

Water-Data Report 2013

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM

Rio Grande-Caballo Basin
Caballo Subbasin

LOCATION.--Lat 33°08'54.64", long 107°12'24.42" referenced to North American Datum of 1983, Sierra County, NM, Hydrologic Unit 13030101, in Pedro Armendaris Grant, on left bank 1.0 mi downstream from dam, 1.5 mi upstream from Cuchillo Negro River, and at mile 1,382.2.

DRAINAGE AREA.--29,450 mi² of which 2,940 mi² probably is noncontributing, from the closed basin in San Luis Valley, Colorado.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1915 to current year. Monthly or annual discharge only for some periods, published in WSP 1732. Figures of daily discharge, published in WSP 458 for October to December 1916, are unreliable.

REVISED RECORDS.--WSP 1562: 1920. WSP 1632: drainage area. WSP 1732: 1917, 1920. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,241.09 ft above NGVD of 1929. Prior to Mar. 24, 1980, at datum 1.0 ft higher. See WSP 1732 for history of changes prior to Apr. 24, 1942.

REMARKS.--Records good except those from Apr. 11 to May 23, May 29 to Aug. 26; which are fair and those from Oct. 3 to Apr. 11, Aug. 26 to Sept. 30 and estimated daily discharges, which are poor. Flow regulated by Elephant Butte Reservoir (station 08360500). Diversion for irrigation of about 800,000 acres upstream from station. No flow at times prior to 1929, Mar. 2-4, 1979.

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	e0.34	0.36	3.3	0.84	4.3	e0.70	e0.13	0.16	1,970	2,000	0.04	0.52
2	e0.42	0.38	3.2	0.78	14	e0.76	e0.14	0.26	1,980	2,100	0.08	0.60
3	e0.42	0.50	3.2	0.90	14	e0.75	e0.23	0.35	1,810	1,530	0.07	0.44
4	0.31	0.71	e3.7	0.72	20	e0.63	e0.15	0.54	1,680	1,090	0.10	0.46
5	0.38	0.64	e4.9	0.87	31	e5.4	e0.05	0.68	1,660	990	0.06	0.44
6	0.43	0.51	e1.4	0.93	e91	e16	e0.20	0.50	1,660	945	0.00	0.61
7	0.51	0.60	e0.88	1.1	e15	e19	e0.14	0.47	1,660	956	0.01	0.61
8	0.39	0.79	e0.80	0.83	e13	e16	e0.00	11	1,660	362	0.02	0.71
9	0.54	0.96	e0.79	0.96	e17	e16	e0.03	13	1,650	15	0.04	0.84
10	0.45	1.2	e0.78	1.1	e12	e16	e0.07	12	1,920	4.7	0.37	8.7
11	0.46	1.00	e0.76	1.0	e11	e16	e0.11	12	2,000	1.4	1.7	3.8
12	0.22	1.4	e0.74	1.2	e11	e37	0.15	12	1,860	1.8	1.1	e2.1
13	0.17	1.2	e0.72	0.90	e10	e27	0.37	12	1,980	0.38	0.69	e17
14	0.31	8.2	e0.70	1.0	e10	e37	0.37	11	2,080	0.35	0.34	e1.5
15	0.31	2.9	e0.69	1.0	12	e8.7	0.21	11	2,120	0.27	0.27	e1.3
16	0.00	2.3	e0.65	1.2	12	e0.19	0.21	11	2,150	0.17	0.32	e1.3
17	0.24	2.4	e0.64	0.89	13	e0.16	0.19	11	1,940	0.27	0.22	e0.97
18	0.22	2.6	e0.63	0.71	13	e0.42	0.20	11	1,850	0.16	0.18	e0.89
19	0.33	2.2	0.62	0.76	e10	e0.27	0.13	12	1,840	0.21	0.22	e1.0
20	0.50	2.5	0.69	0.59	e1.3	e0.31	0.23	12	1,850	0.37	0.07	e0.97
21	0.72	2.8	0.76	0.71	e0.86	e0.27	0.31	12	1,890	0.51	0.33	e0.97
22	0.85	2.9	0.97	0.74	e0.65	e0.26	0.19	e91	1,890	0.64	0.53	e0.94
23	0.79	2.6	0.72	0.72	e0.75	e0.27	0.09	e1,830	1,880	0.43	0.46	e1.0
24	0.01	2.9	0.78	0.82	e0.66	e0.20	0.19	1,910	1,910	2.3	0.56	e0.89
25	0.08	2.9	0.73	0.85	e0.70	e0.20	0.20	1,920	1,910	3.0	0.71	e1.1
26	0.17	3.0	0.72	1.0	e0.68	e0.18	0.15	1,950	1,910	0.20	0.55	e1.1
27	0.26	2.9	0.85	0.73	e0.73	e0.11	0.23	1,930	1,950	2.0	0.45	e1.0
28	0.45	3.2	0.66	0.86	e0.69	e0.12	0.34	1,910	2,050	0.37	0.51	e0.87
29	0.42	3.2	0.78	0.62	---	e0.16	0.21	1,910	2,110	0.29	0.60	e0.94
30	0.37	3.2	0.74	0.72	---	e0.17	0.12	1,930	2,050	0.09	0.82	e0.92
31	0.34	---	0.75	0.63	---	e0.22	---	1,950	---	0.00	0.60	---
Total	11.41	62.95	38.25	26.68	340.32	220.45	5.34	17,496.96	56,870	10,007.91	12.02	54.49
Mean	0.37	2.10	1.23	0.86	12.2	7.11	0.18	564	1,896	323	0.39	1.82
Max	0.85	8.2	4.9	1.2	91	37	0.37	1,950	2,150	2,100	1.7	17
Min	0.00	0.36	0.62	0.59	0.65	0.11	0.00	0.16	1,650	0.00	0.00	0.44
Ac-ft	23	125	76	53	675	437	11	34,710	112,800	19,850	24	108

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	320	225	268	292	692	1,170	1,508	1,547	1,826	1,716	1,376	764
Max	2,040	2,662	2,110	1,944	3,026	2,297	2,717	7,601	6,098	4,032	2,623	2,169
(WY)	(1987)	(1942)	(1987)	(1987)	(1986)	(1989)	(1942)	(1942)	(1942)	(1995)	(1924)	(1939)
Min	0.37	1.11	0.84	0.00	3.23	7.11	0.18	8.32	284	323	0.39	1.82
(WY)	(2013)	(2008)	(2012)	(1918)	(2007)	(2013)	(2013)	(1957)	(1964)	(2013)	(2013)	(2013)

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1917 - 2013	
Annual total	184,260.76		85,146.78			
Annual mean	503		233		976	
Highest annual mean					2,665	1942
Lowest annual mean					233	2013
Highest daily mean	1,930	Jul 14	2,150	Jun 16	8,220	May 22, 1942
Lowest daily mean	0.00	Oct 16	0.00	Oct 16	0.00	Nov 2, 1916
Annual seven-day minimum	0.21	Oct 12	0.04	Aug 3	0.00	Nov 2, 1916
Annual runoff (ac-ft)	365,500		168,900		707,200	
10 percent exceeds	1,700		1,670		2,080	
50 percent exceeds	18		0.78		979	
90 percent exceeds	0.50		0.17		5.2	

