

# Watershed MANAGEMENT



## Drought Information Center

August 5, 2002

On June 14, Governor Schweiker lifted the drought emergency for six counties and restored 14 other counties to normal status. Dauphin, Perry and Wayne counties were upgraded to drought watch status and Bucks, Montgomery and Philadelphia counties were upgraded to drought warning status. These counties are indicated on the drought status map and in the news release at <http://www.dep.state.pa.us/dep/subject/hotopics/drought>.

For the month of July 2002, 63 of 67 Pennsylvania counties had below normal precipitation. Departures from normal precipitation range from 0.8 inches (Clarion County) to -3.6 inches (Berks County). The average departure from normal precipitation for the state as a whole for this period was -1.86 inches. Localized thunderstorms occurred across the state however they did nothing in alleviating the dry conditions of July.

Compared to July 1 instantaneous streamflow, in the Delaware Basin, the main-stem of the Delaware River is down from 6,760 to 3,310 cfs at Trenton. The Lackawaxen River is down from 235 to 67 cfs at Hawley. The Lehigh River is down from 1,600 to 960 cfs at Bethlehem. The Schuylkill River is down from 1,400 to 454 cfs at Philadelphia and the Brandywine Creek is down from 135 to 65 cfs at Chadds Ford. The New York City Delaware River Basin storage (August 5) is 74.8 % (202.50 billion gallons) of normal.

Reviewing instantaneous streamflow from July 1 over the past four weeks in the Susquehanna Basin, the main stem Susquehanna River is down from 8,410 to 1,320 cfs at Towanda, down from 10,800 to 1,720 cfs at Wilkes-Barre, and down from 26,000 to 4,740 cfs at Harrisburg. The West Branch Susquehanna River is down from 2,410 to 751 cfs at Lock Haven, down from 4,500 to 1,200 cfs at Williamsport, and down from 5,780 to 1,660 cfs at Lewisburg. The Juniata River is down from 1,480 to 829 cfs at Newport. The Yellow Breeches Creek near Camp Hill was down from 112 to 90 cfs.

For the Ohio Basin, the Allegheny River is down from 11,200 to 4,150 cfs at Natrona. The main-stem Ohio River is down from 12,400 to 5,980 cfs at Sewickley. The Kiskiminetas River is down from 1,560 to 251 cfs at Vandergrift. The Monongahela River is down from 2,910 to 1,680 cfs at Braddock and the Beaver River is down from 1,300 to 971 cfs at Beaver Falls.

Instantaneous streamflow readings for August 5th at 1:45 a.m., indicate that there were 49 (out of 159 reporting) stream gages registering flows below the 25th percentile, 33 less than the 10th percentile and 5 at record lows. This represents a significant increase in below normal streamflows across the

state. The below normal rainfall in July has all but 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 potential drought conditions are creeping northward and westward from the current drought emergency areas. Streamflow levels across the state are dropping due to the lack of significant rainfall and above normal temperatures over the 4 to 5 weeks.

Overall, the USGS 30-day duration graphs for streamflow continue to decrease across the state and in some cases at a significant rate of decline. Three gages in the Delaware Basin are in the watch range, 3 are in warning and 3 are in emergency, and in the Susquehanna Basin 8 gages are now in watch, 6 are in warning and 4 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 emergency. In the Ohio River Basin, there are 5 gages in watch, 2 in warning and 1 in emergency.

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, 2 wells are in watch and 6 are in emergency. For the Susquehanna River Basin, 5 wells are in watch and 2 are in emergency. Below normal conditions have spread into the Ohio Basin with 2 wells in watch and 1 in emergency. The Delaware Basin now has 2 groundwater gages approaching record lows for this time of year. The groundwater levels for the monitoring wells located in Chester and Berks Counties have now reached to within less than 0.2 feet of their respective all-time record lows.

Precipitation for the period August 12 through August 18 is projected to be below normal with temperatures from normal to above normal. The National Climatic Data Center projects precipitation to be below normal for the period August through October 2002 with temperatures near normal for the same period.