

SURFACE-WATER-DISCHARGE AND SURFACE-WATER-QUALITY RECORDS

Remark Codes

The following remark codes may appear with the water-quality data in this section:

| PRINT OUTPUT | REMARK |
|--------------|---|
| E | Estimated value. |
| > | Actual value is known to be greater than the value shown. |
| < | Actual value is known to be less than the value shown. |
| K | Results based on colony count outside the acceptance range (non-ideal colony count). |
| L | Biological organism count less than 0.5 percent (organism may be observed rather than counted). |
| D | Biological organism count equal to or greater than 15 percent (dominant). |
| V | Analyte was detected in both the environmental sample and the associated blanks. |
| & | Biological organism estimated as dominant. |

Dissolved Trace-Element Concentrations

*NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the $\mu\text{g/L}$ level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

Change in National Trends Network Procedures

*NOTE.--Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

MERRIMACK RIVER BASIN

01100505 SPICKET RIVER, AT ISLAND POND ROAD, AT NORTH SALEM, NH

LOCATION.--Lat 42°50'57", long 71°12'56", Rockingham County, Hydrologic Unit 01070002, on right bank, 70 ft downstream from Old State Highway 111 bridge (Haverhill Road), at Cowbell Corners, 0.9 mi northeast of North Salem, 3.4 mi northwest of Atkinson, and 6.1 mi southeast of Derry.

DRAINAGE AREA.--16.5 mi².

PERIOD OF RECORD.--Discharge records: October 2000 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 190 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges and those below 1.5 ft³/s, which are fair, and those for February 6 and March 6, which are poor. Flows regulated by Island Pond 0.7 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 235 ft³/s, October 16, gage-height, 5.46 ft; minimum daily discharge, 0.25 ft³/s, June 10.

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 | --- | 24 | 23 | 25 | 15 | 16 | 143 | 1.0 | .44 | .82 | .78 | 1.3 |
| 2 | --- | 21 | 22 | 23 | 16 | 16 | 138 | .90 | 2.5 | 1.1 | .74 | .98 |
| 3 | --- | 18 | 20 | 21 | 16 | 16 | 132 | .86 | 2.2 | .56 | 2.0 | 1.0 |
| 4 | --- | 16 | 19 | 20 | e17 | 15 | 127 | 1.1 | 1.2 | .44 | 8.0 | 1.1 |
| 5 | --- | 17 | 19 | e18 | e16 | 15 | 123 | 1.2 | .74 | .54 | 1.5 | .94 |
| 6 | 2.6 | 17 | 19 | 19 | e20 | e21 | 122 | 1.3 | .52 | .61 | 1.1 | .90 |
| 7 | 1.4 | 15 | 18 | 18 | 20 | 21 | 121 | 1.4 | .40 | .50 | 1.0 | .88 |
| 8 | 1.1 | 14 | 17 | 17 | 19 | 20 | 122 | 1.6 | .33 | .67 | 1.1 | .81 |
| 9 | 1.1 | 13 | 16 | 17 | 19 | 19 | 123 | 1.5 | .27 | .63 | 1.1 | .76 |
| 10 | 1.1 | 17 | 15 | e16 | 19 | 20 | 127 | 1.6 | .25 | .63 | 1.4 | .74 |
| 11 | 1.1 | 22 | 14 | e16 | e20 | 19 | 129 | 1.5 | 1.1 | .65 | 1.1 | .70 |
| 12 | 1.0 | 24 | 14 | e16 | e19 | 18 | 132 | 1.4 | 2.7 | .66 | 1.6 | .65 |
| 13 | 1.1 | 24 | e14 | e15 | 19 | 19 | 134 | 1.3 | .88 | .87 | 1.3 | .68 |
| 14 | 1.1 | 26 | 14 | e14 | 18 | 21 | 132 | 1.4 | .51 | .93 | 1.1 | 1.1 |
| 15 | 1.1 | 30 | 15 | 14 | 19 | 21 | 127 | 1.5 | .38 | .85 | 1.1 | .78 |
| 16 | 139 | 29 | 14 | 14 | 19 | 23 | 121 | 1.4 | .66 | .63 | 1.1 | .77 |
| 17 | 209 | 29 | 26 | 14 | 19 | 25 | 52 | .89 | 1.9 | 1.0 | 1.4 | .69 |
| 18 | 179 | 27 | 45 | e14 | e18 | 28 | 3.0 | .75 | 1.7 | .86 | 1.3 | .59 |
| 19 | 164 | 25 | 58 | 14 | e17 | 30 | 2.4 | .61 | .75 | .86 | 1.3 | .73 |
| 20 | 145 | 23 | 65 | 14 | 17 | 33 | 2.0 | .61 | .59 | .86 | 1.4 | .73 |
| 21 | 126 | 21 | 63 | e14 | 17 | 38 | 1.7 | .55 | .61 | .84 | 1.6 | 1.6 |
| 22 | 111 | 20 | 60 | e13 | e16 | 90 | 1.6 | .45 | .74 | .82 | 1.4 | .99 |
| 23 | 94 | 18 | 55 | e13 | 16 | 137 | 1.6 | .50 | .70 | .77 | 1.4 | .85 |
| 24 | 78 | 17 | 50 | e13 | e16 | 160 | 1.3 | .46 | .74 | .80 | 1.4 | .90 |
| 25 | 66 | 15 | e45 | 13 | 15 | 167 | 1.1 | .38 | .65 | .81 | 1.3 | 1.6 |
| 26 | 56 | 18 | e39 | e12 | 17 | 166 | 1.1 | .36 | .64 | 1.3 | 1.3 | 1.1 |
| 27 | 47 | 21 | 34 | e12 | 17 | 161 | .94 | 1.8 | .68 | 1.0 | 1.3 | 1.0 |
| 28 | 41 | 22 | 30 | e11 | 17 | 155 | .94 | 1.1 | .52 | .89 | 1.3 | 1.0 |
| 29 | 33 | 23 | 27 | e11 | -- | 147 | .89 | .83 | .46 | .84 | 1.2 | .86 |
| 30 | 28 | 23 | 26 | e12 | -- | 146 | .97 | .60 | .61 | .85 | 1.2 | .76 |
| 31 | 27 | -- | 29 | 14 | -- | 147 | -- | .64 | -- | .87 | 1.2 | -- |
| TOTAL | 1555.7 | 629 | 925 | 477 | 493 | 1930 | 2124.54 | 31.49 | 26.37 | 24.46 | 46.02 | 27.49 |
| MEAN | 59.8 | 21.0 | 29.8 | 15.4 | 17.6 | 62.3 | 70.8 | 1.02 | .88 | .79 | 1.48 | .92 |
| MAX | 209 | 30 | 65 | 25 | 20 | 167 | 143 | 1.8 | 2.7 | 1.3 | 8.0 | 1.6 |
| MIN | 1.0 | 13 | 14 | 11 | 15 | 15 | .89 | .36 | .25 | .44 | .74 | .59 |

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

| | | | | | | | | | | | | |
|------|-----|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | --- | 21.0 | 29.8 | 15.4 | 17.6 | 62.3 | 70.8 | 1.02 | .88 | .79 | 1.48 | .92 |
| MAX | --- | 21.0 | 29.8 | 15.4 | 17.6 | 62.3 | 70.8 | 1.02 | .88 | .79 | 1.48 | .92 |
| (WY) | --- | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 |
| MIN | --- | 21.0 | 29.8 | 15.4 | 17.6 | 62.3 | 70.8 | 1.02 | .88 | .79 | 1.48 | .92 |
| (WY) | --- | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 |

SUMMARY STATISTICS

FOR 2001 WATER YEAR

| | | |
|--------------------------|------|--------|
| HIGHEST DAILY MEAN | 209 | Oct 17 |
| LOWEST DAILY MEAN | .25 | Jun 10 |
| ANNUAL SEVEN-DAY MINIMUM | .47 | May 20 |
| MAXIMUM PEAK FLOW | 235 | Oct 16 |
| MAXIMUM PEAK STAGE | 5.46 | Oct 16 |
| 10 PERCENT EXCEEDS | 66 | |
| 50 PERCENT EXCEEDS | 12 | |
| 90 PERCENT EXCEEDS | .65 | |

e Estimated.