

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN**

March 2003

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during March was excessive. The maximum daily mean discharge of 49,900 cfs occurred on March 22. The minimum daily mean discharge was 3,910 cfs on March 15.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during March was 14,980 cfs, which is 164 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs was 18,290 cfs, or 156 percent of median (water years 1961-90).

On the basis of a 5-station average, precipitation during March was 3.00 inches, which is 89 percent of the 62-year average. The maximum daily-average precipitation during the month was 0.94 inches on March 21. Precipitation in the upper Delaware River Basin during the past 12 months was 5.13 inches more than the long-term average. Precipitation during March was 0.36 inches less than the long-term average for the month.

Combined storage April 1, 2003 in Pepacton, Cannonsville, and Neversink Reservoirs was 102 percent of capacity above the point of maximum depletion. The combined storage of 276 billion gallons was 39 billion gallons more than that of one month ago and 141 billion gallons more than that of one year ago. Median storage on the first day of April in 35 years of record is 250 billion gallons.

As part of a statewide network, the USGS operates 12 observation wells in the Pennsylvania part of the Delaware River Basin. Mean water levels during March were below average in 7 of the wells. Water levels in all 12 wells were above February 2003 levels, and water levels in all 12 wells were above March 2002 levels.

HYDROLOGIC CONDITIONS IN THE UPPER DELAWARE RIVER BASIN

Compiled by the Office of the Delaware River Master, Milford, Pa.

(Preliminary data - subject to revision)

PRECIPITATION, IN INCHES

| | Dec. 1940 to Mar. 2002 | | April 2002 to March 2003 | | | | | |
|-------|------------------------|------------|--------------------------|------------|--------------------|------------|---------------------------|------------|
| | Average | | Actual | | Percent of average | | Excess (+) or deficit (-) | |
| | Amount | Cumulative | Amount | Cumulative | By month | Cumulative | By month | Cumulative |
| Apr. | 3.73 | 43.10 | 3.89 | 48.23 | 104 | 112 | +1.16 | +5.13 |
| May | 4.19 | 39.37 | 5.94 | 44.34 | 142 | 113 | +1.75 | +4.97 |
| June | 3.96 | 35.18 | 5.74 | 38.40 | 145 | 109 | +1.78 | +3.22 |
| July | 4.07 | 31.22 | 1.32 | 32.66 | 32 | 105 | -2.75 | +1.44 |
| Aug. | 3.83 | 27.15 | 3.31 | 31.34 | 86 | 115 | -.52 | +4.19 |
| Sept. | 3.86 | 23.32 | 5.40 | 28.03 | 140 | 120 | +1.54 | +4.71 |
| Oct. | 3.35 | 19.46 | *6.30 | 22.63 | 188 | 116 | +2.95 | +3.17 |
| Nov. | 3.79 | 16.11 | 3.68 | 16.33 | 97 | 101 | -.11 | +2.22 |
| Dec. | 3.35 | 12.32 | 4.68 | 12.65 | 140 | 103 | +1.33 | +3.33 |
| Jan. | 2.98 | 8.97 | 2.38 | 7.97 | 80 | 89 | -.60 | -1.00 |
| Feb. | 2.63 | 5.99 | 2.59 | 5.59 | 98 | 93 | -.04 | -.40 |
| Mar. | 3.36 | 3.36 | 3.00 | 3.00 | 89 | 89 | -.36 | -.36 |

Note: Amount shown in cumulative columns is total from month shown to present.

* Revised since last month.

STREAMFLOW, IN CFS
DELAWARE RIVER AT MONTAGUE, N.J.

| Month | 1940-2001 | | | 2003 Monthly mean | Percent of median |
|------------------|---------------|--------|--------------|----------------------|----------------------|
| | Maximum | Median | Minimum | | |
| March (observed) | 24,480 (1945) | 9,152 | 3,191 (1981) | 14,980 | 164 |
| March (adjusted) | 25,910 (1945) | 11,110 | 4,428 (1981) | 18,290 | 165 |
| April (observed) | 31,560 (1940) | 11,660 | 3,322 (1985) | | |
| April (adjusted) | 33,010 (1940) | 13,870 | 3,847 (1946) | | |