

Drought Report

May 19, 2015

This report summarizes the various indicators utilized in drought monitoring. Each parameter (groundwater, surface water, and precipitation) 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.

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Precipitation – Over the past week, the western portion of the state received 2.6 to 4.8 inches of precipitation, while the remainder of the state received less than 2 inches of rain, varying from county to county with many counties receiving less than 1 inch of precipitation. The 90-day precipitation deficits are ranging from 1.9 to 5.4 inches for the south-central and eastern portions of the state.

The precipitation indicators based on a 90-day departure are as follows: 20 counties in drought “Watch” (Adams, Berks, Columbia, Cumberland, Dauphin, Huntingdon, Juniata, Lancaster, Lehigh, Lycoming, Mifflin, Montour, Northumberland, Perry, Sullivan, Tioga, Union, Wayne, Wyoming, and York), 10 counties in drought “Warning” (Carbon, Franklin, Lackawanna, Lebanon, Luzerne, Monroe, Northampton, Pike, Schuylkill, and Snyder) and zero counties in drought “Emergency”. The following changes have occurred from last week: Northampton and Schuylkill went from “Watch” to “Warning”; Blair and Susquehanna from “Watch” to “Normal”; and Huntingdon, Juniata, Northumberland, and Wyoming from “Warning” to “Watch”.

Surface Water- Instantaneous streamflow varies across the state with most gages at or below normal flow. For this date there are 35 gages with instantaneous flow at less than the 10th percentile, compared to 61 gages in this category as of last week.

The 30-day running average streamflow values show a slight decline from the previous week, with seven counties moving into a more severe status. Beaver, Cameron, Clarion, Greene, Monroe, Potter, and Washington counties moved from “Normal” to “Watch”. The indicators are as follows: 11 counties in drought “Watch” (Beaver, Cameron, Carbon, Chester, Clarion, Greene, Lancaster, Monroe, Pike, Potter, and Washington). No counties are in drought “Warning” or “Emergency” for this date. The remaining counties are in “Normal” status. The 30-day average values for streamflow shown on the gage graphs are currently showing a decrease in the 30-day average flow, with most counties remaining in “Normal” status.

Groundwater – The 30-day moving average indicators for groundwater levels show a decline from the previous week, with six counties moving into a more severe status. The indicators are as follows: two counties in drought “Emergency” (Susquehanna and Wayne); and 13 counties in drought “Watch” (Bedford, Berks, Cambria, Delaware, Fulton, Indiana, Lackawanna, Lawrence, Mercer, Monroe, Philadelphia, Pike, and Westmoreland). The following changes have occurred since the last report: from

“Normal” to “Watch” are Delaware, Lawrence, Mercer, and Philadelphia; and from “Warning” to “Emergency” are Susquehanna and Wayne.

Palmer Drought Severity Index – All regions are normal.

Public Water Supply Agencies (PWSA) – There are no PWSAs on voluntary or mandatory restrictions at this time.

Forecast – The seven-day forecast indicates approximately 0.10 to 1.25 inches of precipitation for the state, with the highest rainfall amounts in the southwest and south-central portions of the state. The eight to 14-day forecast indicates 1 to 3 inches of precipitation for the state, with highest rainfall totals in the western and northeastern portions of the state.

Summary – Overall 30-day moving average conditions for surface water and groundwater show a decline from the previous week, although precipitation deficits have shown improvement. Instantaneous streamflows have improved, although the far eastern portion of the state is still showing many gages at below normal flows. The 30-day moving average streamflow indicators have remained normal or below normal for most of the state with a slight decline from the previous week. The precipitation deficit shows an improvement from the previous week, as shown by the 90-day departure for precipitation. The 30-day moving average groundwater well levels show a decline from the previous week with six additional counties moving to a more severe status. Continued precipitation in frequency and duration will be necessary in order for all groundwater levels to recover to normal status.

DEP issued a press release on March 24, 2015 for a drought watch declaration for 27 counties implementing the Drought Task Force recommendations from March 10, 2015. The 27 counties in drought watch are: Berks, Bradford, Cambria, Carbon, Clinton, Columbia, Indiana, Lackawanna, Lawrence, Luzerne, Lycoming, McKean, Mercer, Monroe, Montour, Northumberland, Pike, Potter, Schuylkill, Snyder, Sullivan, Susquehanna, Tioga, Union, Wayne, Westmoreland, and Wyoming.

Conditions continue to be closely monitored.

The next Drought Task Force meeting is on May 19, at which time conditions will be assessed to determine if any action is necessary.

