# SUMMARY OF HYDROLOGIC CONDITIONS IN THE <br> UPPER DELAWARE RIVER BASIN <br> April 2004 

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

Adjusted streamflow in the upper Delaware River Basin during April was deficient. The maximum daily mean discharge of 11,600 cfs occurred on April 27. The minimum daily mean discharge was 4,200 cfs on April 12.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during April was $7,464 \mathrm{cfs}$, which is 64 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was $8,626 \mathrm{cfs}$, or 67 percent of median (water years 1971-2000).

On the basis of a 5-station average, precipitation during April was 3.69 inches, which is 99 percent of the 63-year average. The maximum daily-average precipitation during the month was 0.75 inches on April 26. Precipitation in the upper Delaware River Basin during the past 12 months was 11.46 inches more than the long-term average. Precipitation during April was 0.03 inches less than the long-term average for the month.

Combined storage May 1, 2004 in Pepacton, Cannonsville, and Neversink Reservoirs was 101 percent of capacity above the point of maximum depletion. The combined storage of 272 billion gallons was 4 billion gallons more than that of one month ago and 0.5 billion gallons more than that of one year ago. Median storage on the first day of May in 36 years of record is 271 billion gallons. Pepacton and Cannonsville Reservoirs spilled 7.0 and 17.5 billion gallons, respectively, in April.

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 April were above average in 7 of the wells. Water levels in 9 of the wells were above March 2004 levels, and water levels in 6 of the wells were above April 2003 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. 19 | Apr. 2003 | May 2003 to April 2004 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average |  | Actual |  | Percent of average |  | Excess (+) or deficit (-) |  |
|  | Amount | Cumulative | Amount | Cumulative | By month | Cumulative | By month | Cumulative |
| May | 4.22 | 43.17 | 3.71 | 54.63 | 88 | 127 | -. 51 | +11.46 |
| June | 3.99 | 38.95 | 6.57 | 50.92 | 165 | 131 | +2.58 | +11.97 |
| July | 4.02 | 34.96 | 4.37 | 44.35 | 109 | 127 | +. 35 | +9.39 |
| Aug. | 3.82 | 30.94 | 4.81 | 39.98 | 126 | 129 | +. 99 | +9.04 |
| Sept. | 3.88 | 27.12 | 10.69 | 35.17 | 276 | 130 | +6.81 | +8.05 |
| Oct. | 3.39 | 23.24 | 5.94 | 24.48 | 175 | 105 | +2.55 | +1.24 |
| Nov. | 3.79 | 19.85 | *4.38 | 18.54 | 116 | 93 | +.59 | -1.31 |
| Dec. | 3.37 | 16.06 | 4.63 | 14.16 | 137 | 88 | +1.26 | -1.90 |
| Jan. | 2.98 | 12.69 | 2.36 | 9.53 | 79 | 75 | -. 62 | -3.16 |
| Feb. | 2.64 | 9.71 | 1.38 | 7.17 | 52 | 74 | -1.26 | -2.54 |
| Mar. | 3.35 | 7.07 | 2.10 | 5.79 | 63 | 82 | -1.25 | -1.28 |
| Apr. | 3.72 | 3.72 | 3.69 | 3.69 | 99 | 99 | -. 03 | -. 03 |

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.

|  | 1940-2002 |  |  | 2004 <br> Month | Maximum |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Median | Minimum | Monthly mean | Percent of <br> median |  |
| April (observed) | $31,560(1940)$ | 11,640 | $3,322(1985)$ | 7,464 | 64 |
| April (adjusted) | $33,010(1940)$ | 13,840 | $3,847(1946)$ | 8,626 | 62 |
|  |  |  |  |  |  |
| May (observed) | $16,090(1943)$ | 7,019 | $2,215(1965)$ |  |  |
| May (adjusted) | $18,970(1989)$ | 8,256 | $2,944(1941)$ |  |  |

