

Water-Data Report 2013

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM

Rio Grande-Elephant Butte Basin
Rio Grande-Albuquerque Subbasin

LOCATION.--Lat 33°41'15.6", long 106°59'33.4" referenced to North American Datum of 1983, Socorro County, NM, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 34, on right bank at San Marcial, 0.4 mi northwest of Atchison, Topeka and Santa Fe Railway Co. bridge over floodway channel, 1.0 mi southwest of former site of San Marcial, 3.5 mi downstream from railroad bridge near Tiffany siding, and 51 mi downstream from heading at San Acacia.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1958 to September 1959, October 1964 to current year. Prior to October 1964, monthly discharge only published with record for "Rio Grande at San Marcial" (station 08358500).

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,454.00 ft above NGVD of 1929 (levels by Bureau of Reclamation). Prior to Apr. 29, 1958, at datum 4.19 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Conveyance channel is one of two channels (station 08358400) carrying flow in valley cross section. Flow from the river has been diverted since 1965.

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, 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 | e14 | 58 | 76 | 129 | 127 | 137 | 68 | 71 | 48 | 12 | 139 | 24 |
| 2 | e10 | 48 | 80 | 128 | 127 | 164 | 71 | 105 | 46 | 26 | 158 | 19 |
| 3 | e16 | 46 | 84 | 128 | 128 | 227 | 75 | 100 | 48 | 31 | 146 | 19 |
| 4 | 22 | 11 | 89 | 130 | 130 | 227 | 59 | 89 | 51 | 8.8 | 151 | 27 |
| 5 | 26 | 15 | 90 | 133 | 132 | 251 | 61 | 81 | 51 | 21 | 144 | 25 |
| 6 | 6.5 | 40 | 91 | 130 | 134 | 220 | 51 | 79 | 67 | 6.9 | 111 | 21 |
| 7 | 6.9 | 34 | 92 | 128 | 136 | 211 | 59 | 81 | 64 | 28 | 109 | 18 |
| 8 | 8.0 | 37 | 91 | 127 | 134 | 202 | 60 | 93 | 64 | 7.2 | 101 | 18 |
| 9 | 7.6 | 37 | 88 | 127 | 135 | 190 | 60 | 66 | 65 | 27 | 117 | 17 |
| 10 | 6.1 | 35 | 107 | 126 | 135 | 181 | 68 | 68 | 60 | 48 | 116 | 50 |
| 11 | 2.6 | 29 | 119 | 125 | 136 | 170 | 72 | 74 | 53 | 45 | 136 | 232 |
| 12 | 3.1 | 38 | 123 | 124 | 138 | 172 | 69 | 128 | 44 | 46 | 223 | 166 |
| 13 | 17 | 44 | 140 | 126 | 137 | 163 | 65 | 150 | 37 | 28 | 190 | 115 |
| 14 | 14 | 39 | 143 | 126 | 139 | 132 | 60 | 131 | e27 | 60 | 118 | 123 |
| 15 | 33 | 35 | 138 | 125 | 138 | 127 | 63 | 117 | e23 | 108 | 102 | 161 |
| 16 | 42 | 31 | 136 | 125 | 138 | 134 | 56 | 135 | e19 | 153 | 111 | 150 |
| 17 | 43 | 29 | 135 | 124 | 140 | 122 | 63 | 104 | e16 | 136 | e94 | 157 |
| 18 | 13 | 33 | 136 | 124 | 140 | 114 | 61 | 127 | e12 | 138 | e83 | 158 |
| 19 | 4.5 | 35 | 135 | 126 | 139 | 103 | 68 | 125 | 7.9 | 109 | e73 | 164 |
| 20 | 7.1 | 36 | 128 | 128 | 139 | 106 | 63 | 115 | 6.5 | 75 | e57 | 178 |
| 21 | 30 | 35 | 134 | 127 | 138 | 100 | 55 | 96 | 4.3 | 75 | e62 | 210 |
| 22 | 15 | 37 | 139 | 126 | 137 | 80 | 58 | 78 | 3.3 | 71 | e50 | 219 |
| 23 | 10 | 40 | 137 | 125 | 136 | 48 | 62 | 76 | 4.4 | 59 | e40 | 182 |
| 24 | 16 | 44 | 133 | 124 | 136 | 51 | 81 | 79 | 3.3 | 56 | e44 | 175 |
| 25 | 18 | 47 | 132 | 125 | 135 | 70 | 86 | 72 | 5.1 | 55 | e37 | 169 |
| 26 | 15 | 50 | 132 | 126 | 138 | 74 | 116 | 56 | 3.4 | 69 | e36 | 161 |
| 27 | 22 | 57 | 129 | 127 | 130 | 63 | 104 | 89 | 3.0 | 135 | e43 | 178 |
| 28 | 33 | 63 | 130 | 127 | 126 | 72 | 96 | 62 | 2.6 | 151 | e38 | 162 |
| 29 | 44 | 67 | 127 | 127 | --- | 68 | 108 | 67 | 3.5 | 135 | e32 | 153 |
| 30 | 53 | 71 | 128 | 128 | --- | 70 | 113 | 61 | 13 | 93 | 28 | 182 |
| 31 | 44 | --- | 129 | 128 | --- | 67 | --- | 52 | --- | 117 | 29 | --- |
| Total | 602.4 | 1,221 | 3,671 | 3,929 | 3,778 | 4,116 | 2,151 | 2,827 | 855.3 | 2,129.9 | 2,918 | 3,633 |
| Mean | 19.4 | 40.7 | 118 | 127 | 135 | 133 | 71.7 | 91.2 | 28.5 | 68.7 | 94.1 | 121 |
| Max | 53 | 71 | 143 | 133 | 140 | 251 | 116 | 150 | 67 | 153 | 223 | 232 |
| Min | 2.6 | 11 | 76 | 124 | 126 | 48 | 51 | 52 | 2.6 | 6.9 | 28 | 17 |
| Ac-ft | 1,190 | 2,420 | 7,280 | 7,790 | 7,490 | 8,160 | 4,270 | 5,610 | 1,700 | 4,220 | 5,790 | 7,210 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2013, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mean | 239 | 406 | 406 | 350 | 347 | 372 | 391 | 453 | 386 | 290 | 252 | 225 |
| Max | 759 | 1,729 | 1,880 | 1,558 | 1,112 | 1,394 | 1,679 | 1,782 | 1,652 | 1,690 | 986 | 730 |
| (WY) | (1985) | (1970) | (1966) | (1974) | (1985) | (1966) | (1966) | (1969) | (1973) | (1973) | (1973) | (1972) |
| Min | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| (WY) | (1969) | (1977) | (1975) | (1975) | (1975) | (1977) | (1976) | (1976) | (1976) | (1976) | (1976) | (1974) |

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SUMMARY STATISTICS

| | Calendar Year 2012 | | Water Year 2013 | | Water Years 1965 - 2013 | |
|---------------------------------|--------------------|--------|-----------------|--------|-------------------------|--------------|
| Annual total | 41,530.6 | | 31,831.6 | | | |
| Annual mean | 113 | | 87.2 | | 343 | |
| Highest annual mean | | | | | 1,137 | 1973 |
| Lowest annual mean | | | | | 0.00 | 1977 |
| Highest daily mean | 289 | Apr 9 | 251 | Mar 5 | 2,200 | May 14, 1966 |
| Lowest daily mean | 2.6 | Oct 11 | 2.6 | Oct 11 | 0.00 | Sep 7, 1968 |
| Annual seven-day minimum | 5.8 | Oct 6 | 3.6 | Jun 22 | 0.00 | Sep 7, 1968 |
| Maximum peak flow | | | 368 | Aug 12 | 2,200 | May 14, 1966 |
| Maximum peak stage | | | 11.41 | Aug 12 | 12.18 | May 24, 2009 |
| Instantaneous low flow | | | 2.2 | Oct 11 | 0.00 | Sep 7, 1968 |
| Annual runoff (ac-ft) | 82,380 | | 63,140 | | 248,400 | |
| 10 percent exceeds | 233 | | 150 | | 850 | |
| 50 percent exceeds | 120 | | 80 | | 238 | |
| 90 percent exceeds | 18 | | 16 | | 2.3 | |

