# 04280450 METTAWEE RIVER NEAR MIDDLE GRANVILLE, NY

Richelieu Basin
Lake George Subbasin

LOCATION.--Lat 43°27′50″, long 73°17′05″ referenced to North American Datum of 1927, Washington County, NY, Hydrologic Unit 02010001, on right bank 110 ft downstream from bridge on County Highway 21, and 2.2 mi north of Middle Granville.

DRAINAGE AREA.--167 $mi^2$.

## SURFACE-WATER RECORDS

PERIOD OF RECORD.--March 1990 to current year.

REVISED RECORDS.--WDR NY-97-1: 1993, 1994(P), 1996.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 320 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 $ft^3/s$, Dec. 17, 2000, gage height, 13.47 ft; minimum discharge, 6.8 $ft^3/s$, Sept. 11, 2002; minimum gage height, 2.81 ft, Sept. 7, 1995, Sept. 11, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 14, 1977, reached a discharge of about 14,500 $ft^3/s$, on basis of runoff comparison of peak discharge from contracted-opening measurement at Grays Corners near Whitehall (drainage area 200 $mi^2$). Flood of May 31, 1984, reached a discharge of about 5,400 $ft^3/s$, on basis of slope-area measurement of peak flow 2.8 mi upstream at Middle Granville (drainage area 156 $mi^2$).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 $ft^3/s$ and (or) maximum (*):

| Date | Time | Discharge ($ft^3/s$) | Gage height (ft) |
|---|---|---|---|
| Jan 11 | 2145 | 2,760 | 7.30 |
| Feb 18 | 1745 | 3,850 | 8.21 |
| Mar 5 | 1800 | 2,200 | 6.77 |
| Mar 9 | 0230 | *5,150 | *9.16 |

Minimum discharge, 17 $ft^3/s$, Oct. 6, 7, 8, gage height, 2.97 ft.

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**DISCHARGE, CUBIC FEET PER SECOND**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
**DAILY MEAN VALUES**
[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25 | 166 | 446 | 488 | e238 | e318 | 808 | 444 | 80 | 404 | 152 | 104 |
| 2 | 22 | 144 | 364 | e427 | e305 | e300 | 1,230 | 400 | 72 | 324 | 143 | 96 |
| 3 | 21 | 129 | e329 | e374 | e266 | e284 | 860 | 396 | 67 | 259 | 215 | 93 |
| 4 | 20 | 121 | e296 | e345 | e247 | 385 | 820 | 413 | 66 | 238 | 281 | 88 |
| 5 | 19 | 108 | e267 | e327 | 552 | 1,440 | 877 | 371 | 65 | 199 | 225 | 81 |
| 6 | 18 | 350 | e235 | e315 | 1,160 | 1,140 | 799 | 331 | 97 | 178 | 508 | 98 |
| 7 | 17 | 341 | e216 | 386 | e865 | 905 | 716 | 304 | 92 | 154 | 613 | 214 |
| 8 | 20 | 248 | e202 | 751 | e644 | 1,970 | 665 | 280 | 76 | 136 | 491 | 131 |
| 9 | 28 | 210 | e189 | 1,270 | e527 | 3,130 | 629 | 254 | 67 | 122 | 566 | 128 |
| 10 | 37 | 190 | e189 | 1,170 | e466 | 1,500 | 631 | 236 | 63 | 125 | 573 | 132 |
| 11 | 33 | 171 | 186 | 1,730 | e418 | 1,110 | 646 | 215 | 163 | 106 | 617 | 105 |
| 12 | 44 | 154 | 238 | 1,820 | e390 | 926 | 964 | 199 | 100 | 99 | 635 | 96 |
| 13 | 46 | 154 | e216 | 1,160 | e508 | 768 | 862 | 186 | 77 | 95 | 537 | 103 |
| 14 | 39 | 143 | e200 | 937 | e639 | 707 | 703 | 172 | 101 | 166 | 442 | 116 |
| 15 | 35 | 430 | e186 | 787 | e521 | 802 | 596 | 162 | 521 | 119 | 370 | 117 |
| 16 | 31 | 600 | e183 | 643 | e454 | 752 | 525 | 157 | 200 | 97 | 324 | 97 |
| 17 | 28 | 440 | e183 | 560 | 466 | 681 | 478 | 148 | 141 | 86 | 277 | 88 |
| 18 | 27 | 353 | e183 | 534 | 2,350 | 600 | 443 | 145 | 114 | 79 | 254 | 81 |
| 19 | 27 | 303 | e186 | 469 | e1,350 | 645 | 413 | 147 | 99 | 73 | 599 | 73 |
| 20 | 84 | 287 | e178 | 408 | e962 | 1,560 | 388 | 136 | 89 | 75 | 475 | 68 |
| 21 | 69 | 293 | 172 | e367 | e757 | 1,100 | 363 | 125 | 90 | 89 | 359 | 65 |
| 22 | 53 | 364 | 152 | e326 | e633 | 852 | 332 | 126 | 123 | 80 | 295 | 62 |
| 23 | 47 | 381 | 177 | e285 | e554 | 728 | 305 | 132 | 184 | 109 | 253 | 59 |
| 24 | 85 | 306 | 976 | e262 | e488 | 640 | 285 | 118 | 159 | 551 | 224 | 56 |
| 25 | 86 | 275 | 550 | e238 | e440 | 581 | 250 | 109 | 155 | 425 | 201 | 54 |
| 26 | 68 | 279 | 448 | e219 | e406 | 565 | 229 | 98 | 127 | 262 | 178 | 56 |
| 27 | 470 | 1,320 | 405 | e208 | e372 | 551 | 218 | 93 | 128 | 341 | 158 | 72 |
| 28 | 740 | 816 | 379 | e196 | e352 | 556 | 269 | 86 | 223 | 255 | 144 | 62 |
| 29 | 338 | 636 | 626 | e196 | e334 | 492 | 669 | 79 | 968 | 210 | 131 | 58 |
| 30 | 243 | 534 | 627 | e238 | --- | 446 | 548 | 74 | 572 | 179 | 124 | 55 |
| 31 | 195 | --- | 553 | e245 | --- | 460 | --- | 72 | --- | 165 | 117 | --- |
| Total | 3,015 | 10,246 | 9,737 | 17,681 | 17,664 | 26,894 | 17,521 | 6,208 | 5,079 | 5,800 | 10,481 | 2,708 |
| Mean | 97.3 | 342 | 314 | 570 | 609 | 868 | 584 | 200 | 169 | 187 | 338 | 90.3 |
| Max | 740 | 1,320 | 976 | 1,820 | 2,350 | 3,130 | 1,230 | 444 | 968 | 551 | 635 | 214 |
| Min | 17 | 108 | 152 | 196 | 238 | 284 | 218 | 72 | 63 | 73 | 117 | 54 |
| Cfsm | 0.58 | 2.05 | 1.88 | 3.42 | 3.65 | 5.19 | 3.50 | 1.20 | 1.01 | 1.12 | 2.02 | 0.54 |
| In. | 0.67 | 2.28 | 2.17 | 3.94 | 3.93 | 5.99 | 3.90 | 1.38 | 1.13 | 1.29 | 2.33 | 0.60 |

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2008, BY WATER YEAR (WY)**

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 146 | 257 | 351 | 391 | 268 | 492 | 617 | 344 | 192 | 139 | 121 | 67.2 |
| Max | 688 | 636 | 773 | 801 | 609 | 868 | 1,163 | 776 | 402 | 400 | 434 | 225 |
| (WY) | (2006) | (2006) | (2004) | (1998) | (2008) | (2008) | (1994) | (1996) | (2006) | (1996) | (2004) | (2004) |
| Min | 26.4 | 35.1 | 79.0 | 89.6 | 94.8 | 225 | 238 | 135 | 54.1 | 24.5 | 17.4 | 16.8 |
| (WY) | (2002) | (2002) | (2002) | (2002) | (2004) | (2006) | (1995) | (1995) | (1999) | (1995) | (2002) | (1995) |

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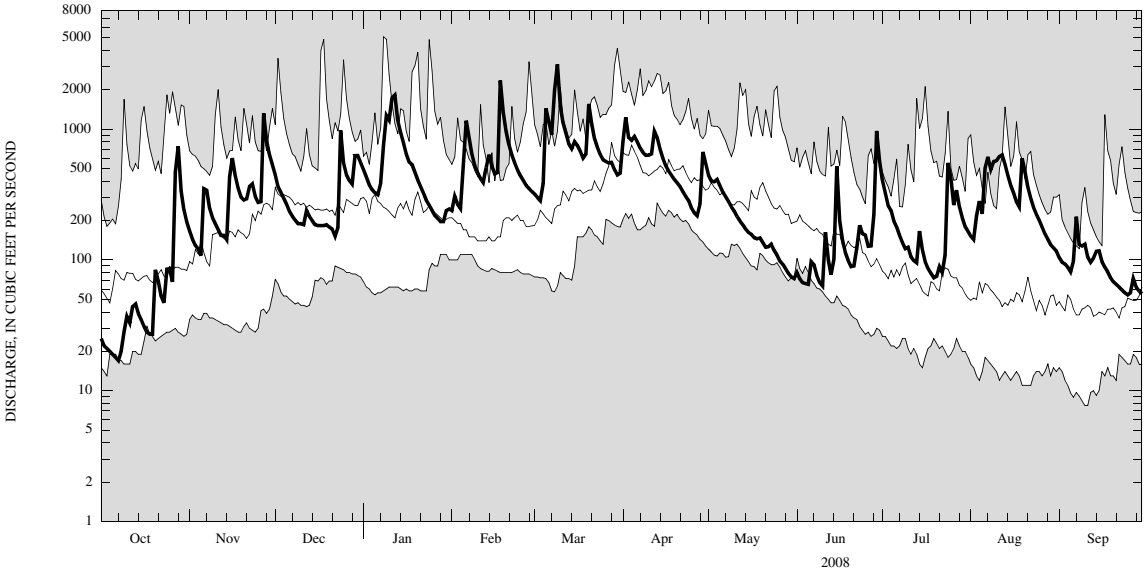
## SUMMARY STATISTICS

| | Calendar Year 2007 | | Water Year 2008 | | Water Years 1990 - 2008 | |
|---|---|---|---|---|---|---|
| **Annual total** | 106,988 | | 133,034 | | | |
| **Annual mean** | 293 | | 363 | | 280 | |
| **Highest annual mean** | | | | | 392 | 2006 |
| **Lowest annual mean** | | | | | 155 | 1995 |
| **Highest daily mean** | 2,280 | Apr 17 | 3,130 | Mar 9 | 5,080 | Jan 8, 1998 |
| **Lowest daily mean** | 12 | Sep 8 | 17 | Oct 7 | 7.7 | Sep 10, 2002 |
| **Annual seven-day minimum** | 14 | Sep 2 | 20 | Oct 2 | 8.8 | Sep 8, 2002 |
| **Annual runoff (cfsm)** | 1.76 | | 2.18 | | 1.68 | |
| **Annual runoff (inches)** | 23.83 | | 29.63 | | 22.81 | |
| **10 percent exceeds** | 725 | | 774 | | 611 | |
| **50 percent exceeds** | 180 | | 249 | | 180 | |
| **90 percent exceeds** | 25 | | 68 | | 36 | |




CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.