

## Drought Report

May 5, 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 approximately 1.0 to 2.5 inches of precipitation while the south-central portion of the state received less than 0.5 inches of precipitation. Zero precipitation was received for the remainder of the state. The 90-day precipitation deficits are ranging from 1.5 to 4.8 inches for the south-central and northeast portions of the state.

The precipitation indicators based on a 90-day departure are as follows: 19 counties in Drought “Watch” (Blair, Columbia, Cumberland, Dauphin, Fulton, Huntingdon, Lancaster, Lehigh, Lycoming, Mifflin, Montour, Northampton, Perry, Schuylkill, Sullivan, Tioga, Union, Wayne and York), 11 counties in Drought “Warning” (Carbon, Franklin, Juniata, Lackawanna, Lebanon, Luzerne, Monroe, Northumberland, Pike, Snyder and Wyoming) and zero counties in Drought “Emergency”. The following changes have occurred from last week: Blair, Columbia, Dauphin, Fulton, Lancaster, Lehigh, Lycoming, Northampton, Schuylkill, Sullivan, Tioga, Union and Wayne went from “Normal” to “Watch”; Carbon, Juniata, Lackawanna, Lebanon, Luzerne, Monroe, Northumberland, Pike, Snyder and Wyoming from “Watch” to “Warning”.

*Surface Water*- Instantaneous streamflow is normal across the Commonwealth with most gages at showing normal flow. For this date there are 17 gages with instantaneous flow at less than the 10th percentile, compared to 4 gages in this category as of last week. There are 87 gages showing instantaneous flow in the 10-24th percentile range, compared to 6 last week.

The 30-day running average streamflow values showed similar conditions to the previous week, with 1 county showing improvement and 2 counties moving into a more severe status. York moved from “Watch” to “Normal” while Chester and Lancaster moved from “Normal” to “Watch”. The indicators are as follows: 2 counties in Drought “Watch” (Chester and Lancaster). 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 have peaked and 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 overall improvement on a state-wide scale compared to the previous week, where no counties are currently in “Emergency” status. Seven counties moved into a less severe status. The indicators are as follows: Four counties in drought “Warning” (Bedford, Fulton, Susquehanna and Wayne); and eight counties in

drought “Watch” (Berks, Cambria, Indiana, Lackawanna, Monroe, Pike, Schuylkill and Westmoreland). The following changes have occurred since the last report: from “Watch” to “Normal” are Centre, Cumberland, Franklin and Mifflin; and from “Warning” to “Watch” are Cambria, Indiana and Westmoreland.

*Palmer Drought Severity Index* – All regions are normal.

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

*Forecast* – The 7-day forecast indicates approximately 0.66 to 2.66 inches of precipitation for the state, with the lowest rainfall amounts in the east. The 8 to 14-day forecast indicates 0.20 to 1.25 inches of precipitation for the state, with highest rainfall totals in the western portion of the state.

*Summary* – Overall conditions are similar to last week. Instantaneous streamflows have declined, with the majority of the state showing below normal or normal flows. The 30-day moving average streamflow indicators have remained normal for most of the state with not much change from the previous week. The precipitation deficit shows a decline from the previous week, as shown by the 90-day departure for precipitation. The 30-day moving average groundwater well levels have shown more improvement as compared to the previous week with 7 counties moving to a less severe status; however, 12 counties remain in drought status. Continued precipitation in frequency and duration will be necessary in order for groundwater levels to continue to recover to normal status before summer.

DEP issued a press release on Mar. 24, 2015 for a drought watch declaration for 27 counties implementing the Drought Task Force recommendations from Mar. 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 will continue to be closely monitored.

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

