

Drought Report October 5, 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

Significant rainfall occurred across the state up through October 2nd, which led to improvement to the precipitation, surface water and Palmer drought indicators. Average county rainfall for the last 7 days ranged from 1.2 to 5.4 inches.

The 90-day precipitation departures were reduced during the last 7 days by as much as 5.3 inches. However, groundwater levels fell during the last week with 3 counties moving from “Normal” to “Watch” indicator status over the last seven days.

Instantaneous flows on most streams have improved significantly across the state based on the recent rainfall with most gages showing flows above normal.

The Delaware River Basin Commission reports that flows at Montague and Trenton on the Delaware River are near their median values for this time of year. However, the salt front has further moved upstream to river mile 86 which is 14 miles upstream from the normal location for this date.

The 7-day forecasts call for minimal rainfall with projections ranging from 0.1inches in the western part of the state to up to 0.5inches in the central part of the state.

With the uncertainties and preparations surrounding Hurricane Matthew’s tracks and impacts, the next Drought Task Force meeting for October 5th is expected to be informational. The Drought Coordinator will plan to hold a follow up meeting a week or two after the storm to look at any changes and recommendations.

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.

Precipitation – Over the last 7 days, there was varying precipitation across the state, county average rainfall was from 0.6 in to 5.3 inches in Washington county. The 90-day precipitation deficit shows counties ranging from 25% below to 75% above normal precipitation.

The precipitation indicators based on a 90-day departure are showing all counties in normal status.

Surface Water- Instantaneous streamflow across the Commonwealth ranged from above to near normal. For this date there were 3 gages with instantaneous flow at less than the 10th percentile, compared to 5 gages last week. There were no gages recording record low instantaneous flows.

The 30-day running average streamflow indicators are showing 9 counties in drought “Watch” (Bradford, Carbon, Clinton, Lehigh, McKean, Monroe, Snyder, Tioga and Union) and 3 counties in “Warning” (Northampton, Philadelphia and Potter). There are no counties in “Emergency”.

Groundwater – The 30-day moving average indicators for groundwater levels are showing 27 counties in drought “Watch” (Bedford, Bucks, Carbon, Centre, Chester, Columbia, Cumberland, Dauphin, Delaware, Elk, Erie, Franklin, Fulton, Juniata, Lackawanna, Lancaster, Lebanon, Luzerne, Monroe, Montgomery, Montour, Perry, Philadelphia, Pike, Sullivan, Union and Wyoming); 5 counties in “Warning” (Berks, Lehigh, McKean, Northampton and Potter) and 2 counties in “Emergency” (Lawrence and Mercer). Since our last report, one county returned to “Normal” and 3 counties declined to “Watch”.

Palmer Drought Severity Index – The Palmer soil moisture indicator is showing 20 counties in “Watch” (Bedford, Blair, Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Crawford, Elk, Erie, Forest, Fulton, Huntingdon, Jefferson, McKean, Mercer, Potter, Venango and Warren.) and 11 counties in “Warning” (Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Somerset, Washington and Westmoreland). There are no counties in “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
Dubois Water Department, Clearfield 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

Forecast – The 7-day forecast indicates approximately 0.1 to 0.5 inches of precipitation for the state, with the highest rainfall amounts forecasted to be in the central portion of the state.

