

## **Drought Report**

**April 14, 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 northern portion of the state received approximately 1 to 2 inches of precipitation while the remainder of the state received less than an inch of precipitation, with the lowest amounts in the southeast. 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: 13 counties in Drought “Watch” (Adams, Bedford, Blair, Huntingdon, Lebanon, Lycoming, Mifflin, Pike, Sullivan, Tioga, Union, Wayne and York), 16 counties in Drought “Warning” (Carbon, Columbia, Cumberland, Dauphin, Franklin, Fulton, Juniata, Lackawanna, Luzerne, Monroe, Montour, Northumberland, Perry, Schuylkill, Snyder and Wyoming) and zero counties in Drought “Emergency”. The following changes have occurred from last week: Adams and York went from “Normal” to “Watch”; Cameron, Centre, Clinton and Potter from “Watch” to “Normal”; Susquehanna from “Warning” to “Normal”; Huntingdon, Mifflin, Sullivan, Union and Wayne from “Warning” to “Watch”; Lycoming and Tioga from “Emergency” to “Watch”; and Lackawanna, Northumberland, Snyder and Wyoming from “Emergency” to “Warning”.

*Surface Water*- Instantaneous streamflow varies across the Commonwealth with most gages at normal or above normal flow, showing some improvement from last week, although several gages in the southeast show below normal flow. For this date there are 6 gages with instantaneous flow at less than the 10th percentile, compared to 5 gages in this category as of last week. There are approximately 24 gages showing instantaneous flow in the 10-24th percentile range, compared to 39 last week.

The 30-day running average streamflow values showed similar conditions from the previous week, with 3 counties showing improvement and 3 counties showing a decline. Bradford, Lycoming and Monroe counties moved from “Watch” to “Normal” status, while Fulton, Huntingdon and Perry moved from “Normal” to “Watch”.

The indicators are as follows: 3 counties in Drought “Watch” (Fulton, Huntingdon and Perry). No counties are in Drought “Warning” or “Emergency” for this date. The remaining 64 counties are in “Normal” status. The 30-day average values for streamflow shown on the gage graphs have peaked and are beginning to show a decrease in the 30-day average flow, although most counties are remaining in “Normal” status.

*Groundwater* – The 30-day moving average indicators for groundwater levels show an overall improvement compared to the previous week. Thirteen counties moved into a less severe status and zero counties moved into a more severe status. The indicators are as follows: 8 counties in Drought “Emergency” (Cambria, Indiana, Lackawanna, Monroe, Pike, Susquehanna, Wayne and Westmoreland); 5 counties in drought “Warning” (Bedford, Clinton, Fulton, Montour and Union); and 6 counties in drought “Watch” (Berks, Bradford, Columbia, Cumberland, Franklin and Luzerne). The following changes have occurred since the last report: from “Watch” to “Normal” are Cumberland, Elk, Lawrence, McKean, Mercer, Potter and Schuylkill; from “Warning” to “Watch” is Bradford; from “Emergency” to “Warning” are Clinton, Montour and Union; and from “Emergency” to “Watch” are Columbia and Luzerne.

*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 2.0 inches of precipitation for the state, with the highest rainfall amounts in the southwest. The 8 to 14-day forecast indicates 1.5 to 3.0 inches of precipitation for the state, with highest rainfall totals in the far western portion of the state.

*Summary* – Overall conditions have improved since last week. Instantaneous streamflows have improved, with the exception of the southeastern portion of the state with below normal flows. The 30-day moving average streamflow indicators have remained somewhat constant and are normal for most of the state, with the exception of a few counties in the south-central portion of the state. The precipitation deficit has improved, as shown by the 90-day departure for precipitation. The 30-day moving average groundwater well levels have shown some improvement as compared to the previous week; however, many counties remain in drought status. Instantaneous groundwater levels are exceeding the 30-day moving average and therefore, the 30-day moving average will continue to trend upward in the coming weeks. Continued precipitation in frequency and duration will be necessary in order for groundwater levels to fully 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 being scheduled for next month at which time conditions will be assessed to determine if any action is necessary.

