

August 9, 2007

On Monday, August 6, DEP Secretary Kathleen McGinty announced a drought watch for 58 counties and asked the commonwealth's citizens to voluntarily reduce water use by five percent. The announcement came as a result of deteriorating precipitation, streamflow and groundwater conditions that are evidenced by ongoing monitoring across the commonwealth.

This declaration is for the following counties:

Adams	Columbia	Lackawanna	Snyder
Allegheny	Crawford	Lawrence	Somerset
Armstrong	Cumberland	Lebanon	Sullivan
Beaver	Dauphin	Luzerne	Susquehanna
Bedford	Elk	Lycoming	Tioga
Blair	Erie	McKean	Union
Bradford	Fayette	Mercer	Venango
Butler	Forest	Mifflin	Warren
Cambria	Franklin	Monroe	Washington
Cameron	Fulton	Montour	Wayne
Carbon	Greene	Northumberland	Westmoreland
Centre	Huntingdon	Perry	Wyoming
Clarion	Indiana	Pike	York
Clearfield	Jefferson	Potter	
Clinton	Juniata	Schuylkill	

During the past 30 days and including the recent rainfall that fell on most of the state within the last several days, precipitation deficits have improved somewhat and range from about 0.5 to 1.0 inches in the northwestern half of the state and 1.5 to 2.5 inches in the southeastern half. The 60-day deficits range from about 1.0 to 2.5 inches statewide with 2-3 pockets of above normal precipitation. The 90-day deficits range from about 2.0 to 4.0 inches statewide.

Streamflow indicators continue to show below normal conditions across the state. The recent rainfall, which occurred across most of the state at various intensities, has caused the daily streamflow values to improve except in Cumberland County. For the most part, these improvements in streamflow are short lived as a review of the streamflow gages indicate that flows are already dropping or have peaked and will soon begin to drop. The Letort Spring Run near Carlisle is at record low flow based on the instantaneous flow reading. The Ridge and Valley and Appalachian Plateau area gages continue to reflect an overall watch and warning status. The 30-day average streamflow values continue to decrease in the southeast with Philadelphia County now dropping in to warning status. The other counties in the area still remain in normal status however if the trend continues they would soon drop into watch status.

Groundwater wells in the Ridge and Valley Province and scattered in the Appalachian Plateau Province continue to show stress that began in May and June, reaching the watch/warning/emergency indicator status in July. Recent rains have provided little recovery to groundwater wells in the Ridge and Valley with the exception of the well in Juniata County. Almost no recovery has been observed in the wells in Erie, Lawrence, Washington, Forest and Potter counties as they continue to show emergency status in the Appalachian Plateau Province of the commonwealth.

Groundwater normally recharges during the winter and spring, with snow melt providing a significant portion of that recharge. With foliage driving transpiration and summer temperatures

driving evaporation, little precipitation penetrates to groundwater during the late spring and summer months, so groundwater declines naturally from May through September or October, absent major precipitation events. By early July, most precipitation is being lost to evapotranspiration, and streamflows depend heavily upon base flow from groundwater. Low groundwater levels in late summer thus impact users of both ground and surface waters.

Precipitation forecasts for the later part of this week indicate some precipitation, with the 7-day forecast indicating 1.0 inch for the central and western part of the state and up to 2.0 inches in the very northeastern part of the state. The 14-day forecast provides little precipitation for the most western part of the state and increasing to a possible 1.0 to 1.5 inches to the east. These levels of precipitation will provide little, if any, further recovery for groundwater.