

Water-Data Report 2006

**06017000 BEAVERHEAD RIVER AT DILLON, MT**

Missouri Headwaters Basin  
Beaverhead Subbasin

LOCATION.--Lat 45°13'05", long 112°39'18" referenced to North American Datum of 1927, in NW ¼ NE ¼ NW ¼ sec.24, T.7 S., R.9 W., Beaverhead County, MT, Hydrologic Unit 10020002, on right bank 0.2 mi downstream from West Side Canal and county road bridge, at Dillon, and at river mile 2,456.1.

DRAINAGE AREA.--2,895 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--August to September 1907 (gage heights only), October 1950 to September 1952, September 1963 to September 1971, April 2002 to current year (seasonal records only).

GAGE.--Water-stage recorder. Elevation of gage is 5,100 ft, referenced to the National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1952, nonrecording gages at same site at different elevation.

REMARKS.--Seasonal records are good. Some regulation imposed by Lima Reservoir (station number 06012000) and nearly complete regulation imposed by Clark Canyon Reservoir (station number 06015300) since August 1964. Diversions for irrigation of about 125,500 acres, of which about 23,000 acres lies downstream from station. Bureau of Reclamation satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

## 06017000 BEAVERHEAD RIVER AT DILLON, MT—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**CALENDAR YEAR JANUARY TO DECEMBER 2006**  
**DAILY MEAN VALUES**

| Day          | Jan | Feb | Mar | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov | Dec |
|--------------|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 1            |     |     |     | 176   | 86    | 155   | 180   | 211   | 123   | 82    |     |     |
| 2            |     |     |     | 178   | 85    | 149   | 160   | 196   | 131   | 78    |     |     |
| 3            |     |     |     | 174   | 93    | 148   | 158   | 182   | 135   | 79    |     |     |
| 4            |     |     |     | 143   | 96    | 154   | 149   | 159   | 140   | 85    |     |     |
| 5            |     |     |     | 165   | 100   | 146   | 145   | 167   | 136   | 90    |     |     |
| 6            |     |     |     | 229   | 113   | 139   | 155   | 165   | 124   | 95    |     |     |
| 7            |     |     |     | 202   | 113   | 139   | 153   | 166   | 110   | 122   |     |     |
| 8            |     |     |     | 138   | 109   | 166   | 148   | 153   | 111   | 121   |     |     |
| 9            |     |     |     | 116   | 121   | 184   | 151   | 142   | 101   | 128   |     |     |
| 10           |     |     |     | 113   | 109   | 155   | 151   | 146   | 102   | 129   |     |     |
| 11           |     |     |     | 107   | 125   | 159   | 135   | 145   | 104   | 122   |     |     |
| 12           |     |     |     | 96    | 119   | 118   | 130   | 148   | 103   | 119   |     |     |
| 13           |     |     |     | 81    | 118   | 103   | 125   | 153   | 92    | 121   |     |     |
| 14           |     |     |     | 86    | 124   | 101   | 118   | 153   | 100   | 124   |     |     |
| 15           |     |     |     | 87    | 133   | 120   | 112   | 155   | 114   | 126   |     |     |
| 16           |     |     |     | 84    | 154   | 107   | 106   | 156   | 114   | 127   |     |     |
| 17           |     |     |     | 88    | 133   | 88    | 113   | 160   | 115   | 130   |     |     |
| 18           |     |     |     | 87    | 150   | 89    | 99    | 147   | 117   | 129   |     |     |
| 19           |     |     |     | 80    | 182   | 105   | 118   | 117   | 111   | 142   |     |     |
| 20           |     |     |     | 77    | 202   | 126   | 130   | 109   | 95    | 149   |     |     |
| 21           |     |     |     | 79    | 216   | 121   | 159   | 113   | 90    | 148   |     |     |
| 22           |     |     |     | 80    | 224   | 123   | 161   | 117   | 93    | 146   |     |     |
| 23           |     |     |     | 83    | 202   | 137   | 162   | 116   | 111   | 146   |     |     |
| 24           |     |     |     | 86    | 188   | 129   | 167   | 124   | 113   | 150   |     |     |
| 25           |     |     |     | 83    | 206   | 136   | 172   | 126   | 115   | 155   |     |     |
| 26           |     |     |     | 78    | 204   | 130   | 193   | 136   | 99    | 157   |     |     |
| 27           |     |     |     | 71    | 221   | 152   | 179   | 129   | 88    | 156   |     |     |
| 28           |     |     |     | 69    | 211   | 151   | 171   | 122   | 89    | 153   |     |     |
| 29           |     |     |     | 76    | 228   | 166   | 183   | 117   | 86    | 153   |     |     |
| 30           |     |     |     | 76    | 215   | 181   | 192   | 109   | 84    | 154   |     |     |
| 31           |     |     |     | ---   | 176   | ---   | 206   | 112   | ---   | ---   |     |     |
| <b>Total</b> |     |     |     | 3,288 | 4,756 | 4,077 | 4,681 | 4,451 | 3,246 | 3,816 |     |     |
| <b>Mean</b>  |     |     |     | 110   | 153   | 136   | 151   | 144   | 108   | 127   |     |     |
| <b>Max</b>   |     |     |     | 229   | 228   | 184   | 206   | 211   | 140   | 157   |     |     |
| <b>Min</b>   |     |     |     | 69    | 85    | 88    | 99    | 109   | 84    | 78    |     |     |
| <b>Ac-ft</b> |     |     |     | 6,520 | 9,430 | 8,090 | 9,280 | 8,830 | 6,440 | 7,570 |     |     |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1971 AND SEASONS 2002 - 2006\***

|             | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Mean</b> | 372    | 385    | 388    | 341    | 260    | 322    | 225    | 213    | 271    | 259    | 457    | 429    |
| <b>Max</b>  | 462    | 539    | 606    | 1,078  | 742    | 1,157  | 493    | 475    | 796    | 680    | 700    | 613    |
| <b>(WY)</b> | (1971) | (1971) | (1969) | (1969) | (1969) | (1964) | (1971) | (1965) | (1965) | (1966) | (1966) | (1966) |
| <b>Min</b>  | 221    | 218    | 204    | 90.0   | 83.6   | 91.9   | 67.1   | 114    | 65.1   | 81.7   | 230    | 226    |
| <b>(WY)</b> | (1967) | (1967) | (1967) | (2004) | (2005) | (2005) | (1951) | (2004) | (2004) | (2005) | (1965) | (1967) |

\* During periods of operation [October 1950 to September 1952, September 1963 to September 1971, April 2002 to current year (seasonal records only)].

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## SUMMARY STATISTICS

|                          | 2006 Season      |        | Seasons 2002 - 2006 |              | Water Years 1951 - 1971 |              |
|--------------------------|------------------|--------|---------------------|--------------|-------------------------|--------------|
| Annual mean              |                  |        |                     |              | 370                     |              |
| Highest annual mean      |                  |        |                     |              | 523                     | 1971         |
| Lowest annual mean       |                  |        |                     |              | 183                     | 1967         |
| Highest daily mean       | 229              | Apr 6  | 288                 | Jul 21, 2003 | 1,700                   | Jun 21, 1964 |
| Lowest daily mean        | 69               | Apr 28 | 31                  | May 26, 2005 | 18                      | Jun 19, 1952 |
| Annual seven-day minimum |                  |        |                     |              | 32                      | Jul 27, 1951 |
| Maximum peak flow        | <sup>a</sup> 253 | Apr 6  | 317                 | Jul 21, 2003 | 1,740                   | Jun 21, 1964 |
| Maximum peak stage       | 3.89             | Aug 1  | 4.56                | Jul 21, 2003 | 6.63                    | Jun 21, 1964 |
| Instantaneous low flow   |                  |        |                     |              | <sup>b</sup> 18         | Jun 19, 1952 |
| Annual runoff (ac-ft)    |                  |        |                     |              | 267,800                 |              |
| 10 percent exceeds       |                  |        |                     |              | 615                     |              |
| 50 percent exceeds       |                  |        |                     |              | 357                     |              |
| 90 percent exceeds       |                  |        |                     |              | 134                     |              |

\* During periods of operation [October 1950 to September 1952, September 1963 to September 1971, April 2002 to current year (seasonal records only)].

<sup>a</sup> Gage height, 3.86 ft.

<sup>b</sup> Observed.

