

# Watershed MANAGEMENT



## Drought Information Center

**September 5, 2002**

For the month of August 2002, 66 of 67 Pennsylvania counties had below normal precipitation. Departures from normal precipitation range from 0.0 inches (York County) to -2.9 inches (Crawford County). The average departure from normal precipitation for the state as a whole for this period was -1.49 inches. Localized thunderstorms occurred across the state however they did nothing in alleviating the dry conditions of August. For the last 365 days there were 14 counties with precipitation deficits at or exceeding -10.0 inches, with the greatest being -14.6 inches in Lancaster County. The remaining counties exceeding -10.0 inches were Chester, Philadelphia, Montgomery, Berks, Delaware, Franklin, Schuylkill, Bucks, Perry, Dauphin, Snyder, Cumberland Lehigh.

Compared to August 4 instantaneous streamflow, in the Delaware Basin, the main-stem of the Delaware River is up from 3,310 to 3,380 cfs at Trenton. The Lackawaxen River is down from 67 to 44 cfs at Hawley. The Lehigh River is down from 960 to 605 cfs at Bethlehem. The Schuylkill River is down from 454 to 368 cfs at Philadelphia and the Brandywine Creek is up from 65 to 71 cfs at Chadds Ford. The New York City Delaware River Basin storage (September 5) is 58.3% (157.818 billion gallons) of normal, which is 42.279 billion gallons below normal.

Reviewing instantaneous streamflow from July 1 over the past four weeks in the Susquehanna Basin, the main stem Susquehanna River is down from 1,320 to 820 cfs at Towanda, down from 1,720 to 1,220 cfs at Wilkes-Barre, and down from 4,740 to 3,630 cfs at Harrisburg. The West Branch Susquehanna River is down from 751 to 393 cfs at Lock Haven, down from 1,200 to 766 cfs at Williamsport, and down from 1,660 to 999 cfs at Lewisburg. The Juniata River is down from 829 to 816 cfs at Newport. The Yellow Breeches Creek near Camp Hill was down from 90 to 84 cfs.

For the Ohio Basin, the Allegheny River is down from 4,150 to 3,300 cfs at Natrona. The main-stem Ohio River is up from 5,980 to 6,440 cfs at Sewickley. The Kiskiminetas River is down from 251 to 231 cfs at Vandergrift. The Monongahela River is up from 1,680 to 1,810 cfs at Braddock and the Beaver River is up from 971 to 1,240 cfs at Beaver Falls.

Instantaneous streamflow readings for September 4th at 1:45 a.m. indicate that there were 66 (out of 162 reporting) stream gages registering flows below the 25th percentile, 29 less than the 10th percentile and 1 at a record low. The below normal rainfall in July and August has essentially nullified the above normal rainfall that occurred in the spring. Areas of concern still remain in the southcentral and southeastern portions of the state, however drought conditions are creeping northward and westward from the current drought emergency areas. Streamflow levels across the state continue to drop due to the lack of significant rainfall and above normal temperatures over the past 2 months with

most gages recording below normal streamflows across the state. Streamflows are now as low as 9% of normal flow.

Overall, the USGS 30-day duration graphs for streamflow continue to decrease across the state. Five gages in the Delaware Basin are in the watch range, 4 are in warning and 4 are in emergency, and in the Susquehanna Basin 10 gages are now in watch, 9 are in warning and 9 are in emergency. For comparison, the previous monthly report had 5 gages in drought conditions for the Delaware and Susquehanna River Basins. The Potomac Basin currently has one gage in watch and one in warning. In the Ohio River Basin, there are 6 gages in watch and 2 in warning.

The USGS 30-day duration graphs also continue to drop with groundwater levels significantly below normal in the Middle and Lower Delaware River Basins and in the Lower Susquehanna River Basin. Groundwater levels in these areas never recovered and remain in warning and emergency. In the Delaware Basin, 3 wells are in watch, 1 is in warning and 6 are in emergency. For the Susquehanna River Basin, 7 wells are in watch, 3 are in warning and 2 are in emergency. Below normal conditions have spread into the Ohio Basin with 3 wells in watch and 2 in emergency. There are four groundwater gages in the Delaware River Basin at record lows. These wells are in Berks, Chester, Delaware and Schuylkill Counties. The Cumberland County well in the Susquehanna Basin is also at a record low.

Precipitation for the period September 11 through September 19 is projected to be below normal with temperatures from normal to above normal. The National Climatic Prediction Center projects precipitation to be below normal for the period October through December 2002 with temperatures from normal to above normal for the same period.