

## **Drought Report**

**March 31, 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 majority of the state received an inch or less of precipitation. The 90-day precipitation deficits are ranging from 3.0 to 4.0 inches for the central and northeast portions of the state.

The precipitation indicators based on a 90-day departure are as follows: 11 counties in Drought “Watch” (Bedford, Blair, Cameron, Centre, Cumberland, Dauphin, Forest, Franklin, Fulton, Pike and Schuylkill), 15 counties in Drought “Warning” (Carbon, Clinton, Columbia, Huntingdon, Juniata, Luzerne, Mifflin, Monroe, Montour, Perry, Potter, Sullivan, Susquehanna, Union and Wayne) and 7 counties in Drought “Emergency” (Bradford, Lackawanna, Lycoming, Northumberland, Snyder, Tioga and Wyoming). The following changes have occurred from last week: Bedford, Blair, Cumberland, Pike and Schuylkill went from “Normal” to “Watch”; Carbon, Columbia, Huntingdon, Juniata, Monroe, Perry, Potter, Sullivan, Susquehanna, Union and Wayne from “Watch” to “Warning”; Bradford, Lackawanna, Lycoming, Northumberland, Snyder and Wyoming from “Warning” to “Emergency”; and counties improving from “Watch” to “Normal” include Erie and McKean.

*Surface Water*- Instantaneous streamflow varies across the Commonwealth with most gages at normal or below normal flow, down from a week ago when a majority of the gages were showing normal flows. For this date there are 7 gages with instantaneous flow at less than the 10th percentile, compared to 6 gages in this category as of last week. There are approximately 56 gages showing instantaneous flow in the 10-24th percentile range, compared to 31 last week.

The 30-day running average streamflow values showed similar conditions as the previous week, with 3 counties showing improvement and one county moving to a more severe status. Cameron and Carbon counties moved from “Watch” to “Normal” status, Sullivan moved from “Warning” to “Watch”, and Potter County declined from “Normal” to “Watch”.

The 8 counties in Drought “Watch” are as follows: Clinton, Columbia, Monroe, Montour, Potter, Sullivan, Susquehanna, and Wyoming. The 2 counties in Drought “Warning” are as follows: Bradford and Lycoming. Wayne County remains the only county in Drought “Emergency”. The remaining 56 counties are in “Normal” status. The 30-day average values for streamflow shown on the gage graphs continue to display an increase in the 30-day average flow.

*Groundwater* – The 30-day moving average indicators for groundwater levels continue to show improvement in some counties and decline in other counties from the previous week, with 12 counties moving into a less severe status and one county moving to a more severe status, and one county moving into emergency. The indicators are as follows: 16 counties in Drought “Emergency” (Bradford, Carbon, Clinton, Columbia, Lackawanna, Lawrence, Luzerne, McKean, Mercer, Monroe, Pike, Potter, Sullivan, Susquehanna, Wayne and Wyoming); Five counties in drought “Warning” (Cambria, Indiana, Montour, Union and Westmoreland); and eight counties in drought “Watch” (Bedford, Berks, Cumberland, Elk, Franklin, Fulton, Schuylkill and Tioga). The following changes have occurred since the last report: from “Warning” to “Emergency” is Clinton; from “Watch” to “Normal” are Dauphin, Delaware, Erie, Lebanon, Lehigh, Northampton and Philadelphia; from “Warning” to “Watch” are Berks and Schuylkill; and from “Emergency” to “Warning” are Cambria, Indiana and Westmorland.

*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 1.0 to 3.0 inches of precipitation for the entire state, with higher rainfall totals in the southwestern and south-central portions of the state. The 8 to 14-day forecast indicates 0 to 0.5 inches of precipitation for the state, with highest rainfall totals in the southwest, northwest, and north-central.

*Summary* – Overall conditions remain similar to last week. Instantaneous stream flows remain normal in the northwest and southeast, with below normal flows for the remainder of the state. 30-day moving average stream flow indicators remain normal for many of the counties in the southeast, south-central and western parts of the state. Additionally, 30-day moving average groundwater well levels are slowly increasing, although not enough in the northeast to show great improvement. The precipitation deficit continues to grow, as shown by the decline in the 90-day departure for precipitation. Meaningful precipitation in frequency and duration will be necessary in order for groundwater levels to approach returning to normal before summer. Groundwater recharge remains a significant concern.

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 April 7, 2015 at which time conditions will be assessed to determine if any action is necessary.

