

Watershed MANAGEMENT



Drought Information Center

September 23, 2002

On September 5th, Governor Schweiker added 5 counties to drought emergency, 3 in southeastern Pennsylvania (Bucks, Montgomery and Philadelphia) and 2 in the lower Susquehanna River Basin (Dauphin and Perry). The Governor also upgraded 5 counties to drought-warning status. In addition, 24 counties were added to drought watch, bringing a total to 31. 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>.

Through the first 22 days of September, county precipitation totals range from 0.8 inches (Clarion County) to 3.9 inches (Wyoming County). Departures from normal for the first 22 days of September range from +1.3 inches (Wyoming County) to -1.9 inches (Clarion and Indiana County). The average statewide departure from normal for the period was -0.59 inches and the average rainfall for the period was 2.04 inches. Out of 67 counties, 46 counties still have below normal departures for the month in spite of last weekend's rainfall. For the past 365 days, ending September 22nd, precipitation departures range from -15.5 inches (Chester County) to +4.0 inches (Forest County). There are 10 counties that in the last 365 days either exceeded or equaled -10.0 inches. It should be noted that on September 19th, 2002, the Climate Prediction Center released its most recent 3-month outlook and predicts below normal precipitation and normal temperatures for the period October through December 2002.

As of 8:18 a.m., September 23rd, streamflows were above normal in areas where localized heavy rain occurred over the weekend. The Lackawanna and Juniata River Basins and the Swatara, Yellow Breeches and Shermans Creek Basins in the Susquehanna Basin, as well as some streams draining into the West Branch Susquehanna River Basin, were above normal. Daily streamflow readings range from 20% of normal to above normal. Instantaneous streamflow readings of 162 gages for September 23rd at 1:45 a.m. indicate that there was 45 gages with flows less than the 25th percentile, 18 at less than the 10th percentile and 7 at record lows. Streamflows were dropping across the state and most of the streams that are now above normal will be below normal by the end of the week.

The 30-day streamflow duration graphs for September 23rd indicate that the rainfall of the past weekend is providing only temporary relief in some areas of the

state. In the Delaware Basin 11 of 18 stream gages are decreasing, with 8 gages in watch, 3 in warning and 2 in emergency. In the Susquehanna River Basin, 13 of 30 gages also show decreases in their 30-day average, with 9 duration graphs in emergency, 6 in warning and 11 in watch. Of the 3 Potomac River Basin gages 1 each was in watch and emergency. In the Ohio River Basin, 18 of 22 gages are decreasing with 10 gages in watch, 1 in warning and 2 in emergency.

The 30-day groundwater duration graphs for September 23rd indicate that groundwater levels continue to drop in spite of the recent rainfall. In the Delaware Basin, all 11 of 12 groundwater-monitoring gages are decreasing, with 6 in emergency, 2 in warning and 2 in watch. In the Susquehanna Basin, 17 of 20 gages are decreasing with 5 wells in emergency and 9 in watch. In the Ohio River Basin, 12 of 13 gages are dropping with 3 wells in watch and 2 in emergency. There were 4 monitoring wells with daily readings at a record low, 3 in the Delaware River Basin and 1 in the Susquehanna River Basin.

The Climate Prediction Centers most recent projection for October indicates there will be normal temperatures and below normal precipitation over most of Pennsylvania. The projection for the period October through December is also for near normal temperatures and below normal precipitation.