

12324200 CLARK FORK AT DEER LODGE, MT

LOCATION.--Lat 46°23'52", long 112°44'31" (NAD 27), in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.33, T.8 N., R.9 W., Powell County, Hydrologic Unit 17010201, on left bank 35 ft upstream from Milwaukee Avenue Bridge in Deer Lodge, 0.05 mi upstream from Taylor Creek, 0.24 mi downstream from Tin Cup Joe Creek, and at river mile 461.2.

DRAINAGE AREA.--995 mi<sup>2</sup>, area at site used prior to Oct. 1, 1994, 1,005 mi<sup>2</sup>. Area used October 1994 to September 2000, 916 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,502.24 ft (NGVD 29).

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Diversions upstream from station for irrigation of about 31,000 acres. Some regulation by settling ponds on Silver Bow Creek near Warm Springs. U. S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

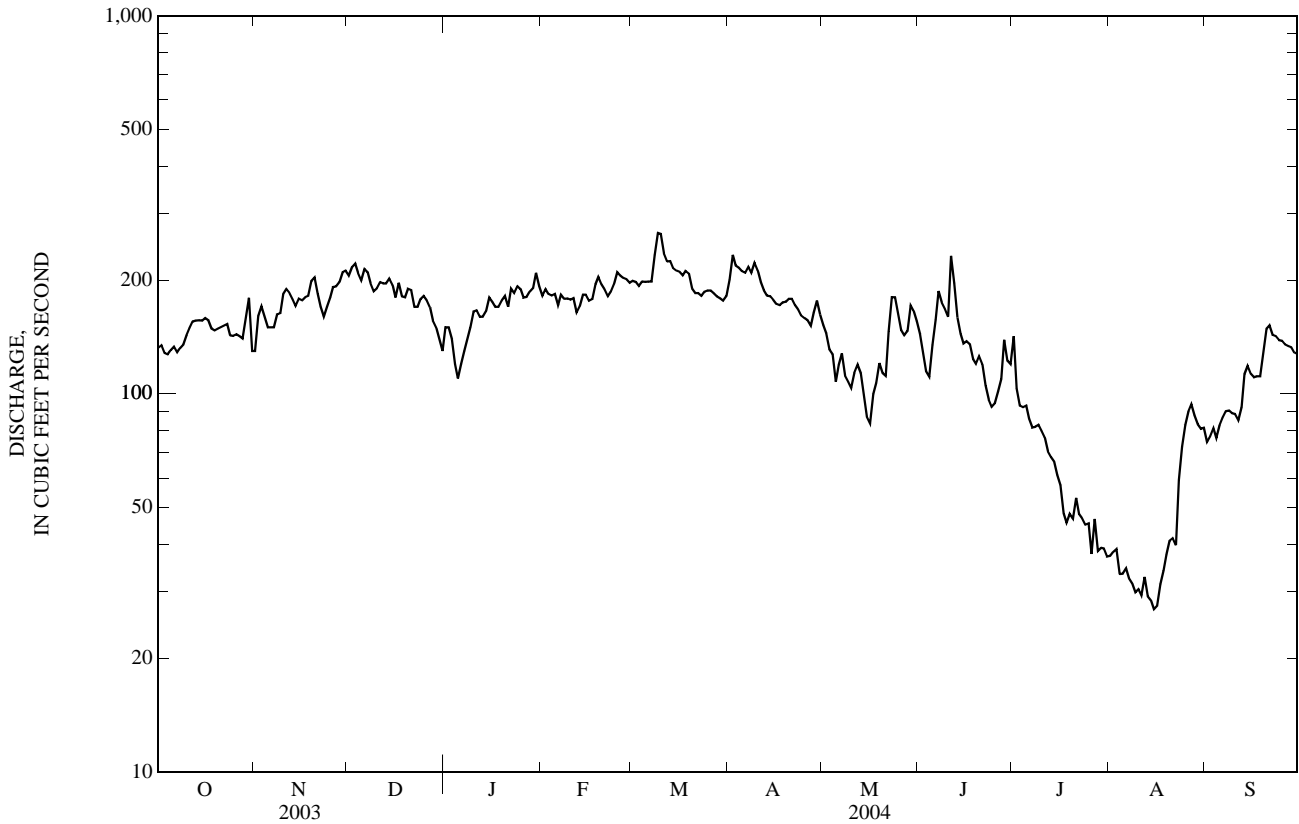
| DAY   | OCT   | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|
| 1     | 133   | e130   | 206    | e150   | 182    | 199    | 201    | 152   | 144   | 142   | 37    | 75    |
| 2     | 135   | 161    | 217    | e150   | 189    | 198    | 233    | 145   | 128   | 103   | 38    | 77    |
| 3     | 128   | 170    | 221    | e140   | 184    | 193    | 219    | 131   | 115   | 93    | 39    | 81    |
| 4     | 127   | e160   | 209    | e120   | 182    | 199    | 216    | 128   | 111   | 92    | 33    | 76    |
| 5     | 131   | e150   | 200    | e110   | 184    | 198    | 211    | 108   | 135   | 93    | 34    | 83    |
| 6     | 133   | e150   | 214    | e120   | 172    | 198    | 209    | 119   | 157   | 86    | 35    | 87    |
| 7     | 129   | e150   | 210    | e130   | 183    | 198    | 217    | 128   | 187   | 82    | 33    | 90    |
| 8     | 132   | 162    | 196    | e140   | 179    | 233    | 209    | 112   | 175   | 82    | 32    | 90    |
| 9     | 135   | 164    | 187    | e150   | 179    | 267    | 223    | 108   | 168   | 83    | 30    | 89    |
| 10    | 143   | 184    | 190    | 165    | 178    | 265    | 212    | 104   | 160   | 80    | 30    | 89    |
| 11    | 150   | 189    | 198    | 166    | 179    | 235    | 197    | 114   | 232   | 77    | 29    | 85    |
| 12    | 155   | 185    | 196    | e160   | 164    | 224    | 188    | 119   | 196   | 70    | 33    | 92    |
| 13    | 156   | 178    | 196    | e160   | 171    | 225    | 182    | 114   | 159   | 68    | 29    | 113   |
| 14    | 157   | 171    | 202    | 165    | 183    | 215    | 181    | 101   | 144   | 66    | 28    | 119   |
| 15    | 156   | 179    | 194    | e180   | 183    | 212    | 177    | 87    | 136   | 61    | 27    | 113   |
| 16    | 159   | 177    | 180    | 175    | 177    | 210    | 173    | 84    | 138   | 57    | 28    | 111   |
| 17    | 157   | 180    | 197    | e170   | 178    | 206    | 172    | 100   | 135   | 48    | 31    | 111   |
| 18    | 149   | 182    | 181    | e170   | 195    | 211    | 175    | 107   | 124   | 46    | 34    | 112   |
| 19    | 147   | 199    | 180    | 176    | 204    | 208    | 176    | 121   | 120   | 48    | 38    | 128   |
| 20    | 149   | 203    | 190    | 181    | 195    | 190    | 179    | 114   | 126   | 47    | 41    | 149   |
| 21    | 150   | 184    | 188    | e170   | 189    | 185    | 179    | 112   | 120   | 53    | 42    | 152   |
| 22    | 152   | e170   | e170   | e190   | 181    | 185    | 172    | 146   | 105   | 48    | 40    | 143   |
| 23    | 153   | e160   | e170   | 185    | 186    | 182    | 167    | 180   | 97    | 47    | 59    | 142   |
| 24    | 143   | e170   | 178    | 192    | 195    | 186    | 161    | 180   | 93    | 45    | 73    | 139   |
| 25    | 142   | e180   | 182    | 189    | 210    | 188    | 159    | 162   | 95    | 45    | 83    | 138   |
| 26    | 144   | 192    | 177    | 180    | 205    | 188    | 157    | 148   | 102   | 38    | 90    | 135   |
| 27    | 142   | 192    | 169    | 181    | 203    | 185    | 152    | 143   | 110   | 47    | 94    | 134   |
| 28    | 140   | 198    | 156    | 187    | 201    | 181    | 164    | 147   | 139   | 38    | 88    | 133   |
| 29    | 159   | 210    | e150   | 191    | 197    | 179    | 177    | 172   | 122   | 39    | 83    | 129   |
| 30    | 180   | 212    | e140   | 209    | ---    | 176    | 162    | 166   | 120   | 39    | 81    | 128   |
| 31    | e130  | ---    | e130   | 193    | ---    | 181    | ---    | 156   | ---   | 37    | 81    | ---   |
| TOTAL | 4,496 | 5,292  | 5,774  | 5,145  | 5,408  | 6,300  | 5,600  | 4,008 | 4,093 | 2,000 | 1,473 | 3,343 |
| MEAN  | 145   | 176    | 186    | 166    | 186    | 203    | 187    | 129   | 136   | 64.5  | 47.5  | 111   |
| MAX   | 180   | 212    | 221    | 209    | 210    | 267    | 233    | 180   | 232   | 142   | 94    | 152   |
| MIN   | 127   | 130    | 130    | 110    | 164    | 176    | 152    | 84    | 93    | 37    | 27    | 75    |
| AC-FT | 8,920 | 10,500 | 11,450 | 10,210 | 10,730 | 12,500 | 11,110 | 7,950 | 8,120 | 3,970 | 2,920 | 6,630 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2004, BY WATER YEAR (WY)

|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 236    | 247    | 221    | 221    | 243    | 265    | 277    | 381    | 482    | 211    | 103    | 170    |
| MAX  | 421    | 384    | 353    | 342    | 481    | 387    | 422    | 971    | 1,450  | 593    | 337    | 315    |
| (WY) | (1983) | (1981) | (1981) | (1983) | (1982) | (1979) | (1982) | (1981) | (1997) | (1982) | (1997) | (1993) |
| MIN  | 115    | 156    | 122    | 140    | 137    | 185    | 161    | 80.2   | 57.8   | 29.9   | 27.8   | 57.8   |
| (WY) | (1989) | (1989) | (1993) | (1992) | (1989) | (1991) | (1992) | (1992) | (1992) | (1985) | (1988) | (1988) |

| SUMMARY STATISTICS       | FOR 2003 CALENDAR YEAR |        | FOR 2004 WATER YEAR |        | WATER YEARS 1979 - 2004 |              |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL             | 76,439                 |        | 52,932              |        |                         |              |
| ANNUAL MEAN              | 209                    |        | 145                 |        | 254                     |              |
| HIGHEST ANNUAL MEAN      |                        |        |                     |        | 465                     |              |
| LOWEST ANNUAL MEAN       |                        |        |                     |        | 130                     |              |
| HIGHEST DAILY MEAN       | 1,020                  | Jun 1  | 267                 | Mar 9  | 2,390                   | May 23, 1981 |
| LOWEST DAILY MEAN        | 36                     | Jul 31 | 27                  | Aug 15 | 22                      | Aug 18, 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 38                     | Jul 29 | 29                  | Aug 10 | 23                      | Aug 9, 1991  |
| MAXIMUM PEAK FLOW        |                        |        | a286                | Mar 10 | d2,500                  | May 23, 1981 |
| MAXIMUM PEAK STAGE       |                        |        | b3.76               | Jan 6  | b5.92                   | Nov 1, 1991  |
| INSTANTANEOUS LOW FLOW   |                        |        | c26                 | Aug 15 | f21                     | Aug 6, 1991  |
| ANNUAL RUNOFF (AC-FT)    | 151,600                |        | 105,000             |        | 184,300                 |              |
| 10 PERCENT EXCEEDS       | 358                    |        | 202                 |        | 402                     |              |
| 50 PERCENT EXCEEDS       | 185                    |        | 156                 |        | 217                     |              |
| 90 PERCENT EXCEEDS       | 64                     |        | 52                  |        | 90                      |              |

a--Gage height, 2.98 ft.  
 b--Backwater from ice.  
 c--Gage height 2.16 ft.  
 d--Gage height 5.35 ft.  
 e--Estimated.  
 f--Gage height, 2.19 ft.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963, 1969-71, 1979-83, 1985 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1978 to September 1983, October 1991 to September 1998, seasonal records for May 2001 to September 2002.  
 SUSPENDED-SEDIMENT DISCHARGE: March 1985 through August 1986, April 1987 to March 2003, August 2003 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE : Maximum, 24.5°C, July 26, 1998, July 11-14, 2002; minimum, 0.0°C on many days during winter periods.  
 SEDIMENT CONCENTRATION: Maximum daily mean, 835 mg/L, Feb. 8, 1996; minimum daily mean, 1 mg/L, Aug. 19, 2002.  
 SEDIMENT LOAD: Maximum daily, 2,840 tons, Feb. 24, 1986; minimum daily, 0.18 ton, Aug. 19, 2002.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 64 mg/L, Mar. 9; minimum daily mean, 3 mg/L, July 16, 17, and 23.  
 SEDIMENT LOAD: Maximum daily, 46 tons, Mar. 9; minimum daily, 0.38 ton, July 23.

12324200 CLARK FORK AT DEER LODGE, MT—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date  | Time | Instantaneous discharge, cfs (00061) | pH, water, unfltrd field, std units (00400) | Specif. conductance, water, unfltrd uS/cm 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | Hardness, water, mg/L as CaCO3 (00900) | Calcium water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Arsenic water, fltrd, ug/L (01000) | Arsenic water unfltrd ug/L (01002) | Cadmium water, fltrd, ug/L (01025) | Cadmium water, unfltrd ug/L (01027) |
|-------|------|--------------------------------------|---|---|---------------------------------|-----------------------------------|--|------------------------------------|---------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|
| NOV   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 17... | 1540 | 182                                  | 8.6   | 533   | 4.5                             | 3.5                               | 240                                    | 71.3                               | 16.0                                  | 11.5                               | 13                                 | .04                                | .14                                 |
| MAR   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 17... | 1005 | 204                                  | 8.4   | 533   | 9.0                             | 5.0                               | 240                                    | 71.7                               | 15.9                                  | 11.3                               | 12                                 | .06                                | .18                                 |
| APR   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 20... | 1505 | 179                                  | 8.6   | 520   | 4.5                             | 9.0                               | 240                                    | 69.9                               | 15.3                                  | 15.4                               | 13                                 | E.03                               | .09                                 |
| MAY   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 17... | 1505 | 106                                  | 8.5   | 499   | 19.0                            | 12.5                              | 240                                    | 70.2                               | 14.5                                  | 10.9                               | 13                                 | E.04                               | .10                                 |
| JUN   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 01... | 0855 | 146                                  | 8.2   | 497   | 11.0                            | 10.5                              | 220                                    | 65.0                               | 14.5                                  | 17.7                               | 25                                 | .06                                | .18                                 |
| 13... | 1415 | 155                                  | 8.6   | 385   | 17.0                            | 15.5                              | 170                                    | 51.4                               | 10.8                                  | 18.1                               | 23                                 | E.03                               | .12                                 |
| JUL   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 19... | 1540 | 51                                   | 8.6   | 490   | 29.0                            | 22.5                              | 210                                    | 62.0                               | 13.3                                  | 17.8                               | 17                                 | E.02                               | .14                                 |
| AUG   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 20... | 1415 | 40                                   | 8.4   | 535   | 25.5                            | 20.0                              | 240                                    | 73.4                               | 13.9                                  | 14.7                               | 16                                 | E.04                               | .10                                 |

| Date  | Copper, water, fltrd, ug/L (01040) | Copper, water, unfltrd recover-able, ug/L (01042) | Iron, water, fltrd, ug/L (01046) | Iron, water, unfltrd recover-able, ug/L (01045) | Lead, water, fltrd, ug/L (01049) | Lead, water, unfltrd recover-able, ug/L (01051) | Manganese, water, fltrd, ug/L (01056) | Manganese, water, unfltrd recover-able, ug/L (01055) | Zinc, water, fltrd, ug/L (01090) | Zinc, water, unfltrd recover-able, ug/L (01092) | Suspended sediment, percent <.063mm (70331) | Suspended sediment concentration mg/L (80154) | Suspended sediment discharge, tons/d (80155) |
|-------|------------------------------------|---|----------------------------------|---|----------------------------------|---|---------------------------------------|--|----------------------------------|---|---|---|--|
| NOV   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 17... | 4.6                                | 21.8  | E5                               | 350   | <.08                             | 2.48  | 38.9                                  | 81   | 6.1                              | 25  | 77  | 15  | 7.4  |
| MAR   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 17... | 5.5                                | 30.3  | E6                               | 470   | E.06                             | 3.52  | 61.3                                  | 119  | 6.6                              | 29  | 76  | 23  | 13   |
| APR   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 20... | 5.4                                | 15.8  | 8                                | 230   | E.04                             | 1.86  | 41.2                                  | 66   | 4.1                              | 16  | 76  | 12  | 5.8  |
| MAY   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 17... | 5.6                                | 14.2  | 10                               | 190   | E.06                             | 1.32  | 37.3                                  | 70   | 4.9                              | 14  | 88  | 8   | 2.3  |
| JUN   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 01... | 6.1                                | 26.5  | 11                               | 380   | E.07                             | 2.97  | 36.4                                  | 126  | 4.9                              | 26  | 88  | 16  | 6.3  |
| 13... | 6.2                                | 19.9  | 8                                | 230   | E.06                             | 1.97  | 25.0                                  | 85   | 2.4                              | 16  | 87  | 11  | 4.6  |
| JUL   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 19... | 7.0                                | 10.9  | E4                               | 60  | <.08                             | .52   | 8.1                                   | 21   | .9                               | 7   | 92  | 10  | 1.4  |
| AUG   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 20... | 6.6                                | 14.2  | <6                               | 160   | <.08                             | 1.35  | 34.1                                  | 116  | 2.6                              | 13  | 66  | 19  | 2.1  |

E--Estimated.

## 12324200 CLARK FORK AT DEER LODGE, MT—Continued

SUSPENDED-SEDIMENT  
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Day   | Mean concentration (mg/l) |                 | Load (tons/day)           |                 | Mean concentration (mg/l) |                 | Load (tons/day)           |                 | Mean concentration (mg/l) |                 | Load (tons/day)           |                 | Mean concentration (mg/l) |                 | Load (tons/day)           |                 |
|-------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|
|       | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) |
|       | OCTOBER                   |                 | NOVEMBER                  |                 | DECEMBER                  |                 | JANUARY                   |                 | FEBRUARY                  |                 | MARCH                     |                 |                           |                 |                           |                 |
| 1     | 21                        | 7.5             | 10                        | 3.5             | 16                        | 8.9             | 11                        | 4.5             | 36                        | 18              | 18                        | 9.7             |                           |                 |                           |                 |
| 2     | 16                        | 5.8             | 11                        | 4.8             | 16                        | 9.4             | 12                        | 4.9             | 29                        | 15              | 16                        | 8.6             |                           |                 |                           |                 |
| 3     | 14                        | 4.8             | 14                        | 6.4             | 16                        | 9.5             | 12                        | 4.5             | 24                        | 12              | 17                        | 8.9             |                           |                 |                           |                 |
| 4     | 14                        | 4.8             | 16                        | 6.9             | 16                        | 9.0             | 12                        | 3.9             | 22                        | 11              | 20                        | 11              |                           |                 |                           |                 |
| 5     | 14                        | 5.0             | 16                        | 6.5             | 16                        | 8.6             | 13                        | 3.9             | 21                        | 10              | 18                        | 9.6             |                           |                 |                           |                 |
| 6     | 14                        | 5.0             | 17                        | 6.9             | 17                        | 9.8             | 14                        | 4.5             | 20                        | 9.3             | 20                        | 11              |                           |                 |                           |                 |
| 7     | 13                        | 4.5             | 18                        | 7.3             | 17                        | 9.6             | 15                        | 5.3             | 18                        | 8.9             | 20                        | 11              |                           |                 |                           |                 |
| 8     | 14                        | 5.0             | 18                        | 7.9             | 17                        | 9.0             | 17                        | 6.4             | 17                        | 8.2             | 36                        | 23              |                           |                 |                           |                 |
| 9     | 14                        | 5.1             | 18                        | 8.0             | 17                        | 8.6             | 18                        | 7.3             | 17                        | 8.2             | 64                        | 46              |                           |                 |                           |                 |
| 10    | 14                        | 5.4             | 16                        | 7.9             | 17                        | 8.7             | 19                        | 8.5             | 18                        | 8.7             | 47                        | 34              |                           |                 |                           |                 |
| 11    | 14                        | 5.7             | 13                        | 6.6             | 16                        | 8.6             | 20                        | 9.0             | 22                        | 11              | 28                        | 18              |                           |                 |                           |                 |
| 12    | 14                        | 5.9             | 12                        | 6.0             | 15                        | 7.9             | 19                        | 8.2             | 24                        | 11              | 27                        | 16              |                           |                 |                           |                 |
| 13    | 14                        | 5.9             | 11                        | 5.3             | 14                        | 7.4             | 18                        | 7.8             | 24                        | 11              | 24                        | 15              |                           |                 |                           |                 |
| 14    | 14                        | 5.9             | 11                        | 5.1             | 13                        | 7.1             | 17                        | 7.6             | 24                        | 12              | 20                        | 12              |                           |                 |                           |                 |
| 15    | 13                        | 5.5             | 11                        | 5.3             | 12                        | 6.3             | 16                        | 7.8             | 24                        | 12              | 22                        | 13              |                           |                 |                           |                 |
| 16    | 13                        | 5.6             | 11                        | 5.3             | 11                        | 5.3             | 14                        | 6.6             | 24                        | 11              | 26                        | 15              |                           |                 |                           |                 |
| 17    | 13                        | 5.5             | 14                        | 6.8             | 10                        | 5.3             | 12                        | 5.5             | 24                        | 12              | 24                        | 13              |                           |                 |                           |                 |
| 18    | 14                        | 5.6             | 10                        | 4.9             | 9                         | 4.4             | 10                        | 4.6             | 34                        | 18              | 29                        | 17              |                           |                 |                           |                 |
| 19    | 14                        | 5.6             | 9                         | 4.8             | 9                         | 4.4             | 9                         | 4.3             | 43                        | 24              | 23                        | 13              |                           |                 |                           |                 |
| 20    | 14                        | 5.6             | 10                        | 5.5             | 9                         | 4.6             | 8                         | 3.9             | 38                        | 20              | 24                        | 12              |                           |                 |                           |                 |
| 21    | 14                        | 5.7             | 10                        | 5.0             | 9                         | 4.6             | 8                         | 3.7             | 34                        | 17              | 23                        | 11              |                           |                 |                           |                 |
| 22    | 13                        | 5.3             | 10                        | 4.6             | 9                         | 4.1             | 8                         | 4.1             | 29                        | 14              | 25                        | 12              |                           |                 |                           |                 |
| 23    | 12                        | 5.0             | 11                        | 4.8             | 9                         | 4.1             | 9                         | 4.5             | 25                        | 13              | 23                        | 11              |                           |                 |                           |                 |
| 24    | 13                        | 5.0             | 11                        | 5.0             | 9                         | 4.3             | 12                        | 6.2             | 23                        | 12              | 20                        | 10              |                           |                 |                           |                 |
| 25    | 13                        | 5.0             | 11                        | 5.3             | 8                         | 3.9             | 22                        | 11              | 22                        | 12              | 20                        | 10              |                           |                 |                           |                 |
| 26    | 14                        | 5.4             | 11                        | 5.7             | 8                         | 3.8             | 36                        | 17              | 22                        | 12              | 16                        | 8.1             |                           |                 |                           |                 |
| 27    | 14                        | 5.4             | 11                        | 5.7             | 10                        | 4.6             | 46                        | 22              | 22                        | 12              | 14                        | 7.0             |                           |                 |                           |                 |
| 28    | 14                        | 5.3             | 14                        | 7.5             | 12                        | 5.1             | 48                        | 24              | 21                        | 11              | 18                        | 8.8             |                           |                 |                           |                 |
| 29    | 13                        | 5.6             | 16                        | 9.1             | 12                        | 4.9             | 49                        | 25              | 21                        | 11              | 19                        | 9.2             |                           |                 |                           |                 |
| 30    | 11                        | 5.3             | 16                        | 9.2             | 12                        | 4.5             | 48                        | 27              | ---                       | ---             | 20                        | 9.5             |                           |                 |                           |                 |
| 31    | 10                        | 3.5             | ---                       | ---             | 12                        | 4.2             | 43                        | 22              | ---                       | ---             | 24                        | 12              |                           |                 |                           |                 |
| TOTAL | ---                       | 166.2           | ---                       | 183.6           | ---                       | 200.5           | ---                       | 285.5           | ---                       | 365.3           | ---                       | 425.4           |                           |                 |                           |                 |
|       | APRIL                     |                 | MAY                       |                 | JUNE                      |                 | JULY                      |                 | AUGUST                    |                 | SEPTEMBER                 |                 |                           |                 |                           |                 |
| 1     | 25                        | 14              | 11                        | 4.5             | 15                        | 5.8             | 12                        | 4.6             | 22                        | 2.2             | 20                        | 4.0             |                           |                 |                           |                 |
| 2     | 32                        | 20              | 12                        | 4.7             | 11                        | 3.8             | 12                        | 3.3             | 19                        | 1.9             | 19                        | 4.0             |                           |                 |                           |                 |
| 3     | 27                        | 16              | 10                        | 3.5             | 10                        | 3.1             | 12                        | 3.0             | 18                        | 1.9             | 20                        | 4.4             |                           |                 |                           |                 |
| 4     | 26                        | 15              | 10                        | 3.5             | 11                        | 3.3             | 12                        | 3.0             | 20                        | 1.8             | 20                        | 4.1             |                           |                 |                           |                 |
| 5     | 22                        | 13              | 8                         | 2.3             | 12                        | 4.4             | 13                        | 3.3             | 20                        | 1.8             | 21                        | 4.7             |                           |                 |                           |                 |
| 6     | 23                        | 13              | 10                        | 3.2             | 17                        | 7.2             | 12                        | 2.8             | 20                        | 1.9             | 22                        | 5.2             |                           |                 |                           |                 |
| 7     | 22                        | 13              | 10                        | 3.5             | 21                        | 11              | 12                        | 2.7             | 19                        | 1.7             | 22                        | 5.3             |                           |                 |                           |                 |
| 8     | 23                        | 13              | 7                         | 2.1             | 18                        | 8.5             | 13                        | 2.9             | 16                        | 1.4             | 23                        | 5.6             |                           |                 |                           |                 |
| 9     | 23                        | 14              | 7                         | 2.0             | 19                        | 8.6             | 12                        | 2.7             | 14                        | 1.1             | 23                        | 5.5             |                           |                 |                           |                 |
| 10    | 20                        | 11              | 8                         | 2.2             | 23                        | 9.9             | 10                        | 2.2             | 15                        | 1.2             | 23                        | 5.5             |                           |                 |                           |                 |
| 11    | 15                        | 8.0             | 8                         | 2.5             | 37                        | 23              | 7                         | 1.5             | 20                        | 1.6             | 23                        | 5.3             |                           |                 |                           |                 |
| 12    | 18                        | 9.1             | 8                         | 2.6             | 22                        | 12              | 5                         | 0.95            | 26                        | 2.3             | 22                        | 5.5             |                           |                 |                           |                 |
| 13    | 15                        | 7.4             | 8                         | 2.5             | 11                        | 4.7             | 5                         | 0.92            | 29                        | 2.3             | 20                        | 6.1             |                           |                 |                           |                 |
| 14    | 14                        | 6.8             | 7                         | 1.9             | 9                         | 3.5             | 4                         | 0.71            | 30                        | 2.3             | 19                        | 6.1             |                           |                 |                           |                 |
| 15    | 15                        | 7.2             | 15                        | 3.5             | 9                         | 3.3             | 4                         | 0.66            | 28                        | 2.0             | 18                        | 5.5             |                           |                 |                           |                 |
| 16    | 12                        | 5.6             | 8                         | 1.8             | 9                         | 3.4             | 3                         | 0.46            | 22                        | 1.7             | 18                        | 5.4             |                           |                 |                           |                 |
| 17    | 10                        | 4.6             | 9                         | 2.4             | 8                         | 2.9             | 3                         | 0.39            | 18                        | 1.5             | 18                        | 5.4             |                           |                 |                           |                 |
| 18    | 10                        | 4.7             | 8                         | 2.3             | 7                         | 2.3             | 7                         | 0.87            | 17                        | 1.6             | 18                        | 5.4             |                           |                 |                           |                 |
| 19    | 10                        | 4.8             | 9                         | 2.9             | 7                         | 2.3             | 11                        | 1.4             | 18                        | 1.8             | 20                        | 6.9             |                           |                 |                           |                 |
| 20    | 12                        | 5.8             | 9                         | 2.8             | 7                         | 2.4             | 8                         | 1.0             | 21                        | 2.3             | 23                        | 9.3             |                           |                 |                           |                 |
| 21    | 11                        | 5.3             | 11                        | 3.3             | 6                         | 1.9             | 6                         | 0.86            | 24                        | 2.7             | 23                        | 9.4             |                           |                 |                           |                 |
| 22    | 11                        | 5.1             | 19                        | 7.5             | 7                         | 2.0             | 4                         | 0.52            | 29                        | 3.1             | 17                        | 6.6             |                           |                 |                           |                 |
| 23    | 11                        | 5.0             | 42                        | 20              | 8                         | 2.1             | 3                         | 0.38            | 29                        | 4.6             | 13                        | 5.0             |                           |                 |                           |                 |
| 24    | 10                        | 4.3             | 35                        | 17              | 7                         | 1.8             | 4                         | 0.49            | 24                        | 4.7             | 12                        | 4.5             |                           |                 |                           |                 |
| 25    | 10                        | 4.3             | 22                        | 9.6             | 9                         | 2.3             | 6                         | 0.73            | 20                        | 4.5             | 11                        | 4.1             |                           |                 |                           |                 |
| 26    | 10                        | 4.2             | 13                        | 5.2             | 14                        | 3.9             | 14                        | 1.4             | 18                        | 4.4             | 11                        | 4.0             |                           |                 |                           |                 |
| 27    | 20                        | 8.2             | 11                        | 4.2             | 14                        | 4.2             | 22                        | 2.8             | 19                        | 4.8             | 11                        | 4.0             |                           |                 |                           |                 |
| 28    | 12                        | 5.3             | 12                        | 4.8             | 14                        | 5.3             | 25                        | 2.6             | 20                        | 4.8             | 12                        | 4.3             |                           |                 |                           |                 |
| 29    | 9                         | 4.3             | 26                        | 12              | 12                        | 4.0             | 26                        | 2.7             | 20                        | 4.5             | 11                        | 3.8             |                           |                 |                           |                 |
| 30    | 7                         | 3.1             | 21                        | 9.4             | 11                        | 3.6             | 26                        | 2.7             | 21                        | 4.6             | 11                        | 3.8             |                           |                 |                           |                 |
| 31    | ---                       | ---             | 24                        | 10              | ---                       | ---             | 26                        | 2.6             | 21                        | 4.6             | ---                       | ---             |                           |                 |                           |                 |
| TOTAL | ---                       | 255.1           | ---                       | 159.7           | ---                       | 156.5           | ---                       | 57.14           | ---                       | 83.6            | ---                       | 158.7           |                           |                 |                           |                 |

12324590 LITTLE BLACKFOOT RIVER NEAR GARRISON, MT

LOCATION.--Lat 46°31'11", long 112°47'33" (NAD 27), in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.24, T.9 N., R.10 W., Powell County, Hydrologic Unit 17010201, on right bank 20 ft upstream from bridge on frontage road, 0.7 mi southeast of Garrison, and at river mile 0.5.

DRAINAGE AREA.--407 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,343.97 ft (NGVD 29). Prior to Oct. 1, 1992, at site 3.5 mi upstream at different elevation.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. A few minor irrigation holding reservoirs in upper reaches of drainage. Diversions for irrigation of about 11,000 acres upstream from station. U. S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY    | JUN    | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|
| 1     | 31    | e53   | 59    | e50   | e55   | 58    | 143   | 176    | 248    | 104   | 44    | 37    |
| 2     | 33    | 57    | 65    | e55   | e50   | 57    | 138   | 168    | 225    | 96    | 44    | 40    |
| 3     | 37    | e55   | 69    | e50   | e55   | 56    | 128   | 169    | 213    | 93    | 47    | 37    |
| 4     | 39    | e50   | e60   | e40   | e60   | 56    | 144   | 154    | 203    | 96    | 46    | 36    |
| 5     | 41    | e40   | e60   | e30   | e60   | 56    | 155   | 145    | 199    | 100   | 46    | 36    |
| 6     | 44    | e45   | 63    | e25   | e55   | 55    | 156   | 157    | 203    | 91    | 40    | 37    |
| 7     | 49    | e50   | 68    | e30   | e60   | 54    | 166   | 165    | 204    | 89    | 41    | 37    |
| 8     | 47    | e50   | 61    | e40   | e65   | 266   | 175   | 166    | 198    | 90    | 43    | 36    |
| 9     | 45    | e55   | e60   | e45   | e65   | 330   | 205   | 171    | 213    | 86    | 41    | 32    |
| 10    | 45    | 57    | e60   | e55   | e60   | 356   | 198   | 170    | 224    | 88    | 40    | 33    |
| 11    | 45    | 58    | 58    | e50   | e55   | 172   | 183   | 177    | 272    | 97    | 36    | 35    |
| 12    | 46    | 57    | 58    | e50   | e50   | 143   | 177   | 174    | 249    | 90    | 31    | 42    |
| 13    | 46    | e55   | 58    | e50   | e50   | 179   | 179   | 166    | 217    | 85    | 20    | 53    |
| 14    | 46    | e50   | 59    | e50   | e50   | 121   | 188   | 156    | 196    | 75    | 17    | 70    |
| 15    | 54    | e55   | 57    | e50   | e55   | 104   | 197   | 137    | 181    | 72    | 16    | 61    |
| 16    | 56    | 56    | e55   | e50   | e55   | 102   | 194   | 127    | 180    | 74    | 16    | 56    |
| 17    | 55    | 56    | 58    | e45   | e60   | 127   | 186   | 137    | 170    | 78    | 18    | 53    |
| 18    | 52    | 57    | e55   | e45   | e90   | 158   | 178   | 136    | 163    | 72    | 22    | 53    |
| 19    | 52    | 61    | e50   | e50   | 79    | 187   | 162   | 159    | 159    | 75    | 19    | 64    |
| 20    | 50    | 64    | e55   | e50   | 66    | 128   | 164   | 157    | 157    | 80    | 20    | 77    |
| 21    | 51    | 61    | e60   | e50   | 62    | 119   | 166   | 179    | 150    | 75    | 20    | 78    |
| 22    | 53    | e55   | e55   | e55   | 60    | 119   | 149   | 255    | 134    | 73    | 25    | 83    |
| 23    | 58    | e55   | e50   | e60   | 59    | 125   | 140   | 295    | 114    | 71    | 43    | 87    |
| 24    | 55    | e60   | e60   | e60   | 60    | 140   | 131   | 282    | 73     | 69    | 45    | 80    |
| 25    | 53    | e60   | e55   | e55   | 64    | 149   | 131   | 251    | 85     | 67    | 41    | 76    |
| 26    | 53    | e60   | e50   | e55   | 61    | 140   | 132   | 244    | 95     | 64    | 41    | 76    |
| 27    | 53    | e60   | e50   | e60   | 60    | 123   | 139   | 251    | 106    | 60    | 42    | 72    |
| 28    | 55    | e65   | e50   | e65   | 61    | 113   | 172   | 264    | 133    | 60    | 37    | 71    |
| 29    | 73    | 61    | e45   | e70   | 60    | 108   | 185   | 273    | 129    | 64    | 38    | 67    |
| 30    | 65    | 60    | e45   | e65   | ---   | 112   | 184   | 274    | 115    | 58    | 37    | 65    |
| 31    | e50   | ---   | e50   | e60   | ---   | 121   | ---   | 260    | ---    | 57    | 37    | ---   |
| TOTAL | 1,532 | 1,678 | 1,758 | 1,565 | 1,742 | 4,134 | 4,945 | 5,995  | 5,208  | 2,449 | 1,053 | 1,680 |
| MEAN  | 49.4  | 55.9  | 56.7  | 50.5  | 60.1  | 133   | 165   | 193    | 174    | 79.0  | 34.0  | 56.0  |
| MAX   | 73    | 65    | 69    | 70    | 90    | 356   | 205   | 295    | 272    | 104   | 47    | 87    |
| MIN   | 31    | 40    | 45    | 25    | 50    | 54    | 128   | 127    | 73     | 57    | 16    | 32    |
| AC-FT | 3,040 | 3,330 | 3,490 | 3,100 | 3,460 | 8,200 | 9,810 | 11,890 | 10,330 | 4,860 | 2,090 | 3,330 |

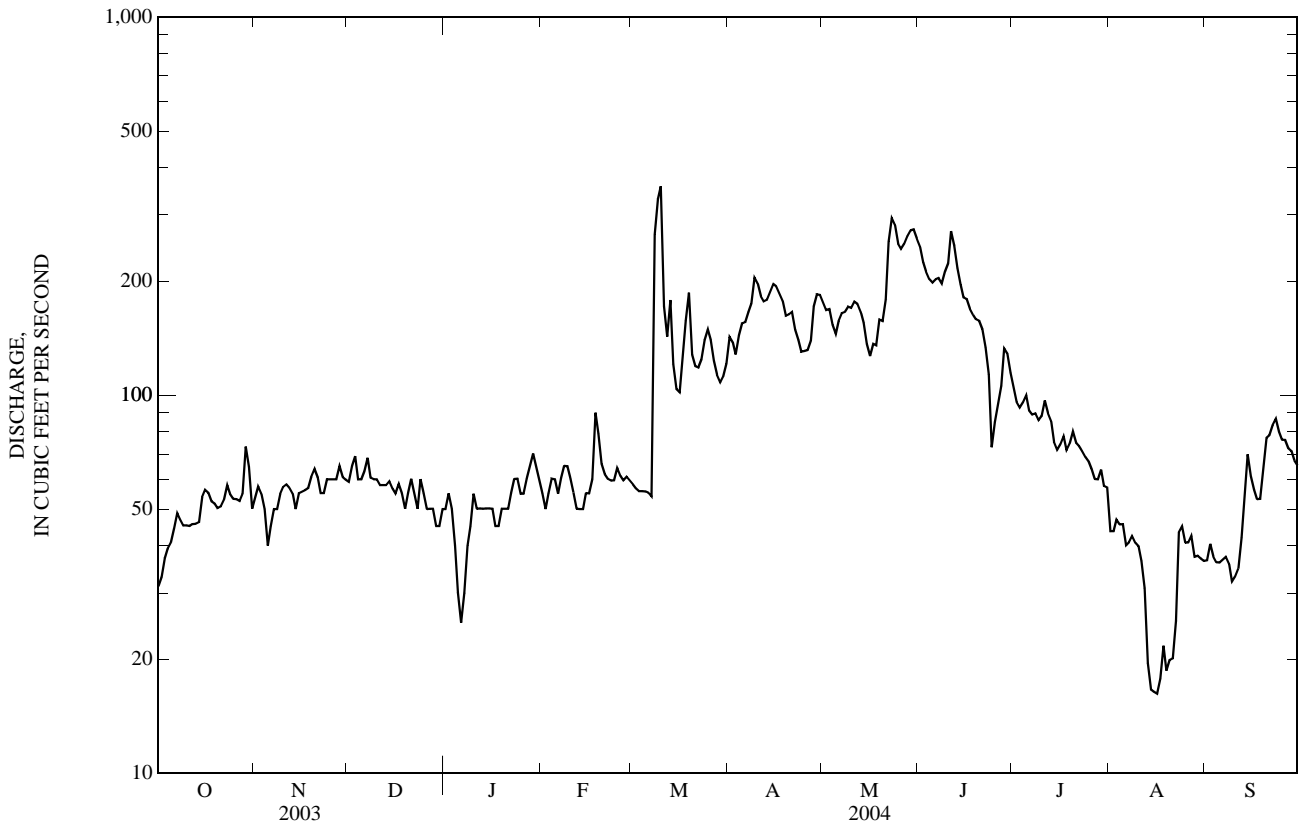
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2004, BY WATER YEAR (WY)

|      | 70.7   | 70.0   | 63.1   | 61.2   | 82.7   | 121    | 226    | 481    | 378    | 132    | 60.6   | 56.4   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 129    | 122    | 199    | 135    | 262    | 271    | 486    | 1,460  | 1,803  | 410    | 191    | 184    |
| (WY) | (1976) | (1976) | (1976) | (1976) | (1996) | (1986) | (1976) | (1981) | (1975) | (1975) | (1975) | (1993) |
| MIN  | 35.4   | 39.8   | 32.9   | 36.3   | 36.4   | 55.4   | 88.8   | 76.9   | 60.1   | 23.6   | 11.9   | 19.9   |
| (WY) | (1974) | (1988) | (1993) | (1993) | (1989) | (1975) | (1973) | (1992) | (1992) | (1973) | (1977) | (1977) |

12324590 LITTLE BLACKFOOT RIVER NEAR GARRISON, MT—Continued

| SUMMARY STATISTICS       | FOR 2003 CALENDAR YEAR |        | FOR 2004 WATER YEAR |        | WATER YEARS 1972 - 2004 |              |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL             | 54,239                 |        | 33,739              |        | 150                     |              |
| ANNUAL MEAN              | 149                    |        | 92.2                |        | 58.4                    |              |
| HIGHEST ANNUAL MEAN      |                        |        |                     |        | 322                     |              |
| LOWEST ANNUAL MEAN       |                        |        |                     |        | 58.4                    |              |
| HIGHEST DAILY MEAN       | 849                    | Mar 14 | 356                 | Mar 10 | 6,280                   | May 22, 1981 |
| LOWEST DAILY MEAN        | 20                     | Aug 22 | 16                  | Aug 15 | 6.5                     | Aug 23, 1977 |
| ANNUAL SEVEN-DAY MINIMUM | 22                     | Aug 20 | 18                  | Aug 13 | 6.7                     | Aug 22, 1977 |
| MAXIMUM PEAK FLOW        |                        |        | 711                 | Mar 8  | 8,650                   | May 21, 1981 |
| MAXIMUM PEAK STAGE       |                        |        | 3.44                | Mar 8  | b8.79                   | May 21, 1981 |
| INSTANTANEOUS LOW FLOW   |                        |        | a16                 | Aug 14 | 6.0                     | Aug 24, 1977 |
| ANNUAL RUNOFF (AC-FT)    | 107,600                |        | 66,920              |        | 108,900                 |              |
| 10 PERCENT EXCEEDS       | 442                    |        | 183                 |        | 366                     |              |
| 50 PERCENT EXCEEDS       | 58                     |        | 60                  |        | 74                      |              |
| 90 PERCENT EXCEEDS       | 30                     |        | 40                  |        | 38                      |              |

a--Gage height, 0.80 ft.  
 b--Site and datum then in use.  
 e--Estimated.



12324590 LITTLE BLACKFOOT RIVER NEAR GARRISON, MT—Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963, 1985 to August 2004 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1999 to September 2003.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 25.5°C, July 29, 30, Aug. 1, 2, 2000; minimum, 0.0°C on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date      | Time | Instantaneous discharge, cfs (00061) | pH, water, unfltrd field, std units (00400) | Specif. conductance, water, unfltrd uS/cm 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | Hardness, water, mg/L as CaCO3 (00900) | Calcium water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Arsenic water, fltrd, ug/L (01000) | Arsenic water unfltrd ug/L (01002) | Cadmium water, fltrd, ug/L (01025) | Cadmium water, unfltrd ug/L (01027) |
|-----------|------|--------------------------------------|---|---|---------------------------------|-----------------------------------|--|------------------------------------|---------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|
| NOV 19... | 0810 | 61                                   | 8.2   | 286   | 12.0                            | 3.5                               | 140                                    | 40.0                               | 8.87                                  | 4.4                                | 4                                  | <.04                               | <.04                                |
| APR 20... | 1605 | 168                                  | 8.3   | 213   | 7.5                             | 7.5                               | 96                                     | 28.3                               | 6.06                                  | 6.2                                | 5                                  | <.04                               | <.04                                |
| MAY 17... | 1615 | 141                                  | 8.4   | 246   | 16.0                            | 12.0                              | 110                                    | 34.0                               | 7.11                                  | 4.6                                | 5                                  | <.04                               | <.04                                |
| JUN 01... | 1700 | 249                                  | 8.3   | 231   | 22.5                            | 15.0                              | 110                                    | 31.4                               | 6.51                                  | 4.9                                | 5                                  | <.04                               | E.03                                |
| JUL 19... | 1645 | 73                                   | 8.7   | 281   | 31.0                            | 23.0                              | 130                                    | 38.8                               | 8.01                                  | 6.5                                | 7                                  | <.04                               | <.04                                |
| AUG 20... | 1520 | 20                                   | 8.6   | 332   | 28.0                            | 22.0                              | 160                                    | 47.4                               | 10.4                                  | 6.5                                | 6                                  | <.04                               | <.04                                |

| Date      | Copper, water, fltrd, ug/L (01040) | Copper, water, unfltrd recover-able, ug/L (01042) | Iron, water, fltrd, ug/L (01046) | Iron, water, unfltrd recover-able, ug/L (01045) | Lead, water, fltrd, ug/L (01049) | Lead, water, unfltrd recover-able, ug/L (01051) | Manganese, water, fltrd, ug/L (01056) | Manganese, water, unfltrd recover-able, ug/L (01055) | Zinc, water, fltrd, ug/L (01090) | Zinc, water, unfltrd recover-able, ug/L (01092) | Suspended sediment, percent <.063mm (70331) | Suspended sediment concentration mg/L (80154) | Suspended sediment discharge, tons/d (80155) |
|-----------|------------------------------------|---|----------------------------------|---|----------------------------------|---|---------------------------------------|--|----------------------------------|---|---|---|--|
| NOV 19... | .6                                 | 1.1   | E5                               | 120   | <.08                             | .20   | 7.8                                   | 24   | E.5                              | E1  | 79  | 4   | .66  |
| APR 20... | 1.2                                | 1.9   | 20                               | 240   | E.05                             | .56   | 8.0                                   | 22   | .9                               | 3   | 85  | 8   | 3.6  |
| MAY 17... | 1.1                                | 1.6   | 14                               | 200   | <.08                             | .43   | 8.7                                   | 22   | .8                               | 2   | 86  | 8   | 3.0  |
| JUN 01... | 1.1                                | 1.7   | 18                               | 220   | <.08                             | .46   | 8.2                                   | 22   | 1.1                              | 3   | 73  | 10  | 6.7  |
| JUL 19... | .9                                 | 1.2   | 7                                | 60  | <.08                             | .08   | 9.6                                   | 16   | <.6                              | <2  | 88  | 2   | .39  |
| AUG 20... | 1.1                                | 1.6   | E5                               | 80  | <.08                             | .08   | 12.7                                  | 31   | E.5                              | <2  | 84  | 3   | .16  |

E--Estimated.

## PEND OREILLE RIVER BASIN

12324680 CLARK FORK AT GOLDCREEK, MT

LOCATION.--Lat 46°35'26", long 112°55'40" (NAD 27), in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.25, T.10 N., R.11 W., Powell County, Hydrologic Unit 17010201, on right bank at county road bridge, 0.4 mi north of the town of Goldcreek, 1.1 mi downstream from Gold Creek, and at river mile 434.7.

DRAINAGE AREA.--1,760 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,172.80 ft (NGVD 29). June 13 to Oct. 21, 1982, nonrecording gage at site 350 ft downstream at same elevation.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. Some regulation by settling ponds on Silver Bow Creek near Warm Springs. Diversion for irrigation of about 40,100 acres upstream from station. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG   | SEP    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| 1     | 219    | 294    | 331    | e200   | e320   | 325    | 409    | 345    | 540    | 259    | 127   | 182    |
| 2     | 229    | 314    | 342    | e220   | e300   | 324    | 442    | 334    | 500    | 244    | 121   | 182    |
| 3     | 231    | 319    | 356    | e210   | e300   | 315    | 421    | 334    | 466    | 228    | 121   | 180    |
| 4     | 227    | 305    | 341    | e150   | e310   | 317    | 425    | 326    | 443    | 244    | 124   | 182    |
| 5     | 228    | e300   | 326    | e120   | e320   | 319    | 428    | 304    | 443    | 246    | 122   | 180    |
| 6     | 228    | 281    | 337    | e130   | e300   | 316    | 420    | 319    | 465    | 239    | 117   | 179    |
| 7     | 220    | 293    | 346    | e180   | e310   | 316    | 420    | 345    | 515    | 234    | 112   | 189    |
| 8     | 217    | 305    | 326    | e200   | e310   | 666    | 430    | 338    | 512    | 237    | 115   | 189    |
| 9     | 220    | 334    | 314    | e220   | e310   | 813    | 472    | 338    | 555    | 242    | 109   | 182    |
| 10    | 225    | 323    | 326    | e240   | e300   | 888    | 458    | 334    | 607    | 239    | 105   | 173    |
| 11    | 238    | 326    | 321    | e250   | e280   | 557    | 422    | 350    | 905    | 247    | 104   | 171    |
| 12    | 244    | 318    | 316    | e260   | e260   | 485    | 399    | 355    | 789    | 227    | 100   | 193    |
| 13    | 250    | 314    | 317    | e260   | e250   | 531    | 398    | 334    | 613    | 221    | 95    | 217    |
| 14    | 250    | 321    | 323    | e270   | e250   | 444    | 402    | 314    | 517    | 195    | 87    | 238    |
| 15    | 266    | 322    | 320    | e280   | e270   | 419    | 405    | 270    | 458    | 183    | 82    | 230    |
| 16    | 268    | e320   | 311    | e290   | e300   | 416    | 399    | 259    | 417    | 172    | 73    | 226    |
| 17    | 265    | 312    | 313    | e280   | e300   | 443    | 381    | 274    | 381    | 170    | 79    | 228    |
| 18    | 252    | 315    | 298    | e280   | e320   | 488    | 373    | 290    | 353    | 158    | 100   | 233    |
| 19    | 248    | 326    | 277    | e300   | e350   | 508    | 355    | 320    | 336    | 168    | 95    | 257    |
| 20    | 249    | 339    | 300    | e320   | e350   | 430    | 355    | 339    | 329    | 202    | 98    | 294    |
| 21    | 249    | 318    | 326    | e310   | e330   | 409    | 359    | 353    | 317    | 179    | 100   | 319    |
| 22    | 249    | 283    | 299    | e310   | 321    | 406    | 330    | 473    | 286    | 170    | 104   | 320    |
| 23    | 267    | 293    | 274    | e330   | 316    | 411    | 316    | 575    | 259    | 171    | 157   | 313    |
| 24    | 257    | 321    | 302    | e330   | 324    | 423    | 299    | 592    | 207    | 169    | 168   | 307    |
| 25    | 262    | e320   | 309    | e310   | 349    | 433    | 299    | 530    | 202    | 162    | 175   | 311    |
| 26    | 271    | 322    | 302    | e300   | 337    | 423    | 302    | 519    | 217    | 150    | 186   | 307    |
| 27    | 273    | 331    | 295    | e300   | 333    | 406    | 305    | 532    | 237    | 136    | 198   | 302    |
| 28    | 274    | e330   | 249    | e310   | 331    | 389    | 340    | 545    | 289    | 139    | 200   | 301    |
| 29    | 314    | 334    | e220   | e330   | 325    | 379    | 379    | 593    | 286    | 148    | 195   | 294    |
| 30    | 322    | 340    | e200   | e340   | ---    | 370    | 359    | 615    | 262    | 135    | 190   | 286    |
| 31    | 279    | ---    | e180   | e340   | ---    | 379    | ---    | 573    | ---    | 139    | 178   | ---    |
| TOTAL | 7,791  | 9,473  | 9,397  | 8,170  | 8,976  | 13,748 | 11,502 | 12,322 | 12,706 | 6,053  | 3,937 | 7,165  |
| MEAN  | 251    | 316    | 303    | 264    | 310    | 443    | 383    | 397    | 424    | 195    | 127   | 239    |
| MAX   | 322    | 340    | 356    | 340    | 350    | 888    | 472    | 615    | 905    | 259    | 200   | 320    |
| MIN   | 217    | 281    | 180    | 120    | 250    | 315    | 299    | 259    | 202    | 135    | 73    | 171    |
| AC-FT | 15,450 | 18,790 | 18,640 | 16,210 | 17,800 | 27,270 | 22,810 | 24,440 | 25,200 | 12,010 | 7,810 | 14,210 |

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2004, BY WATER YEAR (WY)

|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 390    | 397    | 346    | 345    | 414    | 493    | 598    | 1,019  | 1,090  | 473    | 229    | 299    |
| MAX  | 699    | 651    | 622    | 596    | 860    | 721    | 918    | 2,914  | 3,002  | 1,196  | 646    | 707    |
| (WY) | (1983) | (1981) | (1981) | (1984) | (1996) | (1978) | (1996) | (1981) | (1980) | (1982) | (1993) | (1993) |
| MIN  | 198    | 244    | 193    | 199    | 208    | 306    | 360    | 198    | 138    | 85.7   | 67.5   | 99.8   |
| (WY) | (1989) | (1989) | (1993) | (1988) | (1989) | (1988) | (1992) | (1992) | (1992) | (1985) | (2000) | (1988) |



12324680 CLARK FORK AT GOLDCREEK, MT—Continued

| SUMMARY STATISTICS       | FOR 2003 CALENDAR YEAR |        | FOR 2004 WATER YEAR |        | WATER YEARS 1978 - 2004 |              |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL             | 167,810                |        | 111,240             |        |                         |              |
| ANNUAL MEAN              | 460                    |        | 304                 |        | 508                     |              |
| HIGHEST ANNUAL MEAN      |                        |        |                     |        | 860                     |              |
| LOWEST ANNUAL MEAN       |                        |        |                     |        | 243                     |              |
| HIGHEST DAILY MEAN       | 2,500                  | Mar 14 | 905                 | Jun 11 | 9,100                   | May 23, 1981 |
| LOWEST DAILY MEAN        | 117                    | Aug 15 | 73                  | Aug 16 | 55                      | Sep 4, 1988  |
| ANNUAL SEVEN-DAY MINIMUM | 126                    | Aug 14 | 87                  | Aug 13 | 58                      | Sep 3, 1988  |
| MAXIMUM PEAK FLOW        |                        |        | 1,430               | Mar 8  | b12,000                 | May 22, 1981 |
| MAXIMUM PEAK STAGE       |                        |        | 5.98                | Mar 8  | c12.50                  | Jan 2, 1997  |
| INSTANTANEOUS LOW FLOW   |                        |        | a69                 | Aug 16 | d54                     | Sep 3, 1988  |
| ANNUAL RUNOFF (AC-FT)    | 332,900                |        | 220,600             |        | 367,700                 |              |
| 10 PERCENT EXCEEDS       | 905                    |        | 443                 |        | 903                     |              |
| 50 PERCENT EXCEEDS       | 315                    |        | 305                 |        | 376                     |              |
| 90 PERCENT EXCEEDS       | 162                    |        | 169                 |        | 188                     |              |

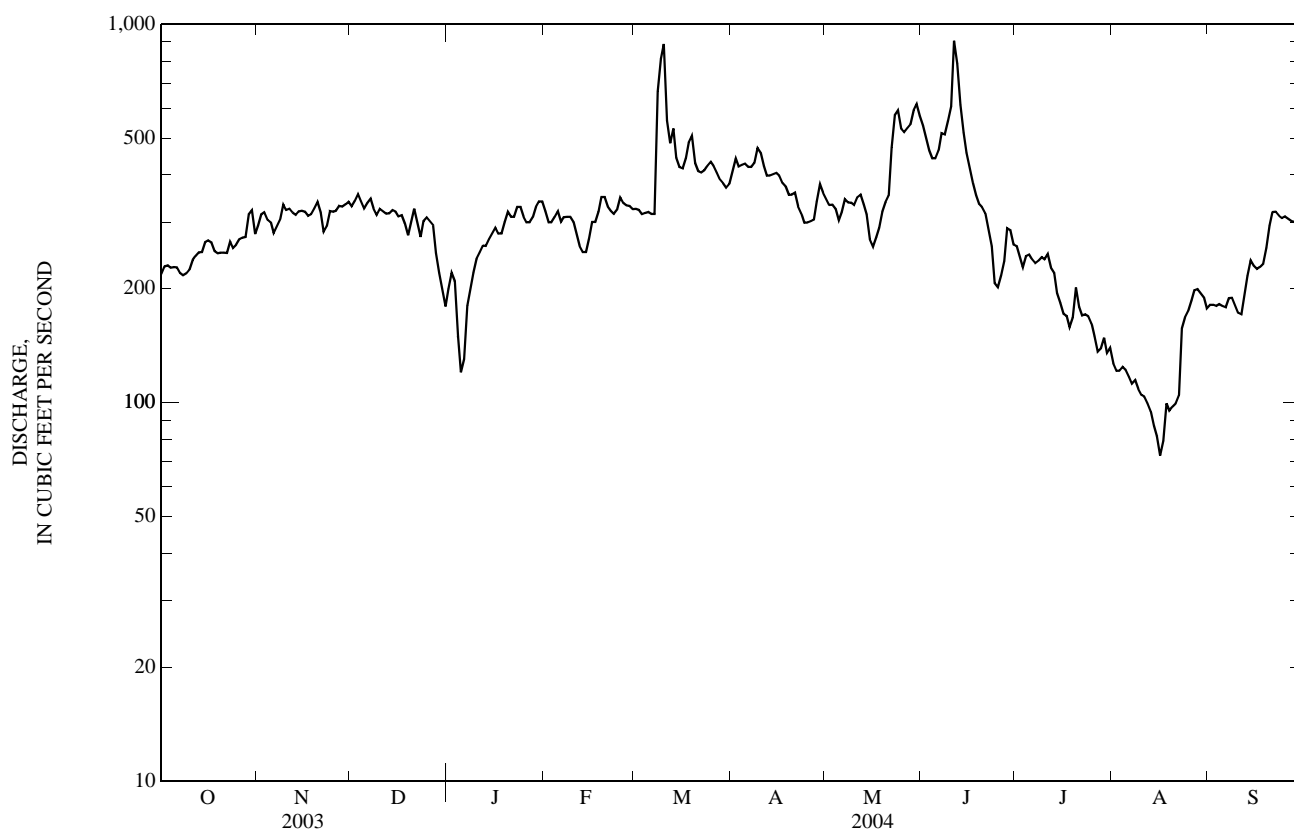
a--Gage height, 3.71 ft.

b--From rating curve extended above 6,500 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; gage height 11.17 ft, from floodmark.

c--Backwater from ice.

d--Gage height, 3.73 ft.

e--Estimated.



## WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1993 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1991 to September 1998.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 25.5°C, July 26, 1995; minimum, 0.0°C on many days during winter period.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date | Time  | Instantaneous discharge, cfs (00061) | pH, water, unfltrd field, std units (00400) | Specif. conductance, water, unfltrd uS/cm 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | Hardness, water, mg/L as CaCO <sub>3</sub> (00900) | Calcium water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Arsenic water, fltrd, ug/L (01000) | Arsenic water unfltrd ug/L (01002) | Cadmium water, fltrd, ug/L (01025) | Cadmium water, unfltrd ug/L (01027) |     |
|------|-------|--------------------------------------|---|---|---------------------------------|-----------------------------------|--|------------------------------------|---------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|-----|
| NOV  | 18... | 0815                                 | 317   | 8.3   | 474                             | 7.5                               | 2.0  | 220                                | 64.7                                  | 14.2                               | 8.6                                | 10                                 | E.03                                | .12 |
| MAR  | 17... | 1145                                 | 432   | 8.6   | 445                             | 10.0                              | 5.5  | 210                                | 61.0                                  | 12.8                               | 8.8                                | 9                                  | .04                                 | .14 |
| APR  | 20... | 1710                                 | 360   | 8.6   | 394                             | 9.5                               | 8.5  | 180                                | 52.7                                  | 11.7                               | 7.3                                | 10                                 | E.02                                | .07 |
| MAY  | 18... | 0720                                 | 286   | 8.3   | 398                             | 11.5                              | 10.0   | 190                                | 54.7                                  | 12.0                               | 8.9                                | 10                                 | E.03                                | .05 |
| JUN  | 02... | 1140                                 | 507   | 8.5   | 351                             | 18.0                              | 12.5   | 150                                | 46.8                                  | 9.05                               | 8.8                                | 10                                 | E.02                                | .07 |
|      | 13... | 1535                                 | 607   | 8.7   | 298                             | 21.0                              | 15.5   | 130                                | 40.6                                  | 7.64                               | 9.8                                | 12                                 | <.04                                | .09 |
| JUL  | 20... | 1355                                 | 206   | 8.6   | 425                             | 25.0                              | 20.5   | 200                                | 58.7                                  | 12.1                               | 12.0                               | 12                                 | E.02                                | .06 |
| AUG  | 20... | 1555                                 | 100   | 8.8   | 459                             | 29.0                              | 23.0   | 210                                | 64.0                                  | 13.2                               | 13.6                               | 14                                 | <.04                                | .04 |

| Date | Copper, water, fltrd, ug/L (01040) | Copper, water, unfltrd recoverable, ug/L (01042) | Iron, water, fltrd, ug/L (01046) | Iron, water, unfltrd recoverable, ug/L (01045) | Lead, water, fltrd, ug/L (01049) | Lead, water, unfltrd recoverable, ug/L (01051) | Manganese, water, fltrd, ug/L (01056) | Manganese, water, unfltrd recoverable, ug/L (01055) | Zinc, water, fltrd, ug/L (01090) | Zinc, water, unfltrd recoverable, ug/L (01092) | Suspended sediment, percent <.063mm (70331) | Suspended sediment concentration mg/L (80154) | Suspended sediment discharge, tons/d (80155) |
|------|------------------------------------|--|----------------------------------|--|----------------------------------|--|---------------------------------------|---|----------------------------------|--|---|---|--|
| NOV  | 3.0                                | 17.3   | E4                               | 290  | <.08                             | 2.07   | 21.0                                  | 79  | 5.6                              | 21   | 86  | 13  | 11   |
| MAR  | 4.6                                | 23.2   | 8                                | 450  | E.05                             | 2.81   | 23.4                                  | 80  | 3.4                              | 23   | 81  | 23  | 27   |
| APR  | 4.1                                | 11.5   | E6                               | 240  | <.08                             | 1.30   | 14.4                                  | 46  | 2.3                              | 12   | 87  | 11  | 11   |
| MAY  | 4.3                                | 6.5  | 8                                | 80   | <.08                             | .38  | 18.3                                  | 27  | 2.9                              | 6  | 83  | 2   | 1.5  |
| JUN  | 3.6                                | 10.4   | 10                               | 270  | E.04                             | 1.24   | 17.5                                  | 61  | 2.1                              | 11   | 94  | 12  | 16   |
|      | 3.9                                | 12.9   | 10                               | 280  | E.05                             | 1.57   | 11.5                                  | 59  | 1.5                              | 15   | 86  | 15  | 25   |
| JUL  | 4.2                                | 8.1  | 8                                | 130  | <.08                             | .72  | 15.0                                  | 45  | 1.4                              | 7  | 69  | 7   | 3.9  |
| AUG  | 4.7                                | 6.8  | <6                               | 70   | <.08                             | .41  | 7.7                                   | 44  | .7                               | 5  | 72  | 7   | 1.9  |

E--Estimated.

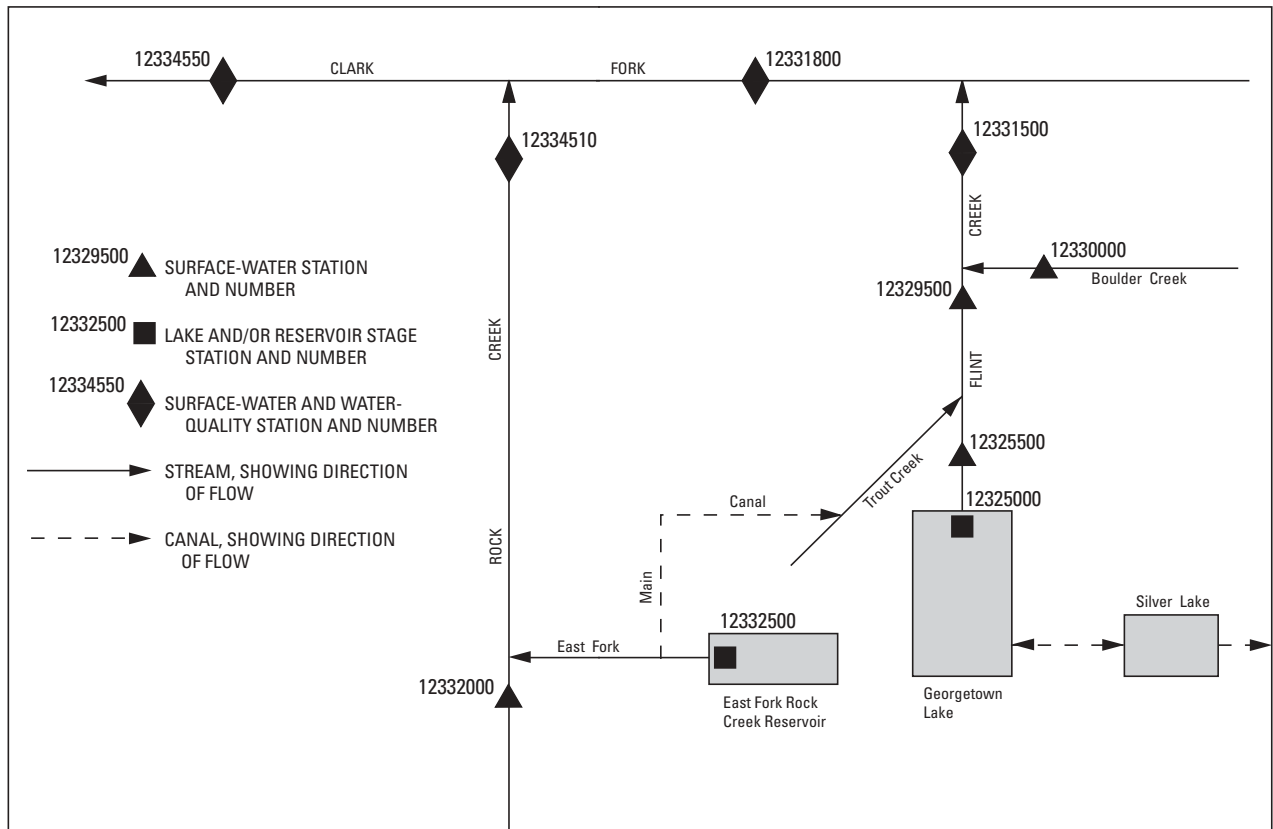


Figure 9. Schematic diagram showing diversions and storage in Flint and Rock Creek basins.

## PEND OREILLE RIVER BASIN

12325500 FLINT CREEK NEAR SOUTHERN CROSS, MT

LOCATION.--Lat 46°13'59", long 113°17'56" (NAD 27), in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.36, T.6 N., R.14 W., Granite County, Hydrologic Unit 17010202, on right wing wall of weir, 0.5 mi downstream from power plant, 2.0 mi downstream from Georgetown Dam, 3.5 mi northwest of Southern Cross, 6.8 mi south of Philipsburg, and at river mile 36.8.

DRAINAGE AREA.--52.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1940 to September 1998, August 2000 to current year (seasonal records only).

REVISED RECORDS.--WSP 1216: 1942(M). WSP 1246: Drainage area.

GAGE.--Water-stage recorder and sharp-crested, contracted, rectangular weir. Elevation of gage is 5,630 ft (NGVD 29). Prior to June 3, 1982, nonrecording gage at same site and elevation. Prior to Nov. 27, 1973, gage at same site and elevation 0.20 ft higher.

REMARKS.--Seasonal records good. Flow regulated by Georgetown Lake (station number 12325000). Flow may be augmented by interbasin diversion from Silver Lake to Georgetown Lake or reduced by pumping from Georgetown Lake to Silver Lake. U.S. Geological Survey satellite telemeter at station. Several observations of water temperature and specific conductance were made during the water year.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004  
DAILY MEAN VALUES

| DAY   | JAN | FEB | MAR | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV | DEC |
|-------|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 1     |     |     |     | 9.3   | 18    | 32    | 33    | 47    | 30    | 8.4   |     |     |
| 2     |     |     |     | 9.0   | 19    | 32    | 33    | 47    | 30    | 8.4   |     |     |
| 3     |     |     |     | 9.2   | 20    | 32    | 33    | 47    | 30    | 8.4   |     |     |
| 4     |     |     |     | 9.4   | 20    | 32    | 33    | 47    | 30    | 8.4   |     |     |
| 5     |     |     |     | 9.4   | 20    | 32    | 33    | 47    | 30    | 8.4   |     |     |
| 6     |     |     |     | 9.4   | 20    | 32    | 33    | 47    | 30    | 8.4   |     |     |
| 7     |     |     |     | 9.4   | 20    | 32    | 33    | 47    | 30    | 8.4   |     |     |
| 8     |     |     |     | 9.4   | 23    | 32    | 33    | 47    | 30    | 8.5   |     |     |
| 9     |     |     |     | 9.4   | 26    | 31    | 33    | 47    | 30    | 8.3   |     |     |
| 10    |     |     |     | 9.3   | 26    | 32    | 33    | 47    | 31    | 8.3   |     |     |
| 11    |     |     |     | 9.2   | 27    | 32    | 33    | 46    | 31    | 8.5   |     |     |
| 12    |     |     |     | 9.1   | 26    | 32    | 33    | 34    | 30    | 8.5   |     |     |
| 13    |     |     |     | 9.1   | 26    | 32    | 33    | 31    | 30    | 8.6   |     |     |
| 14    |     |     |     | 9.6   | 26    | 32    | 33    | 30    | 30    | 8.5   |     |     |
| 15    |     |     |     | 9.7   | 26    | 32    | 33    | 30    | 24    | 8.3   |     |     |
| 16    |     |     |     | 9.6   | 27    | 32    | 33    | 30    | 17    | 8.3   |     |     |
| 17    |     |     |     | 9.5   | 27    | 32    | 31    | 30    | 16    | 8.3   |     |     |
| 18    |     |     |     | 9.4   | 27    | 32    | 30    | 30    | 15    | 8.5   |     |     |
| 19    |     |     |     | 9.5   | 30    | 32    | 29    | 30    | 15    | 8.4   |     |     |
| 20    |     |     |     | 9.5   | 32    | 31    | 29    | 30    | 15    | 8.5   |     |     |
| 21    |     |     |     | 9.4   | 32    | 31    | 29    | 30    | 14    | 8.5   |     |     |
| 22    |     |     |     | 9.4   | 32    | 31    | 29    | 30    | 10    | 8.3   |     |     |
| 23    |     |     |     | 9.4   | 33    | 31    | 29    | 30    | 8.7   | 8.4   |     |     |
| 24    |     |     |     | 9.4   | 33    | 31    | 29    | 30    | 8.7   | 8.5   |     |     |
| 25    |     |     |     | 9.4   | 32    | 35    | 30    | 30    | 8.7   | 8.7   |     |     |
| 26    |     |     |     | 9.4   | 32    | 36    | 30    | 30    | 8.7   | 8.7   |     |     |
| 27    |     |     |     | 9.4   | 32    | 34    | 30    | 30    | 8.5   | 8.7   |     |     |
| 28    |     |     |     | 10    | 32    | 34    | 29    | 30    | 8.5   | 8.7   |     |     |
| 29    |     |     |     | 15    | 32    | 34    | 29    | 30    | 8.5   | 8.7   |     |     |
| 30    |     |     |     | 17    | 32    | 33    | 38    | 30    | 8.5   | 8.7   |     |     |
| 31    |     |     |     | ---   | 32    | ---   | 45    | 30    | ---   | 8.7   |     |     |
| TOTAL |     |     |     | 295.2 | 840   | 968   | 994   | 1,121 | 616.8 | 262.9 |     |     |
| MEAN  |     |     |     | 9.84  | 27.1  | 32.3  | 32.1  | 36.2  | 20.6  | 8.48  |     |     |
| MAX   |     |     |     | 17    | 33    | 36    | 45    | 47    | 31    | 8.7   |     |     |
| MIN   |     |     |     | 9.0   | 18    | 31    | 29    | 30    | 8.5   | 8.3   |     |     |
| AC-FT |     |     |     | 586   | 1,670 | 1,920 | 1,970 | 2,220 | 1,220 | 521   |     |     |

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1998 AND SEASONS 2000 - 2004\*

|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 18.5   | 19.9   | 22.1   | 25.3   | 32.4   | 56.2   | 45.9   | 33.2   | 31.0   | 25.4   | 21.5   | 19.8   |
| MAX  | 37.5   | 53.8   | 80.4   | 121    | 106    | 142    | 131    | 78.5   | 74.3   | 59.2   | 62.2   | 50.0   |
| (WY) | (1996) | (1968) | (1943) | (1948) | (1976) | (1948) | (1975) | (1975) | (1993) | (1984) | (1984) | (1976) |
| MIN  | 2.86   | 3.37   | 4.10   | 1.62   | 7.75   | 25.9   | 26.4   | 21.7   | 13.0   | 3.90   | 3.86   | 2.66   |
| (WY) | (1975) | (1975) | (1975) | (1941) | (1962) | (1955) | (1988) | (1952) | (2000) | (1974) | (1974) | (1975) |

12325500 FLINT CREEK NEAR SOUTHERN CROSS, MT—Continued

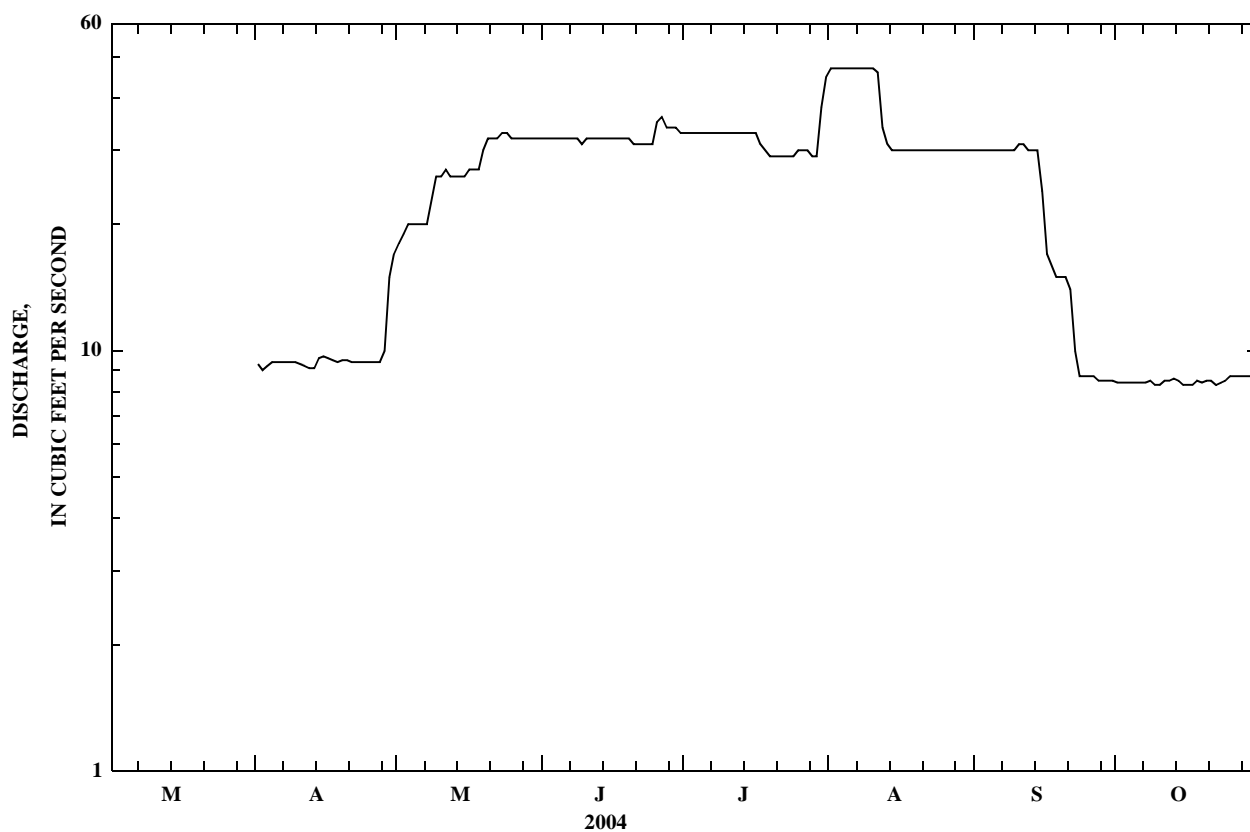
| SUMMARY STATISTICS       | FOR 2004 SEASON |       | WATER YEARS 1941 -1998 |              | SEASONS 2000 - 2004* |              |
|--------------------------|-----------------|-------|------------------------|--------------|----------------------|--------------|
| ANNUAL MEAN              |                 |       | 29.5                   |              |                      |              |
| HIGHEST ANNUAL MEAN      |                 |       | 57.9                   | 1976         |                      |              |
| LOWEST ANNUAL MEAN       |                 |       | 13.2                   | 1962         |                      |              |
| HIGHEST DAILY MEAN       | 47              | Aug 1 | 172                    | Jun 19, 1980 | 135                  | May 31, 2003 |
| LOWEST DAILY MEAN        | 8.3             | Oct 9 | a0.00                  | Nov 30, 1966 | 4.9                  | Oct 20, 2003 |
| ANNUAL SEVEN-DAY MINIMUM |                 |       | 1.4                    | Mar 8, 1941  |                      |              |
| MAXIMUM PEAK FLOW        | 48              | Aug 2 | b174                   | Jun 13, 1942 | 139                  | May 31, 2003 |
| MAXIMUM PEAK STAGE       | 1.16            | Aug 2 | c2.60                  | Jun 19, 1980 | 2.44                 | May 31, 2003 |
| INSTANTANEOUS LOW FLOW   |                 |       | 0.00                   | Nov 30, 1966 |                      |              |
| ANNUAL RUNOFF (AC-FT)    |                 |       | 21,370                 |              |                      |              |
| 10 PERCENT EXCEEDS       |                 |       | 50                     |              |                      |              |
| 50 PERCENT EXCEEDS       |                 |       | 28                     |              |                      |              |
| 90 PERCENT EXCEEDS       |                 |       | 6.8                    |              |                      |              |

\*--During periods of operation (1941 to current year; seasonal records beginning 2000).

a--Partial days of no flow in several years.

b--Gage height, 1.86 ft.

c--Maximum observed.



## 12329500 FLINT CREEK AT MAXVILLE, MT

LOCATION.--Lat 46°27'50", long 113°14'20" (NAD 27), in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec.9, T.8 N., R.13 W., Granite County, Hydrologic Unit 17010202, on right bank 0.4 mi west of Maxville and 1.0 mi upstream from Boulder Creek.

DRAINAGE AREA.--208 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1941 to current year. April 1939 to September 1941 at site 0.5 mi upstream; records not equivalent owing to diversions.

REVISED RECORDS.--WSP 1216: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,828.38 ft (NGVD 29).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation by Georgetown Lake. Diversions for irrigation of about 8,200 acres upstream from station. During irrigation season, flow is supplemented by water from East Fork Rock Creek which is diverted in sec.5, T.4 N., R.14 W., 500 ft below Rock Creek Dam, through a canal into Trout Creek, thence into Flint Creek. U.S. Geological Survey satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 59    | e46   | e46   | e27   | e41   | 51    | 66    | 50    | 81    | 91    | 73    | 55    |
| 2     | 60    | e48   | e45   | e27   | e41   | 47    | 65    | 53    | 70    | 87    | 76    | 58    |
| 3     | 56    | e48   | e43   | e26   | e40   | 48    | 62    | 56    | 72    | 84    | 84    | 56    |
| 4     | 57    | e46   | e40   | e25   | e40   | 48    | 64    | 59    | 75    | 89    | 91    | 56    |
| 5     | 57    | e42   | e41   | e24   | e40   | 47    | 64    | 61    | 90    | 89    | 85    | 58    |
| 6     | 57    | e43   | e43   | e24   | e41   | 42    | 66    | 59    | 117   | 91    | 88    | 58    |
| 7     | 57    | e44   | e44   | e25   | 44    | 49    | 70    | 51    | 116   | 90    | 87    | 58    |
| 8     | 56    | e47   | e45   | e26   | 48    | 83    | 69    | 48    | 98    | 90    | 91    | 56    |
| 9     | 54    | 52    | 46    | e30   | 46    | 121   | 70    | 41    | 93    | 90    | 87    | 57    |
| 10    | 54    | 60    | 47    | e32   | 44    | 151   | 65    | 36    | 176   | 89    | 86    | 59    |
| 11    | 54    | 63    | 48    | e33   | e39   | 113   | 62    | 38    | 216   | 93    | 87    | 60    |
| 12    | 56    | 60    | 47    | e32   | e38   | 105   | 60    | 38    | 146   | 91    | 82    | 86    |
| 13    | 57    | e56   | 48    | e34   | e38   | 121   | 61    | 35    | 121   | 83    | 80    | 105   |
| 14    | 57    | e54   | 48    | e34   | e39   | 76    | 67    | 34    | 111   | 83    | 73    | 89    |
| 15    | 57    | e54   | 45    | e35   | 43    | 66    | 67    | 33    | 100   | 72    | 71    | 82    |
| 16    | 59    | 56    | e42   | e36   | 54    | 68    | 62    | 32    | 92    | 49    | 75    | 77    |
| 17    | 56    | 55    | e41   | e38   | 46    | 67    | 60    | 42    | 87    | 64    | 81    | 74    |
| 18    | 53    | 55    | e40   | e38   | 49    | 73    | 60    | 44    | 84    | 75    | 89    | 74    |
| 19    | 52    | 62    | e39   | 40    | 50    | 83    | 59    | 59    | 84    | 87    | 82    | 92    |
| 20    | 53    | 63    | e38   | 46    | 48    | 64    | 59    | 54    | 82    | 98    | 77    | 100   |
| 21    | 51    | 53    | e38   | 46    | e45   | 62    | 57    | 46    | 78    | 86    | 69    | 92    |
| 22    | 52    | e45   | e37   | 44    | e45   | 63    | 55    | 64    | 72    | 81    | 67    | 86    |
| 23    | 51    | e42   | e37   | 46    | e43   | 64    | 52    | 71    | 68    | 63    | 86    | 83    |
| 24    | 52    | e42   | e36   | 47    | e45   | 66    | 51    | 59    | 62    | 54    | 87    | 89    |
| 25    | 55    | e43   | e38   | 47    | e45   | 68    | 52    | 50    | 70    | 59    | 94    | 83    |
| 26    | 59    | e43   | e36   | 44    | 47    | 65    | 47    | 47    | 89    | 84    | 104   | 78    |
| 27    | 58    | e44   | e34   | 41    | 46    | 60    | e38   | 67    | 92    | 78    | 105   | 75    |
| 28    | 58    | e46   | e32   | 47    | 46    | 59    | e40   | 99    | 105   | 75    | 81    | 73    |
| 29    | e54   | e46   | e31   | 47    | 46    | 56    | e42   | 113   | 95    | 74    | 62    | 70    |
| 30    | e50   | e48   | e31   | 48    | ---   | 56    | e44   | 95    | 92    | 67    | 62    | 68    |
| 31    | e45   | ---   | e26   | 46    | ---   | 57    | ---   | 86    | ---   | 73    | 57    | ---   |
| TOTAL | 1,706 | 1,506 | 1,252 | 1,135 | 1,277 | 2,199 | 1,756 | 1,720 | 2,934 | 2,479 | 2,519 | 2,207 |
| MEAN  | 55.0  | 50.2  | 40.4  | 36.6  | 44.0  | 70.9  | 58.5  | 55.5  | 97.8  | 80.0  | 81.3  | 73.6  |
| MAX   | 60    | 63    | 48    | 48    | 54    | 151   | 70    | 113   | 216   | 98    | 105   | 105   |
| MIN   | 45    | 42    | 26    | 24    | 38    | 42    | 38    | 32    | 62    | 49    | 57    | 55    |
| AC-FT | 3,380 | 2,990 | 2,480 | 2,250 | 2,530 | 4,360 | 3,480 | 3,410 | 5,820 | 4,920 | 5,000 | 4,380 |

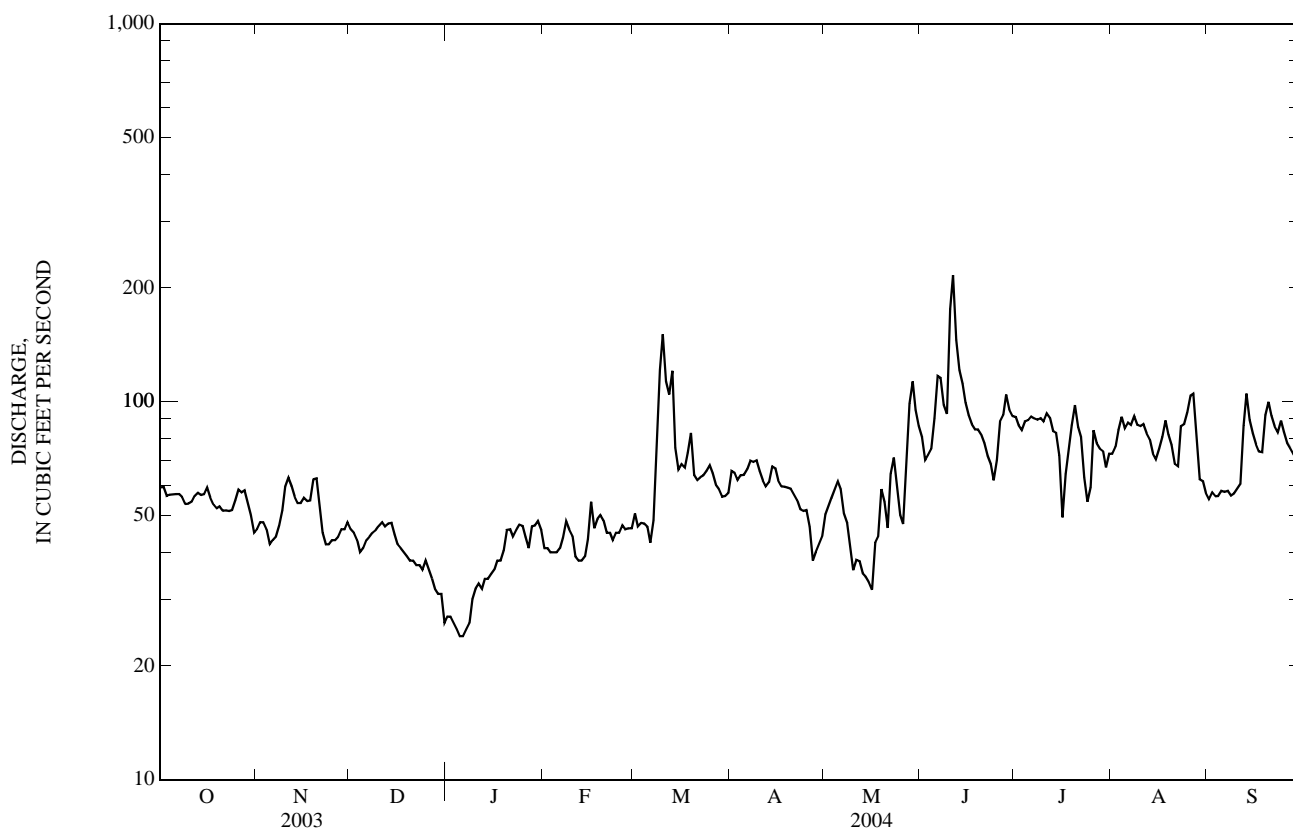
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 83.8   | 71.8   | 59.9   | 53.9   | 61.6   | 76.0   | 105    | 137    | 186    | 126    | 106    | 91.4   |
| MAX  | 148    | 121    | 120    | 88.1   | 141    | 186    | 310    | 353    | 455    | 324    | 217    | 151    |
| (WY) | (1976) | (1984) | (1976) | (1976) | (1996) | (1943) | (1948) | (1976) | (1948) | (1975) | (1975) | (1993) |
| MIN  | 50.2   | 41.3   | 27.7   | 26.6   | 27.3   | 33.5   | 48.6   | 50.9   | 70.7   | 48.1   | 30.1   | 33.6   |
| (WY) | (1992) | (1993) | (1993) | (1993) | (1993) | (1955) | (1961) | (2002) | (1987) | (1973) | (1992) | (1992) |

12329500 FLINT CREEK AT MAXVILLE, MT—Continued

| SUMMARY STATISTICS       | FOR 2003 CALENDAR YEAR |        | FOR 2004 WATER YEAR |        | WATER YEARS 1942 - 2004 |              |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL             | 31,646                 |        | 22,690              |        |                         |              |
| ANNUAL MEAN              | 86.7                   |        | 62.0                |        | 96.6                    |              |
| HIGHEST ANNUAL MEAN      |                        |        |                     |        | 165                     | 1976         |
| LOWEST ANNUAL MEAN       |                        |        |                     |        | 53.2                    | 1992         |
| HIGHEST DAILY MEAN       | 349                    | Mar 14 | 216                 | Jun 11 | 933                     | Mar 29, 1943 |
| LOWEST DAILY MEAN        | 26                     | Dec 31 | 24                  | Jan 5  | 15                      | Feb 25, 1962 |
| ANNUAL SEVEN-DAY MINIMUM | 32                     | Jan 6  | 25                  | Jan 2  | 19                      | Dec 31, 1957 |
| MAXIMUM PEAK FLOW        |                        |        | a248                | Jun 10 | c1,680                  | Mar 28, 1943 |
| MAXIMUM PEAK STAGE       |                        |        | b4.85               | Feb 12 | b8.08                   | Feb 4, 1963  |
| INSTANTANEOUS LOW FLOW   |                        |        |                     |        | 15                      | Feb 25, 1962 |
| ANNUAL RUNOFF (AC-FT)    | 62,770                 |        | 45,010              |        | 69,990                  |              |
| 10 PERCENT EXCEEDS       | 165                    |        | 91                  |        | 166                     |              |
| 50 PERCENT EXCEEDS       | 70                     |        | 57                  |        | 79                      |              |
| 90 PERCENT EXCEEDS       | 37                     |        | 38                  |        | 43                      |              |

a--Gage height, 3.59 ft.  
 b--Backwater from ice.  
 c--Gage height, 6.79 ft.  
 e--Estimated.



## PEND OREILLE RIVER BASIN

## 12330000 BOULDER CREEK AT MAXVILLE, MT

LOCATION.--Lat 46°28'20", long 113°13'59" (NAD 27), in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.4, T.8 N., R.13 W., Granite County, Hydrologic Unit 17010202, on right bank 0.2 mi upstream from mouth and 0.7 mi north of Maxville.

DRAINAGE AREA.--71.3 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1939 to current year. Monthly discharge only for some periods, published in WSP 1316.

GAGE.--Water-stage recorder. Elevation of gage is 4,750 ft (NGVD 29). Apr. 15, 1939, to July 7, 1941, nonrecording gage at site 75 ft upstream at different elevation. July 8-20, 1941, nonrecording gage at site 175 ft upstream at elevation 1.03 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversions upstream for irrigation of about 240 acres near the station. U.S. Geological Survey satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT  | NOV  | DEC  | JAN  | FEB  | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 13   | e14  | 18   | e13  | e14  | 15    | 22    | 35    | 77    | 41    | 11    | 15    |
| 2     | 13   | e15  | e16  | e14  | 16   | 15    | 21    | 43    | 77    | 38    | 11    | 18    |
| 3     | 13   | e15  | e15  | e14  | 17   | 15    | 21    | 67    | 85    | 35    | 12    | 17    |
| 4     | 13   | e14  | e14  | e13  | 16   | 15    | 22    | 86    | 102   | 36    | 12    | 15    |
| 5     | 13   | e13  | e15  | e12  | 16   | 15    | 24    | 109   | 121   | 34    | 11    | 15    |
| 6     | 13   | e13  | e16  | e11  | 18   | 15    | 27    | 113   | 134   | 32    | 10    | 14    |
| 7     | 13   | e14  | e16  | e12  | 16   | 15    | 31    | 110   | 101   | 31    | 9.9   | 13    |
| 8     | 13   | e16  | e15  | e13  | 16   | 16    | 32    | 114   | 87    | 29    | 9.6   | 13    |
| 9     | 13   | e17  | e15  | e13  | e15  | 17    | 32    | 102   | 83    | 27    | 9.3   | 12    |
| 10    | 13   | e19  | e15  | e14  | e14  | 17    | 27    | 84    | 148   | 26    | 9.0   | 11    |
| 11    | 13   | e18  | e15  | e15  | e14  | 17    | 22    | 78    | 146   | 26    | 8.2   | 10    |
| 12    | 13   | e17  | e15  | e16  | e14  | 17    | 23    | 66    | 109   | 24    | 7.6   | 22    |
| 13    | 14   | e16  | e16  | e17  | e14  | 17    | 25    | 58    | 94    | 23    | 7.5   | 34    |
| 14    | 13   | e16  | e16  | 17   | e14  | 16    | 28    | 52    | 89    | 22    | 7.1   | 28    |
| 15    | 14   | e17  | e16  | 17   | e15  | 16    | 26    | 49    | 80    | 20    | 6.8   | 24    |
| 16    | 15   | 19   | e16  | 17   | 16   | 16    | 23    | 51    | 72    | 19    | 8.0   | 22    |
| 17    | 15   | 19   | e15  | 16   | 16   | 16    | 21    | 57    | 65    | 18    | 14    | 20    |
| 18    | 15   | 19   | e15  | 16   | 17   | 17    | 20    | 56    | 62    | 19    | 18    | 20    |
| 19    | 14   | 19   | e15  | 16   | 16   | 18    | 19    | 71    | 60    | 19    | 13    | 29    |
| 20    | 13   | 19   | e15  | 16   | 16   | 17    | 19    | 67    | 58    | 24    | 9.7   | 29    |
| 21    | 13   | e18  | e14  | 16   | 16   | 17    | 17    | 75    | 56    | 21    | 8.8   | 28    |
| 22    | 13   | e16  | e14  | 16   | e15  | 18    | 16    | 108   | 51    | 18    | 8.7   | 26    |
| 23    | 13   | e15  | e14  | 16   | e15  | 19    | 16    | 100   | 47    | 17    | 26    | 33    |
| 24    | 13   | e15  | e14  | 16   | 16   | 21    | 18    | 78    | 47    | 16    | 25    | 44    |
| 25    | 14   | e16  | e13  | 16   | 16   | 21    | 17    | 67    | 52    | 17    | 29    | 40    |
| 26    | 16   | e17  | e13  | 16   | 16   | 21    | 20    | 65    | 51    | 16    | 32    | 36    |
| 27    | 17   | 19   | e13  | 16   | 16   | 19    | 28    | 80    | 51    | 15    | 38    | 33    |
| 28    | 17   | 19   | e13  | 16   | 16   | 19    | 50    | 108   | 52    | 14    | 27    | 31    |
| 29    | e16  | 19   | e13  | e15  | 16   | 18    | 40    | 114   | 51    | 13    | 22    | 30    |
| 30    | e15  | 19   | e13  | e14  | ---  | 19    | 35    | 89    | 46    | 13    | 19    | 28    |
| 31    | e14  | ---  | e13  | e14  | ---  | 21    | ---   | 81    | ---   | 12    | 17    | ---   |
| TOTAL | 430  | 502  | 456  | 463  | 452  | 535   | 742   | 2,433 | 2,354 | 715   | 457.2 | 710   |
| MEAN  | 13.9 | 16.7 | 14.7 | 14.9 | 15.6 | 17.3  | 24.7  | 78.5  | 78.5  | 23.1  | 14.7  | 23.7  |
| MAX   | 17   | 19   | 18   | 17   | 18   | 21    | 50    | 114   | 148   | 41    | 38    | 44    |
| MIN   | 13   | 13   | 13   | 11   | 14   | 15    | 16    | 35    | 46    | 12    | 6.8   | 10    |
| AC-FT | 853  | 996  | 904  | 918  | 897  | 1,060 | 1,470 | 4,830 | 4,670 | 1,420 | 907   | 1,410 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 22.5   | 23.2   | 20.6   | 18.5   | 18.3   | 18.5   | 28.6   | 114    | 174    | 58.3   | 20.7   | 17.8   |
| MAX  | 51.1   | 44.8   | 39.0   | 32.4   | 30.5   | 28.6   | 56.3   | 261    | 376    | 244    | 68.4   | 54.1   |
| (WY) | (1960) | (1976) | (1976) | (1976) | (1951) | (1976) | (1943) | (1976) | (1975) | (1975) | (1975) | (1965) |
| MIN  | 3.59   | 11.8   | 11.0   | 8.49   | 10.0   | 12.3   | 10.4   | 54.7   | 35.0   | 12.6   | 8.14   | 6.59   |
| (WY) | (1988) | (1988) | (1988) | (1988) | (1941) | (1993) | (1991) | (1977) | (1992) | (1988) | (1988) | (1991) |

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1940 - 2004

|                          |          |          |        |
|--------------------------|----------|----------|--------|
| ANNUAL TOTAL             | 14,086.7 | 10,249.2 |        |
| ANNUAL MEAN              | 38.6     | 28.0     | 44.6   |
| HIGHEST ANNUAL MEAN      |          |          | 82.2   |
| LOWEST ANNUAL MEAN       |          |          | 20.4   |
| HIGHEST DAILY MEAN       | 457      | May 31   | 1,140  |
| LOWEST DAILY MEAN        | 8.8      | Sep 5    | 2.8    |
| ANNUAL SEVEN-DAY MINIMUM | 9.2      | Sep 2    | 3.4    |
| MAXIMUM PEAK FLOW        |          | a180     | 1,460  |
| MAXIMUM PEAK STAGE       |          | b3.03    | 4.55   |
| INSTANTANEOUS LOW FLOW   |          |          | c2.8   |
| ANNUAL RUNOFF (AC-FT)    | 27,940   | 20,330   | 32,310 |
| 10 PERCENT EXCEEDS       | 71       | 67       | 108    |
| 50 PERCENT EXCEEDS       | 17       | 17       | 22     |
| 90 PERCENT EXCEEDS       | 13       | 13       | 12     |

a--Gage height, 2.58 ft.

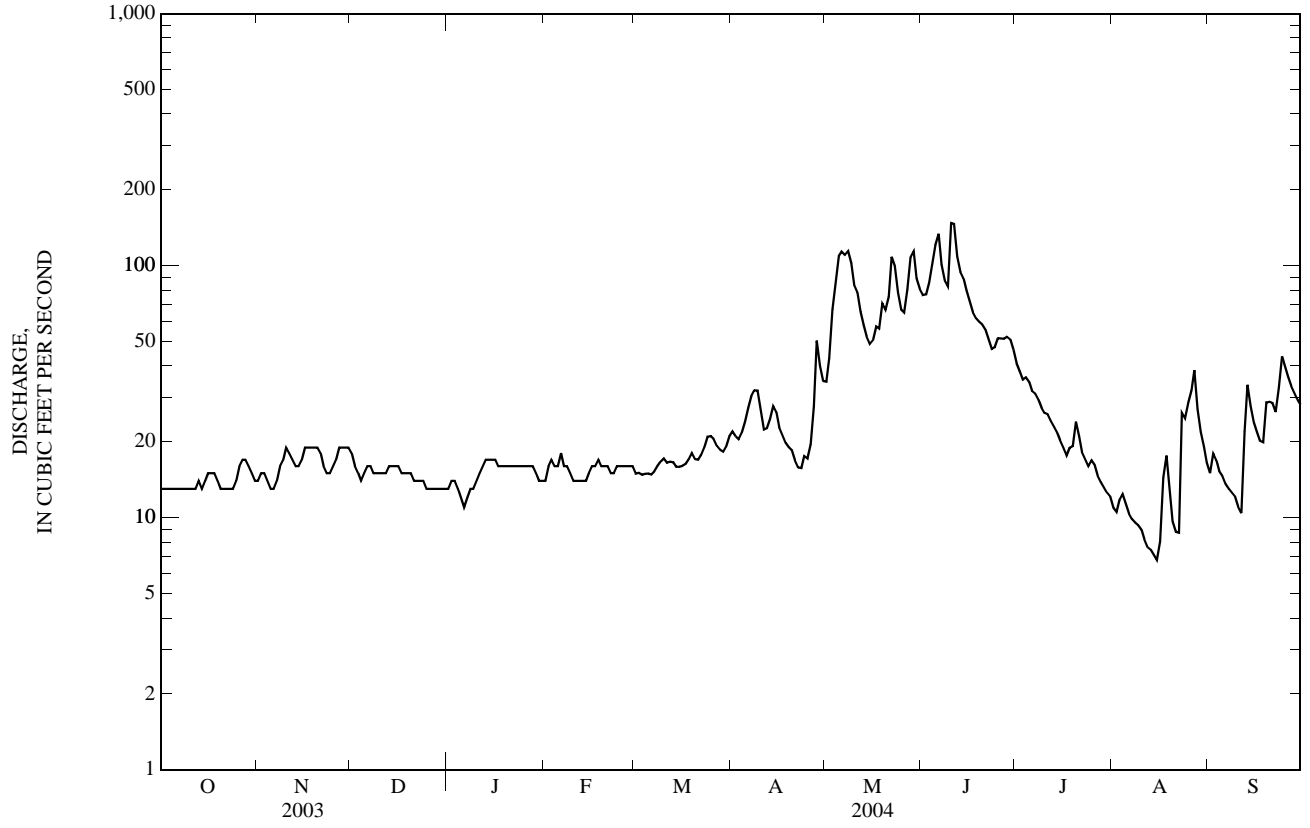
b--Backwater from ice.

c--Result of upstream diversion.

e--Estimated.



12330000 BOULDER CREEK AT MAXVILLE, MT—Continued



## PEND OREILLE RIVER BASIN

12331500 FLINT CREEK NEAR DRUMMOND, MT

LOCATION.--Lat 46°37'44", long 113°09'02" (NAD 27), in NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18, T.10 N., R.12 W., Granite County, Hydrologic Unit 17010202, on left bank 10 ft downstream from county bridge, 2.0 mi upstream from mouth, and 2.7 mi south of Drummond.

DRAINAGE AREA.--490 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1990 to April 2003, August 2003 to September 2004, discontinued.

GAGE.--Water-stage recorder. Elevation of gage is 4,017.27 ft (NGVD 29). June 1948 to September 1949 at same site with different elevation.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Daily mean values were not determined from May 1 through July 31 due to temporary suspension of the surface-water program. Some regulation by Georgetown Lake (station number 12325000). Diversions for irrigation of about 25,000 acres of which 1,000 acres are downstream from station. During irrigation season, flow is supplemented by water from East Fork Rock Creek which is diverted in sec.5, T.4 N., R.14 W., 500 ft below Rock Creek Dam, through a canal into Trout Creek, thence into Flint Creek. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1     | 49    | e90   | 102   | e74   | 128   | 76    | 107   | 19    | 46    | 34    | 7.3   | 30    |
| 2     | 49    | e96   | e100  | e74   | 122   | 77    | 107   | 15    | 39    | 36    | 10    | 32    |
| 3     | 63    | e96   | e94   | e70   | 132   | 74    | 101   | 15    | 33    | 33    | 16    | 33    |
| 4     | 94    | e92   | e90   | e66   | 129   | 76    | 103   | 4.5   | 37    | 43    | 23    | 35    |
| 5     | 103   | e86   | 98    | e60   | 105   | 77    | 104   | 7.6   | 58    | 52    | 26    | 35    |
| 6     | 104   | e92   | 104   | e62   | 103   | 73    | 105   | 13    | 100   | 46    | 31    | 36    |
| 7     | 105   | e96   | 106   | e66   | 110   | 88    | 111   | 9.6   | 99    | 47    | 30    | 38    |
| 8     | 102   | e105  | 100   | e70   | 104   | 253   | 113   | 8.0   | 75    | 45    | 27    | 45    |
| 9     | 100   | e110  | 99    | e80   | 101   | 227   | 112   | 5.2   | 75    | 44    | 20    | 43    |
| 10    | 101   | 121   | 100   | e84   | 98    | 243   | 106   | 3.8   | 179   | 44    | 16    | 36    |
| 11    | 101   | 124   | 102   | e86   | 99    | 193   | 98    | 3.7   | 276   | 45    | 14    | 32    |
| 12    | 106   | 119   | 101   | e84   | 92    | 149   | 95    | 4.2   | 193   | 42    | 7.1   | 77    |
| 13    | 110   | 114   | 104   | e90   | 88    | 180   | 97    | 5.9   | 154   | 36    | 4.7   | 128   |
| 14    | 109   | 109   | 105   | e92   | 98    | 125   | 106   | 5.4   | 128   | 31    | 4.4   | 105   |
| 15    | 112   | 109   | 100   | e90   | 119   | 108   | 103   | 5.1   | 104   | 26    | 4.4   | 104   |
| 16    | 119   | 113   | 99    | e92   | 133   | 110   | 96    | 4.1   | 93    | 24    | 4.3   | 95    |
| 17    | 114   | 111   | 109   | e90   | 128   | 105   | 92    | 6.0   | 73    | 28    | 9.1   | 93    |
| 18    | 110   | 112   | 94    | e96   | 103   | 112   | 90    | 9.6   | 55    | 26    | 16    | 100   |
| 19    | 108   | 120   | e80   | e100  | 110   | 122   | 88    | 27    | 63    | 30    | 15    | 161   |
| 20    | 107   | 121   | e76   | e100  | 105   | 107   | 88    | 19    | 61    | 42    | 13    | 193   |
| 21    | 107   | e100  | e76   | e96   | 103   | 104   | 86    | 15    | 61    | 36    | 12    | 169   |
| 22    | 107   | e96   | e74   | e96   | 96    | 106   | 75    | 29    | 54    | 30    | 17    | 149   |
| 23    | 106   | e96   | e76   | e96   | e76   | 109   | 80    | 44    | 36    | 35    | 50    | 152   |
| 24    | 106   | e96   | e80   | e94   | e74   | 110   | 77    | 26    | 22    | 40    | 51    | 179   |
| 25    | 109   | e100  | e80   | e92   | e76   | 114   | 78    | 15    | 25    | 33    | 40    | 167   |
| 26    | 113   | 109   | e76   | e92   | e76   | 111   | 60    | 11    | 35    | 37    | 51    | 154   |
| 27    | 116   | 99    | e74   | e96   | 92    | 104   | 43    | 13    | 30    | 29    | 60    | 144   |
| 28    | 123   | 107   | e74   | e100  | 78    | 100   | 60    | 52    | 36    | 20    | 53    | 145   |
| 29    | e110  | 108   | e72   | e100  | 76    | 96    | 54    | 104   | 29    | 17    | 38    | 162   |
| 30    | e100  | 107   | e72   | 137   | ---   | 96    | 33    | 77    | 32    | 14    | 32    | 155   |
| 31    | e90   | ---   | e74   | 127   | ---   | 95    | ---   | 60    | ---   | 10    | 30    | ---   |
| TOTAL | 3,153 | 3,154 | 2,791 | 2,752 | 2,954 | 3,720 | 2,668 | 636.7 | 2,301 | 1,055 | 732.3 | 3,027 |
| MEAN  | 102   | 105   | 90.0  | 88.8  | 102   | 120   | 88.9  | 20.5  | 76.7  | 34.0  | 23.6  | 101   |
| MAX   | 123   | 124   | 109   | 137   | 133   | 253   | 113   | 104   | 276   | 52    | 60    | 193   |
| MIN   | 49    | 86    | 72    | 60    | 74    | 73    | 33    | 3.7   | 22    | 10    | 4.3   | 30    |
| AC-FT | 6,250 | 6,260 | 5,540 | 5,460 | 5,860 | 7,380 | 5,290 | 1,260 | 4,560 | 2,090 | 1,450 | 6,000 |

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2004, BY WATER YEAR (WY)\*

|      | 1991   | 1992   | 1993   | 1994   | 1995   | 1996   | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003 | 2004 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| MEAN | 125    | 122    | 97.5   | 96.8   | 113    | 135    | 154    | 139    | 212    | 116    | 42.0   | 70.6   |      |      |
| MAX  | 186    | 165    | 144    | 156    | 232    | 256    | 326    | 459    | 627    | 412    | 167    | 196    |      |      |
| (WY) | (1996) | (1999) | (1999) | (1997) | (1996) | (1997) | (1996) | (1997) | (1997) | (1998) | (1993) | (1993) |      |      |
| MIN  | 81.2   | 91.4   | 63.8   | 57.1   | 56.9   | 79.5   | 86.8   | 14.1   | 14.9   | 12.8   | 6.66   | 18.0   |      |      |
| (WY) | (1993) | (1993) | (1993) | (1993) | (1993) | (1991) | (2001) | (1992) | (1992) | (2000) | (1991) | (2001) |      |      |

12331500 FLINT CREEK NEAR DRUMMOND, MT—Continued

| SUMMARY STATISTICS       | FOR 2004 WATER YEAR | WATER YEARS 1991 - 2004* |                    |
|--------------------------|---------------------|--------------------------|--------------------|
| ANNUAL TOTAL             | 28,944.0            |                          |                    |
| ANNUAL MEAN              | 79.1                |                          | 118                |
| HIGHEST ANNUAL MEAN      |                     |                          | 234 1997           |
| LOWEST ANNUAL MEAN       |                     |                          | 60.2 1992          |
| HIGHEST DAILY MEAN       | 276                 | Jun 11                   | 998 Jun 27, 1998   |
| LOWEST DAILY MEAN        | 3.7                 | May 11                   | 0.59 May 6, 1992   |
| ANNUAL SEVEN-DAY MINIMUM | 4.6                 | May 10                   | 1.8 Aug 9, 1992    |
| MAXIMUM PEAK FLOW        | a384                | Mar 8                    | c1,100 Feb 8, 1996 |
| MAXIMUM PEAK STAGE       | b4.83               | Jan 6                    | 6.99 Feb 9, 1996   |
| ANNUAL RUNOFF (AC-FT)    | 57,410              |                          | 85,700             |
| 10 PERCENT EXCEEDS       | 121                 |                          | 208                |
| 50 PERCENT EXCEEDS       | 90                  |                          | 100                |
| 90 PERCENT EXCEEDS       | 16                  |                          | 21                 |

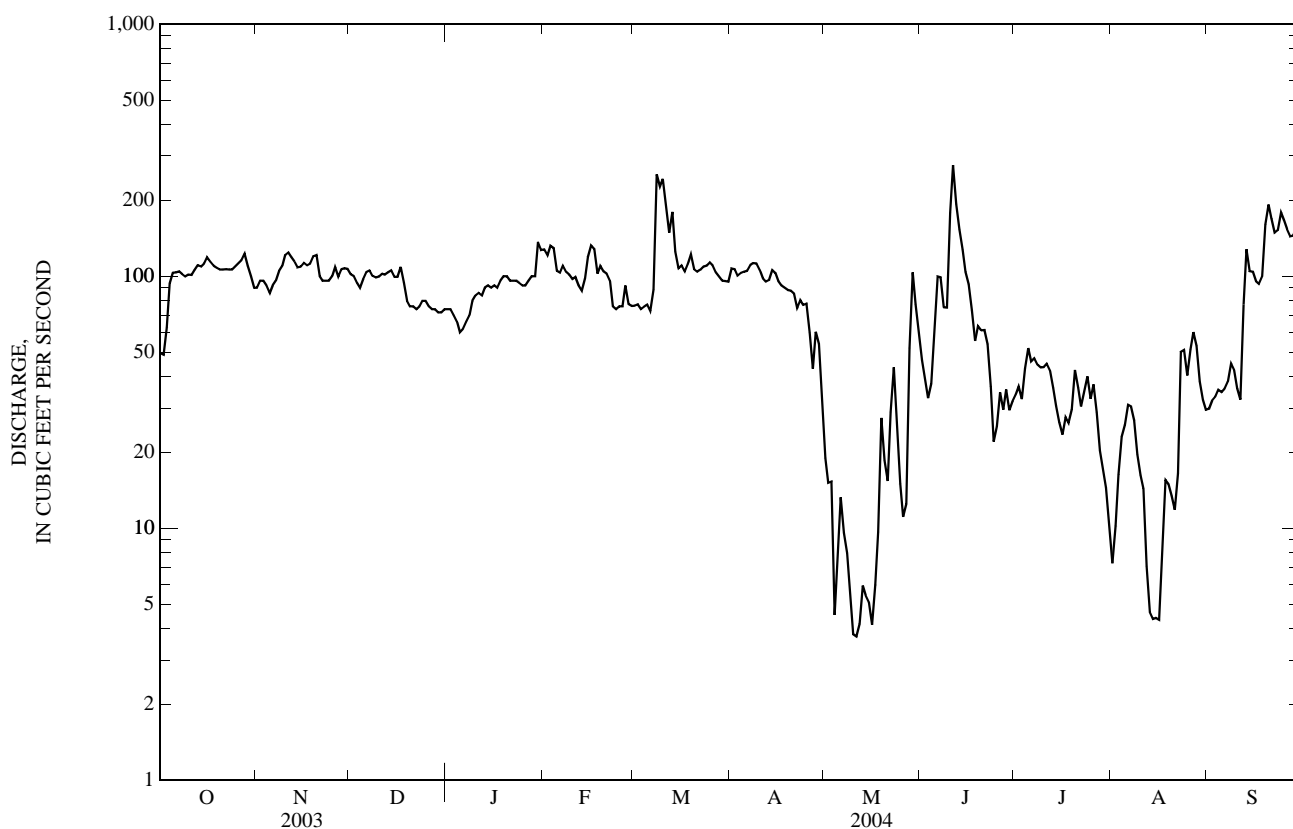
\*--During period of operation (August 1990 to April 2003, August 2003 to September 2004).

a--Gage height, 3.24 ft.

b--Backwater from ice jam.

c--About, estimated based on upstream measurement.

e--Estimated.



12331500 FLINT CREEK NEAR DRUMMOND, MT—Continued

## WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-73, 1985 to August 2002, August 2003 to August 2004, discontinued.

REMARKS.--Flow affected by diversions for irrigation upstream from station.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date  | Time | Instantaneous discharge, cfs (00061) | pH, water, unfltrd field, std units (00400) | Specif. conductance, water, unfltrd uS/cm 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | Hardness, water, mg/L as CaCO3 (00900) | Calcium water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Arsenic water, fltrd, ug/L (01000) | Arsenic water unfltrd ug/L (01002) | Cadmium water, fltrd, ug/L (01025) | Cadmium water, unfltrd ug/L (01027) |
|-------|------|--------------------------------------|---|---|---------------------------------|-----------------------------------|--|------------------------------------|---------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|
| NOV   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 18... | 0910 | 111                                  | 8.4   | 345   | 7.5                             | 2.5                               | 160                                    | 44.1                               | 13.2                                  | 6.2                                | 7                                  | <.04                               | E.03                                |
| APR   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 21... | 0735 | 88                                   | 8.4   | 305   | -2.0                            | 3.0                               | 140                                    | 38.6                               | 11.4                                  | 10.9                               | 10                                 | <.04                               | .04                                 |
| MAY   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 18... | 0810 | 8.3                                  | 8.3   | 398   | 12.0                            | 9.0                               | 200                                    | 54.9                               | 14.4                                  | 9.7                                | 11                                 | <.04                               | E.02                                |
| JUN   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 02... | 1235 | 39                                   | 8.5   | 403   | 22.0                            | 13.5                              | 190                                    | 53.1                               | 12.8                                  | 9.0                                | 11                                 | <.04                               | E.02                                |
| 14... | 1125 | 134                                  | 8.4   | 288   | 15.5                            | 11.0                              | 140                                    | 38.3                               | 10.4                                  | 8.1                                | 13                                 | <.04                               | .05                                 |
| AUG   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 23... | 0955 | 57                                   | 8.2   | 501   | 12.0                            | 12.5                              | 240                                    | 64.6                               | 18.7                                  | 12.3                               | 15                                 | <.04                               | .07                                 |

| Date  | Copper, water, fltrd, ug/L (01040) | Copper, water, unfltrd recover-able, ug/L (01042) | Iron, water, fltrd, ug/L (01046) | Iron, water, unfltrd recover-able, ug/L (01045) | Lead, water, fltrd, ug/L (01049) | Lead, water, unfltrd recover-able, ug/L (01051) | Manganese, water, fltrd, ug/L (01056) | Manganese, water, unfltrd recover-able, ug/L (01055) | Zinc, water, fltrd, ug/L (01090) | Zinc, water, unfltrd recover-able, ug/L (01092) | Suspended sediment, percent <.063mm (70331) | Suspended sediment concentration mg/L (80154) | Suspended sediment discharge, tons/d (80155) |
|-------|------------------------------------|---|----------------------------------|---|----------------------------------|---|---------------------------------------|--|----------------------------------|---|---|---|--|
| NOV   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 18... | .7                                 | 1.9   | E6                               | 180   | E.05                             | 2.56  | 22.2                                  | 64   | 1.3                              | 8   | 93  | 8   | 2.4  |
| APR   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 21... | 1.2                                | 4.7   | 9                                | 250   | .09                              | 3.17  | 33.0                                  | 77   | 1.8                              | 10  | 88  | 12  | 2.9  |
| MAY   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 18... | 1.1                                | 1.4   | 15                               | 90  | .09                              | .80   | 78.6                                  | 97   | 1.6                              | 4   | 90  | 4   | .09  |
| JUN   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 02... | 1.3                                | 1.8   | 14                               | 130   | .11                              | 1.60  | 55.8                                  | 85   | 1.2                              | 5   | 87  | 7   | .74  |
| 14... | 1.2                                | 3.0   | 17                               | 270   | .21                              | 5.28  | 30.0                                  | 101  | 1.7                              | 14  | 84  | 15  | 5.4  |
| AUG   |                                    |   |                                  |   |                                  |   |                                       |  |                                  |   |   |   |  |
| 23... | 1.7                                | 2.8   | 42                               | 480   | .12                              | 4.27  | 75.0                                  | 269  | 1.7                              | 14  | 89  | 26  | 4.0  |

E--Estimated.

12331800 CLARK FORK NEAR DRUMMOND, MT

LOCATION.--Lat 46°42'44", long 113°19'48" (NAD 27), in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec. 14, T.11 N., R.14 W., in Granite County, Hydrologic Unit 17010201, on right bank 50 ft upstream from country road bridge, 0.3 mi north of Bearmouth, 4.5 mi east of Bearmouth Chalet, 9.0 mi northwest of Drummond, and at river mile 403.9.

DRAINAGE AREA.--2,501 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,790 ft (NGVD 29).

REMARKS.--Water-discharge records good. Some regulation by settling ponds on Silver Bow Creek near Anaconda and Georgetown Lake (station number 12325000) on Flint Creek. Diversions for irrigation of about 88,000 acres upstream from station. U.S. Geological Survey satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1981 recorded a discharge of about 16,000 ft<sup>3</sup>/s, from measurements made upstream at Clark Fork at Drummond (12331600) and at downstream site, Clark Fork at Clinton (12331900).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1     | 332    | 425    | 524    | 280    | 459    | 473    | 576    | 456    | 666    | 350    | 185    | 273    |
| 2     | 349    | 467    | 527    | 331    | 432    | 475    | 624    | 435    | 616    | 356    | 176    | 283    |
| 3     | 354    | 496    | 543    | 312    | 429    | 464    | 603    | 437    | 566    | 330    | 188    | 280    |
| 4     | 391    | 489    | 532    | 310    | 451    | 457    | 595    | 408    | 545    | 342    | 207    | 283    |
| 5     | 401    | 456    | 508    | 202    | 460    | 461    | 604    | 390    | 537    | 378    | 210    | 283    |
| 6     | 403    | 437    | 522    | 145    | 432    | 456    | 598    | 382    | 599    | 371    | 207    | 285    |
| 7     | 390    | 437    | 538    | 147    | 440    | 450    | 600    | 384    | 643    | 365    | 197    | 293    |
| 8     | 398    | 437    | 522    | 229    | 455    | 849    | 608    | 379    | 630    | 365    | 196    | 299    |
| 9     | 395    | 461    | 497    | 324    | 451    | 1,370  | 644    | 364    | 658    | 360    | 184    | 297    |
| 10    | 396    | 520    | 479    | 379    | 448    | 1,330  | 650    | 340    | 791    | 365    | 167    | 283    |
| 11    | 408    | 538    | 505    | 398    | 437    | 984    | 604    | 346    | 1,110  | 367    | 163    | 274    |
| 12    | 420    | 531    | 499    | 408    | 398    | 773    | 571    | 358    | 1,120  | 360    | 152    | 334    |
| 13    | 427    | 504    | 502    | 405    | 353    | 822    | 558    | 342    | 888    | 347    | 147    | 430    |
| 14    | 432    | 486    | 506    | 412    | 354    | 704    | 568    | 332    | 752    | 325    | 146    | 414    |
| 15    | 447    | 479    | 501    | 421    | 417    | 629    | 569    | 306    | 639    | 299    | 141    | 413    |
| 16    | 462    | 502    | 462    | 434    | 444    | 618    | 559    | 281    | 563    | 281    | 134    | 395    |
| 17    | 461    | 509    | 492    | 442    | 444    | 613    | 538    | 287    | 509    | 266    | 132    | 390    |
| 18    | 446    | 503    | 457    | 421    | 465    | 676    | 527    | 313    | 465    | 261    | 146    | 410    |
| 19    | 436    | 520    | 402    | 418    | 513    | 702    | 512    | 358    | 461    | 260    | 162    | 468    |
| 20    | 433    | 552    | 413    | 436    | 526    | 641    | 502    | 382    | 461    | 295    | 162    | 565    |
| 21    | 438    | 530    | 494    | 455    | 504    | 586    | 508    | 385    | 453    | 298    | 162    | 586    |
| 22    | 441    | 462    | 458    | 449    | 474    | 574    | 476    | 472    | 404    | 272    | 168    | 582    |
| 23    | 444    | 431    | 409    | 443    | 462    | 578    | 461    | 626    | 359    | 262    | 238    | 577    |
| 24    | 452    | 469    | 424    | 470    | 473    | 589    | 439    | 685    | 312    | 272    | 272    | 595    |
| 25    | 445    | 482    | 499    | 464    | 524    | 612    | 438    | 616    | 282    | 267    | 261    | 585    |
| 26    | 458    | 491    | 465    | 451    | 537    | 603    | 432    | 576    | 299    | 255    | 277    | 566    |
| 27    | 459    | 513    | 440    | 450    | 508    | 588    | 414    | 583    | 314    | 238    | 297    | 545    |
| 28    | 466    | 482    | 389    | 447    | 488    | 567    | 454    | 645    | 356    | 207    | 304    | 535    |
| 29    | 525    | 535    | 331    | 472    | 474    | 551    | 516    | 750    | 374    | 198    | 289    | 550    |
| 30    | 524    | 534    | 292    | 496    | ---    | 539    | 488    | 766    | 368    | 199    | 275    | 533    |
| 31    | 460    | ---    | 260    | 495    | ---    | 537    | ---    | 723    | ---    | 192    | 267    | ---    |
| TOTAL | 13,293 | 14,678 | 14,392 | 11,946 | 13,252 | 20,271 | 16,236 | 14,107 | 16,740 | 9,303  | 6,212  | 12,606 |
| MEAN  | 429    | 489    | 464    | 385    | 457    | 654    | 541    | 455    | 558    | 300    | 200    | 420    |
| MAX   | 525    | 552    | 543    | 496    | 537    | 1,370  | 650    | 766    | 1,120  | 378    | 304    | 595    |
| MIN   | 332    | 425    | 260    | 145    | 353    | 450    | 414    | 281    | 282    | 192    | 132    | 273    |
| AC-FT | 26,370 | 29,110 | 28,550 | 23,690 | 26,290 | 40,210 | 32,200 | 27,980 | 33,200 | 18,450 | 12,320 | 25,000 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2004, BY WATER YEAR (WY)

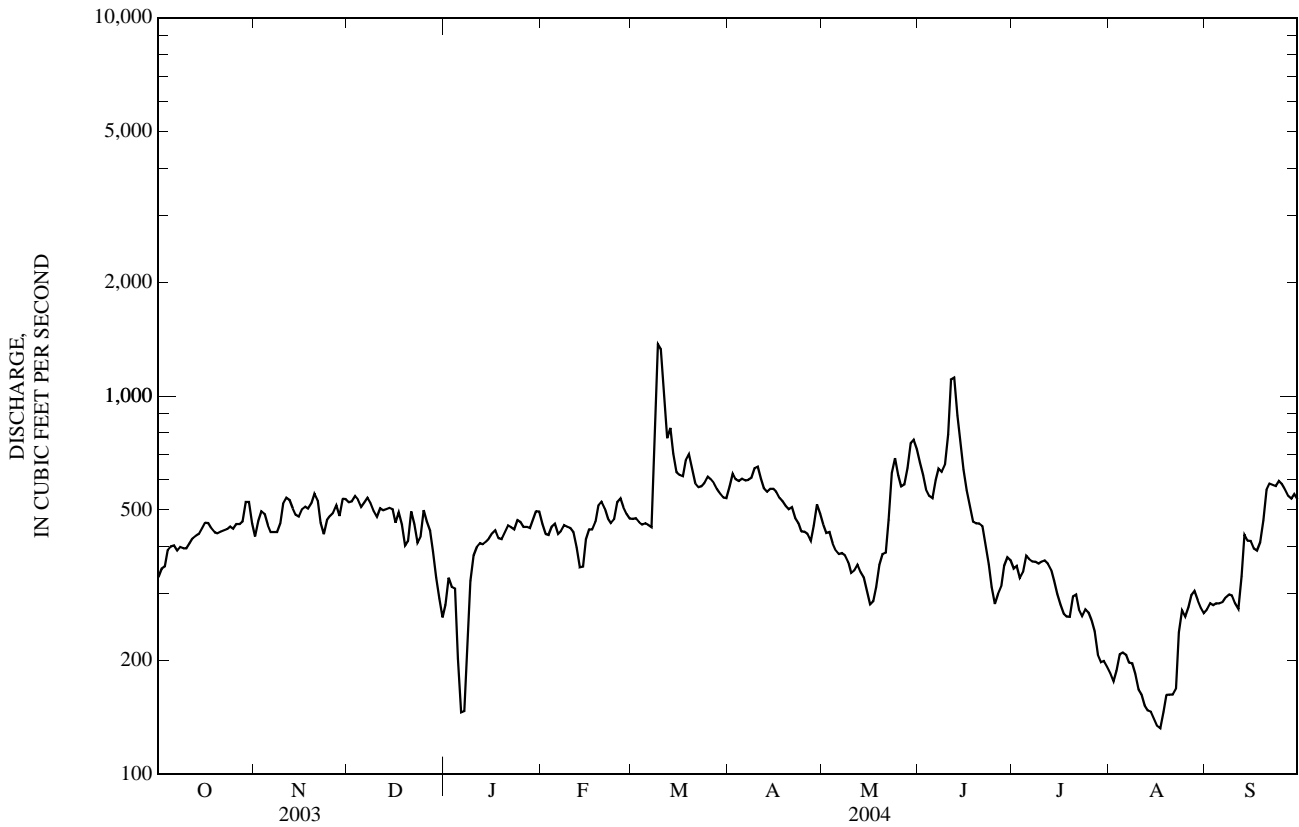
|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 580    | 586    | 506    | 505    | 609    | 710    | 791    | 1,114  | 1,421  | 693    | 363    | 435    |
| MAX  | 859    | 810    | 640    | 754    | 1,377  | 1,048  | 1,356  | 2,557  | 3,560  | 1,731  | 895    | 1,007  |
| (WY) | (1998) | (1998) | (1998) | (1997) | (1996) | (1997) | (1996) | (1997) | (1998) | (1998) | (1993) | (1993) |
| MIN  | 411    | 448    | 366    | 377    | 375    | 494    | 541    | 298    | 297    | 160    | 112    | 201    |
| (WY) | (2003) | (2001) | (2001) | (2001) | (2001) | (2002) | (2004) | (2000) | (2000) | (2000) | (2000) | (1994) |

PEND OREILLE RIVER BASIN

12331800 CLARK FORK NEAR DRUMMOND, MT—Continued

| SUMMARY STATISTICS       | FOR 2003 CALENDAR YEAR |        | FOR 2004 WATER YEAR |        | WATER YEARS 1993 - 2004 |              |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL             | 243,575                |        | 163,036             |        |                         |              |
| ANNUAL MEAN              | 667                    |        | 445                 |        | 684                     |              |
| HIGHEST ANNUAL MEAN      |                        |        |                     |        | 1,192                   |              |
| LOWEST ANNUAL MEAN       |                        |        |                     |        | 400                     |              |
| HIGHEST DAILY MEAN       | 3,730                  | Mar 14 | 1,370               | Mar 9  | 8,430                   | Feb 9, 1996  |
| LOWEST DAILY MEAN        | 168                    | Aug 1  | 132                 | Aug 17 | 77                      | Jul 31, 2000 |
| ANNUAL SEVEN-DAY MINIMUM | 180                    | Jul 31 | 143                 | Aug 12 | 83                      | Jul 29, 2000 |
| MAXIMUM PEAK FLOW        |                        |        | 1,850               |        | 9,800                   |              |
| MAXIMUM PEAK STAGE       |                        |        | 5.24                |        | 10.03                   |              |
| INSTANTANEOUS LOW FLOW   |                        |        | a130                |        | b75                     |              |
| ANNUAL RUNOFF (AC-FT)    | 483,100                |        | 323,400             |        | 495,500                 |              |
| 10 PERCENT EXCEEDS       | 1,240                  |        | 605                 |        | 1,180                   |              |
| 50 PERCENT EXCEEDS       | 464                    |        | 448                 |        | 544                     |              |
| 90 PERCENT EXCEEDS       | 248                    |        | 261                 |        | 272                     |              |

a--Gage height, 2.23 ft.  
 b--Gage height, 2.03 ft.



12331800 CLARK FORK NEAR DRUMMOND, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1993 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date      | Time | Instantaneous discharge, cfs (00061) | pH, water, unfltrd field, std units (00400) | Specif. conductance, water, unfltrd uS/cm 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | Hardness, water, mg/L as CaCO3 (00900) | Calcium water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Arsenic water, fltrd, ug/L (01000) | Arsenic water unfltrd ug/L (01002) | Cadmium water, fltrd, ug/L (01025) | Cadmium water, unfltrd ug/L (01027) |
|-----------|------|--------------------------------------|---|---|---------------------------------|-----------------------------------|--|------------------------------------|---------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|
| NOV 18... | 1015 | 501                                  | 8.4   | 490   | 5.5                             | 4.5                               | 230                                    | 64.8                               | 16.1                                  | 8.4                                | 8                                  | E.03                               | .10                                 |
| MAR 17... | 1250 | 613                                  | 8.4   | 471   | 12.5                            | 7.5                               | 220                                    | 64.2                               | 14.9                                  | 9.0                                | 9                                  | E.04                               | .14                                 |
| APR 21... | 0840 | 505                                  | 8.3   | 435   | 4.5                             | 7.0                               | 200                                    | 57.8                               | 13.8                                  | 12.0                               | 10                                 | E.03                               | .12                                 |
| MAY 18... | 0900 | 308                                  | 8.4   | 484   | 10.0                            | 12.5                              | 240                                    | 68.8                               | 15.8                                  | 9.2                                | 10                                 | E.02                               | .04                                 |
| JUN 02... | 1325 | 608                                  | 8.5   | 436   | 24.0                            | 15.5                              | 200                                    | 58.6                               | 13.3                                  | 10.4                               | 12                                 | E.02                               | .08                                 |
| JUN 13... | 1645 | 855                                  | 8.4   | 370   | 16.0                            | 16.0                              | 170                                    | 49.1                               | 11.3                                  | 10.6                               | 14                                 | <.04                               | .14                                 |
| JUL 20... | 1250 | 298                                  | 8.4   | 525   | 27.5                            | 20.5                              | 250                                    | 70.4                               | 17.1                                  | 12.8                               | 12                                 | E.02                               | .06                                 |
| AUG 23... | 1045 | 235                                  | 8.2   | 578   | 13.0                            | 15.5                              | 280                                    | 81.1                               | 19.5                                  | 12.1                               | 12                                 | E.03                               | .07                                 |

| Date      | Copper, water, fltrd, ug/L (01040) | Copper, water, unfltrd recoverable, ug/L (01042) | Iron, water, fltrd, ug/L (01046) | Iron, water, unfltrd recoverable, ug/L (01045) | Lead, water, fltrd, ug/L (01049) | Lead, water, unfltrd recoverable, ug/L (01051) | Manganese, water, fltrd, ug/L (01056) | Manganese, water, unfltrd recoverable, ug/L (01055) | Zinc, water, fltrd, ug/L (01090) | Zinc, water, unfltrd recoverable, ug/L (01092) | Suspended sediment, percent <.063mm (70331) | Suspended sediment concentration mg/L (80154) | Suspended sediment discharge, tons/d (80155) |
|-----------|------------------------------------|--|----------------------------------|--|----------------------------------|--|---------------------------------------|---|----------------------------------|--|---|---|--|
| NOV 18... | 2.6                                | 11.1   | <6                               | 220  | <.08                             | 1.63   | 12.9                                  | 63  | 4.1                              | 17   | 86  | 11  | 15   |
| MAR 17... | 4.5                                | 19.7   | 7                                | 460  | .09                              | 3.24   | 20.8                                  | 88  | 4.2                              | 25   | 82  | 26  | 43   |
| APR 21... | 4.1                                | 13.7   | E5                               | 310  | E.04                             | 2.04   | 14.2                                  | 62  | 9.1                              | 18   | 89  | 14  | 19   |
| MAY 18... | 4.4                                | 5.8  | E6                               | 40   | E.05                             | .29  | 11.1                                  | 16  | 3.2                              | 5  | 81  | 2   | 1.7  |
| JUN 02... | 4.7                                | 10.4   | E6                               | 180  | E.06                             | 1.19   | 15.8                                  | 49  | 2.6                              | 12   | 90  | 9   | 15   |
| JUN 13... | 4.2                                | 19.0   | 10                               | 450  | .10                              | 3.45   | 15.6                                  | 97  | 2.9                              | 26   | 89  | 23  | 53   |
| JUL 20... | 3.6                                | 6.7  | E4                               | 100  | E.05                             | .80  | 11.0                                  | 41  | 1.7                              | 7  | 64  | 8   | 6.4  |
| AUG 23... | 3.8                                | 7.7  | E3                               | 130  | E.04                             | .98  | 6.8                                   | 45  | 2.9                              | 11   | 86  | 7   | 4.4  |

E--Estimated.

## 12332000 MIDDLE FORK ROCK CREEK NEAR PHILIPSBURG, MT

LOCATION.--Lat 46°11'03", long 113°30'05" (NAD 27), in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.17, T.5 N., R.15 W., Granite County, Hydrologic Unit 17010202, on left bank 40 ft downstream from bridge on county highway, 1.2 mi upstream from East Fork, 3.4 mi upstream from West Fork, and 15 mi southwest of Philipsburg.

DRAINAGE AREA.--123 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1937 to current year. Monthly discharges only January to March 1938, published in WSP 1316.

GAGE.--Water-stage recorder. Elevation of gage is 5,444.08 ft (NGVD 29). Prior to Oct. 25, 1990, gage located at several sites 0.8 to 1.0 mi downstream. See WSP 1736 or 1933 for history of changes prior to Oct. 1, 1955.

REMARKS.--Records good except those for estimated daily discharges, which are poor. U.S. Geological Survey satellite telemeter at station. A few small diversions for irrigation upstream from station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY    | JUN    | JUL   | AUG   | SEP   |
|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|
| 1     | 35    | e30   | e31   | e30   | e33   | e30   | 53    | 124    | 222    | 192   | 60    | 53    |
| 2     | 34    | e31   | e30   | e29   | e32   | e29   | 48    | 148    | 228    | 182   | 61    | 56    |
| 3     | 34    | e31   | e29   | e27   | e31   | e29   | 46    | 186    | 251    | 173   | 59    | 54    |
| 4     | 34    | e29   | e29   | e26   | e32   | e29   | 50    | 229    | 293    | 180   | 58    | 52    |
| 5     | 34    | e27   | e29   | e25   | e31   | e30   | 53    | 283    | 355    | 160   | 56    | 50    |
| 6     | 33    | e29   | e29   | e27   | e31   | e30   | 59    | 318    | 424    | 149   | 59    | 49    |
| 7     | 33    | e30   | e29   | e29   | e32   | e30   | 64    | 314    | 362    | 143   | 55    | 47    |
| 8     | 33    | e30   | e29   | e30   | e32   | e30   | 69    | 332    | 318    | 138   | 54    | 46    |
| 9     | 32    | e31   | e29   | e30   | e33   | e30   | 72    | 315    | 292    | 127   | 52    | 45    |
| 10    | 33    | e31   | e29   | e31   | e33   | e30   | 67    | 290    | 450    | 122   | 51    | 44    |
| 11    | 34    | e31   | e29   | e31   | e33   | e31   | 66    | 273    | 431    | 121   | 50    | 43    |
| 12    | 36    | e30   | e29   | e31   | e32   | e31   | 69    | 235    | 346    | 110   | 49    | 59    |
| 13    | 36    | e30   | e30   | e32   | e30   | e32   | 75    | 206    | 307    | 104   | 48    | 82    |
| 14    | 36    | e30   | e30   | e32   | e29   | e32   | 88    | 188    | 285    | 100   | 47    | 67    |
| 15    | 36    | e30   | e30   | e33   | e30   | e33   | 92    | 178    | 271    | 97    | 45    | 63    |
| 16    | 38    | e32   | e30   | e33   | e30   | e34   | 86    | 185    | 248    | 93    | 46    | 59    |
| 17    | 37    | e34   | e29   | e33   | e31   | e35   | 84    | 197    | 228    | 89    | 51    | 55    |
| 18    | 37    | e34   | e29   | e34   | e31   | e34   | 84    | 206    | 223    | 90    | 60    | 55    |
| 19    | 36    | e36   | e29   | e34   | e31   | e34   | 81    | 235    | 229    | 100   | 57    | 80    |
| 20    | 34    | e34   | e30   | e34   | e30   | e33   | 78    | 220    | 218    | 106   | 52    | 76    |
| 21    | 34    | e33   | e30   | e34   | e29   | e34   | 73    | 228    | 207    | 92    | 50    | 76    |
| 22    | 33    | e30   | e30   | e34   | e28   | e35   | 70    | 246    | 202    | 84    | 49    | 69    |
| 23    | 33    | e30   | e29   | e34   | e29   | e34   | 69    | 259    | 207    | 80    | 60    | 74    |
| 24    | 33    | e31   | e30   | e33   | e29   | e34   | 73    | 237    | 214    | 76    | 62    | 79    |
| 25    | 33    | e31   | e30   | e33   | e30   | e34   | 74    | 216    | 216    | 73    | 77    | 74    |
| 26    | 33    | e31   | e30   | e33   | e30   | e36   | 78    | 216    | 211    | 73    | 88    | 72    |
| 27    | 33    | e32   | e30   | e33   | e30   | e38   | 97    | 233    | 285    | 67    | 82    | 69    |
| 28    | 34    | e32   | e29   | e34   | e30   | e40   | 133   | 260    | 255    | 67    | 69    | 67    |
| 29    | e32   | e32   | e29   | e34   | e30   | e40   | 123   | 271    | 225    | 65    | 63    | 65    |
| 30    | e32   | e32   | e29   | e33   | ---   | 43    | 119   | 246    | 214    | 63    | 58    | 63    |
| 31    | e30   | ---   | e30   | e33   | ---   | 48    | ---   | 232    | ---    | 61    | 55    | ---   |
| TOTAL | 1,055 | 934   | 914   | 979   | 892   | 1,042 | 2,293 | 7,306  | 8,217  | 3,377 | 1,783 | 1,843 |
| MEAN  | 34.0  | 31.1  | 29.5  | 31.6  | 30.8  | 33.6  | 76.4  | 236    | 274    | 109   | 57.5  | 61.4  |
| MAX   | 38    | 36    | 31    | 34    | 33    | 48    | 133   | 332    | 450    | 192   | 88    | 82    |
| MIN   | 30    | 27    | 29    | 25    | 28    | 29    | 46    | 124    | 202    | 61    | 45    | 43    |
| AC-FT | 2,090 | 1,850 | 1,810 | 1,940 | 1,770 | 2,070 | 4,550 | 14,490 | 16,300 | 6,700 | 3,540 | 3,660 |
| CFSM  | 0.28  | 0.25  | 0.24  | 0.26  | 0.25  | 0.27  | 0.62  | 1.92   | 2.23   | 0.89  | 0.47  | 0.50  |
| IN.   | 0.32  | 0.28  | 0.28  | 0.30  | 0.27  | 0.32  | 0.69  | 2.21   | 2.49   | 1.02  | 0.54  | 0.56  |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)

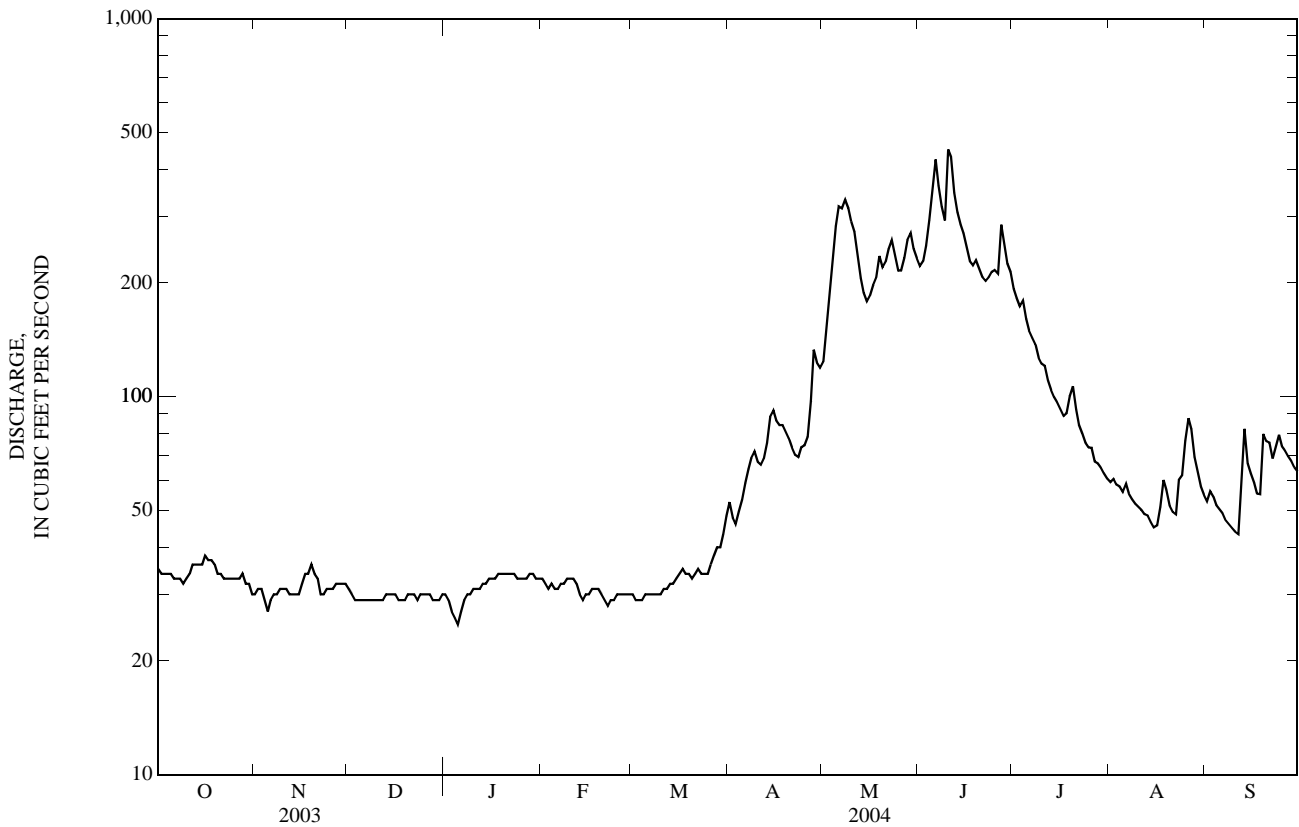
|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 49.2   | 42.7   | 36.3   | 32.1   | 32.9   | 36.3   | 74.7   | 333    | 478    | 177    | 70.0   | 51.8   |
| MAX  | 201    | 104    | 64.1   | 60.9   | 60.3   | 71.2   | 190    | 650    | 914    | 496    | 141    | 98.5   |
| (WY) | (1947) | (1947) | (1947) | (1976) | (1996) | (1986) | (1943) | (1947) | (1972) | (1975) | (1975) | (1946) |
| MIN  | 26.9   | 25.7   | 23.6   | 22.0   | 16.5   | 22.7   | 28.1   | 137    | 141    | 48.7   | 25.8   | 30.4   |
| (WY) | (1988) | (1980) | (1946) | (1977) | (1959) | (1955) | (1975) | (1953) | (1992) | (1940) | (1940) | (1987) |



12332000 MIDDLE FORK ROCK CREEK NEAR PHILIPSBURG, MT—Continued

| SUMMARY STATISTICS       | FOR 2003 CALENDAR YEAR |        | FOR 2004 WATER YEAR |        | WATER YEARS 1938 - 2004 |              |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL             | 37,154                 |        | 30,635              |        |                         |              |
| ANNUAL MEAN              | 102                    |        | 83.7                |        | 118                     |              |
| HIGHEST ANNUAL MEAN      |                        |        |                     |        | 183                     | 1997         |
| LOWEST ANNUAL MEAN       |                        |        |                     |        | 62.3                    | 1940         |
| HIGHEST DAILY MEAN       | 1,450                  | May 31 | 450                 | Jun 10 | 1,480                   | Jun 16, 1974 |
| LOWEST DAILY MEAN        | 25                     | Feb 24 | 25                  | Jan 5  | 5.3                     | Feb 9, 1953  |
| ANNUAL SEVEN-DAY MINIMUM | 27                     | Feb 22 | 28                  | Jan 1  | 10                      | Feb 22, 1962 |
| MAXIMUM PEAK FLOW        |                        |        | 547                 | Jun 10 | 1,680                   | Jun 16, 1974 |
| MAXIMUM PEAK STAGE       |                        |        | a3.01               | Jun 10 | b5.58                   | Jun 16, 1974 |
| INSTANTANEOUS LOW FLOW   |                        |        |                     |        | 5.3                     | Feb 9, 1953  |
| ANNUAL RUNOFF (AC-FT)    | 73,690                 |        | 60,760              |        | 85,440                  |              |
| ANNUAL RUNOFF (CFSM)     | 0.828                  |        | 0.681               |        | 0.959                   |              |
| ANNUAL RUNOFF (INCHES)   | 11.24                  |        | 9.27                |        | 13.03                   |              |
| 10 PERCENT EXCEEDS       | 183                    |        | 228                 |        | 322                     |              |
| 50 PERCENT EXCEEDS       | 36                     |        | 44                  |        | 47                      |              |
| 90 PERCENT EXCEEDS       | 29                     |        | 30                  |        | 28                      |              |

a--Recorded, may have been higher during period of no gage-height record, Nov. 6 to Mar. 29.  
 b--Site and datum then in use.  
 e--Estimated.



## PEND OREILLE RIVER BASIN

12334510 ROCK CREEK NEAR CLINTON, MT

LOCATION.--Lat 46°43'21", long 113°40'56" (NAD 27), in NW¼NE¼SW¼ sec.12, T.11 N., R.17 W., Missoula County, Hydrologic Unit 17010202, on left bank 100 ft downstream from private road bridge, 0.2 mi upstream from mouth, and 3.7 mi southeast of Clinton.

DRAINAGE AREA.--885 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,519.46 ft (NGVD 29).

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Some regulation by East Fork Rock Creek Reservoir (station number 12332500). During irrigation season water is diverted from East Fork Rock Creek in sec.5, T.4 N., R.14 W., 500 ft below Rock Creek Dam, through a canal into Trout Creek, thence into Flint Creek. Diversions for irrigation of about 16,100 acres. U.S. Geological Survey satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1972 reached a stage of 8.52 ft, from floodmark, discharge, 6,500 ft<sup>3</sup>/s; local residents report flood of 1927 reached a stage of about 9.5 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT    | NOV    | DEC   | JAN   | FEB   | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| 1     | 195    | 170    | 191   | e120  | 156   | 155    | 360    | 588    | 1,090  | 643    | 263    | 255    |
| 2     | 189    | 181    | 191   | e130  | 146   | 154    | 368    | 620    | 1,030  | 608    | 258    | 271    |
| 3     | 186    | 208    | 192   | e120  | 138   | 152    | 337    | 708    | 1,020  | 580    | 261    | 267    |
| 4     | 186    | 203    | 180   | e100  | 142   | 148    | 333    | 823    | 1,040  | 569    | 264    | 259    |
| 5     | 185    | e160   | 159   | e80   | 150   | 158    | 372    | 936    | 1,100  | 558    | 259    | 257    |
| 6     | 184    | e150   | 197   | e65   | 148   | 154    | 428    | 1,020  | 1,180  | 528    | 283    | 253    |
| 7     | 183    | e150   | 201   | e70   | 143   | 151    | 496    | 1,010  | 1,170  | 515    | 278    | 247    |
| 8     | 184    | e160   | 190   | e75   | 152   | 171    | 516    | 1,040  | 1,060  | 497    | 264    | 239    |
| 9     | 184    | e170   | 179   | e90   | 158   | 208    | 545    | 1,020  | 1,010  | 474    | 253    | 234    |
| 10    | 184    | 226    | 170   | e120  | 154   | 252    | 514    | 954    | 1,050  | 454    | 247    | 230    |
| 11    | 189    | 229    | 176   | e130  | 149   | 272    | 464    | 926    | 1,260  | 455    | 240    | 226    |
| 12    | 196    | 211    | 177   | e130  | 134   | 260    | 447    | 875    | 1,120  | 450    | 233    | 260    |
| 13    | 200    | 188    | 183   | e140  | 114   | 293    | 471    | 794    | 1,000  | 430    | 218    | 384    |
| 14    | 203    | 175    | 188   | e140  | 119   | 264    | 533    | 739    | 959    | 410    | 210    | 392    |
| 15    | 208    | 182    | 177   | e150  | 143   | 238    | 576    | 692    | 912    | 401    | 206    | 340    |
| 16    | 214    | 202    | 156   | e160  | 153   | 237    | 542    | 689    | 868    | 387    | 202    | 320    |
| 17    | 210    | 205    | 157   | e170  | 152   | 243    | 501    | 789    | 812    | 380    | 211    | 312    |
| 18    | 205    | 199    | 157   | e160  | 165   | 265    | 476    | 781    | 782    | 383    | 245    | 302    |
| 19    | 203    | 203    | e100  | e160  | 173   | 321    | 460    | 920    | 812    | 415    | 257    | 349    |
| 20    | 199    | 212    | e110  | 178   | 168   | 291    | 447    | 911    | 815    | 452    | 249    | 453    |
| 21    | 193    | 196    | 162   | 176   | 157   | 257    | 431    | 884    | 750    | 442    | 236    | 410    |
| 22    | 190    | 169    | 176   | 164   | 143   | 260    | 408    | 909    | 703    | 394    | 236    | 381    |
| 23    | 190    | e150   | e130  | 162   | 138   | 290    | 386    | 988    | 681    | 368    | 286    | 358    |
| 24    | 189    | 171    | e130  | 169   | 148   | 338    | 388    | 973    | 670    | 350    | 309    | 371    |
| 25    | 189    | 180    | 180   | 170   | 163   | 362    | 411    | 914    | 667    | 330    | 307    | 362    |
| 26    | 188    | 178    | 172   | 159   | 168   | 354    | 413    | 890    | 653    | 321    | 352    | 337    |
| 27    | 190    | 178    | 155   | 160   | 162   | 331    | 445    | 963    | 671    | 311    | 358    | 321    |
| 28    | 195    | 168    | 131   | 162   | 156   | 302    | 608    | 1,080  | 775    | 298    | 327    | 311    |
| 29    | 270    | 200    | e120  | 167   | 157   | 283    | 681    | 1,210  | 729    | 287    | 297    | 305    |
| 30    | 301    | 197    | e120  | 171   | ---   | 279    | 603    | 1,170  | 695    | 277    | 275    | 299    |
| 31    | 211    | ---    | e120  | 166   | ---   | 305    | ---    | 1,120  | ---    | 272    | 262    | ---    |
| TOTAL | 6,193  | 5,571  | 5,027 | 4,314 | 4,349 | 7,748  | 13,960 | 27,936 | 27,084 | 13,239 | 8,146  | 9,305  |
| MEAN  | 200    | 186    | 162   | 139   | 150   | 250    | 465    | 901    | 903    | 427    | 263    | 310    |
| MAX   | 301    | 229    | 201   | 178   | 173   | 362    | 681    | 1,210  | 1,260  | 643    | 358    | 453    |
| MIN   | 183    | 150    | 100   | 65    | 114   | 148    | 333    | 588    | 653    | 272    | 202    | 226    |
| AC-FT | 12,280 | 11,050 | 9,970 | 8,560 | 8,630 | 15,370 | 27,690 | 55,410 | 53,720 | 26,260 | 16,160 | 18,460 |
| CFSM  | 0.23   | 0.21   | 0.18  | 0.16  | 0.17  | 0.28   | 0.53   | 1.02   | 1.02   | 0.48   | 0.30   | 0.35   |
| IN.   | 0.26   | 0.23   | 0.21  | 0.18  | 0.18  | 0.33   | 0.59   | 1.17   | 1.14   | 0.56   | 0.34   | 0.39   |

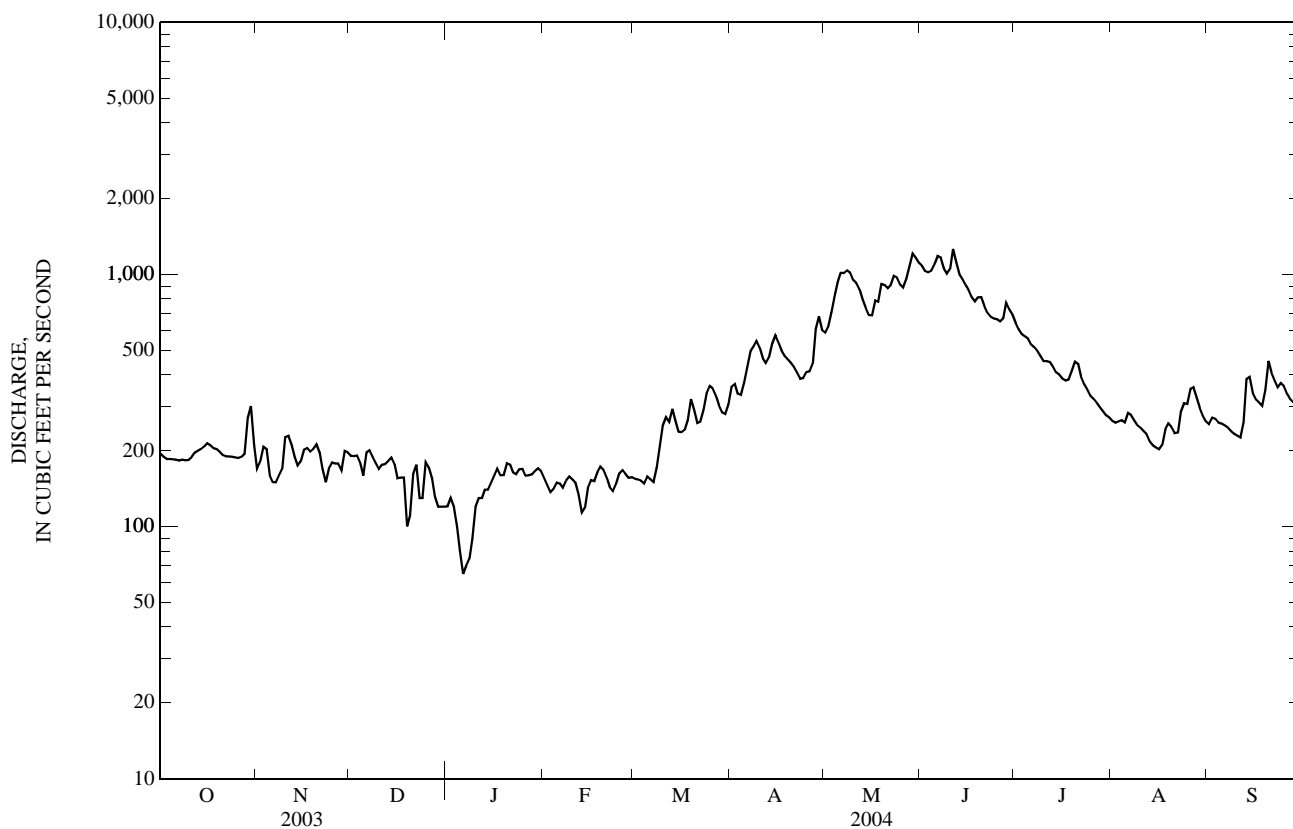
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2004, BY WATER YEAR (WY)

|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 250    | 224    | 195    | 183    | 191    | 245    | 505    | 1,451  | 1,690  | 668    | 308    | 262    |
| MAX  | 474    | 430    | 460    | 329    | 426    | 428    | 1,022  | 3,676  | 3,755  | 1,908  | 635    | 389    |
| (WY) | (1976) | (1976) | (1976) | (1976) | (1996) | (1986) | (1996) | (1976) | (1975) | (1975) | (1975) | (1975) |
| MIN  | 157    | 149    | 119    | 106    | 109    | 158    | 236    | 544    | 407    | 267    | 156    | 148    |
| (WY) | (1988) | (1988) | (1989) | (1988) | (1993) | (2002) | (1975) | (1977) | (1992) | (1985) | (1988) | (1992) |

12334510 ROCK CREEK NEAR CLINTON, MT—Continued

| SUMMARY STATISTICS       | FOR 2003 CALENDAR YEAR |        | FOR 2004 WATER YEAR |        | WATER YEARS 1973 - 2004 |              |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL             | 178,057                |        | 132,872             |        |                         |              |
| ANNUAL MEAN              | 488                    |        | 363                 |        | 515                     |              |
| HIGHEST ANNUAL MEAN      |                        |        |                     |        | 966                     | 1976         |
| LOWEST ANNUAL MEAN       |                        |        |                     |        | 258                     | 1992         |
| HIGHEST DAILY MEAN       | 3,750                  | May 31 | 1,260               | Jun 11 | 5,480                   | May 18, 1997 |
| LOWEST DAILY MEAN        | 80                     | Feb 25 | 65                  | Jan 6  | 38                      | Dec 22, 1998 |
| ANNUAL SEVEN-DAY MINIMUM | 132                    | Jan 6  | 86                  | Jan 3  | 65                      | Jan 3, 1974  |
| MAXIMUM PEAK FLOW        |                        |        | 1,310               | Jun 11 | a5,530                  | May 18, 1997 |
| MAXIMUM PEAK STAGE       |                        |        | 5.25                | Jun 11 | b37                     | Jun 9, 1997  |
| INSTANTANEOUS LOW FLOW   |                        |        |                     |        | b37                     | Dec 23, 1998 |
| ANNUAL RUNOFF (AC-FT)    | 353,200                |        | 263,600             |        | 373,200                 |              |
| ANNUAL RUNOFF (CFSM)     | 0.551                  |        | 0.410               |        | 0.582                   |              |
| ANNUAL RUNOFF (INCHES)   | 7.48                   |        | 5.59                |        | 7.91                    |              |
| 10 PERCENT EXCEEDS       | 1,150                  |        | 870                 |        | 1,210                   |              |
| 50 PERCENT EXCEEDS       | 211                    |        | 256                 |        | 263                     |              |
| 90 PERCENT EXCEEDS       | 163                    |        | 150                 |        | 151                     |              |

a--Gage height, 7.81 ft.  
 b--Gage height, 2.56 ft, may have been less during period of ice effect.  
 c--Estimated.



## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979-83, 1985 to August 2004 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: September 1979 to September 1983, April 1995 to September 2002.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum 23.0°C, Aug. 1, 2000; minimum 0.0°C, on many days during winter period.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date      | Time | Instantaneous discharge, cfs (00061) | pH, water, unfltrd field, std units (00400) | Specif. conductance, water, unfltrd uS/cm 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | Hardness, water, mg/L as CaCO <sub>3</sub> (00900) | Calcium water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Arsenic water, fltrd, ug/L (01000) | Arsenic water unfltrd ug/L (01002) | Cadmium water, fltrd, ug/L (01025) | Cadmium water, unfltrd ug/L (01027) |
|-----------|------|--------------------------------------|---|---|---------------------------------|-----------------------------------|--|------------------------------------|---------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|
| NOV 18... | 1140 | 197                                  | 8.2   | 144   | 10.0                            | 2.5                               | 66   | 17.1                               | 5.76                                  | .6                                 | <2                                 | <.04                               | <.04                                |
| APR 21... | 1005 | 432                                  | 7.8   | 106   | 7.0                             | 4.5                               | 47   | 12.4                               | 3.84                                  | .8                                 | E1                                 | <.04                               | <.04                                |
| MAY 18... | 1035 | 748                                  | 7.9   | 87  | 12.0                            | 8.0                               | 37   | 9.52                               | 3.18                                  | .5                                 | <2                                 | <.04                               | <.04                                |
| JUN 02... | 1515 | 1,020                                | 8.2   | 83  | 26.5                            | 12.5                              | 35   | 9.37                               | 2.85                                  | .6                                 | <2                                 | E.04                               | .06                                 |
| JUL 20... | 1140 | 455                                  | 8.3   | 133   | 23.0                            | 16.5                              | 60   | 16.4                               | 4.71                                  | .7                                 | <2                                 | <.04                               | <.04                                |
| AUG 23... | 1110 | 279                                  | 8.4   | 139   | 16.0                            | 14.0                              | 63   | 16.7                               | 5.07                                  | .8                                 | <2                                 | <.04                               | <.04                                |

| Date      | Copper, water, fltrd, ug/L (01040) | Copper, water, unfltrd recover-able, ug/L (01042) | Iron, water, fltrd, ug/L (01046) | Iron, water, unfltrd recover-able, ug/L (01045) | Lead, water, fltrd, ug/L (01049) | Lead, water, unfltrd recover-able, ug/L (01051) | Manganese, water, fltrd, ug/L (01056) | Manganese, water, unfltrd recover-able, ug/L (01055) | Zinc, water, fltrd, ug/L (01090) | Zinc, water, unfltrd recover-able, ug/L (01092) | Suspended sediment, percent <.063mm (70331) | Suspended sediment concentration mg/L (80154) | Suspended sediment discharge, tons/d (80155) |
|-----------|------------------------------------|---|----------------------------------|---|----------------------------------|---|---------------------------------------|--|----------------------------------|---|---|---|--|
| NOV 18... | E.2                                | <.6   | E6                               | 20  | <.08                             | <.06  | .6                                    | 1  | <.6                              | <2  | 82  | 1   | .53  |
| APR 21... | .5                                 | E.6   | 17                               | 60  | E.05                             | <.06  | 1.0                                   | 2  | E.4                              | <2  | 81  | 2   | 2.3  |
| MAY 18... | E.4                                | E.5   | 28                               | 100   | <.08                             | .08   | 1.1                                   | 5  | E.4                              | <2  | 75  | 4   | 8.1  |
| JUN 02... | .7                                 | 1.5   | 23                               | 110   | <.08                             | .14   | 1.3                                   | 5  | .6                               | 3   | 74  | 6   | 17   |
| JUL 20... | E.4                                | E.5   | 10                               | 60  | <.08                             | E.05  | 1.7                                   | 5  | <.6                              | <2  | 57  | 4   | 4.9  |
| AUG 23... | .7                                 | <.6   | 13                               | 90  | <.08                             | E.05  | 2.9                                   | 9  | <.6                              | <2  | 80  | 5   | 3.8  |

E--Estimated.

12334550 CLARK FORK AT TURAH BRIDGE, NEAR BONNER, MT

LOCATION.--Lat 46°49'34", long 113°48'48" (NAD 27), in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec. 1, T.12 N., R.18 W., Missoula County, Hydrologic Unit 17010201, on left bank 0.8 mi southeast of Turah, 4 mi southeast of Bonner, and at river mile 370.2.

DRAINAGE AREA.--3,641 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to current year. Water-discharge records for the period March 1985 to September 1985 are available in files of the Helena district office.

GAGE.--Water-stage recorder. Elevation of gage is 3,320 ft (NGVD 29), from topographic map. Prior to May 9, 1986, non-recording gage at same site at elevation 2.00 ft higher.

REMARKS.--Water-discharge records fair except those for estimated daily discharges, which are poor. Some regulation by settling ponds on Silver Bow Creek near Anaconda and by Georgetown Lake (station number 12325000) on Flint Creek. Diversions for irrigation of about 100,000 acres upstream from station. U. S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1     | 516    | e660   | 760    | e450   | 659    | 686    | 997    | 1,120  | 2,010  | 1,040  | 506    | 571    |
| 2     | 538    | 686    | 755    | e500   | 621    | 688    | 1,060  | 1,100  | 1,900  | 996    | 490    | 599    |
| 3     | 543    | 752    | 769    | e460   | 603    | 682    | 1,040  | 1,180  | 1,810  | 949    | 490    | 595    |
| 4     | 580    | 761    | 766    | e440   | 614    | 662    | 1,010  | 1,300  | 1,780  | 923    | 511    | 585    |
| 5     | 612    | e680   | 715    | e350   | 639    | 675    | 1,070  | 1,420  | 1,830  | 942    | 511    | 582    |
| 6     | 618    | e650   | 756    | e230   | 624    | 671    | 1,120  | 1,510  | 1,950  | 918    | 534    | 576    |
| 7     | 621    | e650   | 779    | e240   | 613    | 653    | 1,200  | 1,520  | 2,020  | 905    | 530    | 569    |
| 8     | 615    | e660   | 766    | e300   | 629    | 770    | 1,230  | 1,540  | 1,900  | 884    | 513    | 573    |
| 9     | 619    | e700   | 734    | e400   | 642    | 1,610  | 1,300  | 1,530  | 1,830  | 855    | 491    | 568    |
| 10    | 626    | 782    | 703    | e550   | 633    | 1,580  | 1,300  | 1,440  | 1,930  | 830    | 465    | 553    |
| 11    | 635    | 822    | 718    | e580   | 625    | 1,460  | 1,230  | 1,410  | 2,430  | 845    | 445    | 543    |
| 12    | 650    | 811    | 721    | e600   | e580   | 1,190  | 1,160  | 1,360  | 2,450  | 834    | 434    | 592    |
| 13    | 673    | 767    | 726    | e600   | e520   | 1,190  | 1,160  | 1,250  | 2,120  | 809    | 412    | 770    |
| 14    | 678    | 732    | 740    | e620   | e530   | 1,130  | 1,220  | 1,170  | 1,930  | 784    | 395    | 831    |
| 15    | 688    | 724    | 730    | e640   | 569    | 987    | 1,290  | 1,090  | 1,750  | 749    | 386    | 793    |
| 16    | 710    | 742    | 677    | 648    | 619    | 943    | 1,250  | 1,040  | 1,610  | 717    | 374    | 767    |
| 17    | 730    | 774    | 679    | e650   | 635    | 935    | 1,190  | 1,140  | 1,480  | 691    | 374    | 749    |
| 18    | 706    | 747    | e660   | e630   | 659    | 992    | 1,150  | 1,150  | 1,390  | 692    | 419    | 753    |
| 19    | 682    | 755    | e560   | 631    | 697    | 1,090  | 1,110  | 1,350  | 1,400  | 713    | 451    | 808    |
| 20    | 669    | 791    | e600   | 652    | 731    | 1,070  | 1,080  | 1,400  | 1,400  | 762    | 452    | 980    |
| 21    | 682    | 781    | e700   | 656    | 710    | 938    | 1,070  | 1,380  | 1,310  | 776    | 436    | 999    |
| 22    | 690    | e700   | e680   | 645    | 671    | 912    | 1,030  | 1,420  | 1,220  | 705    | 438    | 983    |
| 23    | 697    | e630   | e600   | 636    | 654    | 936    | 963    | 1,670  | 1,140  | 669    | 527    | 946    |
| 24    | 707    | e700   | e610   | 650    | 662    | 998    | 933    | 1,770  | 1,090  | 659    | 620    | 971    |
| 25    | 690    | 710    | e720   | 666    | 710    | 1,050  | 936    | 1,690  | 1,030  | 643    | 631    | 969    |
| 26    | 709    | 709    | 686    | 643    | 763    | 1,050  | 932    | 1,610  | 1,000  | 623    | 668    | 931    |
| 27    | 711    | 725    | 656    | 636    | 735    | 1,010  | 923    | 1,690  | 1,020  | 605    | 694    | 904    |
| 28    | 723    | 694    | e600   | 639    | 710    | 957    | 1,090  | 1,850  | 1,170  | 565    | 681    | 887    |
| 29    | 809    | 755    | e520   | 652    | 695    | 911    | 1,280  | 2,130  | 1,160  | 540    | 655    | 891    |
| 30    | 876    | 766    | e460   | 685    | ---    | 895    | 1,180  | 2,180  | 1,120  | 529    | 614    | 882    |
| 31    | 777    | ---    | e420   | 695    | ---    | 910    | ---    | 2,100  | ---    | 520    | 586    | ---    |
| TOTAL | 20,780 | 21,816 | 20,966 | 17,374 | 18,752 | 30,231 | 33,504 | 45,510 | 48,180 | 23,672 | 15,733 | 22,720 |
| MEAN  | 670    | 727    | 676    | 560    | 647    | 975    | 1,117  | 1,468  | 1,606  | 764    | 508    | 757    |
| MAX   | 876    | 822    | 779    | 695    | 763    | 1,610  | 1,300  | 2,180  | 2,450  | 1,040  | 694    | 999    |
| MIN   | 516    | 630    | 420    | 230    | 520    | 653    | 923    | 1,040  | 1,000  | 520    | 374    | 543    |
| AC-FT | 41,220 | 43,270 | 41,590 | 34,460 | 37,190 | 59,960 | 66,460 | 90,270 | 95,570 | 46,950 | 31,210 | 45,070 |

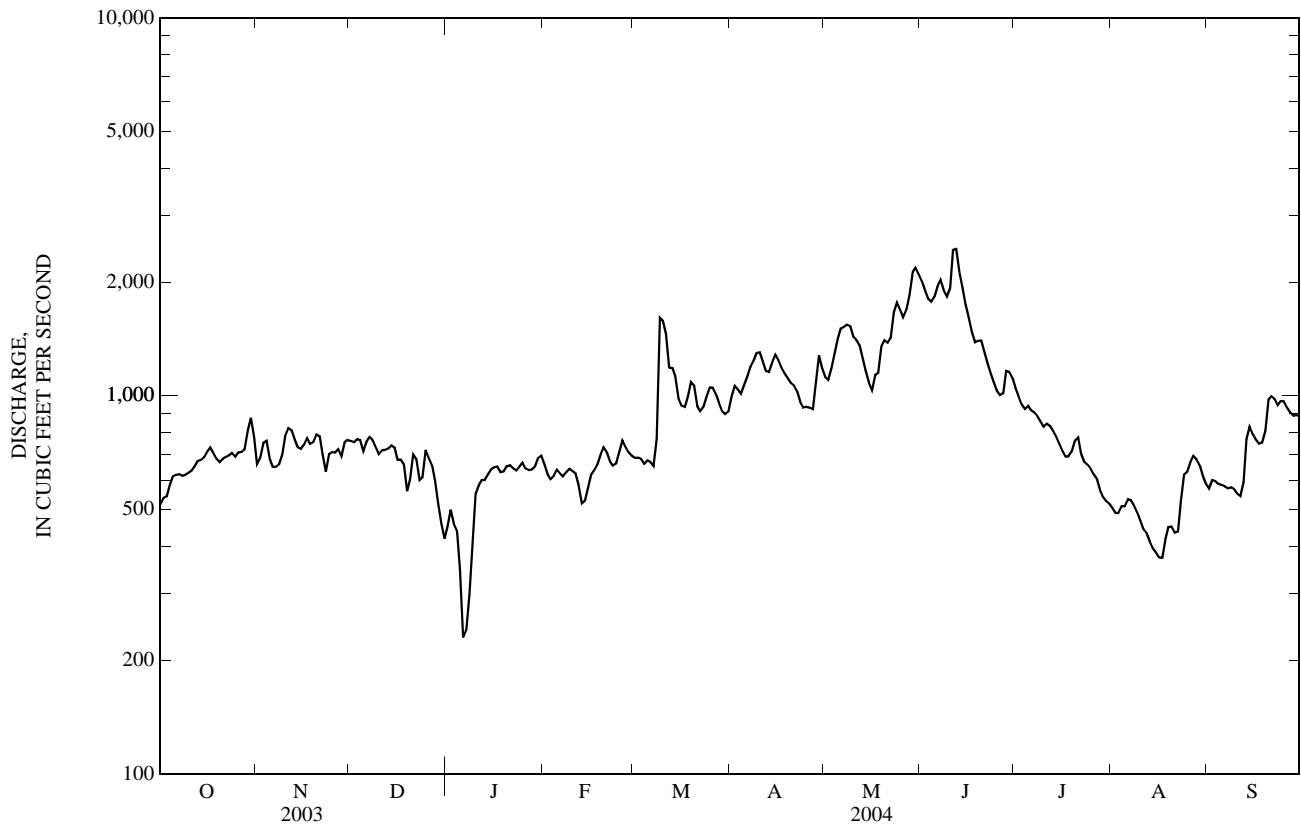
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 836    | 830    | 722    | 706    | 842    | 1,046  | 1,480  | 2,479  | 2,787  | 1,223  | 625    | 681    |
| MAX  | 1,287  | 1,173  | 1,233  | 1,149  | 2,124  | 1,664  | 3,072  | 6,345  | 7,090  | 2,920  | 1,423  | 1,423  |
| (WY) | (1998) | (1998) | (1996) | (1997) | (1996) | (1986) | (1996) | (1997) | (1997) | (1998) | (1993) | (1993) |
| MIN  | 592    | 616    | 492    | 474    | 472    | 712    | 828    | 915    | 639    | 485    | 271    | 357    |
| (WY) | (1993) | (1993) | (1993) | (1993) | (1989) | (1991) | (1991) | (1992) | (1992) | (2000) | (2000) | (1988) |

12334550 CLARK FORK AT TURAH BRIDGE, NEAR BONNER, MT—Continued

| SUMMARY STATISTICS       | FOR 2003 CALENDAR YEAR |        | FOR 2004 WATER YEAR |        | WATER YEARS 1986 - 2004 |              |
|--------------------------|------------------------|--------|---------------------|--------|-------------------------|--------------|
| ANNUAL TOTAL             | 448,579                |        | 319,238             |        |                         |              |
| ANNUAL MEAN              | 1,229                  |        | 872                 |        | 1,188                   |              |
| HIGHEST ANNUAL MEAN      |                        |        |                     |        | 2,219                   |              |
| LOWEST ANNUAL MEAN       |                        |        |                     |        | 686                     |              |
| HIGHEST DAILY MEAN       | 6,790                  | May 31 | 2,450               | Jun 12 | 9,530                   | Jun 2, 1997  |
| LOWEST DAILY MEAN        | 350                    | Feb 25 | 230                 | Jan 6  | 200                     | Dec 21, 1998 |
| ANNUAL SEVEN-DAY MINIMUM | 451                    | Aug 15 | 346                 | Jan 3  | 224                     | Aug 15, 1992 |
| MAXIMUM PEAK FLOW        |                        |        | a2,620              | Jun 12 | c12,400                 | Feb 9, 1996  |
| MAXIMUM PEAK STAGE       |                        |        | b6.31               | Jan 18 | b10.24                  | Dec 10, 1995 |
| ANNUAL RUNOFF (AC-FT)    | 889,800                |        | 633,200             |        | 860,600                 |              |
| 10 PERCENT EXCEEDS       | 2,590                  |        | 1,410               |        | 2,320                   |              |
| 50 PERCENT EXCEEDS       | 724                    |        | 726                 |        | 835                     |              |
| 90 PERCENT EXCEEDS       | 482                    |        | 528                 |        | 500                     |              |

a--Gage height, 5.63 ft.  
 b--Backwater from ice.  
 c--Gage height, 9.05 ft.  
 e--Estimated.



12334550 CLARK FORK AT TURAH BRIDGE, NEAR BONNER, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1991 to September 1998.

SUSPENDED-SEDIMENT DISCHARGE: March 1985 to March 2003, August 2003 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 25.0°C, Aug. 17, 1992; minimum, 0.0°C, on many days during winter.

SEDIMENT CONCENTRATION: Maximum daily mean, 1,140 mg/L, Feb. 25, 1986; minimum daily mean, 1 mg/L, Sep. 12, 1987.

SEDIMENT LOAD: Maximum daily, 24,400 tons, Feb. 25, 1986; minimum daily 1.1 tons, Sep. 12, 1987.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 330 mg/L, Mar. 9; minimum daily mean, 3 mg/L, July 9, 10.

SEDIMENT LOAD: Maximum daily, 1,430 tons, Mar. 9; minimum daily, 4.3 tons, Jan. 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Date  | Time | Instantaneous discharge, cfs (00061) | pH, water, unfltrd field, std units (00400) | Specif. conductance, water, unfltrd uS/cm 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | Hardness, water, mg/L as CaCO3 (00900) | Calcium water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Arsenic water, fltrd, ug/L (01000) | Arsenic water unfltrd ug/L (01002) | Cadmium water, fltrd, ug/L (01025) | Cadmium water, unfltrd ug/L (01027) |
|-------|------|--------------------------------------|---|---|---------------------------------|-----------------------------------|--|------------------------------------|---------------------------------------|------------------------------------|------------------------------------|------------------------------------|-------------------------------------|
| NOV   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 18... | 1310 | 739                                  | 8.5   | 402   | 5.0                             | 3.0                               | 190                                    | 53.8                               | 13.7                                  | 5.8                                | 6                                  | E.02                               | .06                                 |
| MAR   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 17... | 1410 | 930                                  | 8.5   | 381   | 11.0                            | 6.0                               | 180                                    | 51.3                               | 12.4                                  | 6.5                                | 6                                  | E.02                               | .11                                 |
| APR   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 21... | 1125 | 1,080                                | 8.1   | 304   | 9.0                             | 6.5                               | 130                                    | 38.5                               | 9.12                                  | 4.6                                | 6                                  | <.04                               | .06                                 |
| MAY   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 18... | 1145 | 1,110                                | 8.4   | 224   | 18.5                            | 10.0                              | 99                                     | 28.2                               | 6.93                                  | 3.1                                | 3                                  | <.04                               | E.03                                |
| JUN   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 02... | 1705 | 1,860                                | 8.6   | 230   | 25.0                            | 15.0                              | 100                                    | 29.0                               | 6.75                                  | 4.4                                | 4                                  | <.04                               | .06                                 |
| 14... | 0925 | 1,950                                | 8.2   | 239   | 15.0                            | 12.0                              | 100                                    | 30.5                               | 6.83                                  | 5.2                                | 6                                  | <.04                               | .10                                 |
| JUL   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 20... | 1020 | 768                                  | 8.4   | 301   | 22.0                            | 18.0                              | 140                                    | 37.9                               | 10.6                                  | 4.9                                | 6                                  | <.04                               | E.04                                |
| AUG   |      |                                      |   |   |                                 |                                   |  |                                    |                                       |                                    |                                    |                                    |                                     |
| 23... | 1335 | 540                                  | 8.3   | 317   | 13.5                            | 14.0                              | 150                                    | 40.8                               | 11.2                                  | 4.6                                | 4                                  | <.04                               | .04                                 |

| Date  | Copper, water, fltrd, ug/L (01040) | Copper, water, unfltrd recoverable, ug/L (01042) | Iron, water, fltrd, ug/L (01046) | Iron, water, unfltrd recoverable, ug/L (01045) | Lead, water, fltrd, ug/L (01049) | Lead, water, unfltrd recoverable, ug/L (01051) | Manganese, water, fltrd, ug/L (01056) | Manganese, water, unfltrd recoverable, ug/L (01055) | Zinc, water, fltrd, ug/L (01090) | Zinc, water, unfltrd recoverable, ug/L (01092) | Suspended sediment, percent <.063mm (70331) | Suspended sediment concentration mg/L (80154) | Suspended sediment discharge, tons/d (80155) |
|-------|------------------------------------|--|----------------------------------|--|----------------------------------|--|---------------------------------------|---|----------------------------------|--|---|---|--|
| NOV   |                                    |  |                                  |  |                                  |  |                                       |   |                                  |  |   |   |  |
| 18... | 2.0                                | 6.5  | E3                               | 110  | <.08                             | .87  | 3.2                                   | 30  | 3.1                              | 12   | 86  | 6   | 12   |
| MAR   |                                    |  |                                  |  |                                  |  |                                       |   |                                  |  |   |   |  |
| 17... | 3.4                                | 13.5   | 7                                | 350  | E.06                             | 2.33   | 8.4                                   | 65  | 5.0                              | 20   | 86  | 21  | 53   |
| APR   |                                    |  |                                  |  |                                  |  |                                       |   |                                  |  |   |   |  |
| 21... | 2.7                                | 8.1  | 8                                | 190  | .09                              | 1.16   | 5.6                                   | 31  | 2.3                              | 12   | 82  | 11  | 32   |
| MAY   |                                    |  |                                  |  |                                  |  |                                       |   |                                  |  |   |   |  |
| 18... | 1.7                                | 3.1  | 15                               | 110  | <.08                             | .32  | 3.5                                   | 11  | 1.8                              | 4  | 68  | 6   | 18   |
| JUN   |                                    |  |                                  |  |                                  |  |                                       |   |                                  |  |   |   |  |
| 02... | 2.5                                | 6.3  | 11                               | 180  | E.05                             | .81  | 4.8                                   | 24  | 1.5                              | 9  | 67  | 12  | 60   |
| 14... | 2.4                                | 10.9   | 12                               | 300  | E.07                             | 1.90   | 6.7                                   | 54  | 2.7                              | 19   | 75  | 18  | 95   |
| JUL   |                                    |  |                                  |  |                                  |  |                                       |   |                                  |  |   |   |  |
| 20... | 2.1                                | 4.1  | E6                               | 80   | <.08                             | .47  | 3.3                                   | 21  | 1.6                              | 5  | 79  | 7   | 15   |
| AUG   |                                    |  |                                  |  |                                  |  |                                       |   |                                  |  |   |   |  |
| 23... | 1.8                                | 4.1  | <6                               | 120  | <.08                             | .58  | 4.4                                   | 24  | 3.1                              | 8  | 77  | 8   | 12   |

E--Estimated.

12334550 CLARK FORK AT TURAH BRIDGE, NEAR BONNER, MT—Continued

SUSPENDED-SEDIMENT  
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

| Day   | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) | Mean concentration (mg/l) | Load (tons/day) |
|-------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|---------------------------|-----------------|
|       | OCTOBER                   |                 | NOVEMBER                  |                 | DECEMBER                  |                 | JANUARY                   |                 | FEBRUARY                  |                 | MARCH                     |                 |
| 1     | 6                         | 8.4             | 9                         | 16              | 10                        | 21              | 6                         | 7.3             | 7                         | 12              | 17                        | 31              |
| 2     | 6                         | 8.7             | 9                         | 17              | 10                        | 20              | 5                         | 6.8             | 7                         | 12              | 16                        | 30              |
| 3     | 7                         | 10              | 9                         | 18              | 10                        | 21              | 5                         | 6.2             | 7                         | 11              | 15                        | 28              |
| 4     | 9                         | 14              | 8                         | 16              | 8                         | 17              | 6                         | 7.1             | 7                         | 12              | 13                        | 23              |
| 5     | 10                        | 17              | 8                         | 15              | 6                         | 12              | 6                         | 5.7             | 6                         | 10              | 10                        | 18              |
| 6     | 11                        | 18              | 8                         | 14              | 7                         | 14              | 7                         | 4.3             | 6                         | 10              | 10                        | 18              |
| 7     | 12                        | 20              | 8                         | 14              | 7                         | 15              | 11                        | 7.1             | 6                         | 9.9             | 10                        | 18              |
| 8     | 11                        | 18              | 9                         | 16              | 7                         | 14              | 14                        | 11              | 6                         | 10              | 24                        | 50              |
| 9     | 9                         | 15              | 11                        | 21              | 7                         | 14              | 14                        | 15              | 6                         | 10              | 330                       | 1,430           |
| 10    | 7                         | 12              | 11                        | 23              | 6                         | 11              | 13                        | 19              | 6                         | 10              | 198                       | 845             |
| 11    | 6                         | 10              | 10                        | 22              | 9                         | 17              | 11                        | 17              | 6                         | 10              | 98                        | 386             |
| 12    | 6                         | 11              | 9                         | 20              | 8                         | 16              | 9                         | 15              | 6                         | 9.4             | 53                        | 170             |
| 13    | 7                         | 13              | 8                         | 17              | 8                         | 16              | 9                         | 15              | 7                         | 9.8             | 44                        | 141             |
| 14    | 7                         | 13              | 8                         | 16              | 7                         | 14              | 8                         | 13              | 7                         | 10              | 38                        | 116             |
| 15    | 8                         | 15              | 8                         | 16              | 6                         | 12              | 8                         | 14              | 8                         | 12              | 26                        | 69              |
| 16    | 8                         | 15              | 7                         | 14              | 5                         | 9.1             | 8                         | 14              | 8                         | 13              | 25                        | 64              |
| 17    | 8                         | 16              | 7                         | 15              | 5                         | 9.2             | 8                         | 14              | 8                         | 14              | 23                        | 58              |
| 18    | 8                         | 15              | 7                         | 14              | 6                         | 11              | 8                         | 14              | 8                         | 14              | 26                        | 70              |
| 19    | 8                         | 15              | 7                         | 14              | 8                         | 12              | 15                        | 26              | 10                        | 19              | 31                        | 91              |
| 20    | 8                         | 14              | 8                         | 17              | 9                         | 15              | 16                        | 28              | 16                        | 32              | 27                        | 78              |
| 21    | 8                         | 15              | 8                         | 17              | 9                         | 17              | 13                        | 23              | 14                        | 27              | 20                        | 51              |
| 22    | 9                         | 17              | 8                         | 15              | 7                         | 13              | 10                        | 17              | 14                        | 25              | 21                        | 52              |
| 23    | 9                         | 17              | 8                         | 14              | 6                         | 9.7             | 9                         | 15              | 14                        | 25              | 23                        | 58              |
| 24    | 9                         | 17              | 8                         | 15              | 6                         | 9.9             | 8                         | 14              | 15                        | 27              | 24                        | 65              |
| 25    | 9                         | 17              | 8                         | 15              | 7                         | 14              | 7                         | 13              | 15                        | 29              | 24                        | 68              |
| 26    | 8                         | 15              | 8                         | 15              | 8                         | 15              | 6                         | 10              | 15                        | 31              | 23                        | 65              |
| 27    | 8                         | 15              | 8                         | 16              | 8                         | 14              | 5                         | 8.6             | 16                        | 32              | 19                        | 52              |
| 28    | 8                         | 16              | 9                         | 17              | 6                         | 9.7             | 6                         | 10              | 16                        | 31              | 17                        | 44              |
| 29    | 9                         | 20              | 9                         | 18              | 6                         | 8.4             | 7                         | 12              | 16                        | 30              | 17                        | 42              |
| 30    | 9                         | 21              | 10                        | 21              | 6                         | 7.5             | 7                         | 13              | ---                       | ---             | 16                        | 39              |
| 31    | 9                         | 19              | ---                       | ---             | 6                         | 6.8             | 7                         | 13              | ---                       | ---             | 18                        | 44              |
| TOTAL | ---                       | 467.1           | ---                       | 498             | ---                       | 415.3           | ---                       | 408.1           | ---                       | 507.1           | ---                       | 4,314           |
|       | APRIL                     |                 | MAY                       |                 | JUNE                      |                 | JULY                      |                 | AUGUST                    |                 | SEPTEMBER                 |                 |
| 1     | 19                        | 51              | 11                        | 33              | 16                        | 87              | 7                         | 20              | 7                         | 9.6             | 8                         | 12              |
| 2     | 19                        | 54              | 11                        | 33              | 12                        | 62              | 7                         | 19              | 7                         | 9.3             | 8                         | 13              |
| 3     | 21                        | 59              | 10                        | 32              | 12                        | 59              | 6                         | 15              | 7                         | 9.3             | 7                         | 11              |
| 4     | 22                        | 60              | 16                        | 56              | 14                        | 67              | 6                         | 15              | 8                         | 11              | 7                         | 11              |
| 5     | 25                        | 72              | 25                        | 96              | 17                        | 84              | 5                         | 13              | 9                         | 12              | 6                         | 9.4             |
| 6     | 28                        | 85              | 24                        | 98              | 25                        | 132             | 4                         | 9.9             | 10                        | 14              | 6                         | 9.3             |
| 7     | 31                        | 100             | 22                        | 90              | 21                        | 115             | 4                         | 9.8             | 9                         | 13              | 6                         | 9.2             |
| 8     | 32                        | 106             | 19                        | 79              | 15                        | 77              | 4                         | 9.5             | 8                         | 11              | 6                         | 9.3             |
| 9     | 32                        | 112             | 17                        | 70              | 13                        | 64              | 3                         | 6.9             | 7                         | 9.3             | 6                         | 9.2             |
| 10    | 31                        | 109             | 12                        | 47              | 25                        | 130             | 3                         | 6.7             | 6                         | 7.5             | 6                         | 9.0             |
| 11    | 24                        | 80              | 8                         | 30              | 57                        | 374             | 5                         | 11              | 6                         | 7.2             | 6                         | 8.8             |
| 12    | 23                        | 72              | 8                         | 29              | 51                        | 337             | 5                         | 11              | 5                         | 5.9             | 7                         | 11              |
| 13    | 21                        | 66              | 5                         | 17              | 27                        | 155             | 4                         | 8.7             | 5                         | 5.6             | 12                        | 25              |
| 14    | 25                        | 82              | 5                         | 16              | 19                        | 99              | 4                         | 8.5             | 6                         | 6.4             | 12                        | 27              |
| 15    | 23                        | 80              | 5                         | 15              | 16                        | 76              | 5                         | 10              | 7                         | 7.3             | 9                         | 19              |
| 16    | 18                        | 61              | 5                         | 14              | 14                        | 61              | 5                         | 9.7             | 7                         | 7.1             | 8                         | 17              |
| 17    | 20                        | 64              | 8                         | 25              | 12                        | 48              | 4                         | 7.5             | 7                         | 7.1             | 8                         | 16              |
| 18    | 18                        | 56              | 7                         | 22              | 10                        | 38              | 5                         | 9.3             | 8                         | 9.1             | 8                         | 16              |
| 19    | 16                        | 48              | 9                         | 33              | 11                        | 42              | 6                         | 12              | 8                         | 9.7             | 9                         | 20              |
| 20    | 15                        | 44              | 10                        | 38              | 13                        | 49              | 7                         | 14              | 8                         | 9.8             | 17                        | 45              |
| 21    | 12                        | 35              | 10                        | 37              | 12                        | 42              | 8                         | 17              | 7                         | 8.2             | 17                        | 46              |
| 22    | 12                        | 33              | 11                        | 42              | 11                        | 36              | 9                         | 17              | 7                         | 8.3             | 16                        | 42              |
| 23    | 12                        | 31              | 18                        | 81              | 10                        | 31              | 8                         | 14              | 10                        | 14              | 15                        | 38              |
| 24    | 13                        | 33              | 20                        | 96              | 9                         | 26              | 8                         | 14              | 12                        | 20              | 14                        | 37              |
| 25    | 12                        | 30              | 14                        | 64              | 8                         | 22              | 9                         | 16              | 12                        | 20              | 12                        | 31              |
| 26    | 10                        | 25              | 11                        | 48              | 8                         | 22              | 9                         | 15              | 11                        | 20              | 10                        | 25              |
| 27    | 10                        | 25              | 13                        | 59              | 8                         | 22              | 9                         | 15              | 10                        | 19              | 10                        | 24              |
| 28    | 15                        | 44              | 19                        | 95              | 12                        | 38              | 8                         | 12              | 10                        | 18              | 10                        | 24              |
| 29    | 18                        | 62              | 31                        | 178             | 10                        | 31              | 8                         | 12              | 9                         | 16              | 10                        | 24              |
| 30    | 12                        | 38              | 27                        | 159             | 8                         | 24              | 8                         | 11              | 8                         | 13              | 10                        | 24              |
| 31    | ---                       | ---             | 22                        | 125             | ---                       | ---             | 6                         | 8.4             | 8                         | 13              | ---                       | ---             |
| TOTAL | ---                       | 1,817           | ---                       | 1,857           | ---                       | 2,450           | ---                       | 377.9           | ---                       | 350.7           | ---                       | 622.2           |