# SUMMARY OF HYDROLOGIC CONDITIONS IN THE <br> UPPER DELAWARE RIVER BASIN <br> October 2003 

Prepared by the<br>Office of the Delaware River Master<br>Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during October was excessive for the fifth consecutive month. The maximum daily mean discharge of 49,900 cfs occurred on October 30 . The minimum daily mean discharge was $4,450 \mathrm{cfs}$ on October 13 and 14.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during October was $11,030 \mathrm{cfs}$, which is 470 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs was $12,340 \mathrm{cfs}$, or 561 percent of median (water years 1961-90).

On the basis of an 5-station average, precipitation during October was 5.63 inches, which is 166 percent of the 62-year average. The maximum daily-average precipitation during the month was 1.31 inches on October 15. Precipitation in the upper Delaware River Basin during the past 12 months was 11.90 inches more than the long-term average. Precipitation during October was 2.24 inches more than the long-term average for the month.

Combined storage November 1, 2003 in Pepacton, Cannonsville, and Neversink Reservoirs was 103 percent of capacity above the point of maximum depletion. The combined storage of 278 billion gallons was 3 billion gallons more than that of one month ago and 122 billion gallons more than that of one year ago. Combined storage on November 1, 2003, was the highest of record for the first day of November. Median storage on the first day of November in 36 years of record is 148 billion gallons. Pepacton, Cannonsville and Neversink Reservoirs spilled 24, 21 and 2.4 billion gallons, respectively, in October.

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 October were above average in all of the wells. Water levels in all of the wells were above September 2003 and October 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. 194 | Oct. 2002 | November 2002 to October 2003 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average |  | Actual |  | Percent of average |  | Excess (+) or deficit (-) |  |
|  | Amount | Cumulative | Amount | Cumulative | By month | Cumulative | By month | Cumulative |
| Nov. | 3.79 | 43.17 | 3.96 | 55.07 | 104 | 128 | +. 17 | +11.90 |
| Dec. | 3.35 | 39.38 | 4.66 | 51.11 | 139 | 130 | +1.31 | +11.73 |
| Jan. | 2.98 | 36.03 | 2.64 | 46.45 | 89 | 129 | -. 34 | +10.42 |
| Feb. | 2.63 | 33.05 | *2.97 | 43.81 | 113 | 133 | +. 34 | +10.76 |
| Mar. | 3.36 | 30.42 | 3.00 | 40.84 | 89 | 134 | -. 36 | +10.42 |
| Apr. | 3.74 | 27.06 | 2.63 | 37.84 | 70 | 140 | -1.11 | +10.78 |
| May | 4.22 | 23.32 | 3.57 | 35.21 | 85 | 151 | -. 65 | +11.89 |
| June | 3.99 | 19.10 | 6.87 | 31.64 | 172 | 166 | +2.88 | +12.54 |
| July | 4.02 | 15.11 | 3.95 | 24.77 | 98 | 164 | -. 07 | +9.66 |
| Aug. | 3.82 | 11.09 | 4.80 | 20.82 | 126 | 188 | +. 98 | +9.73 |
| Sept. | 3.88 | 7.27 | 10.39 | 16.02 | 268 | 220 | +6.51 | +8.75 |
| Oct. | 3.39 | 3.39 | 5.63 | 5.63 | 166 | 166 | +2.24 | +2.24 |

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 | $1940-2002$ |  |  |  | 2003 <br> Monthly mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| October (observed) | $15,690(1955)$ | 2,348 | Maximum | Median | $807(1941)$ |
| October (adjusted) | $18,570(1955)$ | 2,147 | $322(1964)$ | 12,030 | 470 |
|  |  |  |  | 575 |  |
| November (observed) | $11,760(1951)$ | 4,396 | $995(1964)$ |  |  |
| November (adjusted) | $16,160(1972)$ | 5,673 | $390(1964)$ |  |  |

