

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05270500 SAUK RIVER NEAR ST. CLOUD, MN

LOCATION.--Lat 45°33'35", long 94°14'00", in SW¹/₄SW¹/₄ sec. 8, T. 124 N., R. 28 W., Stearns County, Hydrologic Unit 07010203, on right bank 0.5 mi northwest of Waite Park, 3 mi west of St. Cloud, and 5 mi upstream from mouth.

DRAINAGE AREA.--1,030 mi².

PERIOD OF RECORD.--July 1909 to December 1912, April to December 1913, May to November 1929, March 1930 to September 1931, April to November 1932, March to November 1933, March 1934 to September 1981, October 1990 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORD--WSP 895: Drainage area. WSP 1308: 1912(M), 1932 (M). WSP 1508: 1937(m).

GAGE.--Water-stage recorder. Datum of gage is 1,034.63 ft above sea level (NGVD of 1929). Prior to Nov. 22, 1934, nonrecording gage on highway bridge 1 mi downstream at datum 6.77 ft lower.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-------|------|------|------|------|--------|--------|-------|-------|------|------|
| 1 | 28 | 188 | 185 | e75 | e84 | e88 | e132 | 3390 | 1110 | 626 | 256 | 85 |
| 2 | 26 | 242 | 140 | e75 | e86 | e89 | e137 | 3260 | 1040 | 581 | 238 | 89 |
| 3 | 30 | 275 | e135 | e75 | e88 | e89 | e147 | 3060 | 969 | 554 | 226 | 95 |
| 4 | 26 | 221 | e130 | e75 | e90 | e90 | e160 | 2840 | 897 | 518 | 217 | 87 |
| 5 | 28 | 212 | e122 | e75 | e91 | e90 | e180 | 2660 | 834 | 479 | 209 | 85 |
| 6 | 27 | 257 | e118 | e75 | e92 | e91 | 249 | 2580 | 785 | 448 | 202 | 88 |
| 7 | 30 | 317 | e115 | e75 | e91 | e92 | 362 | 2530 | 731 | 427 | 190 | 144 |
| 8 | 25 | 358 | e113 | e75 | e90 | e93 | 930 | 2420 | 693 | 401 | 186 | 143 |
| 9 | 24 | 353 | e107 | e78 | e90 | e94 | 1860 | 2260 | 668 | 377 | 176 | 126 |
| 10 | 27 | 349 | e99 | e80 | e90 | e94 | 3250 | 2160 | 770 | 351 | 158 | 122 |
| 11 | 27 | 331 | e90 | e85 | e90 | e95 | 4020 | 2080 | 723 | 319 | 147 | 118 |
| 12 | 27 | 328 | e90 | e88 | e89 | e96 | 4320 | 1990 | 716 | 295 | 143 | 115 |
| 13 | 33 | 362 | e90 | e89 | e88 | e97 | 4460 | 1900 | 750 | 285 | 133 | 110 |
| 14 | 41 | 374 | e88 | e90 | e86 | e99 | 4550 | 1810 | 831 | 273 | 127 | 107 |
| 15 | 43 | 359 | e87 | e90 | e86 | e100 | 4550 | 1740 | 890 | 261 | 127 | 108 |
| 16 | 36 | 342 | e87 | e90 | e86 | e102 | 4450 | 1640 | 889 | 245 | 125 | 113 |
| 17 | 39 | 331 | e88 | e90 | e86 | e103 | 4250 | 1520 | 849 | 233 | 115 | 116 |
| 18 | 42 | 313 | e88 | e89 | e86 | e104 | 4060 | 1410 | 835 | 227 | 112 | 120 |
| 19 | 41 | 293 | e87 | e89 | e86 | e105 | 3870 | 1310 | 889 | 221 | 101 | 123 |
| 20 | 47 | e200 | e87 | e88 | e86 | e107 | 3700 | 1270 | 911 | 235 | 97 | 131 |
| 21 | 41 | e140 | e86 | e87 | e86 | e109 | 3580 | 1390 | 985 | 231 | 96 | 135 |
| 22 | 35 | e135 | e82 | e87 | e85 | e111 | 3520 | 1360 | 1040 | 235 | 89 | 149 |
| 23 | 42 | e140 | e74 | e87 | e85 | e113 | 3910 | 1320 | 1080 | 287 | 83 | 145 |
| 24 | 56 | e150 | e72 | e87 | e86 | e115 | 3950 | 1250 | 1070 | 264 | 76 | 135 |
| 25 | 80 | e170 | e68 | 87 | e86 | e117 | 4010 | 1230 | 1060 | 243 | 74 | 126 |
| 26 | 108 | e190 | e72 | e86 | e87 | e119 | 3960 | 1290 | 1050 | 224 | 75 | 126 |
| 27 | 128 | e200 | e74 | e86 | e87 | e121 | 3850 | 1280 | 970 | 229 | 80 | 125 |
| 28 | 109 | 218 | e74 | e86 | e88 | e122 | 3710 | 1240 | 882 | 278 | 77 | 124 |
| 29 | 112 | 211 | e75 | e86 | --- | e122 | 3600 | 1210 | 787 | 258 | 87 | 129 |
| 30 | 134 | 198 | e75 | e85 | --- | e125 | 3500 | 1170 | 705 | 253 | 104 | 136 |
| 31 | 150 | --- | e75 | e84 | --- | e127 | --- | 1140 | --- | 250 | 92 | --- |
| TOTAL | 1642 | 7757 | 2973 | 2594 | 2451 | 3219 | 87227 | 57710 | 26409 | 10108 | 4218 | 3555 |
| MEAN | 53.0 | 259 | 95.9 | 83.7 | 87.5 | 104 | 2908 | 1862 | 880 | 326 | 136 | 118 |
| MAX | 150 | 374 | 185 | 90 | 92 | 127 | 4550 | 3390 | 1110 | 626 | 256 | 149 |
| MIN | 24 | 135 | 68 | 75 | 84 | 88 | 132 | 1140 | 668 | 221 | 74 | 85 |
| AC-FT | 3260 | 15390 | 5900 | 5150 | 4860 | 6380 | 173000 | 114500 | 52380 | 20050 | 8370 | 7050 |
| CFSM | .05 | .25 | .09 | .08 | .08 | .10 | 2.82 | 1.81 | .85 | .32 | .13 | .12 |
| IN. | .06 | .28 | .11 | .09 | .09 | .12 | 3.15 | 2.08 | .95 | .37 | .15 | .13 |

05270500 SAUK RIVER NEAR ST. CLOUD, MN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2001, BY WATER YEAR (WY)

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 170 | 182 | 136 | 101 | 110 | 314 | 847 | 528 | 419 | 322 | 206 | 179 |
| MAX | 1154 | 1091 | 528 | 336 | 568 | 1380 | 2997 | 1862 | 1333 | 1262 | 1250 | 1136 |
| (WY) | 1996 | 1972 | 1972 | 1980 | 1966 | 1966 | 1997 | 2001 | 1957 | 1993 | 1972 | 1957 |
| MIN | 6.22 | 6.18 | 5.15 | 3.25 | 7.61 | 28.7 | 16.5 | 7.84 | 15.9 | 10.6 | 10.5 | 10.7 |
| (WY) | 1934 | 1934 | 1935 | 1935 | 1935 | 1940 | 1934 | 1934 | 1934 | 1934 | 1933 | 1933 |

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1909 - 2001

| | | | | | | | | | | | | |
|--------------------------|--|--------|-----|--------|--|--------|-----------|--|-------|--|--------|------|
| ANNUAL TOTAL | | 56506 | | 209863 | | | | | | | | |
| ANNUAL MEAN | | 154 | | 575 | | | | | 308a | | | |
| HIGHEST ANNUAL MEAN | | | | | | | | | 732 | | | 1972 |
| LOWEST ANNUAL MEAN | | | | | | | | | 51.0 | | | 1931 |
| HIGHEST DAILY MEAN | | | 493 | Mar 9 | | 4550 | Apr 14,15 | | 7940 | | Apr 14 | 1965 |
| LOWEST DAILY MEAN | | | 21 | Sep 17 | | 24 | Oct 9 | | 1.3 | | Jan 6 | 1935 |
| ANNUAL SEVEN-DAY MINIMUM | | | 25 | Sep 23 | | 27 | Oct 4 | | 1.5 | | Jan 2 | 1935 |
| MAXIMUM PEAK FLOW | | | | | | 4570 | Apr 14 | | 9100 | | Apr 13 | 1965 |
| MAXIMUM PEAK STAGE | | | | | | 8.08 | Apr 14 | | 10.68 | | Apr 13 | 1965 |
| INSTANTANEOUS LOW FLOW | | | | | | 17 | Oct 9 | | .30 | | Nov 25 | 1936 |
| ANNUAL RUNOFF (AC-FT) | | 112100 | | 416300 | | 223400 | | | | | | |
| ANNUAL RUNOFF (CFSM) | | .15 | | .56 | | .30 | | | | | | |
| ANNUAL RUNOFF (INCHES) | | 2.04 | | 7.58 | | 4.07 | | | | | | |
| 10 PERCENT EXCEEDS | | 318 | | 1770 | | 735 | | | | | | |
| 50 PERCENT EXCEEDS | | 129 | | 127 | | 142 | | | | | | |
| 90 PERCENT EXCEEDS | | 40 | | 75 | | 37 | | | | | | |

a Median of annual mean discharges is 298 ft³/s.
 e Estimated.

