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

August 2004

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

Adjusted streamflow in the upper Delaware River Basin during August was excessive. The maximum daily mean discharge of 32,300 cfs occurred on August 13. The minimum daily mean discharge was 2,100 cfs on August 9 .

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during August was 8,190 cfs, which is 392 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was $9,494 \mathrm{cfs}$, or 601 percent of median (water years 1971-2000).

On the basis of an 11-station average, precipitation during August was 7.49 inches, which is 195 percent of the 63-year average. The maximum daily-average precipitation during the month was 2.87 inches on August 13. Precipitation in the upper Delaware River Basin during the past 12 months was 14.23 inches more than the long-term average. Precipitation during August was 3.65 inches more than the long-term average for the month.

Combined storage September 1, 2004 in Pepacton, Cannonsville, and Neversink Reservoirs was 99 percent of capacity above the point of maximum depletion. The combined storage of 269 billion gallons was 16 billion gallons more than that of one month ago and 7 billion gallons more than that of one year ago. Combined storage on September 1, 2004, was the highest of record for the first day of September. Median storage on the first day of September in 37 years of record is 202 billion gallons. Pepacton, Cannonsville, and Neversink Reservoirs spilled 5.1, 0.02, and 2.3 billion gallons, respectively, in August.

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 August were above average in all of the wells. Water levels in 11 of the wells were above July 2004 levels, and water levels in 7 of the wells were above August 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. 194 | Aug. 2003 | September 2003 to August 2004 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average |  | Actual |  | Percent of average |  | Excess (+) or deficit (-) |  |
|  | Amount | Cumulative | Amount | Cumulative | By month | Cumulative | By month | Cumulative |
| Sept. | 3.88 | 43.23 | 10.69 | 57.46 | 276 | 133 | +6.81 | +14.23 |
| Oct. | 3.39 | 39.35 | 5.94 | 46.77 | 175 | 119 | +2.55 | +7.42 |
| Nov. | 3.79 | 35.96 | 4.38 | 40.83 | 116 | 114 | +.59 | +4.87 |
| Dec. | 3.37 | 32.17 | 4.90 | 36.45 | 145 | 113 | +1.53 | +4.28 |
| Jan. | 2.98 | 28.80 | 2.60 | 31.55 | 87 | 110 | -. 38 | +2.75 |
| Feb. | 2.64 | 25.82 | 1.41 | 28.95 | 53 | 112 | -1.23 | +3.13 |
| Mar. | 3.35 | 23.18 | *2.22 | 27.54 | 66 | 119 | -1.13 | +4.36 |
| Apr. | 3.72 | 19.83 | *3.84 | 25.32 | 103 | 128 | +. 12 | +5.49 |
| May | 4.21 | 16.11 | 4.58 | 21.48 | 109 | 133 | +. 37 | +5.37 |
| June | 4.03 | 11.90 | 3.29 | 16.90 | 82 | 142 | -. 74 | +5.00 |
| July | 4.03 | 7.87 | 6.12 | 13.61 | 152 | 173 | +2.09 | +5.74 |
| Aug. | 3.84 | 3.84 | 7.49 | 7.49 | 195 | 195 | +3.65 | +3.65 |

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 |  |  | $2004$ <br> Monthly mean | Percent of median |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maximum | Median | Minimum |  |  |
| August (observed) | 14,230 (1955) | 2,088 | 715 (1954) | 8,190 | 392 |
| August (adjusted) | 17,410 (1955) | 1,341 | 364 (1964) | 9,494 | 708 |
| September (observed) | 9,167 (1960) | 1,994 | 892 (1941) |  |  |
| September (adjusted) | 10,720 (1960) | 1,428 | 324 (1964) |  |  |

