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

Prepared by the
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Adjusted streamflow in the upper Delaware River Basin during November was deficient. The maximum daily mean discharge of 1,790 cfs occurred on November 6 . The minimum daily mean discharge was 1,440 cfs on November 29.

On the basis of a multi-station average, precipitation during November was 1.32 inches, which is 34 percent of the 60 -year average. The maximum daily-average precipitation during November was 0.68 inches on November 26. Precipitation in the upper Delaware River Basin during the past 12 months was 9.18 inches less than the long-term average. Precipitation during November was 2.51 inches less than the long-term average for the month.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during November was $1,580 \mathrm{cfs}$, which is 34 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs was 825 cfs , or 15 percent of median (water years 1961-90).

Combined storage December 1, 2001 in Pepacton, Cannonsville, and Neversink Reservoirs was 24 percent of capacity above the point of maximum depletion. The combined storage of 66 billion gallons was 32 billion gallons less than that of one month ago and 155 billion gallons less than that of one year ago. Median storage on the first day of December in 34 years of record is 172 billion gallons. Based on reservoir storage, the river basin entered drought warning on November 4, 2001 and drought on December 1, 2001. The combined storage on December 1, 2001 was the lowest of record, regardless of month.

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 November were below average in 12 of the wells. Water levels in 12 of the wells were trending downward in comparison to October levels. Water levels in 11 of the wells were below November 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 Nov. 2000 |  | December 2000 to November 2001 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average |  | Actual |  | Percent of average |  | Excess (+) or deficit (-) |  |
|  | Amount | Cumulative | Amount | Cumulative | By month | Cumulative | By month | Cumulative |
| Dec. | 3.34 | 43.26 | 4.30 | 34.08 | 129 | 79 | +.96 | -9.18 |
| Jan. | 3.02 | 39.92 | 1.46 | 29.78 | 48 | 75 | -1.56 | -10.14 |
| Feb. | 2.65 | 36.90 | 2.38 | 28.32 | 90 | 77 | -.27 | -8.58 |
| Mar. | 3.33 | 34.25 | 4.95 | 25.94 | 149 | 76 | +1.62 | -8.31 |
| Apr. | 3.77 | 30.92 | 1.35 | 20.99 | 36 | 68 | -2.42 | -9.93 |
| May | 4.21 | 27.15 | 3.08 | 19.64 | 73 | 72 | -1.13 | -7.51 |
| June | 3.96 | 22.94 | 3.81 | 16.56 | 96 | 72 | -.15 | -6.38 |
| July | 4.09 | 18.98 | 2.36 | 12.75 | 58 | 67 | -1.73 | -6.23 |
| Aug. | 3.85 | 14.89 | 2.58 | 10.39 | 67 | 70 | -1.27 | -4.50 |
| Sept. | 3.83 | 11.04 | 5.31 | 7.81 | 139 | 71 | +1.48 | -3.23 |
| Oct. | 3.38 | 7.21 | 1.18 | 2.50 | 35 | 35 | -2.20 | -4.71 |
| Nov. | 3.83 | 3.83 | 1.32 | 1.32 | 34 | 34 | -2.51 | -2.51 |

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

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

| Month | $1940-99$ |  |  |  | 2001 <br> Monthly mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| November (observed) | Maximum | Median | Minimum | $1,760(1951)$ | 4,642 |
| $995(1964)$ | 1,580 | 34 |  |  |  |
| November (adjusted) | $16,160(1972)$ | 6,100 | $390(1964)$ | 825 | 14 |
|  |  |  |  |  |  |
| December (observed) | $18,830(1996)$ | 4,916 | $1,665(1998)$ |  |  |
| December (adjusted) | $20,880(1973)$ | 6,506 | $1,624(1998)$ |  |  |

