

**SUMMARY OF HYDROLOGIC CONDITIONS
IN THE
UPPER DELAWARE RIVER BASIN
November 2011**

Prepared by the
Office of the Delaware River Master
Milford, Pennsylvania

Adjusted streamflow in the upper Delaware River Basin during November was in the normal range. The maximum daily mean discharge of 20,000 cfs was recorded on November 24. The minimum daily mean discharge was 4,440 cfs on November 14.

The observed monthly mean streamflow of the Delaware River at Montague, N.J. during November was 7,466 cfs, which is 156 percent of median. The flow at Montague, adjusted for diversions from the basin and change in storage in the major reservoirs, was 8,547 cfs, or 136 percent of median.

On the basis of a 5-station average, precipitation during November was 3.57 inches, which is 95 percent of the 70-year average. The maximum daily-average precipitation during the month was 1.58 inches on November 23. Precipitation in the upper Delaware River Basin during the past 12 months was 27.31 inches more than the long-term average. Precipitation during November was 0.19 inches less than the long-term average for the month.

Combined storage December 1, 2011 in Pepacton, Cannonsville, and Neversink Reservoirs was 94 percent of capacity above the point of maximum depletion. The combined storage of 255 billion gallons was 2 billion gallons less than that of one month ago and 25 billion gallons more than that of one year ago. Median storage on the first day of December in 44 years of record is 190 billion gallons.

As part of statewide networks, the USGS operates ground-water observation wells in the Pennsylvania and New Jersey parts of the Delaware River Basin. Mean water levels during November were above average in all 21 observation wells. Water levels in 16 of the wells were below October 2011 levels, and water levels in 19 of the wells were above November 2010 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. 2010 | | December 2010 to November 2011 | | | | | |
|-------|------------------------|------------|--------------------------------|------------|--------------------|------------|---------------------------|------------|
| | Average | | Actual | | Percent of average | | Excess (+) or deficit (-) | |
| | Amount | Cumulative | Amount | Cumulative | By month | Cumulative | By month | Cumulative |
| Dec. | 3.46 | 44.12 | *3.88 | 71.43 | 112 | 162 | +0.42 | +27.31 |
| Jan. | 3.04 | 40.66 | *1.90 | 67.55 | 62 | 166 | -1.14 | +26.89 |
| Feb. | 2.65 | 37.62 | *3.93 | 65.65 | 148 | 175 | +1.28 | +28.03 |
| Mar. | 3.39 | 34.97 | *6.11 | 61.72 | 180 | 176 | +2.72 | +26.75 |
| Apr. | 3.74 | 31.58 | *7.28 | 55.61 | 195 | 176 | +3.54 | +24.03 |
| May | 4.14 | 27.84 | *6.62 | 48.33 | 160 | 174 | +2.48 | +20.49 |
| June | 4.13 | 23.70 | *6.35 | 41.71 | 154 | 176 | +2.22 | +18.01 |
| July | 4.14 | 19.57 | *4.64 | 35.36 | 112 | 181 | +0.50 | +15.79 |
| Aug. | 3.96 | 15.43 | 11.85 | 30.72 | 299 | 199 | +7.89 | +15.29 |
| Sept. | 4.00 | 11.47 | 11.59 | 18.87 | 290 | 165 | +7.59 | +7.40 |
| Oct. | 3.71 | 7.47 | 3.71 | 7.28 | 100 | 97 | 0.00 | -0.19 |
| Nov. | 3.76 | 3.76 | 3.57 | 3.57 | 95 | 95 | -0.19 | -0.19 |

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 | 1940-2010 | | | 2011 Monthly mean | Percent of median |
|---------------------|---------------|--------|--------------|----------------------|----------------------|
| | Maximum | Median | Minimum | | |
| November (observed) | 13,010 (2003) | 4,798 | 995 (1964) | 7,466 | 156 |
| November (adjusted) | 16,160 (1972) | 6,262 | 390 (1964) | 8,547 | 136 |
| December (observed) | 18,830 (1996) | 5,667 | 1,665 (1998) | | |
| December (adjusted) | 20,880 (1973) | 6,808 | 1,624 (1998) | | |