



Water-Data Report 2008

12157250 MISSION CREEK NEAR TULALIP, WA

Puget Sound Basin
Puget Sound Subbasin

LOCATION.--Lat 48°03'31", long 122°15'58" referenced to North American Datum of 1927, in SW ¼ NW ¼ sec.26, T.30 N., R.4 E., Snohomish County, WA, Hydrologic Unit 17110019, on left bank 100 ft upstream from highway crossing, 0.25 mi upstream from mouth, and 0.9 mi east of Tulalip.

DRAINAGE AREA.--7.92 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1974 to September 1977, November 2000 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 20.3 ft below NGVD of 1929, from precision Global Positioning System (GPS). Oct. 1974 to Sept. 1977, water-stage recorder, at site downstream from highway crossing, at different datum.

REMARKS.--Records fair, except for period July 3 through September 30 and estimated daily discharges which are poor. Some natural regulation in lakes and beaver ponds. Chemical analysis November 1974 to March 1977. Water temperatures October 1974 to March 1977.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--10 years (water years 1975-77, 2002-08), 5.26 ft³/s, 9.02 in/yr, 3,810 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft³/s, Jan. 19, 1977, gage height, 4.11 ft, from rating curve extended above 20 ft³/s datum then in use, probably result of release of water from beaver ponds; minimum discharge, 0.12 ft³/s, June 29, 1977, probably result of beaver activity upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72 ft³/s, Dec. 3, gage height, 57.68 ft; minimum discharge, 0.79 ft³/s, Sept. 11, 13, gage height, 55.25 ft.

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12157250 MISSION CREEK NEAR TULALIP, WA—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 | 2.7 | 2.3 | 3.7 | 9.3 | 8.2 | 5.2 | 15 | 4.2 | 2.2 | 1.7 | 2.0 | 1.3 |
| 2 | 2.6 | 2.2 | 9.3 | 11 | 7.8 | 5.6 | 12 | 3.8 | 2.4 | 1.8 | 1.9 | 1.3 |
| 3 | 5.8 | 2.1 | 58 | 12 | 6.8 | 5.7 | 9.9 | 3.6 | 4.4 | e3.2 | 1.4 | 1.3 |
| 4 | 5.4 | 2.2 | 35 | 14 | 6.1 | 9.5 | 9.1 | 3.8 | 7.2 | e2.8 | 1.2 | 1.2 |
| 5 | 3.6 | 2.1 | 15 | 13 | 6.2 | 9.2 | 9.0 | 3.6 | 5.7 | e2.2 | 1.1 | 1.1 |
| 6 | 2.7 | 2.1 | 8.6 | 9.9 | 6.2 | 6.8 | 8.1 | 3.3 | 7.8 | e1.8 | 0.97 | 1.1 |
| 7 | 2.6 | 2.2 | 6.1 | 8.4 | 6.1 | 5.8 | 7.9 | 3.3 | 8.4 | e1.4 | 0.99 | 1.1 |
| 8 | 3.8 | 2.7 | 4.5 | 7.8 | 6.7 | 5.2 | 11 | 3.5 | 6.0 | 1.2 | 1.0 | 1.1 |
| 9 | 3.6 | 3.1 | 3.8 | 12 | 13 | 4.8 | 10 | 3.3 | 4.8 | 1.3 | 1.3 | 1.1 |
| 10 | 3.0 | 3.6 | 3.6 | 11 | 11 | 4.6 | 8.5 | 3.1 | 5.3 | 1.2 | 1.4 | 0.96 |
| 11 | 2.7 | 3.5 | 3.4 | 9.2 | 9.8 | 5.1 | 7.2 | 4.0 | 5.9 | 1.0 | 1.4 | 0.96 |
| 12 | 2.6 | 5.6 | 3.3 | 8.4 | 9.6 | 4.8 | 6.3 | 5.0 | 5.7 | 1.1 | 1.3 | 0.92 |
| 13 | 2.3 | 6.6 | 3.9 | 7.8 | 9.1 | 4.7 | 6.0 | 4.4 | 4.9 | 1.0 | 1.2 | 0.88 |
| 14 | 2.1 | 4.7 | 5.6 | 8.6 | 8.0 | 7.0 | 6.2 | 9.2 | 4.1 | 0.99 | 1.1 | 0.91 |
| 15 | 2.0 | 5.0 | 6.7 | 11 | 7.3 | 13 | 5.8 | 10 | 3.6 | 1.0 | 1.0 | 0.94 |
| 16 | 2.1 | 6.3 | 5.8 | 9.0 | 7.3 | 10 | 5.3 | 6.8 | 3.4 | 1.0 | 1.0 | 0.96 |
| 17 | 2.1 | 6.4 | 7.9 | 7.8 | 6.7 | 7.8 | 5.0 | 5.0 | 3.0 | 1.0 | 0.98 | 0.94 |
| 18 | 2.2 | 6.1 | 9.4 | 7.1 | 6.2 | 7.7 | 5.9 | 3.6 | 2.9 | 1.1 | 1.1 | 1.1 |
| 19 | 3.8 | 5.1 | 9.5 | 8.1 | 5.8 | 6.8 | 8.1 | 3.0 | 3.1 | 1.2 | 1.4 | 1.2 |
| 20 | 4.3 | 4.7 | 11 | 9.9 | 5.6 | 5.9 | 8.3 | 3.4 | 2.7 | 1.2 | 1.7 | 1.3 |
| 21 | 3.5 | 3.7 | 9.6 | 8.1 | 5.1 | 5.7 | 7.0 | 6.7 | 2.5 | 1.2 | 2.9 | 3.1 |
| 22 | 3.1 | 3.3 | 7.8 | 6.8 | 4.8 | 5.3 | 5.8 | 6.6 | 2.4 | 1.2 | 1.8 | 3.5 |
| 23 | 2.7 | 3.1 | 12 | 6.0 | 4.6 | 6.7 | 5.3 | 5.1 | 2.4 | 1.3 | 1.3 | 2.4 |
| 24 | 3.5 | 3.0 | 28 | 5.9 | 4.3 | 8.7 | 4.9 | 4.3 | 2.4 | 1.5 | 1.4 | 2.0 |
| 25 | 5.5 | 2.9 | 15 | 5.3 | 4.2 | 7.1 | 5.4 | 3.7 | 2.3 | 1.3 | 3.0 | 1.8 |
| 26 | 4.2 | 3.0 | 19 | 5.2 | 4.1 | 7.8 | 4.8 | 3.0 | 2.2 | 1.3 | 2.4 | 2.0 |
| 27 | 3.2 | 4.1 | 22 | 6.7 | 4.1 | 7.5 | 4.3 | 2.9 | 2.1 | 1.8 | 2.4 | 1.9 |
| 28 | 3.0 | 4.3 | 16 | 6.4 | 4.1 | 7.9 | 5.5 | 2.6 | 2.0 | 2.1 | 2.3 | 1.7 |
| 29 | 2.7 | 5.0 | 13 | 7.5 | 4.1 | 14 | 5.6 | 2.5 | 2.2 | 1.6 | 2.1 | 1.6 |
| 30 | 2.5 | 4.2 | 12 | 9.0 | --- | 19 | 4.6 | 2.4 | 2.1 | 1.4 | 1.8 | 1.6 |
| 31 | 2.4 | --- | 11 | 9.2 | --- | 18 | --- | 2.3 | --- | 1.3 | 1.5 | --- |
| Total | 98.3 | 115.2 | 379.5 | 271.4 | 192.9 | 242.9 | 217.8 | 132.0 | 116.1 | 45.19 | 48.34 | 43.27 |
| Mean | 3.17 | 3.84 | 12.2 | 8.75 | 6.65 | 7.84 | 7.26 | 4.26 | 3.87 | 1.46 | 1.56 | 1.44 |
| Max | 5.8 | 6.6 | 58 | 14 | 13 | 19 | 15 | 10 | 8.4 | 3.2 | 3.0 | 3.5 |
| Min | 2.0 | 2.1 | 3.3 | 5.2 | 4.1 | 4.6 | 4.3 | 2.3 | 2.0 | 0.99 | 0.97 | 0.88 |
| Ac-ft | 195 | 228 | 753 | 538 | 383 | 482 | 432 | 262 | 230 | 90 | 96 | 86 |
| Cfsm | 0.40 | 0.48 | 1.55 | 1.11 | 0.84 | 0.99 | 0.92 | 0.54 | 0.49 | 0.18 | 0.20 | 0.18 |
| In. | 0.46 | 0.54 | 1.78 | 1.27 | 0.91 | 1.14 | 1.02 | 0.62 | 0.55 | 0.21 | 0.23 | 0.20 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2008, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mean | 3.02 | 5.69 | 8.96 | 9.41 | 7.79 | 8.19 | 7.50 | 4.27 | 2.78 | 1.32 | 1.66 | 1.73 |
| Max | 5.73 | 9.52 | 16.4 | 13.4 | 14.0 | 13.5 | 12.6 | 7.01 | 5.44 | 2.04 | 3.99 | 2.71 |
| (WY) | (1976) | (1976) | (2007) | (2006) | (1975) | (1975) | (2005) | (1977) | (2001) | (2001) | (1976) | (1977) |
| Min | 2.06 | 2.77 | 4.28 | 4.43 | 3.58 | 4.73 | 2.80 | 2.67 | 1.30 | 0.63 | 0.47 | 0.92 |
| (WY) | (1975) | (2003) | (2001) | (1977) | (1977) | (2005) | (2004) | (2003) | (2003) | (2003) | (2003) | (2003) |

12157250 MISSION CREEK NEAR TULALIP, WA—Continued**SUMMARY STATISTICS**

| | Calendar Year 2007 | Water Year 2008 | Water Years 1975 - 2008 | |
|---------------------------------|---------------------------|------------------------|--------------------------------|--------------|
| Annual total | 1,890.99 | 1,902.90 | | |
| Annual mean | 5.18 | 5.20 | 5.26 | |
| Highest annual mean | | | 7.22 | 1976 |
| Lowest annual mean | | | 3.52 | 2003 |
| Highest daily mean | 58 Dec 3 | 58 Dec 3 | 58 Dec 3 | 2007 |
| Lowest daily mean | 0.50 Jul 12 | 0.88 Sep 13 | 0.13 Jun 29, 1977 | |
| Annual seven-day minimum | 0.57 Jul 8 | 0.93 Sep 11 | 0.25 | Jun 25, 1977 |
| Annual runoff (ac-ft) | 3,750 | 3,770 | 3,810 | |
| Annual runoff (cfsm) | 0.654 | 0.656 | 0.664 | |
| Annual runoff (inches) | 8.88 | 8.94 | 9.02 | |
| 10 percent exceeds | 11 | 9.7 | 11 | |
| 50 percent exceeds | 3.5 | 4.1 | 3.6 | |
| 90 percent exceeds | 0.80 | 1.2 | 1.0 | |

