum of 1927, in SE ¼ NE ¼ sec.9, T.3 N., R.14 E., Gila County, AZ, Hydrologic Unit 15060103, (unsurveyed), in Tonto National Forest on left bank 100 ft downstream from bridge on State Highway 288, 0.3 mi downstream from Pinal Creek, 1 mi upstream from diversion dam for power canal, 14 mi east of village of Roosevelt, and 17 mi upstream from Roosevelt Dam.

DRAINAGE AREA.--4306.00 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Jan. 1913 to current year (monthly discharge only Jan. to Sept. 1913, published in WSP 1313).

REVISED RECORDS.--WSP 1049: 1914, 1916, 1918-19, 1926. WSP 1343: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,177.14 ft above sea level. Prior to 1925, nonrecording gage at diversion dam about 1 mi downstream at different datum. Nonrecording gage at present site and datum 1925 to Jan. 17, 1935. May 20, 1955, to July 30, 1959, supplementary water-stage recorder at diversion dam.

REMARKS.--Records good, except estimated daily discharges, which are poor. Several small diversions for irrigation of about 4,000 acres above station and two transbasin diversions above station, one into basin from Show Low Creek and one out of basin to Willow Creek. Records show inflow to Roosevelt Lake. Tonto Creek also contributes to Roosevelt Lake; see records elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft³/s Jan. 8, 1993, gage height, 30.09 ft, from rating curve extended above 108,000 ft³/s; minimum discharge, 59 ft³/s all or part of each day, July 1-4, 7-12, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of about 42 ft³/s was reported Aug. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jul 30	1250	16,800	16.22
Aug 01	0545	*18,000	*16.54
Aug 05	1645	6,240	12.20
Aug 12	1210	4,150	10.81
Aug 26	0645	5,060	11.47

Minimum daily discharge, 76 ft³/s, Jun 24, 25, 26.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	145	159	e158	170	169	157	270	172	92	95	7,930	607
2	143	159	e146	168	166	158	269	165	92	95	5,230	622
3	141	159	152	171	170	157	266	160	93	92	2,080	922
4	141	160	163	173	169	157	271	156	93	94	1,410	1,780
5	140	163	164	168	167	160	270	153	92	122	2,910	1,360
6	137	167	170	170	166	162	284	150	91	122	3,020	1,190
7	135	164	166	169	164	164	394	147	90	154	2,510	1,020
8	135	165	155	169	163	162	424	145	92	125	2,520	1,430
9	135	165	143	169	162	159	447	142	91	115	2,360	1,550
10	149	165	140	165	159	159	399	138	88	112	2,020	1,270
11	163	165	143	166	161	190	359	135	85	111	2,720	915
12	182	166	151	163	159	279	329	133	84	112	3,180	758
13	177	163	164	153	159	280	302	130	84	106	2,700	671
14	180	162	174	148	160	233	286	125	85	103	2,190	631
15	177	162	179	151	158	207	277	120	85	101	1,980	685
16	171	162	178	160	158	201	275	118	83	99	2,250	609
17	165	164	169	172	158	216	269	125	81	97	1,840	578
18	173	168	163	173	161	217	257	135	80	96	2,220	512
19	222	169	163	172	160	215	246	127	80	97	2,250	455
20	236	169	154	159	160	220	236	121	80	103	1,880	412
21	223	168	160	159	160	217	225	119	80	103	2,140	370
22	210	163	169	164	161	217	213	120	78	121	2,530	341
23	197	164	171	165	160	211	206	118	77	117	2,440	325
24	185	164	171	156	156	203	198	114	76	111	2,320	309
25	178	168	173	153	155	198	192	109	76	121	2,450	298
26	172	168	167	157	155	195	189	106	76	150	2,730	285
27	168	168	167	167	155	201	182	102	77	532	1,550	271
28	164	167	167	183	158	216	177	98	78	549	1,220	258
29	162	166	167	185	---	235	177	97	79	587	867	e246
30	162	167	167	177	---	245	173	95	88	7,360	711	e233
31	161	---	165	173	---	258	---	94	---	3,020	690	---
Total	5,229	4,939	5,039	5,148	4,509	6,249	8,062	3,969	2,526	14,922	74,848	20,913
Mean	169	165	163	166	161	202	269	128	84.2	481	2,414	697
Max	236	169	179	185	170	280	447	172	93	7,360	7,930	1,780
Min	135	159	140	148	155	157	173	94	76	92	690	233
Med	165	165	165	168	160	203	269	125	84	112	2,250	608
Ac-ft	10,370	9,800	9,990	10,210	8,940	12,390	15,990	7,870	5,010	29,600	148,500	41,480
Cfsm	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.03	0.02	0.11	0.56	0.16

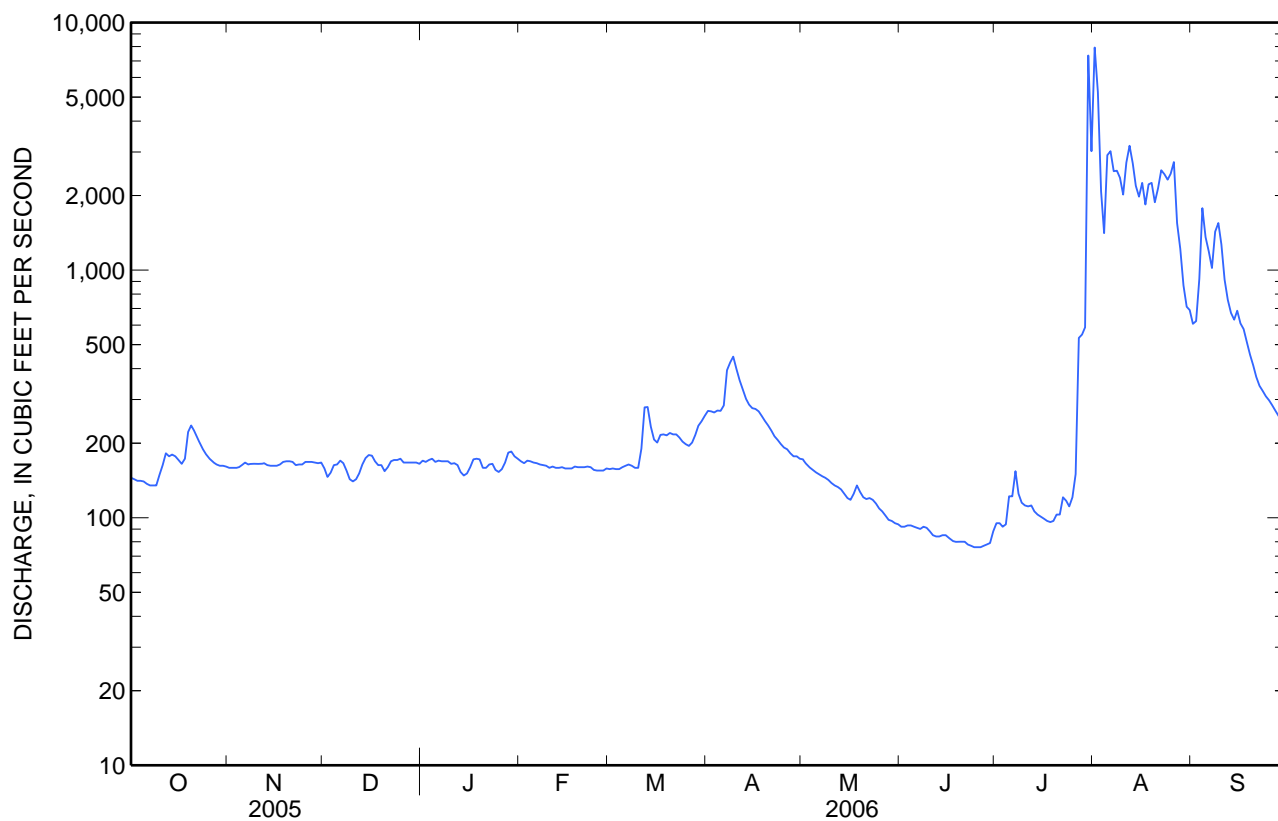
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	418	377	732	1,063	1,395	1,973	1,942	999	353	324	590	449
Max	4,832	2,150	6,327	15,990	9,072	10,390	6,281	5,933	1,365	3,276	3,607	1,852
(WY)	(1984)	(1920)	(1966)	(1916)	(1980)	(1978)	(1979)	(1973)	(1941)	(1919)	(1921)	(1923)
Min	85.5	122	127	161	161	179	164	110	74.6	78.3	151	77.9
(WY)	(1957)	(1957)	(1957)	(1964)	(2006)	(2002)	(2002)	(2002)	(2002)	(1963)	(1962)	(1956)

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SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1914 - 2006	
Annual total	468,319		156,353			
Annual mean	1,283		428		882	
Highest annual mean					3,252	1916
Lowest annual mean					191	2000
Highest daily mean	30,700	Feb 12	7,930	Aug 1	91,000	Jan 19, 1916
Lowest daily mean	103	Jul 12	76	Jun 24	59	Jul 4, 1955
Annual seven-day minimum	104	Jul 11	77	Jun 22	62	Jul 2, 1955
Annual runoff (ac-ft)	928,900		310,100		639,000	
Annual runoff (cfsm)	0.298		0.099		0.205	
10 percent exceeds	2,250		1,090		1,990	
50 percent exceeds	330		166		323	
90 percent exceeds	146		96		156	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Apr. 1958 to Sept. 1965 and Jan. 1976 to current year.

PERIOD OF DAILY RECORD.--SPECIFIC CONDUCTANCE:Dec. 1996 to Jan. 1998.

WATER TEMPERATURE:Apr. 1958 to Sept. 1965 and Dec.1996 to Jan. 1998.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 5

[Remark codes: <, less than; A, average; E, estimated. Value qualifier codes: @, holding time exceeded; c, see laboratory comment; d, diluted sample; method hi range exceeded; k, counts outside acceptable range; n, below the LRL and above the LT-MDL; o, result determined by alternate method; p, value reported is preferred; r, value verified by rerun, same method; v, analyte detected in laboratory blank.]

Date	Time	Sample type	Instan- taneous dis- charge, cfs (00061)	Turbdty white light, 90+/-30 corrctd NTRU (63676)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)
Dec 06...	1215	Environmental	171	6.0	712	11.5	101	8.4	3,830	9.0	6.2	370
Mar 07...	1130	Environmental	165	10	711	9.6	99	8.2	4,190	20.5	12.8	350
Apr 20...	1140	Environmental	238	48	706	9.0	103	8.3	2,690	26.5	17.9	280
Jun 08...	1115	Blank	--	--	--	--		5.6	1	35.5	32.5	
08...	1305	Environmental	96	44	702	7.7	107	8.2	5,670	34.5	26.8	350
20...	1130	Environmental	80	26	707	7.5	103	8.2	6,100	35.0	26.2	350
Aug 15...	1235	Environmental	1,840	2,190d	705	7.2	94	8.0	755	33.0	24.8	170

09498500 SALT RIVER NEAR ROOSEVELT, AZ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 5

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Date	Noncarb hard- ness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Calcium unfltrd recover- able, mg/L (00916)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, recover- able, mg/L (00927)	Potas- sium, water, fltrd, mg/L (00935)	Sodium adsorp- tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)
Dec 06...	190	93.0cp	90.0dcp	34.0d	32.4d	14.2d	14	619d	186	216	5	1,060d	.31
Mar 07...	160	85.8dc	92.6d	33.8dc	34.9d	14.3dc	16	676dc	192	227	4	1,160d	.31
Apr 20...	100	73.6d	84.1d	23.0d	23.9d	10.2d	12	447d	178	207	5	710d	.26
Jun 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
08...	190	77.0dc	81.5d	39.4d	39.0d	18.9dc	21	925dc	160	195	<1	1,620d	.28
20...		72.3d	78.8d	40.4d	41.0d	20.2d	23	992d	A156	A178	A6	1,780d	.29
Aug 15...	77	50.3	176d	10.4	50.5d	4.01	3	80.0	91	111	<1	121	.18

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

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Date	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Total nitro- gen, water, unfltrd mg/L (00600)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Anti- mony, water, fltrd, ug/L (01095)	Anti- mony, water, unfltrd ug/L (01097)
Dec 06...	133d	2,070	3.01	2,220	<10	.10	<.04	<.06		E.02n	E2k	<.40d	<.4d
Mar 07...	136d	2,220	3.18	2,340	13	.14	<.04	<.06		E.01n	E3k	<.40d	<.4d
Apr 20...	85.4d	1,460	2.05	1,510	57	.28	<.04	<.06		.05	E8k	<.40d	<.4d
Jun 08...	--	--	--	--	--	<.10	.013	<.06		<.02	--	--	--
08...	130d	2,910	4.24	3,120	47	.25	E.010n	<.06		.04	E33k	<.60d	<.6d
20...	130d	3,130	4.59	3,380	22	.20	E.009n	<.06		.03	E3k	E.32nd	<.6d
Aug 15...	76.0	397	.61	449	2,260d	4.6	E.009n	.15	4.7	1.00@	7,100	<.20	E.1n

09498500 SALT RIVER NEAR ROOSEVELT, AZ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

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Date	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover -able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover -able, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)
Dec 06...	6.2	6.5	71.8d	<.12d	<.12d	331d	<.08d	.24d	.58	1.4doc	1.2doc	.16d	E.11nd
Mar 07...	7.2	8.2d	53.6d	<.12d	<.12d	355d	<.08d	<.08d	.62vd	4.6dr	1.5dr	E.09nd	.16d
Apr 20...	6.4d	7.0d	55.6d	<.12d	E.07nd	229d	<.08d	<.08d	.80d	5.1d	2.3d	E.11nd	.56d
Jun 08...	--	--	--	<.06	--	--	<.04	--	--	<.4	--	<.08	--
08...	26.1d	10.7d	92.7d	E.15nd	<.18d	481d	.15d	<.12d	.75vd	2.6d	3.2d	.24d	.52d
20...	8.9d	9.4d	128d	<.18d	<.18d	583d	.14d	<.12d	2.1d	12.9doc	2.2vdr	1.58dr	.40dr
Aug 15...	4.2	15.2	502	<.06	2.75	77	<.04	.73	23.3	2.5	38.5	.24	32.8

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

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Date	Manganese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Selenium, water, unfltrd ug/L (01147)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)	Data base number
Dec 06...	31.6d	<.010	<.010	.19	1.9doc	<4doc	16	7.4	01
Mar 07...	37.2d	<.010	<.010	E.12nd	13.4dr	<4dr	44	20	01
Apr 20...	58.1d	<.010	<.010	E.14nd	9.1d	E2nd	82	53	01
Jun 08...	--	<.010	--	--	2.4	--	--	--	09
08...	78.0d	<.010	<.010	.24d	13.6v	E3nd	46	12	01
20...	60.8d	<.010	<.010	E.21nd	21.5doc	<6d	24	5.2	01
Aug 15...	1,320d	<.010	.093	.52	2.0	70	2,520	12,500	01