

Drought Report October 26, 2016

Preface

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.

Summary

This past week Pennsylvania experienced significant rainfall with localized flooding in the Ohio and Upper Susquehanna River Basins. Average rainfall for the period October 18-24 ranged from 0.0 inches in the southeast to 5.1 inches in the upper Susquehanna River Basin.

The 90-day precipitation departures ranged from below normal in the central and eastern part of the state to above normal in the west. Departures ranged from -4.6 inches in Montgomery County to +9.2 inches in Jefferson County.

Groundwater levels in portions of the state where the heaviest rain occurred have begun to recover. Two monitoring wells returned to “Normal” status with 3 wells moving to drought or a higher status.

Instantaneous flows were from near normal to much above normal in the western part of the state with much below normal flows in the eastern part of the state.

The Delaware River Basin Commission (DRBC) continues to direct releases from Beltzville and Blue Marsh reservoirs for streamflow augmentation. Tributary throughout the middle and upper Delaware Basin range from Normal to much-below normal with the salt front at River Mile 86, 2 miles upstream from last week’s reading. It should be noted that the DRBC reports that at the current rate of releases, a lower basin drought warning could be triggered, which would reduce the flow objective on the location of the salt front.

The 7-day forecast calls for rainfall ranging from 1.0 inch in the southeast to 2.0 inches in the northwest.

The next meeting of the Commonwealth Drought Task Force was rescheduled from October 19th to November 2nd at PEMA at which time any changes to the drought declaration will be discussed.

Drought Report Details

There have been no changes to the declared drought counties. Potter County remains in Drought Warning with the following counties in Drought Watch: Armstrong, Bedford, Berks, Blair, Bradford, Cameron, Carbon, Center, Chester, Clarion, Clearfield, Clinton, Cumberland, Dauphin, Elk, Forest, Fulton, Huntingdon, Indiana, Jefferson, Juniata, Lawrence, Lebanon, Lehigh, Lycoming, McKean, Mercer, Mifflin, Northampton, Perry, Philadelphia, Schuylkill, Snyder, Sullivan, Tioga, Union, and Venango. The counties will be reviewed for any further action during the next Drought Task Force meeting.

Precipitation – Over the last 7 days, county rainfall averages ranged from 0.0 inches in the south central part of the state to 5.1 inches in the upper Susquehanna Basin. The 90-day precipitation deficit shows counties ranging from 50% below to greater than 75% above normal precipitation.

The precipitation indicators based on a 90-day departures indicate 5 counties are now in “Watch” (Bucks, Juniata, Monroe, Northumberland and Philadelphia) and 2 counties are in “Warning” (Montgomery and Philadelphia). Since the last report 4 counties moved into a lower status.

Surface Water- Instantaneous streamflow across the Commonwealth ranged from high to below normal with the lowest flows in the Delaware River Basin. For this date there were 23 gages with instantaneous flow at less than the 10th percentile, compared to 41 gages last week. There were 5 gages recording record low instantaneous flows.

The 30-day running average streamflow indicators showed some improvement with 11 counties in drought “Watch” (Berks, Juniata, Lackawanna, Lehigh, Luzerne, Monroe, Pike, Schuylkill, Snyder, Sullivan and Union), 1 county in “Warning” (Carbon) and 2 counties in “Emergency” (Northampton and Philadelphia). Since our last report 9 counties entered lower stages and 8 counties returned to “Normal”.

Groundwater – The 30-day moving average indicators for groundwater levels are showing 29 counties in drought “Watch” (Bedford, Bucks, Cambria, Chester, Clinton, Columbia, Cumberland, Dauphin, Fayette, Franklin, Fulton, Indiana, Lancaster, Lawrence, Lebanon, Luzerne, McKean, Mercer, Montgomery, Montour, Potter, Schuylkill, Somerset, Sullivan, Susquehanna, Union, Wayne, Westmoreland and Wyoming); 4 counties in “Warning” (Carbon, Lackawanna, Monroe and Pike) and 3 counties in “Emergency” (Berks, Lehigh and Northampton). Since our last report, 6 counties improved with 2 returning to “Normal” and 3 counties moved to a lower status.

Palmer Drought Severity Index – The Palmer soil moisture indicator is showing 23 counties in “Watch” (Bedford, Berks, Blair, Bucks, Cambria, Carbon, Chester, Dauphin, Delaware, Fulton, Huntingdon, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Monroe, Montgomery, Northampton, Philadelphia, Pike, Schuylkill and Wayne) and no counties in “Warning” or “Emergency”.

Public Water Supply Agencies (PWSA's) – The following water suppliers are on water use restrictions:

Albion Borough Water System, Erie County

Bedford Borough Water Authority, Bedford County

Galeton Borough Water Authority, Potter County

Huntingdon Borough Water Department, Huntingdon County

Jay Township, Elk County

Petersburg Commons Water System, Huntingdon County

Shinglehouse Borough Water Department, Potter County

Wellsboro Municipal Authority, Tioga County

Dubois Water Company reported that it had lifted mandatory water restrictions as of October 24, 2016.

Forecast – The 7-day forecast indicates approximately 1 inch in the southeast to 2 inches of precipitation in the northwest.

