

## August 08, 2011 Drought Report

### Precipitation

Over the past 7 days, above-average precipitation fell across areas of the state in amounts ranging from 2 to 5 inches, with most of the rain arriving this past weekend. Precipitation amounts in the southeast were much closer to normal and precipitation amounts received in the western part of the state were below average leaving these two areas with 90-day deficits as high as 3 to 4 inches (4.3 inches in Chester county and 3.4 inches in Elk county).

*County Precipitation Indicators (based on the 90-day departure) Status:*

**Watch** – Adams, Cambria, Cameron, Chester, Elk, Montgomery and Philadelphia.

### Surface Water

A review of the USGS County monitoring gages indicates that the 30-day average streamflow values reflect the rainfall that has fallen over the past few days. Bedford and Cameron improved one stage to Warning from Emergency and Mercer improved from Emergency to Watch status. Clinton, Elk, Forest, Indiana and McKean counties improved from Warning to Watch status. Dauphin and Lebanon counties returned to Normal status. Erie County dropped from Normal to Warning status and Fulton moved from Watch to Warning status. There are now 22 counties in Watch and 4 counties in Warning.

*County Streamflow Status:*

**Watch** - Armstrong, Beaver, Bradford, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Elk, Forest, Huntingdon, Indiana, Jefferson, Juniata, Lawrence, Lycoming, McKean, Mercer, Potter, Tioga and Venango.

**Warning** - Bedford, Cameron, Erie and Fulton.

The snapshot of instantaneous streamflows varies across the state with flows ranging from above normal from the Lehigh Valley to the Northeast to much below normal across the Northwest. The Central part of the state is mostly at normal to below normal. Rainfall which occurred over the weekend has affect streamflows for the short term however without any sustained rainfall, it is apparent based on the current decrease in streamflow that is already occurring that most streamflow values will return to below normal flows.

### Groundwater

The 30-day moving average of groundwater levels continue to decline throughout the state. Groundwater indicators have not changed from last week except for two wells: the Juniata county well moved from warning to emergency and the Delaware county well moved from normal to watch. The recent precipitation will not influence the groundwater indicators for several reasons. First, there is a lag time associated with precipitation events impacting groundwater levels and second, the drought indicator is based on a 30-day moving average and increasing groundwater levels need to be sustained in order to influence the 30-day average.

### Forecast

The 7-day forecast calls for between 0.25 to 2.0 inches of cumulative precipitation across the state. The longer term forecast for August 16 to August 24 indicates up to one inch of precipitation to be evenly distributed across the state.

### Public Water Supply Agencies (PWSAs)

There are currently 12 PWSAs that have initiated either voluntary or mandatory restrictions as a result of the dry conditions and in order to begin conserving their supply.

## Summary

Counties located predominantly across the Appalachian Plateaus (western and central portions of state) and in the southeast continue to display drought indicators in watch/warning/emergency due to the lack of precipitation over the past two months and as a result, the Department of Environmental Protection issued a drought warning for four Pennsylvania counties and a drought watch for 40 counties on August 5, 2011, after consulting with the Drought Task Force.

Areas in the northeastern portion of the state and the southwest where precipitation has been closer to normal remain in mostly normal conditions. While the recent precipitation has brought some relief to the dry conditions, the amounts were not substantive enough to bring about recovery and the drought declarations remain.

The four counties under a Drought Warning are Cameron, Elk, McKean and Potter. The 40 counties under a Drought Watch are Allegheny, Armstrong, Beaver, Bedford, Berks, Blair, Bradford, Bucks, Butler, Cambria, Centre, Chester, Clarion, Clearfield, Clinton, Crawford, Dauphin, Delaware, Erie, Forest, Fulton, Huntingdon, Indiana, Jefferson, Juniata, Lancaster, Lawrence, Lebanon, Lycoming, Mercer, Mifflin, Montgomery, Perry, Philadelphia, Schuylkill, Sullivan, Tioga, Venango, Warren and Wyoming.