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

## November 2002

Prepared by the
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Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during November was excessive. The maximum daily mean discharge of 15,100 cfs occurred on November 18. The minimum daily mean discharge was $2,810 \mathrm{cfs}$ on November 5.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during November was $6,445 \mathrm{cfs}$, which is 144 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs was $9,365 \mathrm{cfs}$, or 175 percent of median (water years 1961-90).

On the basis of a 5-station average, precipitation during November was 3.68 inches, which is 97 percent of the 61-year average. The maximum daily-average precipitation during the month was 0.92 inches on November 17. Precipitation in the upper Delaware River Basin during the past 12 months was 1.73 inches greater than the long-term average. Precipitation during November was 0.11 inches less than the long-term average for the month.

Combined storage December 1, 2002 in Pepacton, Cannonsville, and Neversink Reservoirs was 72 percent of capacity above the point of maximum depletion. The combined storage of 194 billion gallons was 38 billion gallons more than that of one month ago and 128 billion gallons more than that of one year ago. Median storage on the first day of December in 35 years of record is 167 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 November were below average in 7 of the wells. Water levels in all 12 wells were above October 2002 levels, and water levels in 10 of the wells were above November 2001 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 Nov. 2001 |  | December 2001 to November 2002 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average |  | Actual |  | Percent of average |  | Excess (+) or deficit ( - ) |  |
|  | Amount | Cumulative | Amount | Cumulative | By month | Cumulative | By month | Cumulative |
| Dec. | 3.36 | 43.14 | 2.80 | 44.87 | 83 | 104 | -.56 | +1.73 |
| Jan. | 3.00 | 39.78 | 2.03 | 42.07 | 68 | 106 | -.97 | +2.29 |
| Feb. | 2.65 | 36.78 | 1.59 | 40.04 | 60 | 109 | -1.06 | +3.26 |
| Mar. | 3.35 | 34.13 | 3.59 | 38.45 | 107 | 113 | +.24 | +4.32 |
| Apr. | 3.73 | 30.78 | 3.89 | 34.86 | 104 | 113 | +.16 | +4.08 |
| May | 4.19 | 27.05 | 5.94 | 30.97 | 142 | 114 | +1.75 | +3.92 |
| June | 3.96 | 22.86 | $* 5.74$ | 25.03 | 145 | 109 | +1.78 | +2.17 |
| July | 4.07 | 18.90 | 1.46 | 19.29 | 36 | 102 | -2.61 | +.39 |
| Aug. | 3.83 | 14.83 | 2.98 | 17.83 | 78 | 120 | -.85 | +3.00 |
| Sept. | 3.86 | 11.00 | 4.86 | 14.85 | 126 | 135 | +1.00 | +3.85 |
| Oct. | 3.35 | 7.14 | 6.31 | 9.99 | 188 | 140 | +2.96 | +2.85 |
| Nov. | 3.79 | 3.79 | 3.68 | 3.68 | 97 | 97 | -.11 | -.11 |

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 | $1940-2001$ |  |  |  | 2002 <br> Percent of <br> median |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maximum | Median | Minimum | Monthly mean | Pry <br> November (observed) |
| $11,760(1951)$ | 4,476 | $995(1964)$ | 6,445 | 144 |  |
| November (adjusted) | $16,160(1972)$ | 5,806 | $390(1964)$ | 9,365 | 161 |
|  |  |  |  |  |  |
| December (observed) | $18,830(1996)$ | 4,916 | $1,665(1998)$ |  |  |
| December (adjusted) | $20,880(1973)$ | 6,506 | $1,624(1998)$ |  |  |

