

Watershed MANAGEMENT



Drought Information Center

May 11, 2001

For the month of April 2001, 57 of 67 Pennsylvania counties had below normal precipitation. Departures from normal precipitation range from -2.20 inches (Carbon and Wayne County) to 0.70 inches (Allegheny County). The average departure from normal precipitation for the state as a whole, for the month of April, is -0.80 inches. Cumulative rainfall for the period January through April 2001 ranged from 7.90 inches (Crawford County) to 14.80 inches (Delaware County). For the first 10 days of May, all 67 counties have below normal precipitation, with average rainfall for the period being approximately 0.1 inches. Normal for the first 10 days of May would be approximately 1.3 inches. Precipitation totals for the last 18 days range from 0.0 to 0.2 inches. Departures from normal for the last 30 days range from -1.0 inches in the Ohio Basin, -1.8 inches in the Susquehanna Basin, and -2.5 inches in the Delaware Basin.

Compared to Aprils above normal streamflow conditions due to snow melt and above normal precipitation, streamflows have now dropped significantly statewide with daily flows reaching record lows for at least 24 of the 99 reporting gages, as reported on May 10, 2001. For the same day, approximately 60 streamflow gages were registering flows below the 10th percentile.

Compared to April 23 in the Delaware Basin, the main-stem of the Delaware River is down from $14,110$ cfs $5,230$ at Trenton. The Lackawaxen River is down from 571 to 146 cfs at Hawley. The Lehigh River is down from $2,800$ to $1,320$ cfs at Bethlehem. The Schuylkill River is down from $3,340$ to $1,510$ cfs at Philadelphia and the Brandywine Creek is down from 429 to 275 cfs at Chadds Ford. The New York City Delaware River Basin storage (May 9) is 1.5% below normal and 92.864 billion gallons above the drought warning level.

Over the past three weeks in the Susquehanna Basin, the main stem Susquehanna River is down from $21,600$ to $3,770$ cfs at Towanda, down from $30,500$ to $5,830$ cfs at Wilkes-Barre, and down from $56,900$ to $14,700$ cfs at Harrisburg. The West Branch Susquehanna River is down from $10,500$ to $2,270$ cfs at Lock Haven, from $16,400$ to $4,030$ cfs at Williamsport, and from $18,200$ to $4,680$ at Lewisburg.

For the Ohio Basin, the Allegheny River is down from $33,500$ to $6,990$ cfs at Natrona. The main-stem Ohio River is down from $47,100$ to $9,220$ cfs at Sewickley. The Kiskiminetas River is down from $5,260$ to 709 cfs at Vandergrift. The Monongahela River is down from $12,400$ to $2,460$ cfs at Braddock and the Beaver River is down from $5,420$ to $1,440$ cfs at Beaver Falls.

For April 2001, 16 of 28 available stream gauging stations in Pennsylvania had a monthly mean discharge below average.

Since April 23, all 28 counties with monitoring wells show declining water levels. The decrease in water levels range from 0.32 ft. (Philadelphia Co.) to 11.45 ft. (Potter County), with an average drop of 2.40 ft. USGS April 2001 end-of-month summary figures showing percent of wells where water level is above average have increased for all three major river basins. The percent of wells where water level was above average was about 47%, 62% and 70% for the Delaware, Susquehanna and Ohio River basins, respectively. The groundwater levels were also impacted by the significant amount of snow melt and above normal rainfall that occurred in April. Since then, groundwater levels have dropped significantly. Daily groundwater readings are falling at a pace that would place approximately 11 of the reporting wells below the 10th percentile.

For the period May 11 thru May 21, normal to above normal precipitation is forecast for the state. Rainfall amounts are projected to be from 1.0 to 2.5 inches. The heaviest rainfall is expected in the northeast part of the state with the least in the west. Temperatures for the same period are expected to be below normal.

The drought indicators will continue to be monitored closely. Groundwater and streamflow conditions are at a precarious point at this time. Groundwater recharge will not occur without significant rainfall. Vegetation and evaporation reduces the amount of recharge to groundwater this time of year and also affects runoff into streams.