

## **Drought Report** **August 10, 2016**

### **Preface**

This report summarizes the various indicators utilized in drought monitoring. Each parameter (groundwater, surface water, precipitation, and palmer index) has their own individual indicator for each county. When readings hit a pre-determined trigger level, the indicator is coded as “Normal”, “Watch”, “Warning”, or “Emergency” for that county. These indicators are used to evaluate the drought status of a particular county; they are not, themselves drought declarations. Drought declarations are determined by the Commonwealth Drought Coordinator, with support of the Drought Task Force, and given final approval by the Governor.

**Summary** – On August 2, 2016 a drought declaration put 34 counties in “Watch” designation and one county in “Warning”.

Instantaneous streamflows statewide show gages at normal to below normal flow across the state. The 30-day moving average streamflow indicators are showing 27 counties in “Watch”, 7 counties in “Warning” and 1 county in “Emergency” status. The 90-day precipitation departure indicators are showing 13 counties in “Watch”, 7 counties in “Warning” and 5 counties in “Emergency” status. The 30-day moving average groundwater indicators are showing 20 counties in “Watch”, 8 counties in “Warning” and 4 counties in “Emergency” status. These 34 counties showing “Watch”, “Warning” and “Emergency” status for groundwater are based on less than 34 wells, since several counties have groundwater monitoring indicators that are monitored via a neighboring county. There are 8 public water suppliers that have initiated water conservation measures in the state. Precipitation for the last 3 days ranged from 0.0 to 0.5 inches with the heaviest rainfall for this period located in southcentral and southeastern Pennsylvania.

A Drought Task Force meeting has been scheduled for September 6<sup>th</sup> at PEMA for reviewing conditions and discussing proposed changes, if any, to declarations made on August 2<sup>nd</sup>. The Susquehanna River Basin Commission (SRBC) Drought Coordinating Committee’s next meeting is scheduled for August 10.

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**Precipitation** –Over the last 7 days, there was varying precipitation across the state, county average rainfall was from 0.1 to 2.1 inches for the period August 1 to August 7. The more significant rainfall occurred in the southern counties. The 90-day precipitation deficit shows counties ranging from greater than 50% below up to 25% above normal precipitation.

The precipitation indicators based on a 90-day departure are showing 13 counties in “Watch” (Armstrong, Blair, Bradford, Clarion, Clearfield, Forest, McKean, Mercer, Montgomery, Montour, Perry, Snyder and Union), 7 counties in “Warning” (Centre, Elk, Huntingdon, Jefferson, Juniata, Lycoming and Sullivan) and 5 counties in “Emergency” (Cameron, Clinton, Mifflin, Potter and Tioga). One county improved from Warning to Watch. The 120-Day Departure Indicator Map for precipitation shows 10 counties in “Warning” and 2 counties in “Emergency”, mostly in the Middle and Upper Susquehanna River Basin. Since our last report one county showed improvement.

*Surface Water*- Instantaneous streamflow varies across the Commonwealth with most gages normal to below normal. For this date there are 31 gages with instantaneous flow at less than the 10th percentile, compared to 6 gages last week. There is one gage reporting record low instantaneous flows.

The 30-day running average streamflow indicators are showing 27 counties in drought “Watch” (Armstrong, Berks, Blair, Bradford, Cameron, Carbon, Centre, Clarion, Clearfield, Crawford, Erie, Forest, Fulton, Huntingdon, Indiana, Lehigh, McKean, Mercer, Mifflin, Northampton, Northumberland, Perry, Schuylkill, Snyder, Tioga, Union and Venango); 7 counties in “Warning” (Bedford, Clinton, Cumberland, Elk, Jefferson, Juniata and Sullivan); and 1 county in “Emergency” (Potter). Since our last report, 4 counties showed improvement.

*Groundwater* – The 30-day moving average indicators for groundwater levels are showing 20 counties in drought “Watch” (Bedford, Bradford, Carbon, Centre, Chester, Clinton, Cumberland, Dauphin, Delaware, Elk, Erie, Franklin, Fulton, Juniata, Lancaster, Lebanon, Perry, Philadelphia, Susquehanna and Wayne); 8 counties in “Warning” (Berks, Columbia, Lackawanna, Lehigh, Luzerne, Monroe, Northampton and Pike) and 4 counties in “Emergency” (Lawrence, McKean, Mercer and Potter). Since our last report, 3 counties showed improvement.

*Palmer Drought Severity Index* – The Palmer soil moisture indicator is showing 16 counties in “Watch” (Allegheny, Armstrong, Beaver, Bedford, Blair, Butler, Cambria, Fayette, Fulton, Greene, Huntingdon, Indiana, Lawrence, Somerset, Washington and Westmoreland) and 15 counties in “Warning” (Cameron, Centre, Clarion, Clearfield, Clinton, Crawford, Elk, Erie, Forest, Jefferson, McKean, Mercer, Potter, Venango and Warren).

*Public Water Supply Agencies (PWSA 's)* – The following water suppliers are on water use restrictions: Albion Boro Water System, Bedford Boro Water Authority, Driftwood Boro, Dubois Water Department, Galeton Boro Water Authority, Huntingdon Boro Water Department, Petersburg Commons Water System, Shinglehouse Boro Water Department and Wellsboro Munic Authority.

*Forecast* – The 7-day forecast indicates approximately 1.25 to 5 inches of precipitation for the state, with the highest rainfall amounts forecasted to be in the northern half of the state.

