

RED RIVER OF THE NORTH BASIN--Continued

05062000 BUFFALO RIVER NEAR DILWORTH, MN

LOCATION--Lat 46°57'40", long 96°39'40", in SW¹/₄ SE¹/₄ sec. 6, T.140 N., R.47 W., Clay County, Hydrologic Unit 09020106, on left bank, at County Road 94 bridge, 4.5 mi southeast of Kragnes, 6.5 mi northeast of Dilworth, and 9 mi downstream from South Branch.

DRAINAGE AREA.--975 mi².

PERIOD OF RECORD.--March 1931 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1308: 1931(M).

GAGE.--Water-stage recorder. Datum of gage is 878.31 ft above sea level (NGVD of 1929, levels by U.S. Army Corps of Engineers). Prior to April 5, 1937, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

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 | 159 | 251 | e205 | e105 | e94 | e85 | e140 | 1630 | 621 | 195 | 119 | 34 |
| 2 | 143 | 300 | e195 | e105 | e94 | e85 | e300 | 1350 | 593 | 183 | 111 | 34 |
| 3 | 131 | 376 | e185 | e105 | e93 | e85 | e550 | 1090 | 542 | 169 | 99 | 37 |
| 4 | 123 | 468 | e180 | e105 | e93 | e85 | e900 | 893 | 505 | 152 | 86 | 39 |
| 5 | 120 | 537 | e175 | e105 | e92 | e85 | e1500 | 767 | 482 | 139 | 77 | 39 |
| 6 | 118 | 589 | e175 | e100 | e92 | e85 | e2700 | 710 | 455 | 131 | 71 | 38 |
| 7 | 111 | 760 | e170 | e100 | e92 | e84 | 4220 | 714 | 421 | 124 | 67 | 38 |
| 8 | 108 | 1010 | e165 | e100 | e91 | e84 | 5430 | 708 | 386 | 116 | 63 | 50 |
| 9 | 108 | 1060 | e160 | e100 | e91 | e84 | 6170 | 699 | 360 | 108 | 65 | 51 |
| 10 | 110 | 1060 | e155 | e100 | e90 | e84 | 6390 | 709 | 350 | 100 | 69 | 54 |
| 11 | 111 | 1080 | e150 | e100 | e90 | e85 | 5400 | 697 | 357 | 92 | 65 | 54 |
| 12 | 113 | 1130 | e150 | e100 | e89 | e85 | 5110 | 652 | 467 | 87 | 63 | 52 |
| 13 | 116 | 1140 | e145 | e99 | e88 | e85 | 4890 | 597 | 519 | 82 | 59 | 50 |
| 14 | 120 | 1090 | e145 | e99 | e87 | e85 | 4650 | 540 | 571 | 78 | 55 | 46 |
| 15 | 135 | 966 | e140 | e99 | e87 | e85 | 4510 | 492 | 677 | 76 | 56 | 44 |
| 16 | 176 | 776 | e135 | e99 | e87 | e85 | 3930 | 456 | 781 | 73 | 56 | 54 |
| 17 | 218 | e570 | e135 | e99 | e86 | e85 | 3330 | 422 | 814 | 72 | 54 | 52 |
| 18 | 222 | e480 | e130 | e98 | e86 | e86 | 2720 | 390 | 757 | 74 | 55 | 51 |
| 19 | 216 | e430 | e130 | e98 | e86 | e86 | 2250 | 366 | 626 | 90 | 52 | 51 |
| 20 | 206 | e390 | e125 | e98 | e86 | e86 | 1890 | 350 | 487 | 86 | 50 | 52 |
| 21 | 194 | e360 | e125 | e97 | e86 | e86 | 1650 | 340 | 433 | 112 | 47 | 65 |
| 22 | 186 | e340 | e120 | e97 | e86 | e86 | 1450 | 341 | 453 | 182 | 45 | 74 |
| 23 | 175 | e320 | e120 | e96 | e86 | e86 | 1290 | 348 | 478 | 237 | 43 | 72 |
| 24 | 167 | e300 | e120 | e96 | e86 | e86 | 1340 | 379 | 491 | 244 | 43 | 69 |
| 25 | 157 | e280 | e115 | e96 | e86 | e86 | 1450 | 432 | 469 | 230 | 42 | 67 |
| 26 | 156 | e260 | e115 | e96 | e86 | e86 | 1460 | 482 | 397 | 198 | 40 | 66 |
| 27 | 171 | e245 | e115 | e96 | e86 | e87 | 1570 | 516 | 316 | 168 | 40 | 64 |
| 28 | 204 | e235 | e110 | e95 | e85 | e87 | 1840 | 545 | 263 | 140 | 38 | 60 |
| 29 | 244 | e225 | e110 | e95 | --- | e88 | 1960 | 564 | 231 | 120 | 36 | 58 |
| 30 | 253 | e215 | e110 | e95 | --- | e92 | 1840 | 589 | 208 | 109 | 35 | 51 |
| 31 | 250 | --- | e105 | e95 | --- | e100 | --- | 612 | --- | 110 | 34 | --- |
| TOTAL | 5021 | 17243 | 4415 | 3068 | 2481 | 2669 | 82830 | 19380 | 14510 | 4077 | 1835 | 1566 |
| MEAN | 162 | 575 | 142 | 99.0 | 88.6 | 86.1 | 2761 | 625 | 484 | 132 | 59.2 | 52.2 |
| MAX | 253 | 1140 | 205 | 105 | 94 | 100 | 6390 | 1630 | 814 | 244 | 119 | 74 |
| MIN | 108 | 215 | 105 | 95 | 85 | 84 | 140 | 340 | 208 | 72 | 34 | 34 |
| AC-FT | 9960 | 34200 | 8760 | 6090 | 4920 | 5290 | 164300 | 38440 | 28780 | 8090 | 3640 | 3110 |
| CFSM | .17 | .59 | .15 | .10 | .09 | .09 | 2.83 | .64 | .50 | .13 | .06 | .05 |
| IN. | .19 | .66 | .17 | .12 | .09 | .10 | 3.16 | .74 | .55 | .16 | .07 | .06 |

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2001, BY WATER YEAR (WY)

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 62.3 | 64.2 | 37.5 | 23.8 | 27.3 | 200 | 615 | 252 | 223 | 210 | 73.5 | 62.1 |
| MAX | 279 | 575 | 240 | 99.0 | 285 | 1308 | 3412 | 1144 | 2138 | 2814 | 910 | 517 |
| (WY) | 1999 | 2001 | 1999 | 2001 | 1998 | 1966 | 1997 | 1998 | 1962 | 1975 | 1993 | 1944 |
| MIN | 5.48 | 8.74 | 4.75 | .87 | .76 | 2.26 | 33.5 | 27.2 | 15.1 | 2.23 | .000 | .79 |
| (WY) | 1940 | 1937 | 1938 | 1940 | 1940 | 1940 | 1931 | 1931 | 1934 | 1936 | 1936 | 1936 |

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1931 - 2001

| | | | | | | | | | | | | |
|--------------------------|--|--------|------|--------|--|-------|--------------|--|--------|------|--------|------|
| ANNUAL TOTAL | | 129246 | | 159095 | | | | | | | | |
| ANNUAL MEAN | | 353 | | 436 | | | | | | 156 | | |
| HIGHEST ANNUAL MEAN | | | | | | | | | | 477 | | 1998 |
| LOWEST ANNUAL MEAN | | | | | | | | | | 25.6 | | 1934 |
| HIGHEST DAILY MEAN | | | 3540 | Jun 23 | | 6390 | Apr 10 | | 13500 | | Jul 2 | 1975 |
| LOWEST DAILY MEAN | | | 51 | Aug 30 | | 34 | Aug 31-Sep 2 | | .00a | | Jul 22 | 1936 |
| ANNUAL SEVEN-DAY MINIMUM | | | 59 | Aug 24 | | 35 | Aug 28 | | .00 | | Jul 28 | 1936 |
| MAXIMUM PEAK FLOW | | | | | | 6590 | Apr 10 | | 13600 | | Jul 2 | 1975 |
| MAXIMUM PEAK STAGE | | | | | | 23.29 | Apr 10 | | 27.10 | | Jul 2 | 1975 |
| INSTANTANEOUS LOW FLOW | | | | | | 33 | Sep 1 | | | | | |
| ANNUAL RUNOFF (AC-FT) | | 256400 | | 315600 | | | | | 112800 | | | |
| ANNUAL RUNOFF (CFSM) | | .36 | | .45 | | | | | .16 | | | |
| ANNUAL RUNOFF (INCHES) | | 4.93 | | 6.07 | | | | | 2.17 | | | |
| 10 PERCENT EXCEEDS | | 789 | | 984 | | | | | 336 | | | |
| 50 PERCENT EXCEEDS | | 191 | | 120 | | | | | 40 | | | |
| 90 PERCENT EXCEEDS | | 68 | | 55 | | | | | 10 | | | |

a Occurred many days in 1936.
e Estimated.

