

## August 29, 2011 Drought Report

### Precipitation

Hurricane Irene brought significant precipitation and flooding this past weekend to the eastern half of PA. Precipitation depths varied from trace amounts east of Indiana County to increasing bands up to 6.5 inches in the Delaware Valley region stretching from Philadelphia up through the Allentown area. Unfortunately, the deluge of rainfall over the past several days has not reached the northwest and northcentral portions of the state and the 90-day precipitation departures continue to increase. The 90-day precipitation departure indicators across the Commonwealth are in normal range except for the following counties in watch: Butler, Clarion, Clinton, Crawford, Forest, Jefferson, McKean, Mercer, Venango and Warren Counties in the northwest and Fulton County in the Southcentral. The 90-day precipitation departure indicators are in warning for the following counties: Elk, Cameron, Potter, and Tioga.

### Surface Water

A review of the (US Geological Survey) USGS County monitoring gages indicates that the 30-day average streamflow values reflect the rainfall that has fallen over the past week including the effects of Hurricane Irene in the Susquehanna and Delaware River Basins. It should be noted that the Allegheny River Basin received little rainfall from Hurricane Irene. The counties that are still in Drought continue to show improvement as their 30-day average flows continue to increase. Bedford County is the only county where its 30-day average is decreasing.

The snapshot of instantaneous streamflows indicates above normal flows across the Susquehanna and Delaware River Basins where flows range from above normal to much above normal. In the Allegheny River Basin flows range from near normal to much below normal with continuing decreasing flow.

### Groundwater

In PA, about 27 of the 69 real-time drought-monitoring wells saw fluctuations as a result of the magnitude 5.8 (Mw) earthquake that occurred on August 23 beneath the town of Mineral, Virginia. Most water-level changes were less than 0.20 ft. USGS will be assessing the hydrographs to determine whether the shifts appear to be permanent and if so, the records for some of the wells may be appropriately adjusted if the shifts, though small, are significant for drought determinations.

### Water Suppliers

There is no change from last week.

### Forecast

The forecast for the next week shows above normal precipitation percentages for most of the Commonwealth with the exception of the northwest and southeast corners. The forecast indicates between 2 to 5 inches in a band from the southwest corner up through the northeast

corner. The forecast for the week of September 6 through 14 indicates trace amounts of precipitation across the state.

### Summary

Since the August 5 drought watch/warning declaration, the 90-day precipitation departures have been eliminated and conditions have improved for the counties currently under the drought watch declaration in the southeast (Berks, Bucks, Chester, Dauphin, Delaware, Lancaster, Lebanon, Montgomery, Philadelphia, and Schuylkill). A recommendation to lift the drought watch for the 10 southeastern counties as well as two counties in the northeast, Sullivan and Wyoming counties, will be made prior to the September 1 Drought Task Force meeting.

The remaining portions of the state currently under a drought watch or warning declaration have not seen improvement due to the continued lack of meaningful precipitation. A recommendation to keep the drought declarations for those areas will be made. More details will be provided prior to the September 1 Drought Task Force meeting.