

Weekly Drought Report September 28, 2010

Precipitation

Even though the state received precipitation over the past 14 days, only six counties (Clinton, Lycoming, Mifflin, Northampton, Somerset and Union) have shown improvement to the 90-day precipitation departure drought indicators. The entire western half of the state (with the exception of Lawrence county) and the eastern end, approximately two-thirds of the state, remains in drought “watch” or “warning” or “emergency” levels. Departures for a few counties remain up to 5 inches under the normal 90 day amounts.

Surface Water

A review of the instantaneous streamflows this morning indicates that recent rainfall has improved streamflows across the state, as compared to flows on September 15, 2010. Flows in Western Pennsylvania are mostly above the median flows, with a few gages still indicating below normal flows. In the Eastern portion of the state, instantaneous streamflows remain below normal, although some have improved slightly.

The 30-day average streamflows continue to move downward with five counties with a drought indicator status of “emergency” (Elk, Fulton, Somerset, Philadelphia and Tioga) and four counties with a drought indicator status of “warning” (Beaver, Franklin, Monroe and Pike). 37 counties are now in drought indicator status of “watch”. Of note over the past two weeks is the rapid decline in four out of the five counties that started with the drought indicator status of either “normal” or “watch” on Sept. 15 and are now in “emergency”.

Groundwater

Over the past two weeks, groundwater indicators show a decline in the moving 30-day average groundwater well levels with a few monitoring wells moving from “watch” levels to both “warning” and “emergency” indicator status. With the changes in groundwater usually lagging behind precipitation events, improvements in the moving 30-day average well levels will likely take time in reaction to recent and forecast precipitation events.

Palmer Drought Severity Index

Drought indicators in all ten regions are now in “watch” status.

Precipitation forecast

The 7-day forecast indicates significant cumulative precipitation to fall across the state; about 3 inches in the western part of the state to about 6 inches towards the eastern end. This precipitation would be expected to significantly improve precipitation deficits.

Although there has been a slight reduction to precipitation deficits over the past two weeks, the entire Commonwealth remains in a drought watch or warning declaration status.