

Watershed MANAGEMENT



Drought Information Center

June 7, 2001

For the month of May 2001, 56 of 67 Pennsylvania counties had below normal precipitation. Departures from normal precipitation range from -2.80 inches (Columbia County) to 0.60 inches (Bucks County). The average departure from normal precipitation for the state as a whole, for the month of May, is -0.94 inches. Cumulative rainfall for the period January through May 2001 ranged from 10.10 inches (Columbia County) to 19.20 inches (Delaware County). For the first 6 days of June, 20 of 67 counties have below normal precipitation, with average rainfall for the period being approximately 1.0 inches. Normal for the first 6 days of June would be approximately 0.9 inches. Departures from normal for the last 30 days range from 1.6 inches in the Ohio Basin, -1.0 inches in the Susquehanna Basin, and 0.8 inches in the Delaware Basin. The rainfall that occurred was only enough to help streamflows, groundwater levels continue to drop.

Compared to Mays below normal streamflow conditions, the rainfall in the last 3 weeks has brought some recovery. The 30 day average streamflows have recovered slightly, with the Ohio Basin showing moderate recovery and the Delaware Basin showing minor increases in flow. In the Susquehanna Basin, 5 of the monthly reporting gages are at or below the 5th percentile and the remaining gages are below the 25th percentile. Based on the June 7 daily streamflow map, there are 11 of 160 reporting gages that are showing instantaneous flow readings at or below the 25th percentile.

Compared to May 11, in the Delaware Basin, the main-stem of the Delaware River is up from 5,230 to 11,000 cfs at Trenton. The Lackawaxen River is up from 146 to 422 cfs at Hawley. The Lehigh River is up from 1,320 to 1,910 cfs at Bethlehem. The Schuylkill River is up from 1,510 to 1,690 cfs at Philadelphia and the Brandywine Creek is up from 275 to 307 cfs at Chadds Ford. The New York City Delaware River Basin storage (June 6) is 4.55% below normal and 81.367 billion gallons above the drought warning level.

Over the past four weeks in the Susquehanna Basin, the main stem Susquehanna River is up from 3,770 to 4,730 cfs at Towanda, up from 5,830 to 6,160 cfs at Wilkes-Barre, and up from 14,700 to 15,700 cfs at Harrisburg. The West Branch Susquehanna River is up from 2,270 to 3,060 cfs at Lock Haven, from 4,030 to 5,170 cfs at Williamsport, and from 4,680 to 5,990 at Lewisburg.

For the Ohio Basin, the Allegheny River is up from 6,990 to 14,400 cfs at Natrona. The main-stem Ohio River is up from 9,220 to 43,600 cfs at Sewickley. The Kiskiminetas River is up from 709 to 2,960 cfs at Vandergrift. The Monongahela River is up from 2,460 to 23,700 cfs at Braddock and the Beaver River is up from 1,440 to 1,780 cfs at Beaver Falls.

For May 2001, 27 of 28 available stream gauging stations in Pennsylvania had a monthly mean

discharge below average.

USGS May 2001 end-of-month summary figures showing percent of wells where water level is above average have decreased for all three major river basins. The percent of wells where water level was above average was about 15%, 9% and 60% for the Delaware, Susquehanna and Ohio River basins, respectively. Groundwater levels received little benefit from the rainfall of the last 3 weeks. Only 2 of the 21 groundwater monitoring wells showed an increase in levels, based on the 30-day running average. Of the 21 wells, 6 were below the 25th percentile, 1 was below the 10th percentile, and 7 were below the 5th percentile. These low levels reflect the affect that vegetation and evaporation have on groundwater recharge.

For the period June 7th through June 17th, normal to above normal precipitation is forecast for the state. Rainfall amounts are projected to be from 1.0 to 2.0 inches. The heaviest rainfall is expected in the southwest part of the state with decreasing rainfall amounts as you head northeast. Temperatures for the same period are expected to be below normal in the northeastern part of the state and normal elsewhere.

The drought indicators will continue to be monitored closely. Groundwater conditions are at a precarious point at this time. A major rainfall event will be required before any sustained increases in groundwater levels occur. Vegetation and evaporation also reduce the amount of runoff into streams. Therefore, streamflows can also decline quickly if very little rainfall occurs over the coming weeks.