LOCATION.--Lat 45°32'50", long 94°08'44", in SE 1/4 SW 1/4 sec. 1, T. 35 N., R. 31 W., Sherburne County, Hydrologic Unit 07010203, on left bank about 250 ft below the left downstream end of the City of St. Cloud hydropower dam and at mile 926.3 upstream from Ohio River.

DRAINAGE AREA.--13,320 mi² (approximately).

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 958.49 ft above sea level (NGVD of 1929).

REMARKS.--Records good except those for estimated daily discharge, which are fair to poor. Flow partly regulated by power plants and reservoirs.

### DISCHARGE, CUBIC FEET PER SECOND

| WATER YEAR | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2002-2003  | 3,780 | 6,010 | 4,030 | 3,690 | 2,740 | e2,714 | 4,300 | 6,770 | 6,220 | 16,700 | 4,460 | 1,740 |
| 1997       | 3,490 | 6,280 | 3,690 | 3,890 | 2,970 | e2,712 | 4,200 | 6,650 | 6,230 | 15,000 | 4,550 | 1,690 |
| 1996       | 3,160 | 5,970 | 3,230 | 3,890 | e2,850 | e2,812 | 4,630 | 6,390 | 5,700 | 15,200 | 4,420 | 1,890 |
| 1992       | 4,180 | 5,870 | e1,100 | 3,950 | e2,800 | e2,812 | 4,530 | 5,660 | 5,750 | 16,200 | 4,410 | 1,660 |
| 1990       | 4,830 | 5,730 | 3,150 | 3,920 | e2,750 | e2,712 | 3,590 | 5,780 | 5,640 | 15,500 | 4,410 | 1,880 |
| 1989       | 5,690 | 5,570 | 3,410 | 3,640 | e2,650 | e2,712 | 3,930 | 6,270 | 5,550 | 14,600 | 4,400 | 1,680 |
| 1988       | 7,650 | 5,860 | 3,490 | 3,750 | e2,580 | e2,712 | 4,380 | 6,100 | 5,250 | 15,000 | 4,250 | 1,720 |
| 1978       | 7,550 | 5,520 | 3,590 | 3,980 | e2,570 | e2,712 | 4,210 | 6,610 | 5,410 | 14,100 | 4,080 | 2,270 |
| 1977       | 7,330 | 5,450 | 3,340 | 3,770 | e2,570 | e2,712 | 3,980 | 7,380 | 5,620 | 13,200 | 3,920 | 1,710 |
| 1970       | 8,400 | 5,590 | 3,920 | 3,570 | e2,570 | e2,712 | 4,120 | 8,620 | 5,990 | 12,700 | 3,710 | 1,780 |

#### TOTAL

| WATER YEAR | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2002-2003  | 194,360 | 154,400 | 120,710 | 102,830 | 69,610 | 95,320 | 204,480 | 267,350 | 246,960 | 332,900 | 94,310 | 61,920 |
| 1996       | 198,350 | 163,400 | 128,350 | 110,820 | 80,230 | 100,510 | 208,650 | 268,110 | 247,560 | 329,900 | 92,310 | 59,620 |
| 1977       | 212,450 | 172,500 | 134,900 | 116,350 | 84,280 | 105,740 | 216,110 | 277,710 | 256,510 | 340,040 | 97,810 | 63,740 |

#### STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988-2003, BY WATER YEAR (WY)

<table>
<thead>
<tr>
<th>WY</th>
<th>MEAN</th>
<th>MAX</th>
<th>MIN</th>
<th>CFSM</th>
<th>IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-2003</td>
<td>5,745</td>
<td>5,967</td>
<td>4,065</td>
<td>3,900</td>
<td>0.47</td>
</tr>
<tr>
<td>1997</td>
<td>15,680</td>
<td>15,875</td>
<td>15,615</td>
<td>15,640</td>
<td>15,680</td>
</tr>
<tr>
<td>1996</td>
<td>9,675</td>
<td>9,745</td>
<td>9,615</td>
<td>9,640</td>
<td>9,675</td>
</tr>
<tr>
<td>1990</td>
<td>3,106</td>
<td>3,150</td>
<td>3,050</td>
<td>3,075</td>
<td>0.54</td>
</tr>
<tr>
<td></td>
<td>2002 Calendar Year</td>
<td>2003 Water Year</td>
<td>1988 - 2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------------</td>
<td>----------------</td>
<td>-----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ANNUAL TOTAL</strong></td>
<td>2,373,770</td>
<td>1,945,150</td>
<td>6,881</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ANNUAL MEAN</strong></td>
<td>6,503</td>
<td>5,329</td>
<td>6,881</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HIGHEST ANNUAL MEAN</strong></td>
<td>9,947</td>
<td>2001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LOWEST ANNUAL MEAN</strong></td>
<td>4,615</td>
<td>1990</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HIGHEST DAILY MEAN</strong></td>
<td>21,100</td>
<td>19,600</td>
<td>45,100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LOWEST DAILY MEAN</strong></td>
<td>2,610</td>
<td>1,650</td>
<td>2,610</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ANNUAL SEVEN-DAY MINIMUM</strong></td>
<td>3,170</td>
<td>1,750</td>
<td>1,380</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MAXIMUM PEAK FLOW</strong></td>
<td>20,900</td>
<td>45,100</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>MAXIMUM PEAK STAGE</strong></td>
<td>7.88</td>
<td>11.44</td>
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<td></td>
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<tr>
<td><strong>INSTANTANEOUS LOW FLOW</strong></td>
<td>576</td>
<td>484</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ANNUAL RUNOFF (AC-FT)</strong></td>
<td>4,708,000</td>
<td>3,858,000</td>
<td>4,985,000</td>
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<tr>
<td><strong>ANNUAL RUNOFF (CFSM)</strong></td>
<td>0.49</td>
<td>0.40</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ANNUAL RUNOFF (INCHES)</strong></td>
<td>6.63</td>
<td>5.43</td>
<td>7.02</td>
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</tr>
<tr>
<td><strong>10 PERCENT EXCEEDS</strong></td>
<td>11,500</td>
<td>10,500</td>
<td>12,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>50 PERCENT EXCEEDS</strong></td>
<td>5,560</td>
<td>4,200</td>
<td>5,520</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>90 PERCENT EXCEEDS</strong></td>
<td>3,480</td>
<td>2,140</td>
<td>2,740</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* Due in part to regulation.

*b* Due to regulation.

*e* Estimated.