08290000 RIO CHAMA NEAR CHAMITA, NM

Upper Rio Grande Basin
Rio Chama Subbasin

LOCATION.--Lat 36°04'24.8", long 106°06'42.1" referenced to North American Datum of 1983, Rio Arriba County, NM, Hydrologic Unit 13020102, in San Juan Pueblo Grant, near left downstream corner of bridge on U.S. Highway 285, 0.5 mi west of Chamita, 2.5 mi northwest of San Juan Pueblo, and at mile 2.8.

DRAINAGE AREA.--3,144 mi^2 of which 100 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "Chama River near Chamita" prior to 1928, and "Chama River at Chamita" 1929-30.

REVISED RECORDS.--WSP 1512: 1913-15, 1934, 1936. WSP 1632: 1929(M). WSP 1732: 1931(M). WSP 1923: drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Concrete control since Jan. 1, 1964. Datum of gage is 5,653.61 ft above NGVD of 1929. Prior to Oct. 4, 1933, at railroad bridge 2.3 mi downstream at different datums. Oct. 4, 1933, to Mar. 1, 1942, at site 50 ft downstream at datum 0.22 ft higher. Mar. 2, 1942, to Dec. 31, 1963, at site 200 ft downstream, present datum.

REMARKS.--Water-discharge records fair except for those estimated, which are poor. Diversions upstream from station for irrigation of about 27,600 acres. Chamita ditch (station 08289500), on left bank, and Hernandez ditch (station 08289800), on right bank, bypass gage for irrigation of several hundred acres downstream from station. Flow regulated by El Vado Reservoir (station 08285000), 74.9 mi upstream, since Jan. 1935 and Abiquiu Reservoir (station 08286900), 29.3 mi upstream, since Feb. 1963. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 83.0 mi upstream. No flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--The floods of Sept. 29, 1904, and Oct. 4 or 5, 1911, probably exceeded 15,000 ft^3/s. Another major flood occurred in 1884, from newspaper accounts.

08290000 RIO CHAMA NEAR CHAMITA, NM—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	87	79	116	e185	163	1,400	1,820	2,010	1,880	827	471	686
2	96	83	117	e180	152	1,350	1,860	1,750	1,840	653	513	529
3	85	83	100	e160	129	1,280	1,940	1,660	1,800	316	517	450
4	74	86	93	e150	132	1,140	1,930	1,660	1,800	171	544	433
5	74	84	94	126	130	1,120	1,900	1,790	1,790	145	627	444
6	65	79	96	133	125	839	1,880	1,980	1,800	146	580	533
7	107	73	148	134	130	684	1,940	2,050	1,790	152	534	596
8	249	78	212	e100	133	243	2,010	2,040	1,760	152	557	621
9	312	83	276	e95	126	210	2,000	1,520	1,720	170	567	665
10	261	85	239	e105	130	701	1,960	1,460	1,710	163	572	590
11	119	86	466	e225	131	1,180	1,910	1,400	1,730	158	568	563
12	71	86	462	e245	135	1,170	1,890	1,420	1,620	202	490	665
13	65	88	440	e240	151	1,330	1,890	1,300	1,680	220	412	684
14	64	94	438	e237	214	1,350	1,880	1,120	1,670	181	419	659
15	66	89	444	e241	233	1,630	1,930	1,170	1,680	168	533	615
16	64	82	434	e250	260	1,640	2,090	1,060	1,550	167	703	646
17	56	86	437	244	277	1,610	2,140	961	1,160	197	997	683
18	51	86	425	243	252	1,580	2,040	972	1,160	244	618	684
19	52	85	341	263	227	1,460	2,010	1,030	1,140	242	226	712
20	48	84	330	263	228	1,340	2,050	1,010	1,140	275	200	771
21	50	83	208	252	233	1,410	2,120	918	1,100	347	415	805
22	52	81	199	168	231	618	2,140	1,200	969	492	596	758
23	54	84	e185	159	251	1,480	2,300	1,600	932	454	713	691
24	52	82	e183	144	347	1,850	2,460	1,580	749	201	721	662
25	56	84	e187	121	533	1,930	2,510	1,680	736	186	685	564
26	60	86	e185	109	961	1,910	2,370	1,910	724	220	702	528
27	59	e87	e180	142	828	2,090	2,240	2,010	719	219	691	588
28	59	86	e176	159	867	1,850	2,220	1,980	731	232	535	590
29	54	e85	e189	143	1,120	1,820	2,240	2,000	752	224	560	589
30	58	87	e185	151	---	1,900	2,110	1,970	790	236	646	589
31	68	---	e193	146	---	1,870	---	1,920	---	396	669	---
Total	2,688	2,524	7,778	5,513	8,829	41,985	61,780	48,131	40,622	8,156	17,581	18,593
Mean	86.7	84.1	251	178	304	1,354	2,059	1,553	1,354	263	567	620
Max	312	94	466	263	1,120	2,090	2,510	2,050	1,880	827	997	805
Min	48	73	93	95	125	210	1,820	918	719	145	200	433
Ac-ft	5,330	5,010	15,430	10,940	17,510	83,280	122,500	95,470	80,570	16,180	34,870	36,880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	290	275	292	197	248	449	1,053	1,480	1,029	598	484	432
Max	1,273	1,224	1,291	876	1,677	1,705	2,534	2,741	2,346	1,477	1,114	1,164
(WY)	(1988)	(1980)	(1976)	(1986)	(1987)	(1987)	(1985)	(1983)	(1984)	(1983)	(2000)	(1987)
Min	37.3	51.4	63.4	63.5	56.1	85.1	120	204	117	170	95.5	83.1
(WY)	(1979)	(2002)	(2003)	(1975)	(2002)	(1977)	(1977)	(1972)	(1976)	(1972)	(1979)	(1974)

08290000 RIO CHAMA NEAR CHAMITA, NM—Continued

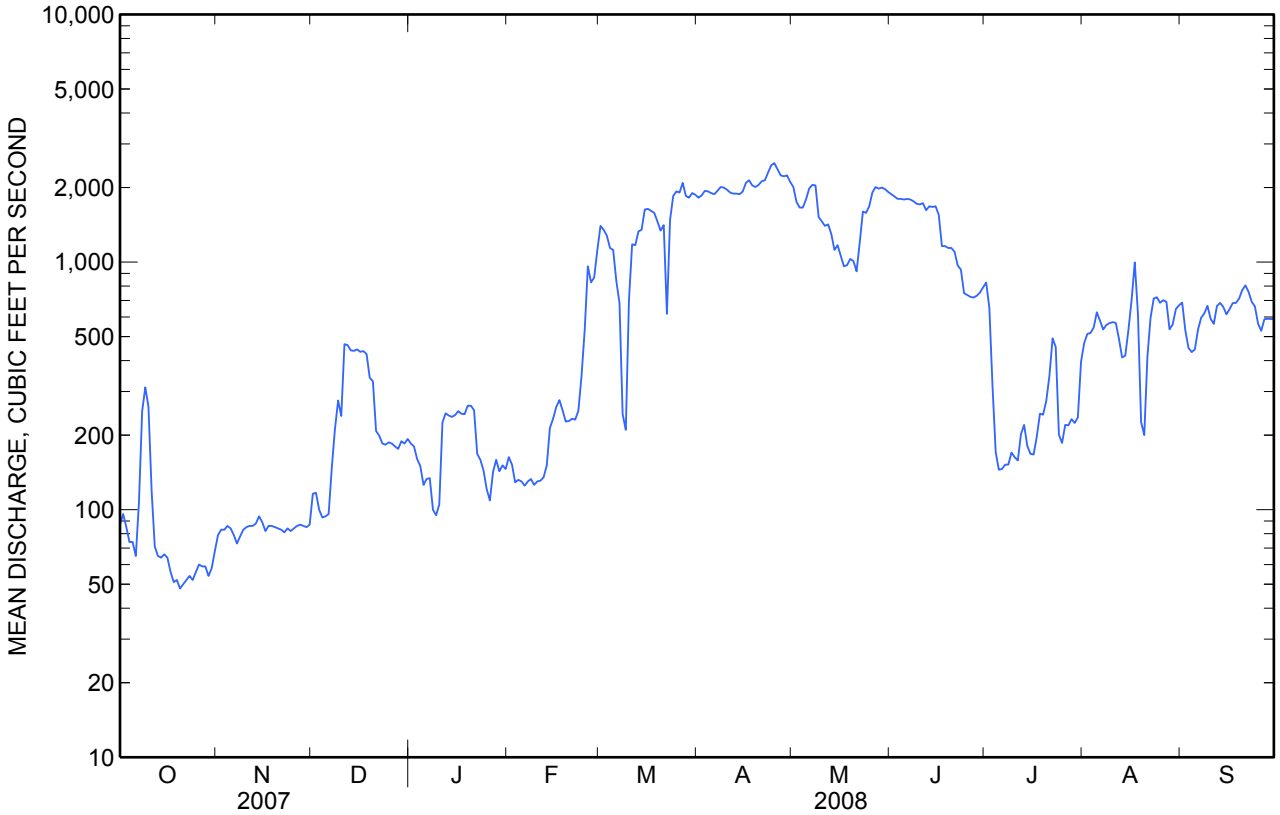
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1971 - 2008	
Annual total	131,836		264,180			
Annual mean	361		722		[a]570	
Highest annual mean					923	1987
Lowest annual mean					234	1972
Highest daily mean	1,980	May 18	2,510	Apr 25	3,570	May 5, 1985
Lowest daily mean	48	Oct 20	48	Oct 20	1.2	Sep 16, 1971
Annual seven-day minimum	51	Oct 18	51	Oct 18	1.7	Sep 10, 1971
Maximum peak flow			2,640	Apr 25	[b]15,000	May 22, 1920
Maximum peak stage			6.33	Apr 25	[c]11.68	Sep 1, 1994
Instantaneous low flow			29	Jan 31	1.2	Sep 16, 1971
Annual runoff (ac-ft)	261,500		524,000		412,800	
10 percent exceeds	730		1,900		1,600	
50 percent exceeds	262		458		316	
90 percent exceeds	69		84		75	

[a]Average discharge for 58 years (water years 1913-70), 541 ft^3/s, 392,000 acre-ft/yr, prior to release of transmountain water.

[b]From rating curve extended above 2,000 ft^3/s.

[c]From floodmarks of slope-are measurement of peak flow.



08290000 RIO CHAMA NEAR CHAMITA, NM—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 5

[Remark codes: <, less than; E, estimated.]

Date	Time	Instantaneous discharge, ft3/s (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)
Nov													
20...	0855	82	13	624	11.0	8.5	473	5.5	3.5	51.6	10.1	3.12	32.6
May													
07...	1150	2,190	66	613	10.4	8.2	224	29.0	9.8	27.9	4.68	2.03	10.9
Aug													
13...	0905	411	46	623	8.0	8.1	250	22.5	17.0	30.7	5.18	1.71	9.94

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 5

[Remark codes: <, less than; E, estimated.]

Date	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Alkalinity, wat flt inf tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt infl pt titr., field, mg/L (00453)	Carbonate, wat flt infl pt titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 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)	Nitrate + nitrite water fltrd, mg/L as N (00631)
Nov													
20...	150	146	173	2	12.4	.34	15.6	74.8	310	.22	.30	<.020	<.04
May													
07...	70	68	72	--	3.25	.12	13.3	34.6	154	.29	.71	.025	E.03
Aug													
13...	84	78	94	--	2.17	.13	13.7	37.4	166	.29	.32	<.020	E.03

08290000 RIO CHAMA NEAR CHAMITA, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 3 of 5
[Remark codes: <, less than; E, estimated.]

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L as P (00666)	Phos-phorus, water, unfltrd mg/L as P (00665)	Organic carbon, water, fltrd, mg/L (00681)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli-form, M-FC 0.7u MF col/ 100 mL (31625)	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)
Nov													
20...	<.002	.007	.008	.048	1.0	88	930	E1.5	E.09	3.2	82	E.01	61
May													
07...	E.002	.017	.018	.372	5.1	240	E61	7.7	E.09	1.2	49	E.01	19
Aug													
13...	E.002	.014	.016	.076	7.4	55	--	1.7	E.09	1.5	56	<.01	17

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 4 of 5
[Remark codes: <, less than; E, estimated.]

Date	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)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium water, fltrd, µg/L (01130)	Mangan-ese, water, fltrd, µg/L (01056)	Mercury water, fltrd, µg/L (71890)	Mercury 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)
Nov													
20...	<.04	E.11	.08	E.57	E4	<.08	50.8	7.6	<.010	<.010	1.4	.94	.26
May													
07...	<.04	E.10	.11	1.0	23	E.04	13.7	7.0	<.010	.020	.8	1.7	.26
Aug													
13...	<.04	E.08	.08	1.2	E7	E.05	7.5	4.3	<.010	<.010	.9	.84	.27

08290000 RIO CHAMA NEAR CHAMITA, NM—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 5 of 5
[Remark codes: <, less than; E, estimated.]

Date	Selenium, water, unfltrd µg/L (01147)	Silver, water, fltrd, µg/L (01075)	Strontium, water, fltrd, µg/L (01080)	Thallium, water, fltrd, µg/L (01057)	Vanadium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	Uranium natural water, fltrd, µg/L (22703)	Suspnd. sediment, sieve diametr percent <62.5um (70331)	Suspended sediment concentration mg/L (80154)
Nov									
20...	.25	<.1	450	<.04	2.6	<1.8	3.77	66	335
May									
07...	.28	<.1	194	<.04	1.7	E1.5	.76	25	681
Aug									
13...	.27	<.1	237	<.04	1.9	E1.0	.68	95	45