



Water-Data Report 2007

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM

Rio Grande-Elephant Butte Basin
Rio Grande-Albuquerque Subbasin

LOCATION.--Lat 33°40'44.7", long 106°59'49.2" referenced to North American Datum of 1983, Socorro County, NM, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 33, 0.3 miles downstream from southern pier of the Atchison, Topeka, and Santa Fe Railway Co. bridge, on right bank 1.4 mi downstream from former site of San Marcial, 18.5 mi southwest of San Antonio, and at mile 1,425.2.

DRAINAGE AREA.--27,700 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, Colorado.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1964 to current year. Records collected at this site January 1895 to September 1964 represent total flow of the river and were published as "Rio Grande at San Marcial" (station 08358500). Records of daily discharge for floodway only, April 1950 to September 1964, are available in files of District office.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,455.19 ft above NGVD of 1929.

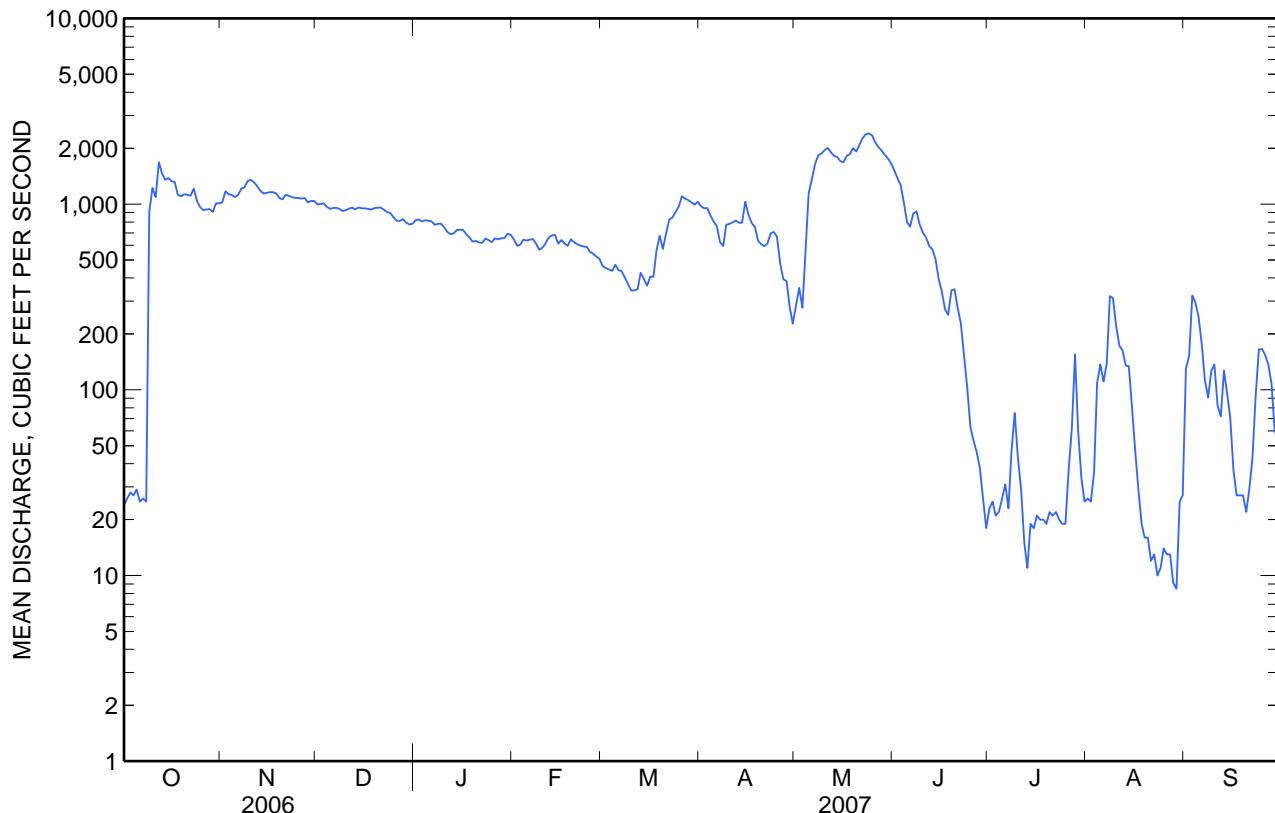
REMARKS.--Water-discharge records fair except for those estimated, which are poor. Floodway is one of two channels (station 08358300) carrying flow in valley cross section. Prior to 1950, all flow was in floodway channel. Combined monthly discharge in acre-feet is given at end of each year's table. Diversion for irrigation of about 775,000 acres upstream from station (includes about 13,800 acre-ft diverted from conveyance channel).

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--40 years (water years 1965-2004), 755 ft³/s, 547,000 acre-ft/yr. Total flow of river, 109 years (water years 1895-2004), 1,237 ft³/s, 896,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge since Jan. 1895, about 50,000 ft³/s, Oct. 11, 1904; no flow at times.

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued**SUMMARY STATISTICS**

	Calendar Year 2006	Water Year 2007			Water Years 1986 - 1995	
Annual total	232,946		243,054.6			
Annual mean	638		666		1,241	
Highest annual mean					2,086	1987
Lowest annual mean					242	1990
Highest daily mean	5,750	Aug 12	2,400	May 24	6,750	Jul 27, 1991
Lowest daily mean	13	Sep 20	8.5	Aug 29	0.00	Sep 11, 1987
Annual seven-day minimum	23	Sep 19	11	Aug 23	0.00	Sep 11, 1987
Maximum peak flow			2,610	May 24	50,000	Oct 11, 1904
Maximum peak stage			20.35	Oct 9		
Instantaneous low flow			1.5	Jul 12		
Annual runoff (ac-ft)	462,000		482,100		898,700	
10 percent exceeds	1,340		1,310		3,140	
50 percent exceeds	432		646		854	
90 percent exceeds	31		25		0.03	



08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1905-07, 1946 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: July 1946 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler

REMARKS.--Records of chemical analysis and sediment discharge for years prior to 1946 have been published in Water Bulletins of International Boundary and Water Commission.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 135,000 mg/L, July 23, 1977; minimum daily mean, no flow on many days.

SEDIMENT LOAD: Maximum daily, 1,200,000 tons, Sept. 21, 1982; minimum daily, 0 tons on many days.

EXTREMES FOR WATER YEAR 2006.--SEDIMENT CONCENTRATION: Maximum daily mean, 54,000 mg/L, July 29; minimum daily mean, 81 mg/L, April 12.

SEDIMENT LOAD: Maximum daily 225,000 tons, Aug. 17; minimum daily, 5.2 tons, April 12.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 1 of 12

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Time	Turbidity			Specific Conductance							Hardness, water, mg/L as CaCO ₃	Bromide, water, unfltrd, mg/L	Calcium water, fltrd, mg/L
		Instan-	white light, det ang	Baro-	Dis-	pH, water, unfltrd field, std units	conduc-	Temper-	Temper-					
		taneous dis-	90+/-30 degrees	metric pres-	solved oxygen, percent of saturation	tance, wat unf 25 degC	ature, air, deg C	ature, water, deg C	(00090)	(00020)	(00010)	(00900)	(63689)	(00915)
Nov														
13...	1250	1,170	490	654	9.9	99	8.4	472	17.0	8.5	140	E.110	43.3	
Feb														
12...	1015	648	510	651	9.4	98	8.5	570	13.5	10.0	150	E.150	47.0	
12...	1015	--	--	--	--	--	--	--	--	--	--	--	--	
May														
22...	1145	2,300	1,500	648	8.4	105	8.2	437	23.0	18.0	130	<.200	41.0	
Aug														
27...	1020	14	830	655	8.2	110	8.4	994	29.0	22.0	250	E.190	74.4	
27...	1020	--	--	--	--	--	--	--	--	--	--	--	--	

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 12

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium adsorp- tion (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, wet svd ug/g (65178)	Sodium, bed sed <62.5um fwd end lab, mg/L as CaCO3 (29801)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Alka- linity, wat flt incr. titr., field, mg/L (00453)	Bicar- bonate, wat flt incr. titr., field, mg/L (00452)	Carbon- ate, wat flt incr. titr., field, mg/L (00940)	Chlor- ide, water, fltrd, mg/L (00950)	Fluor- ide, water, fltrd, mg/L (00955)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)
Nov														
13...	6.94	3.85	1.4	36.5	--	130	127	151	2	20.4	.45	24.2	63.4	
Feb														
12...	8.30	5.40	1.8	52.0	--	144	140	165	2	35.0	.56	25.1	81.1	
12...	--	--	--	--	--	--	--	--	--	--	--	--	--	
May														
22...	7.22	4.09	1.3	33.8	--	110	107	129	1	15.0	.37	17.9	79.8	
Aug														
27...	14.4	6.35	3.0	108	--	203	196	231	4	82.6	.62	23.5	175	
27...	--	--	--	--	13,000	--	--	--	--	--	--	--	--	

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 12

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Sulfur, bed sed <62.5um wet svd field, total, percent (34970)	Residue water, fltrd, sum of consti- tuents percent (70301)	Residue on evap. 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phosphate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L as P (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, sediment <62.5um wsn nat field percent (49267)
Nov													
13...	--	278	291	.20	1.3	<.020	E.082	.44	E.001	.164	.182	1.42	--
Feb													
12...	--	341	350	.26	1.2	E.013	--	.42	E.002	.279	.30	1.30	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
May													
22...	--	265	285	.43	2.3	<.020	.480	.29	E.004	.053	.075	1.38	--
Aug													
27...	--	604	632	.30	.95	<.020	2.7	.22	.003	.073	.077	.43	--
27...	.01	--	--	--	--	--	--	--	--	--	--	--	.23

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 12

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Inorg. carbon, bed sed <62.5um wsv nat field percent (49269)	Organic carbon, bed sed <62.5um wsv nat field percent (49266)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Alum- inum, water, fltrd, µg/L (01106)	Anti- mony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryll- ium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium, water, fltrd, µg/L (01025)	Chrom- ium, water, fltrd, µg/L (01030)	Cobalt, water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)
Nov													
13...	--	--	620	3.1	.12	3.5	47	<.06	78	E.03	.56	.16	.67
Feb													
12...	--	--	520	4.5	.09	3.8	49	<.06	108	.07	.12	.17	.80
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
May													
22...	--	--	400	3.5	.20	3.3	58	<.06	72	E.02	E.07	.15	1.3
Aug													
27...	--	--	310	2.4	.12	5.7	98	<.06	172	E.03	E.08	.24	.98
27...	.18	.04	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 5 of 12

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Mercury							Alum- inum, bed sed <62.5um wet svd	Anti- mony, bed sed <62.5um wet svd	Arsenic bed sed <62.5um wet svd			
	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Mangan- ese, water, fltrd, µg/L (01056)	water, unfltrd recover -able, µg/L (71900)	Molyb- denum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selen- ium, water, fltrd, µg/L (01145)	Selen- ium, water, unfltrd fltrd, µg/L (01147)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, fld,tot ug/g (65170)	Zinc, water, fld,tot ug/g (34795)	Zinc, water, total, ug/g (34800)
Nov													
13...	<6	E.06	1.0	.033	4.3	.75	.17	.49	<.1	3.6	--	--	--
Feb													
12...	<6	.27	4.0	.029	3.8	1.2	.16	.36	<.1	4.9	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
May													
22...	<6	<.12	.6	.085	4.0	.95	.40	1.1	<.1	.95	--	--	--
Aug													
27...	<6	<.12	.8	.025	7.3	1.1	.18	.28	<.1	E.34	--	--	--
27...	--	--	--	--	--	--	--	--	--	40,000	8.8	11	

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 10 of 12

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Disulfoton, water, fltrd 0.7u GF	EPTC, water, fltrd 0.7u GF	Ethal-flur-alin, water, fltrd 0.7u GF	Etho-prop, water, fltrd 0.7u GF	Desulf-inyl-fipro-nil, amide, water flt 0.7u GF	Fipro-nil sulfide water, fltrd, 0.7u GF	Fipro-nil sulfone water, fltrd, 0.7u GF	Fipro-nil water, fltrd, 0.7u GF	Fonofos water, fltrd, 0.7u GF	Lindane water, fltrd 0.7u GF	Linuron water, fltrd 0.7u GF	Mala-thion, water, fltrd 0.7u GF	Methyl para-thion, water, fltrd 0.7u GF
Nov 13...	<.02	<.002	<.009	<.012	<.029	<.013	<.024	<.016	<.006	<.004	<.060	<.016	<.008
Feb 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
May 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
Aug 27...	<.02	<.002	<.009	<.012	<.029	<.013	<.024	<.016	<.006	<.004	<.060	<.016	<.008
27...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 11 of 12

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Metola-chlor, water, fltrd 0.7u GF	Metri-buzin, water, fltrd 0.7u GF	Moli-nate, water, fltrd 0.7u GF	Naprop-amide, water, fltrd 0.7u GF	p,p'-DDE, water, fltrd 0.7u GF	Para-thion, water, fltrd 0.7u GF	Peb-ulate, water, fltrd 0.7u GF	Pend-meth-alin, water, fltrd 0.7u GF	Phorate, water, fltrd 0.7u GF	Promo-ton, water, fltrd 0.7u GF	Propy-zamide, water, fltrd 0.7u GF	Propa-chlor, water, fltrd 0.7u GF	Propanil, water, fltrd 0.7u GF
Nov 13...	<.010	<.012	<.002	<.018	<.003	<.010	<.004	<.020	<.020	<.01	<.004	<.010	<.011
Feb 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
May 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
Aug 27...	<.010	<.012	<.002	<.018	<.003	<.010	<.004	<.020	<.020	<.01	<.004	<.010	<.011
27...	--	--	--	--	--	--	--	--	--	--	--	--	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 12 of 12

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Propar-gite, water, filtrd 0.7u GF μg/L (82685)	Sima-zine, water, filtrd 0.7u GF μg/L (04035)	Tebu-thiuron water, filtrd 0.7u GF μg/L (82670)	Terba-cil, water, filtrd 0.7u GF μg/L (82665)	Terbu-fos, water, filtrd 0.7u GF μg/L (82675)	Thio-bencarb water, filtrd 0.7u GF μg/L (82681)	Tri-allate, water, filtrd 0.7u GF μg/L (82678)	Tri-flur-alin, water, filtrd 0.7u GF μg/L (82661)	Uranium natural water, filtrd, 0.7u GF μg/L (22703)	Uranium bed sed wet svd field, total, μg/g (35000)	Suspnd. <62.5um diametr percent <.063mm (70331)	Sus-pended sediment, sieve concentra-tion mg/L (80154)
Nov												
13...	<.02	<.006	<.02	<.040	<.01	<.010	<.006	<.006	1.77	--	40	3,400
Feb												
12...	--	--	--	--	--	--	--	--	1.50	--	46	2,030
12...	--	--	--	--	--	--	--	--	--	--	--	--
May												
22...	--	--	--	--	--	--	--	--	2.17	--	61	4,560
Aug												
27...	<.02	<.006	<.02	<.040	<.01	<.010	<.006	<.006	2.19	--	99	993
27...	--	--	--	--	--	--	--	--	--	1.2	--	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
 Part 1 of 6
 [Remark codes: E, estimated.]

Date	Time	Medium code	Agency analyzing sample, code (00028)	Gage height, feet (00065)	Mean stream depth, feet (00064)	Instantaneous discharge, cfs (00061)	Stream velocity, ft/s (00055)	Stream width, feet (00004)	Turbidity white light, det ang 90+/30 deg, NTRU (63676)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)
Oct													
13...	1040	9	80020	19.95	2.0	1,460	4.62	157	16,200	--	649	8.5	97
13...	1100	9	1028	19.95	2.0	1,460	4.62	157	--	--	649	8.5	97
13...	1115	H	1028	19.95	2.0	1,460	4.62	157	--	--	--	--	--
Nov													
27...	1510	9	80020	19.23	1.6	1,060	4.21	160	480	550	642	10.4	110
27...	1545	9	--	19.23	1.6	1,060	4.21	160	--	550	642	10.4	110
27...	1610	H	--	19.23	1.6	1,060	4.21	160	--	--	--	--	--
Dec													
19...	1415	9	80020	18.96	1.5	1,000	4.05	162	380	400	645	10.9	100
19...	1425	9	--	18.96	1.5	1,000	4.05	162	--	400	645	10.9	100
19...	1450	H	--	18.96	1.5	1,000	4.05	162	--	--	--	--	--
Mar													
15...	1255	H	--	18.48	1.8	362	1.81	110	--	--	--	--	--
15...	1305	9	--	18.48	1.8	362	1.81	110	--	--	650	9.4	109
15...	1315	9	--	18.48	--	362	--	110	300	--	650	9.4	109
Apr													
19...	1330	9	--	18.63	1.9	661	3.27	108	960	--	646	8.7	106
19...	1340	H	--	18.63	1.9	661	3.27	108	--	--	--	--	--
19...	1400	9	--	18.63	1.9	661	3.27	108	--	--	646	8.7	106
May													
10...	0845	9	--	19.32	2.2	1,970	5.25	168	E35,400	--	653	8.3	100
10...	1045	9	--	19.32	2.2	1,970	5.25	168	--	--	653	8.3	100
10...	1115	H	--	19.32	2.2	1,970	5.25	168	--	--	--	--	--
24...	1010	9	--	20.24	2.9	2,590	5.48	161	1,130	--	653	7.6	95
24...	1030	9	--	20.24	2.9	2,590	5.48	161	--	--	653	7.6	95
24...	1045	H	--	20.24	2.9	2,590	5.48	161	--	--	--	--	--
Jun													
13...	1515	9	--	18.75	1.6	576	3.39	108	220	--	649	7.8	112
13...	1530	H	--	18.75	1.6	576	3.39	108	--	--	--	--	--
13...	1545	9	--	18.75	1.6	576	3.39	108	--	--	649	7.8	112

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
 Part 2 of 6
 [Remark codes: E, estimated.]

Date	pH, water, unfltrd field, std (00400)	Specif- ic conduc- tance, wat unf μS/cm (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Suspnd. sediment, falldia <.002mm (70337)	Suspnd. sediment, falldia <.004mm (70338)	Suspnd. sediment, falldia <.008mm (70339)	Suspnd. sediment, falldia <.016mm (70340)	Suspnd. sediment, falldia <.063mm (70342)	Suspnd. sediment, falldia <.125mm (70343)	Suspnd. sediment, falldia <.25mm (70344)	Suspnd. sediment, falldia <.5 mm (70345)	Suspnd. sediment, sieve percent (70331)
Oct													
13...	7.8	1,040	15.5	13.9	--	--	--	--	--	--	--	--	--
13...	7.8	1,040	15.5	13.9	52	66	76	77	89	96	100	--	--
13...	--	--	15.5	--	--	--	--	--	--	--	--	--	--
Nov													
27...	8.1	461	13.2	10.0	--	--	--	--	--	--	--	--	--
27...	8.1	461	13.2	10.0	15	16	18	22	51	85	100	--	--
27...	--	--	13.2	--	--	--	--	--	--	--	--	--	--
Dec													
19...	8.4	494	1.1	4.6	--	--	--	--	--	--	--	--	--
19...	8.4	494	1.1	4.6	8	10	11	13	31	74	97	100	--
19...	--	--	1.1	--	--	--	--	--	--	--	--	--	--
Mar													
15...	--	--	25.5	--	--	--	--	--	--	--	--	--	--
15...	--	538	25.5	14.5	25	28	31	38	64	82	94	100	--
15...	--	538	25.5	14.5	--	--	--	--	--	--	--	--	--
Apr													
19...	7.7	453	25.9	16.9	--	--	--	--	--	--	--	--	--
19...	--	--	25.9	--	--	--	--	--	--	--	--	--	--
19...	7.7	453	25.9	16.9	38	44	52	54	70	90	100	--	--
May													
10...	--	406	15.0	16.5	--	--	--	--	--	--	--	--	--
10...	--	406	15.0	16.5	33	38	44	49	60	86	98	100	--
10...	--	--	15.0	--	--	--	--	--	--	--	--	--	--
24...	7.6	412	16.5	18.5	--	--	--	--	--	--	--	--	--
24...	7.6	412	16.5	18.5	26	32	37	42	54	84	97	100	--
24...	--	--	16.5	--	--	--	--	--	--	--	--	--	--
Jun													
13...	8.3	401	33.4	25.0	--	--	--	--	--	--	--	--	--
13...	--	--	33.4	--	--	--	--	--	--	--	--	--	--
13...	8.3	401	33.4	25.0	--	--	--	--	53	73	98	100	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
 Part 3 of 6
 [Remark codes: E, estimated.]

Date	Sus- pended sediment concen- tration mg/L (80154)	Bed sediment, dry svd sve dia percent <.063mm (80164)	Bed sediment, dry svd sve dia percent <.125mm (80165)	Bed sediment, dry svd sve dia percent <.25mm (80166)	Bed sediment, dry svd sve dia percent <.5 mm (80167)	Bed sediment, dry svd sve dia percent <1 mm (80168)
Oct						
13...	21,300	--	--	--	--	--
13...	21,200	--	--	--	--	--
13...	--	3	19	75	100	--
Nov						
27...	2,760	--	--	--	--	--
27...	2,860	--	--	--	--	--
27...	--	5	24	90	100	--
Dec						
19...	3,120	--	--	--	--	--
19...	3,150	--	--	--	--	--
19...	--	2	13	63	100	--
Mar						
15...	--	3	22	59	99	100
15...	936	--	--	--	--	--
15...	1,190	--	--	--	--	--
Apr						
19...	1,900	--	--	--	--	--
19...	--	3	29	83	99	100
19...	1,760	--	--	--	--	--
May						
10...	4,200	--	--	--	--	--
10...	4,150	--	--	--	--	--
10...	--	2	16	87	100	--
24...	3,320	--	--	--	--	--
24...	2,930	--	--	--	--	--
24...	--	2	17	75	100	--
Jun						
13...	817	--	--	--	--	--
13...	--	0	7	83	100	--
13...	921	--	--	--	--	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
 Part 4 of 6
 [Remark codes: E, estimated.]

Date	Time	Medium code	Gage height, feet (00065)	Mean stream depth, feet (00064)	Instantaneous discharge, cfs (00061)	Stream velocity, ft/s (00055)	Stream width, feet (00004)	Turbidity white light, det ang 90+/-30 corrcrd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, field, std units (00400)	Specific conductance, wat unf µS/cm 25 degC (00095)
Jul													
06...	0930	9	17.16	.93	46	1.77	28.0	39	657	8.5	114	8.2	815
06...	0940	9	17.16	.93	46	1.77	28.0	--	657	8.5	114	8.2	815
06...	0950	H	17.16	.93	46	1.77	28.0	--	--	--	--	--	--
17...	0935	9	16.92	.82	21	.87	29.5	200	659	7.7	107	8.3	921
17...	0945	9	16.92	.82	21	.87	29.5	--	659	7.7	107	8.3	921
17...	1005	H	16.92	.82	21	.87	29.5	--	--	--	--	--	--
Aug													
16...	0915	9	17.19	.85	51	1.31	46.0	11,300	662	7.2	95	8.4	929
16...	0945	9	17.19	.85	51	1.31	46.0	--	662	7.2	95	8.4	929
16...	1015	H	17.19	.85	51	1.31	46.0	--	--	--	--	--	--
Sep													
06...	0910	9	17.89	1.1	202	1.76	97.0	27,500	660	7.1	91	8.0	1,060
06...	0920	9	17.89	1.1	202	1.76	97.0	--	660	7.1	91	8.0	1,060
06...	0935	H	17.89	1.1	202	1.76	97.0	--	--	--	--	--	--
26...	1535	9	17.72	--	153	--	102	--	--	--	--	--	--
26...	1545	9	17.72	--	153	--	102	--	--	--	--	--	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 5 of 6

[Remark codes: E, estimated.]

Date	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Suspnd. sediment, falldia	Suspnd. sediment, sieve	Suspnd. sediment	Bed sediment, dry svd							
			dst wat percent	concent- ration mg/L	suspended sediment (80154)	percent							
Jul													
06...	28.0	22.0	--	--	--	--	--	--	--	--	107	--	
06...	28.0	22.0	--	--	--	--	68	74	94	100	--	93	--
06...	28.0	22.0	--	--	--	--	--	--	--	--	--	--	0
17...	25.4	24.0	--	--	--	--	--	--	--	--	217	--	
17...	25.4	24.0	--	--	--	--	99	100	--	--	192	--	
17...	25.4	24.0	--	--	--	--	--	--	--	--	--	--	1
Aug													
16...	28.4	22.0	--	--	--	--	--	--	--	--	12,600	--	
16...	28.4	22.0	83	95	97	98	100	--	--	--	12,600	--	
16...	28.4	22.0	--	--	--	--	--	--	--	--	--	--	0
Sep													
06...	20.0	20.0	--	--	--	--	--	--	--	--	33,900	--	
06...	20.0	20.0	75	82	94	97	99	99	100	--	33,200	--	
06...	20.0	20.0	--	--	--	--	--	--	--	--	--	--	0
26...	31.5	22.5	--	--	--	--	--	--	--	--	4,520	--	
26...	31.5	22.5	--	--	--	--	--	--	--	--	4,540	--	

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
 Part 6 of 6
 [Remark codes: E, estimated.]

Date	Bed sediment, dry svd percent				
	<.125mm (80165)	<.25mm (80166)	<.5 mm (80167)	<1 mm (80168)	<2 mm (80169)
Jul					
06...	--	--	--	--	--
06...	--	--	--	--	--
06...	1	43	97	100	--
17...	--	--	--	--	--
17...	--	--	--	--	--
17...	6	48	98	99	100
Aug					
16...	--	--	--	--	--
16...	--	--	--	--	--
16...	3	50	96	99	100
27...	--	--	--	--	--
27...	--	--	--	--	--
Sep					
06...	--	--	--	--	--
06...	--	--	--	--	--
06...	3	47	99	100	--
26...	--	--	--	--	--
26...	--	--	--	--	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued
**SUSPENDED-SEDIMENT
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Day	Mean concentration (mg/L)	Sediment discharge (tons/day)										
October		November		December		January		February		March		
1	20,100	15,800	229	10	1,380	1,650	1,170	1,890	760	919	954	1,220
2	16,000	20,200	630	258	1,450	1,740	1,140	1,830	842	1,020	804	902
3	12,300	17,700	2,030	1,690	1,530	1,710	1,100	1,760	925	1,150	799	862
4	8,180	8,650	1,910	1,780	1,570	1,800	1,070	1,740	893	1,140	720	687
5	5,260	3,190	1,570	1,510	1,370	1,520	1,030	1,770	886	1,140	583	486
6	3,160	1,260	1,380	1,370	1,270	1,400	1,000	1,750	865	1,070	503	444
7	1,980	739	1,390	1,400	1,180	1,320	1,080	1,950	892	1,170	494	448
8	1,610	693	1,120	1,110	1,200	1,420	1,270	2,270	881	1,150	487	434
9	1,390	637	995	985	1,260	1,710	1,230	2,160	803	952	465	374
10	1,260	507	985	1,070	1,320	1,760	992	1,640	827	958	388	274
11	1,080	432	1,490	1,500	1,370	1,630	905	1,470	755	895	403	266
12	2,920	1,330	1,430	1,360	1,430	1,450	902	1,480	772	872	401	199
13	1,980	1,200	1,280	1,180	1,450	1,420	855	1,400	816	937	425	274
14	1,090	633	1,270	1,190	1,100	1,120	856	1,360	849	945	331	206
15	1,160	623	1,320	1,150	917	913	957	1,480	945	1,050	252	134
16	1,120	576	1,330	1,270	1,460	1,840	867	1,320	943	1,030	192	72
17	1,050	507	1,270	1,260	1,910	2,790	770	1,110	807	855	180	54
18	1,970	908	1,490	1,630	1,850	2,650	720	1,030	737	813	150	39
19	1,740	1,210	1,690	2,030	1,650	2,340	718	1,040	826	943	134	32
20	1,330	764	1,630	1,940	1,580	2,140	695	966	803	930	100	21
21	2,070	1,090	1,540	1,960	1,550	2,180	649	897	830	1,010	93	18
22	1,410	935	1,340	1,700	1,510	2,140	697	955	831	1,040	133	24
23	1,000	679	1,220	1,510	1,480	2,210	746	1,020	810	946	124	21
24	972	611	1,140	1,390	1,440	2,130	871	1,200	844	1,010	102	16
25	1,190	602	1,140	1,390	1,410	2,110	898	1,230	883	1,090	95	13
26	918	409	1,200	1,440	1,370	2,080	857	1,170	889	1,120	92	13
27	655	224	1,350	1,610	1,340	2,010	788	1,020	972	1,250	97	13
28	625	182	1,330	1,600	1,310	2,000	834	1,050	1,050	1,340	106	15
29	633	144	1,310	1,560	1,270	2,070	799	1,020	---	---	113	13
30	503	63	1,320	1,560	1,240	2,090	721	896	---	---	107	13
31	336	21	---	---	1,200	2,020	760	909	---	---	102	12
Total	---	82,519	---	41,413	---	57,363	---	42,783	---	28,745	---	7,599

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM—Continued

SUSPENDED-SEDIMENT
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Day	Mean concentration (mg/L)	Sediment discharge (tons/day)										
April		May		June		July		August		September		
1	113	14	193	28	149	15	1,940	2,610	33,800	185,000	10,500	15,200
2	103	10	196	27	169	20	1,480	1,070	26,800	179,000	6,700	5,670
3	101	10	200	29	417	76	932	312	16,000	103,000	7,040	8,410
4	126	14	204	29	287	42	505	51	18,700	114,000	15,200	13,400
5	160	18	208	30	220	27	406	34	25,100	200,000	8,670	6,140
6	169	19	211	27	178	21	4,800	468	19,400	144,000	5,240	1,980
7	155	15	212	24	143	16	50,700	94,200	15,600	99,300	24,800	27,500
8	134	12	226	25	176	21	41,400	99,300	17,100	144,000	16,700	12,000
9	122	8.4	215	24	200	21	40,500	169,000	17,300	188,000	18,000	31,200
10	130	9.1	193	20	217	21	27,600	99,700	16,200	190,000	18,300	28,700
11	107	7.2	195	19	216	22	17,600	63,000	13,300	178,000	17,400	44,500
12	81	5.2	189	17	197	20	14,400	36,600	12,800	198,000	22,700	43,800
13	83	5.8	166	15	175	21	15,000	32,900	14,900	159,000	21,800	24,500
14	146	15	175	16	176	24	16,500	41,300	13,800	88,900	12,200	9,950
15	171	21	204	22	160	21	15,900	21,100	19,900	129,000	7,820	4,350
16	161	21	259	32	129	15	9,460	7,360	21,400	159,000	5,110	2,140
17	205	38	275	38	115	12	4,800	1,830	32,300	225,000	3,870	1,030
18	267	60	225	26	112	8.4	1,950	360	27,400	191,000	3,040	344
19	277	62	160	15	116	8.6	535	66	22,300	149,000	1,600	73
20	240	50	171	14	117	12	250	24	15,700	89,800	1,280	42
21	198	40	177	15	96	8.5	831	157	13,000	71,200	558	43
22	188	31	195	16	114	11	3,590	441	12,800	58,200	231	16
23	194	24	165	14	142	15	1,330	145	25,200	130,000	133	9.3
24	185	25	182	14	118	13	235	22	27,800	168,000	101	7.4
25	194	29	203	18	112	11	170	14	21,600	163,000	91	6.7
26	226	33	176	14	105	8.7	190	20	16,500	144,000	104	9.4
27	173	27	168	13	121	11	2,020	214	12,900	96,900	106	9.0
28	181	29	132	10	82	6.8	50,100	50,700	10,500	46,200	96	7.0
29	185	29	132	10	105	9.5	54,000	172,000	12,100	46,900	101	6.9
30	189	28	218	22	294	243	39,700	138,000	14,400	41,900	102	6.3
31	---	---	186	17	---	---	27,400	118,000	14,300	42,900	---	---
Total	---	709.7	---	640	---	781.5	---	1,150,998	---	4,122,200	---	281,050.0