

**10396000 DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OR**

Oregon Closed Basins  
Donner und Blitzen Subbasin

LOCATION.--Lat 42°47'27", long 118°52'03" referenced to North American Datum of 1983, Harney County, OR, Hydrologic Unit 17120003, U.S. Bureau of Land Management land, on left bank, 1.5 mi upstream from upper diversions for Malheur National Wildlife Refuge, 2.0 mi downstream from Fish Creek and 3.5 mi southeast of Frenchglen.

DRAINAGE AREA.--200 mi<sup>2</sup>, approximately.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--March 1911 to September 1913, March 1914 to September 1916, April 1917 to September 1921, August to November 1929, April to September 1930, December 1937 to current year. Monthly discharge only for some periods, published in WSP 1314. Published as "near Diamond" 1911-21. Records of discharge for January 1909 to September 1910 (published in WSP 270, 290 and 370, for a nonequivalent site as "near Diamond") have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 330: Drainage area (former site). WSP 860: Drainage area (present site). WSP 1564: 1938-39(M), 1942-43(M), 1948(M), 1951(P), 1952-53. WSP 1714: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,254 ft above NGVD of 1929 (levels by U.S. Fish and Wildlife Service). Prior to December 1937, nonrecording gage at several sites within 2 mi downstream at different datums. Dec. 6, 1937 to Feb. 14, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good except for estimated discharges, which are fair. No regulation or diversion upstream from station. Periodic water-quality records for period March 1975 to September 1986 and continuous water-quality records for period October 1975 to September 1981 have been collected at this location.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--77 years (water years 1912-13, 1915-16, 1918-21, 1939-2007), 126 ft<sup>3</sup>/s, 91,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,270 ft<sup>3</sup>/s Apr. 26, 1978, gage height, 7.15 ft, from floodmarks, from rating curve extended above 1,900 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum discharge, 4.2 ft<sup>3</sup>/s Dec. 9, 1972, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,250 ft<sup>3</sup>/s and (or) maximum (\*):

| Date   | Time | Discharge (ft <sup>3</sup> /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|
| Apr 22 | 0630 | *845                           | *4.03            |

Minimum daily discharge, 12 ft<sup>3</sup>/s, Jan. 13, 15.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**  
**DAILY MEAN VALUES**

[e, estimated]

| Day          | Oct   | Nov   | Dec   | Jan   | Feb   | Mar   | Apr    | May    | Jun   | Jul   | Aug   | Sep   |
|--------------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1            | 42    | 44    | e32   | e38   | 39    | 47    | 109    | 308    | 237   | 65    | 35    | 34    |
| 2            | 43    | 48    | e30   | e46   | 40    | 50    | 105    | 308    | 232   | 64    | 35    | 31    |
| 3            | 44    | 47    | e30   | 51    | 44    | 49    | 100    | 269    | 240   | 61    | 35    | 31    |
| 4            | 48    | 46    | e36   | 51    | 49    | 78    | 98     | 236    | 229   | 59    | 35    | 31    |
| 5            | 46    | 45    | e40   | 43    | 49    | 155   | 104    | 216    | 225   | 59    | 34    | 34    |
| 6            | 44    | 46    | e42   | 50    | 53    | 148   | 116    | 200    | 203   | 58    | 35    | 34    |
| 7            | 44    | 48    | e44   | 49    | 50    | 121   | 135    | 220    | 163   | 56    | 35    | 33    |
| 8            | 44    | 49    | e46   | 47    | 49    | 102   | 154    | 269    | 145   | 54    | 35    | 32    |
| 9            | 44    | 49    | e48   | 45    | 60    | 83    | 141    | 322    | 133   | 51    | 35    | 32    |
| 10           | 44    | 43    | 51    | 45    | 57    | 108   | 128    | 372    | 202   | 49    | 35    | 32    |
| 11           | 44    | 49    | 46    | 42    | 76    | 124   | 120    | 377    | 206   | 48    | 34    | 32    |
| 12           | 44    | 43    | 47    | 26    | 54    | 105   | 120    | 398    | 161   | 48    | 33    | 32    |
| 13           | 44    | 49    | 64    | e12   | 47    | 111   | 117    | 390    | 155   | 46    | 33    | 32    |
| 14           | 44    | 54    | 87    | e13   | 44    | 115   | 124    | 350    | 165   | 45    | 33    | 32    |
| 15           | 44    | 46    | 76    | e12   | 58    | 104   | 121    | 346    | 158   | 43    | 33    | 32    |
| 16           | 53    | 49    | 40    | e13   | 224   | 108   | 110    | 367    | 150   | 42    | 33    | 32    |
| 17           | 51    | 50    | 25    | e13   | 158   | 124   | 116    | 393    | 146   | 41    | 33    | 33    |
| 18           | 48    | 49    | e24   | e15   | 82    | 149   | 114    | 416    | 118   | 42    | 33    | 34    |
| 19           | 49    | 48    | e26   | e18   | 60    | 153   | 139    | 412    | 113   | 42    | 34    | 34    |
| 20           | 59    | 47    | e28   | e20   | 57    | 149   | 208    | 381    | 111   | 41    | 34    | 35    |
| 21           | 49    | 49    | e32   | e24   | 56    | 124   | 272    | 339    | 105   | 40    | 33    | 34    |
| 22           | 47    | 50    | e46   | e28   | 54    | 115   | 704    | 257    | 98    | 39    | 34    | 34    |
| 23           | 47    | 49    | e48   | e30   | 52    | 115   | 374    | 223    | 92    | 39    | 33    | 37    |
| 24           | 46    | 42    | e50   | e36   | 50    | 120   | 266    | 212    | 89    | 39    | 33    | 36    |
| 25           | 45    | 47    | 56    | e40   | 52    | 132   | 250    | 226    | 82    | 38    | 32    | 34    |
| 26           | 44    | 48    | 51    | 47    | 50    | 132   | 235    | 256    | 76    | 42    | 32    | 34    |
| 27           | 45    | 48    | 51    | 45    | 50    | 125   | 226    | 290    | 74    | 37    | 32    | 33    |
| 28           | 45    | 45    | 44    | 43    | 50    | 112   | 244    | 290    | 73    | 36    | 32    | 33    |
| 29           | 44    | 27    | 31    | 42    | ---   | 107   | 271    | 227    | 73    | 36    | 32    | 35    |
| 30           | 44    | e30   | e28   | 42    | ---   | 110   | 288    | 216    | 70    | 35    | 31    | 34    |
| 31           | 40    | ---   | e34   | 43    | ---   | 111   | ---    | 221    | ---   | 35    | 32    | ---   |
| <b>Total</b> | 1,419 | 1,384 | 1,333 | 1,069 | 1,764 | 3,486 | 5,609  | 9,307  | 4,324 | 1,430 | 1,038 | 996   |
| <b>Mean</b>  | 45.8  | 46.1  | 43.0  | 34.5  | 63.0  | 112   | 187    | 300    | 144   | 46.1  | 33.5  | 33.2  |
| <b>Max</b>   | 59    | 54    | 87    | 51    | 224   | 155   | 704    | 416    | 240   | 65    | 35    | 37    |
| <b>Min</b>   | 40    | 27    | 24    | 12    | 39    | 47    | 98     | 200    | 70    | 35    | 31    | 31    |
| <b>Ac-ft</b> | 2,810 | 2,750 | 2,640 | 2,120 | 3,500 | 6,910 | 11,130 | 18,460 | 8,580 | 2,840 | 2,060 | 1,980 |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2007, BY WATER YEAR (WY)**

|             | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Mean</b> | 43.5   | 47.2   | 56.2   | 66.5   | 88.8   | 149    | 223    | 385    | 282    | 96.7   | 47.7   | 42.2   |
| <b>Max</b>  | 86.4   | 94.3   | 181    | 277    | 310    | 500    | 666    | 826    | 802    | 320    | 113    | 87.3   |
| <b>(WY)</b> | (1985) | (1985) | (1965) | (1997) | (1921) | (1993) | (1952) | (1998) | (1917) | (1984) | (1984) | (1984) |
| <b>Min</b>  | 24.2   | 25.3   | 25.2   | 25.0   | 27.8   | 40.5   | 61.2   | 105    | 44.7   | 28.9   | 21.1   | 22.2   |
| <b>(WY)</b> | (1993) | (1962) | (1960) | (1916) | (1964) | (1977) | (1968) | (1992) | (1992) | (1968) | (1992) | (1992) |

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SUMMARY STATISTICS

|                                 | Calendar Year 2006 |        | Water Year 2007 |        | Water Years 1912 - 2007 |              |
|---------------------------------|--------------------|--------|-----------------|--------|-------------------------|--------------|
| <b>Annual total</b>             | 55,386             |        | 33,159          |        |                         |              |
| <b>Annual mean</b>              | 152                |        | 90.8            |        | 126                     |              |
| <b>Highest annual mean</b>      |                    |        |                 |        | 273                     | 1984         |
| <b>Lowest annual mean</b>       |                    |        |                 |        | 49.1                    | 1992         |
| <b>Highest daily mean</b>       | 1,030              | May 20 | 704             | Apr 22 | 2,700                   | Mar 17, 1993 |
| <b>Lowest daily mean</b>        | 24                 | Dec 18 | 12              | Jan 13 | 11                      | Nov 16, 1961 |
| <b>Annual seven-day minimum</b> | 32                 | Dec 16 | 14              | Jan 13 | 14                      | Jan 2, 1974  |
| <b>Annual runoff (ac-ft)</b>    | 109,900            |        | 65,770          |        | 91,370                  |              |
| <b>10 percent exceeds</b>       | 404                |        | 226             |        | 319                     |              |
| <b>50 percent exceeds</b>       | 69                 |        | 48              |        | 56                      |              |
| <b>90 percent exceeds</b>       | 43                 |        | 32              |        | 32                      |              |

