# SUMMARY OF HYDROLOGIC CONDITIONS <br> IN THE <br> UPPER DELAWARE RIVER BASIN <br> October 2001 

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

Adjusted streamflow in the upper Delaware River Basin during October was deficient. The maximum daily mean discharge of 1,930 cfs occurred on October 26 . The minimum daily mean discharge was $1,620 \mathrm{cfs}$ on October 1.

On the basis of a multi-station average, precipitation during October was 1.18 inches, which was 35 percent of the 60-year average. The maximum daily-average precipitation during October was 0.49 inches on October 15. Precipitation in the upper Delaware River Basin during the past 12 months was 8.07 inches less than the long-term average. Precipitation during October was 2.20 inches less than the long-term average for the month.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during October was $1,784 \mathrm{cfs}$, which was 77 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs was 638 cfs , or 30 percent of median (water years 1961-90).

Combined storage November 1, 2001 in Pepacton, Cannonsville, and Neversink Reservoirs was 36 percent of capacity above the point of maximum depletion. The combined storage of 98 billion gallons was 44 billion gallons less than that of one month ago and 132 billion gallons less than that of one year ago. Median storage on the first day of November in 34 years of record is 148 billion gallons. Based on reservoir storage, the river basin entered drought watch on October 29, 2001.

As part of a statewide network, the USGS operates 13 observation wells in the Pennsylvania part of the Delaware River Basin. Mean water levels during October were below average in 10 of the wells. Water levels in 9 of the wells were trending downward in comparison to September levels. Water levels in 12 of the wells were below October 2000 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 Oct. 2000 |  | November 2000 to October 2001 |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average |  | Actual |  | Percent of average |  | Excess (+) or deficit (-) |  |  |
|  | Amount | Cumulative | Amount | Cumulative | By month | Cumulative | By month | Cumulative |  |
| Nov. | 3.85 | 43.28 | 2.45 | 35.21 | 64 | 81 | -1.40 | -8.07 |  |
| Dec. | 3.34 | 39.43 | 4.30 | 32.76 | 129 | 83 | +.96 | -6.67 |  |
| Jan. | 3.02 | 36.09 | 1.46 | 28.46 | 48 | 79 | -1.56 | -7.63 |  |
| Feb. | 2.65 | 33.07 | 2.38 | 27.00 | 90 | 82 | -.27 | -6.07 |  |
| Mar. | 3.33 | 30.42 | 4.95 | 24.62 | 149 | 81 | +1.62 | -5.80 |  |
| Apr. | 3.77 | 27.09 | 1.35 | 19.67 | 36 | 73 | -2.42 | -7.42 |  |
| May | 4.21 | 23.32 | $* 3.08$ | 18.32 | 73 | 79 | -1.13 | -5.00 |  |
| June | 3.96 | 19.11 | 3.81 | 15.24 | 96 | 80 | -.15 | -3.87 |  |
| July | 4.09 | 15.15 | 2.36 | 11.43 | 58 | 75 | -1.73 | -3.72 |  |
| Aug. | 3.85 | 11.06 | 2.58 | 9.07 | 67 | 82 | -1.27 | -1.99 |  |
| Sept. | 3.83 | 7.21 | 5.31 | 6.49 | 139 | 90 | +1.48 | -.72 |  |
| Oct. | 3.38 | 3.38 | 1.18 | 1.18 | 35 | 35 | -2.20 | -2.20 |  |

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 | 1940-99 |  |  |  | 2001 <br> Monthly mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| October (observed) | Maximum | Median | Minimum | $807(1950(1955)$ | 2,326 |
| October (adjusted) | $18,570(1955)$ | 2,130 | $322(1964)$ | 638 | 77 |
|  |  |  |  |  |  |
| November (observed) | $11,760(1951)$ | 4,642 | $995(1964)$ |  |  |
| November (adjusted) | $16,160(1972)$ | 6,100 | $390(1964)$ |  |  |

