

Water-Data Report 2011

11119745 Mission Creek at Rocky Nook Park, at Santa Barbara, CA

Mission Creek Basin

LOCATION.--Lat 34°26'26", long 119°42'39" referenced to North American Datum of 1927, Santa Barbara County, CA, Hydrologic Unit 18060013, on right bank, 75 ft upstream from bridge on Los Olivos Street, 150 ft southeast of entrance to Rocky Nook Park, approximately 0.20 mi north-northeast of Santa Barbara Mission, in Santa Barbara.

DRAINAGE AREA.--6.60 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1983 to September 1986, October 1997 to current year.

WATER TEMPERATURE: Water years 1984-86.

SEDIMENT DATA: Water years 1984-86.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 335 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for Oct. 6-8, Oct. 30, Dec. 19-29, Mar. 1-8, and estimated daily discharges, which are poor. At times water is released to creek for ground-water recharge from Gilbraltar Reservoir through Mission Tunnel several miles upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft³/s, Dec. 31, 2004, gage height, 9.73 ft, from rating curve extended above 838 ft³/s; no flow at times in most years.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and (or) maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|-----------------------------------|---------------------|
| Dec 19 | 1200 | *690 | *8.35 |
| Dec 22 | 0415 | 567 | 7.90 |
| Feb 25 | 2015 | 166 | 6.28 |
| Mar 20 | 0730 | 632 | 8.14 |
| Mar 25 | 0230 | 260 | 6.69 |

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1 | 0.04 | e0.23 | 0.11 | 5.3 | 0.91 | 3.0 | 7.6 | 1.7 | 0.85 | 0.63 | 0.30 | 0.10 |
| 2 | 0.05 | 0.19 | 0.09 | 11 | 0.91 | 2.7 | 7.0 | 1.6 | 0.82 | 0.57 | 0.27 | 0.11 |
| 3 | 0.08 | 0.17 | 0.09 | 12 | 0.90 | 2.4 | 6.5 | 1.5 | 0.82 | 0.56 | 0.26 | 0.10 |
| 4 | 0.10 | 0.15 | 0.10 | 7.3 | 0.90 | 2.2 | 5.8 | 1.4 | 0.88 | 0.53 | 0.23 | 0.09 |
| 5 | 0.07 | 0.15 | 0.29 | 5.9 | 0.89 | 2.1 | 5.3 | 1.4 | 1.3 | e0.52 | 0.22 | 0.08 |
| 6 | 0.60 | 0.18 | 0.33 | 5.4 | 0.84 | 1.9 | 4.9 | 1.3 | 1.4 | e0.51 | 0.24 | 0.06 |
| 7 | 0.18 | 0.23 | 0.12 | 5.1 | 0.83 | 1.8 | 4.7 | 1.3 | 1.1 | e0.50 | 0.25 | 0.04 |
| 8 | 0.14 | 0.27 | 0.10 | 4.3 | 0.83 | 1.7 | 4.5 | 1.3 | 1.0 | 0.48 | 0.24 | 0.04 |
| 9 | 0.11 | 0.47 | 0.11 | 3.9 | 0.80 | e1.6 | 4.2 | 1.2 | 1.0 | 0.47 | 0.27 | 0.04 |
| 10 | 0.08 | 0.31 | 0.12 | 3.5 | 0.80 | e1.5 | 3.8 | 1.2 | 1.0 | 0.45 | 0.28 | 0.06 |
| 11 | 0.07 | 0.45 | 0.12 | 3.2 | 0.78 | e1.4 | 3.6 | 1.1 | 1.0 | 0.44 | 0.27 | 0.10 |
| 12 | 0.14 | 0.53 | 0.11 | 2.9 | 0.77 | 1.3 | 3.5 | 1.1 | 0.99 | 0.48 | 0.28 | 0.09 |
| 13 | 0.16 | 0.52 | 0.12 | 2.7 | 0.77 | 1.3 | 3.2 | 1.1 | 0.91 | 0.45 | 0.27 | 0.07 |
| 14 | 0.17 | 0.51 | 0.18 | 2.8 | 0.76 | 1.2 | 3.1 | 1.1 | 0.84 | 0.48 | 0.23 | 0.06 |
| 15 | 0.22 | 0.52 | 0.11 | 2.7 | 0.86 | 1.2 | 2.9 | 1.2 | 0.83 | 0.49 | 0.21 | 0.08 |
| 16 | 0.26 | 0.58 | 0.11 | 2.5 | 1.5 | 1.1 | 2.7 | 1.2 | 0.85 | 0.48 | 0.17 | 0.10 |
| 17 | 0.32 | 0.64 | 0.63 | 2.3 | 0.86 | 1.1 | 2.6 | 1.4 | 0.85 | 0.44 | 0.11 | 0.11 |
| 18 | 0.29 | 0.60 | 24 | 2.1 | 3.4 | 1.0 | 2.7 | 1.4 | 0.84 | 0.37 | 0.10 | 0.09 |
| 19 | 0.49 | 0.57 | 254 | 1.9 | 4.5 | 1.5 | 2.6 | 1.1 | 0.83 | 0.32 | 0.10 | 0.07 |
| 20 | 0.29 | 1.2 | 124 | 1.8 | 1.7 | 390 | 2.5 | 0.98 | 0.82 | 0.31 | 0.12 | 0.07 |
| 21 | 0.32 | 1.0 | 43 | 1.7 | 1.2 | 137 | 2.4 | 0.97 | 0.79 | 0.32 | 0.12 | 0.08 |
| 22 | 0.28 | 0.32 | 152 | 1.6 | 1.1 | 36 | 2.4 | 0.95 | 0.76 | 0.33 | 0.12 | 0.08 |
| 23 | 0.26 | 0.19 | 34 | 1.5 | 0.97 | 23 | 2.3 | 0.93 | 0.74 | 0.36 | 0.11 | 0.06 |
| 24 | 0.25 | 0.15 | 17 | 1.4 | 0.87 | 21 | 2.2 | 0.92 | 0.74 | 0.33 | 0.11 | 0.07 |
| 25 | 0.24 | 0.14 | 21 | 2.0 | 28 | 88 | 2.1 | 0.88 | 0.75 | 0.28 | 0.10 | 0.10 |
| 26 | 0.33 | 0.12 | 17 | 1.3 | 19 | 31 | 2.0 | 0.87 | 0.74 | 0.28 | 0.09 | 0.10 |
| 27 | 0.22 | 0.12 | 10 | 1.2 | 6.0 | 22 | 1.8 | 0.86 | 0.72 | 0.28 | 0.09 | 0.08 |
| 28 | 0.20 | 0.12 | 7.0 | 1.1 | 3.8 | 17 | 1.8 | 0.86 | 0.69 | 0.29 | 0.08 | 0.07 |
| 29 | 0.19 | 0.10 | 17 | 1.0 | --- | 13 | 1.7 | 0.85 | 0.69 | 0.31 | e0.08 | 0.08 |
| 30 | 3.2 | 0.11 | 7.7 | 1.3 | --- | 10 | 1.7 | 0.84 | 0.65 | 0.34 | 0.08 | 0.07 |
| 31 | e0.30 | --- | 6.1 | 0.99 | --- | 8.7 | --- | 0.85 | --- | 0.33 | 0.13 | --- |
| Total | 9.65 | 10.84 | 736.64 | 103.69 | 85.45 | 828.7 | 104.1 | 35.36 | 26.20 | 12.93 | 5.53 | 2.35 |
| Mean | 0.31 | 0.36 | 23.8 | 3.34 | 3.05 | 26.7 | 3.47 | 1.14 | 0.87 | 0.42 | 0.18 | 0.08 |
| Max | 3.2 | 1.2 | 254 | 12 | 28 | 390 | 7.6 | 1.7 | 1.4 | 0.63 | 0.30 | 0.11 |
| Min | 0.04 | 0.10 | 0.09 | 0.99 | 0.76 | 1.0 | 1.7 | 0.84 | 0.65 | 0.28 | 0.08 | 0.04 |
| Ac-ft | 19 | 22 | 1,460 | 206 | 169 | 1,640 | 206 | 70 | 52 | 26 | 11 | 4.7 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2011, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Mean | 0.47 | 0.41 | 4.07 | 7.96 | 14.2 | 7.28 | 2.85 | 1.16 | 0.52 | 0.27 | 0.18 | 0.14 |
| Max | 2.97 | 1.52 | 23.8 | 71.8 | 138 | 33.5 | 19.9 | 8.39 | 3.18 | 2.27 | 1.60 | 0.79 |
| (WY) | (2010) | (1984) | (2011) | (2005) | (1998) | (2001) | (2006) | (1998) | (1998) | (1998) | (1998) | (1998) |
| Min | 0.00 | 0.00 | 0.06 | 0.11 | 0.25 | 0.11 | 0.06 | 0.04 | 0.03 | 0.01 | 0.01 | 0.01 |
| (WY) | (1998) | (1998) | (2004) | (2004) | (2002) | (2004) | (2004) | (1985) | (1984) | (1984) | (1984) | (1984) |

11119745 Mission Creek at Rocky Nook Park, at Santa Barbara, CA—Continued**SUMMARY STATISTICS**

| | Calendar Year 2010 | Water Year 2011 | Water Years 1984 - 2011 | |
|---------------------------------|---------------------------|------------------------|--------------------------------|--------------|
| Annual total | 1,623.87 | 1,961.44 | | |
| Annual mean | 4.45 | 5.37 | 3.37 | |
| Highest annual mean | | | 14.4 | 1998 |
| Lowest annual mean | | | 0.12 | 2004 |
| Highest daily mean | 254 | Dec 19 | 555 | Jan 9, 2005 |
| Lowest daily mean | 0.01 | Aug 24 | 0.00 | Aug 15, 1984 |
| Annual seven-day minimum | 0.02 | Aug 22 | 0.00 | Aug 15, 1984 |
| Maximum peak flow | | | 1,080 | Dec 31, 2004 |
| Maximum peak stage | | 8.35 | 9.73 | Dec 31, 2004 |
| Instantaneous low flow | | | 0.00 | Aug 15, 1984 |
| Annual runoff (ac-ft) | 3,220 | 3,890 | 2,440 | |
| 10 percent exceeds | 5.0 | 5.8 | 3.1 | |
| 50 percent exceeds | 0.29 | 0.80 | 0.22 | |
| 90 percent exceeds | 0.08 | 0.10 | 0.03 | |

