

## **Drought Report**

**June 30, 2015**

**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.**

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*Precipitation* – Over the past week, the majority of the state received approximately two to three inches of precipitation, with the exception of the northeastern corner of the state with totals less than two inches. The 90-day precipitation deficits have recovered for most of the state, with only a few counties in the southeast showing below average departures with an approximate 2 inch deficit.

The precipitation indicators based on a 90-day departure have improved since the previous week with zero counties in Drought “Watch”, “Warning” or “Emergency”. The following changes have occurred from last week: Montgomery and Philadelphia from “Watch” to “Normal”.

*Surface Water*- Instantaneous streamflow varies across the Commonwealth with most gages above normal flow. For this date there are zero gages with instantaneous flow at less than the 10th percentile.

The 30-day running average streamflow values showed improvement from the previous week, with 8 more counties moving into a less severe status. Center, Greene, Huntingdon, Juniata, Mifflin, Potter, Snyder, and Union moved from “Watch” to “Normal”. There are zero counties in Drought “Watch”, “Warning” or “Emergency” for this date.

*Groundwater* – The 30-day moving average indicators for groundwater levels show improved conditions to the previous week, with 20 more counties moving into a less severe status. The indicators are as follows: 13 counties in drought “Watch” (Cambria, Chester, Clinton, Delaware, Indiana, Lackawanna, Lancaster, Lehigh, Monroe, Northampton, Philadelphia, Pike, and Westmoreland), 6 counties in drought “Warning” (Bedford, Berks, Bradford, Fulton, Montour, and Union), and zero counties in drought “Emergency”. The following changes have occurred since the last report: Carbon, Columbia, Cumberland, Fayette, Franklin, Juniata, Luzerne, McKean, Perry, Potter, Schuylkill, Somerset, Susquehanna, and Wayne from “Watch” to “Normal”; Lackawanna, Monroe, and Pike from “Emergency” to “Watch”; and Berks, Montour, and Union from “Emergency” to “Warning”. Real-time data is currently showing either similar or higher groundwater levels than the 30-day moving average. The higher groundwater level real-time data indicates an upward trend in the 30-day moving average groundwater levels.

*Palmer Drought Severity Index* – The Palmer soil moisture indicator is displaying all counties in “Normal” status.

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

*Forecast* – The 7-day forecast indicates approximately 0.1 to 1 inch of precipitation for the state, with the highest rainfall amounts in the eastern and far western portions of the state. The 8 to 14-day forecast indicates 0.4 to 2.33 inches of precipitation for the state, with highest rainfall totals in the eastern portion of the state.

*Summary* – Overall conditions have improved from the previous week. Instantaneous streamflows have improved statewide, with most gages showing above normal flow. The 30-day moving average streamflow indicators have improved from the previous week, with all counties in “Normal” status. The 90-day precipitation deficit shows improved conditions from the previous week, with the majority of the state showing normal to above average precipitation. The 30-day moving average groundwater well levels show improved overall conditions to the previous week with 20 additional counties moving to a less severe status, and zero counties in “Emergency” status. Real-time data is showing equal or higher groundwater levels than the 30-day moving average in many cases. Continued precipitation in frequency and duration will be necessary in order for groundwater levels to recover to normal status.

DEP issued a press release on June 17, 2015, expanding the drought watch declaration to 37 counties per the Drought Task Force recommendations from the meeting on June 8, 2015. The 10 additional counties under the drought watch issued on June 17 are: Bedford, Blair, Centre, Franklin, Fulton, Huntingdon, Juniata, Lehigh, Mifflin, and Northampton. The 27 counties that remain under 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. These counties were originally put on a drought watch on March 24, 2015.

The next Drought Task Force meeting is scheduled for July 9, 2015, at which time conditions will be assessed to determine if any action is necessary. Conditions will continue to be closely monitored.

