

**UPPER MISSISSIPPI RIVER BASIN**

**05200510 MISSISSIPPI RIVER NEAR BEMIDJI, MN**

LOCATION.--Lat 47° 29'00", long 94° 43'40", in SE1/4SW1/4 sec. 3, T.146 N., R.32 W., Beltrami County, Hydrologic Unit 07010101, 3.5 mi east of Bemidji on right bank 100 ft upstream of County Highway 12 and 400 ft downstream from Stump Lake dam.

DRAINAGE AREA.--610 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--September 1987 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 1,315 ft above sea level from topographic map.

REMARKS.--Records good except those for estimated daily discharge, which are fair.. Flow regulated by Stump Lake dam upstream from station.

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997**

**DAILY MEAN VALUES**

**DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP**

|      |     |     |     |     |     |     |      |      |      |
|------|-----|-----|-----|-----|-----|-----|------|------|------|
| 1    | 109 | --- | --- | --- | --- | --- | 329  | 739  | e335 |
| 224  | 579 | 298 |     |     |     |     |      |      |      |
| 2    | 137 | --- | 213 | --- | --- | --- | 329  | 721  | e340 |
| 327  | 567 | 294 |     |     |     |     |      |      |      |
| 3    | 128 | --- | --- | --- | --- | --- | 329  | e640 | 340  |
| 433  | 573 | 290 |     |     |     |     |      |      |      |
| 4    | 112 | --- | --- | --- | --- | --- | 330  | e580 | e390 |
| 501  | 537 | 248 |     |     |     |     |      |      |      |
| 5    | 105 | --- | --- | --- | --- | --- | 332  | 551  | e380 |
| 503  | 531 | 225 |     |     |     |     |      |      |      |
| 6    | 95  | --- | --- | --- | --- | --- | 336  | 638  | 381  |
| 504  | 424 | 223 |     |     |     |     |      |      |      |
| 7    | 97  | --- | --- | --- | --- | --- | 417  | e520 | e370 |
| 896  | 334 | 219 |     |     |     |     |      |      |      |
| 8    | 98  | --- | --- | --- | --- | --- | 580  | e630 | e360 |
| 1260 | 319 | 210 |     |     |     |     |      |      |      |
| 9    | 98  | --- | --- | --- | --- | --- | 791  | 633  | e355 |
| 1190 | 318 | 230 |     |     |     |     |      |      |      |
| 10   | 144 | --- | --- | --- | --- | --- | 887  | e640 | e350 |
| 980  | 325 | 228 |     |     |     |     |      |      |      |
| 11   | 153 | --- | --- | --- | --- | --- | 886  | e650 | e340 |
| 944  | 320 | 226 |     |     |     |     |      |      |      |
| 12   | 141 | --- | --- | --- | --- | --- | 945  | 658  | 332  |
| 1110 | 311 | 225 |     |     |     |     |      |      |      |
| 13   | 137 | --- | --- | 104 | --- | --- | 1030 | 658  | e270 |

|       |       |       |     |     |     |      |       |       |       |
|-------|-------|-------|-----|-----|-----|------|-------|-------|-------|
| 1060  | 311   | 224   |     |     |     |      |       |       |       |
| 14    | 132   | ---   | --- | --- | --- | ---  | 1120  | 668   | e230  |
| 1320  | 307   | 223   |     |     |     |      |       |       |       |
| 15    | 159   | ---   | --- | --- | --- | ---  | 1200  | 532   | e190  |
| 1260  | 305   | 225   |     |     |     |      |       |       |       |
| 16    | 183   | ---   | --- | --- | --- | ---  | 1240  | 541   | 156   |
| 1250  | 305   | 221   |     |     |     |      |       |       |       |
| 17    | 188   | ---   | --- | --- | --- | ---  | 1260  | 416   | 140   |
| 1210  | 305   | 249   |     |     |     |      |       |       |       |
| 18    | 197   | ---   | --- | --- | --- | ---  | 1290  | e400  | 98    |
| 1190  | 302   | 242   |     |     |     |      |       |       |       |
| 19    | 189   | ---   | --- | --- | --- | ---  | 1270  | e380  | 96    |
| 1150  | 302   | 242   |     |     |     |      |       |       |       |
| 20    | 189   | ---   | --- | --- | --- | ---  | 1250  | e360  | 93    |
| 1140  | 304   | 247   |     |     |     |      |       |       |       |
| 21    | 177   | ---   | --- | --- | --- | ---  | 1230  | e340  | 91    |
| 1110  | 304   | 246   |     |     |     |      |       |       |       |
| 22    | 176   | ---   | --- | --- | --- | ---  | 1210  | 332   | 89    |
| 1030  | 301   | 246   |     |     |     |      |       |       |       |
| 23    | 160   | ---   | --- | --- | --- | ---  | 1170  | e330  | 85    |
| 1040  | 299   | 244   |     |     |     |      |       |       |       |
| 24    | 145   | ---   | --- | --- | --- | ---  | 1150  | e330  | 104   |
| 953   | 299   | 243   |     |     |     |      |       |       |       |
| 25    | ---   | ---   | --- | --- | --- | ---  | 1120  | e330  | 166   |
| 950   | 275   | 237   |     |     |     |      |       |       |       |
| 26    | ---   | ---   | --- | --- | --- | ---  | 1080  | e330  | 153   |
| 971   | 294   | 234   |     |     |     |      |       |       |       |
| 27    | ---   | ---   | --- | --- | --- | 329  | 1040  | e330  | 132   |
| 958   | 307   | 234   |     |     |     |      |       |       |       |
| 28    | ---   | ---   | --- | --- | --- | 329  | 1010  | e330  | 127   |
| 873   | 302   | 247   |     |     |     |      |       |       |       |
| 29    | ---   | ---   | --- | --- | --- | 329  | 809   | 332   | 151   |
| 736   | 301   | 262   |     |     |     |      |       |       |       |
| 30    | ---   | ---   | --- | --- | --- | 329  | 711   | e330  | 159   |
| 600   | 301   | 270   |     |     |     |      |       |       |       |
| 31    | ---   | ---   | --- | --- | --- | 329  | ---   | e330  | ---   |
| 599   | 298   | ---   |     |     |     |      |       |       |       |
| TOTAL | 3449  | ---   | 213 | 104 | --- | 1645 | 26681 | 15199 | 6803  |
| 28272 | 10860 | 7252  |     |     |     |      |       |       |       |
| MEAN  | 144   | ---   | 213 | 104 | --- | 329  | 889   | 490   | 227   |
| 912   | 350   | 242   |     |     |     |      |       |       |       |
| MAX   | 197   | ---   | 213 | 104 | --- | 329  | 1290  | 739   | 390   |
| 1320  | 579   | 298   |     |     |     |      |       |       |       |
| MIN   | 95    | ---   | 213 | 104 | --- | 329  | 329   | 330   | 85    |
| 224   | 275   | 210   |     |     |     |      |       |       |       |
| AC-FT | 6840  | ---   | 422 | 206 | --- | 3260 | 52920 | 30150 | 13490 |
| 56080 | 21540 | 14380 |     |     |     |      |       |       |       |
| CFSM  | .24   | ---   | .35 | .17 | --- | .54  | 1.46  | .80   | .37   |
| 1.50  | .57   | .40   |     |     |     |      |       |       |       |
| IN.   | .21   | ---   | .01 | .01 | --- | .10  | 1.63  | .93   | .41   |
| 1.72  | .66   | .44   |     |     |     |      |       |       |       |

o e Estimated

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1997, BY WATER YEAR (WY)**

|      | OCT  | NOV  | DEC | JAN | FEB | MAR  | APR  | MAY  | JUN  |
|------|------|------|-----|-----|-----|------|------|------|------|
| JUL  | AUG  | SEP  |     |     |     |      |      |      |      |
| MEAN | 179  | ---  | --- | --- | --- | 242  | 372  | 416  | 226  |
| 280  | 195  | 194  |     |     |     |      |      |      |      |
| MAX  | 311  | ---  | --- | --- | --- | 242  | 889  | 769  | 329  |
| 912  | 471  | 401  |     |     |     |      |      |      |      |
| (WY) | 1995 | ---  | --- | --- | --- | 1996 | 1997 | 1996 | 1993 |
| 1997 | 1993 | 1993 |     |     |     |      |      |      |      |
| MIN  | 75.5 | ---  | --- | --- | --- | 242  | 148  | 181  | 104  |
| 62.2 | 61.9 | 62.3 |     |     |     |      |      |      |      |
| (WY) | 1991 | ---  | --- | --- | --- | 1996 | 1992 | 1992 | 1988 |
| 1988 | 1989 | 1990 |     |     |     |      |      |      |      |

| <i>SUMMARY STATISTICS</i> | <i>FOR 1996 CALENDAR YEAR</i> | <i>FOR 1997 WATER YEAR</i> | <i>WATER YEARS 1987 - 1997</i> |        |      |        |
|---------------------------|-------------------------------|----------------------------|--------------------------------|--------|------|--------|
| HIGHEST DAILY MEAN        | 1190                          | Apr 30                     | 1320                           | Jul 14 | 1320 | Jul 14 |
| 1997                      |                               |                            |                                |        |      |        |
| LOWEST DAILY MEAN         | 88                            | Aug 19                     | 85                             | Jun 23 | 22   | Jul    |
| 12 1988                   |                               |                            |                                |        |      |        |
| INSTANTANEOUS PEAK FLOW   |                               |                            | 1820                           | Jul 11 | 1820 | Jul    |
| 11 1997                   |                               |                            |                                |        |      |        |
| INSTANTANEOUS PEAK STAGE  |                               |                            | 5.98                           | Jul 11 | 5.98 | Jul    |
| 11 1997                   |                               |                            |                                |        |      |        |