

Drought Report February 8, 2017

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.

Drought Report

Summary: February 1 – February 8, 2017

Overall, drought conditions across the Commonwealth are reflecting the results of the last few weeks of above normal precipitation by displaying modest improvement during the past week in the surface water, groundwater and precipitation indicators. Approximately 0.1 to 1.2 inches of rain fell across the state during the last 7 days. Continued below normal rainfall will affect any improvements in the triggers in the eastern half of the state where precipitation is most needed. Projected rainfall for the next seven days will range from up to 1.0 inch in the northwest corner, from 1.0 to 1.25 inches in the remaining Ohio River Basin, and 1.0 to 1.5 inches in the Susquehanna and middle and lower Delaware River Basins with a maximum of 2.0 inches located in the upper Delaware River Basin.

Precipitation: The 90-day precipitation departures ranged from greater than 50% below normal in the central part of the state to 50% above normal in some western and northern tier counties. Precipitation departures mostly ranged from 11 to 25% below normal in the Delaware River Basin. Departures values ranged from -3.3 inches in Snyder County to +2.3 inches in Greene County.

Groundwater: Groundwater levels continue to rise at a slower rate in most of the wells as instantaneous values begin to drop again. There were 3 wells that moved to “Normal” status however 3 other wells moved to a more severe status, thus reflecting the effect of below normal precipitation in the last week.

Stream flows: Instantaneous flows ranged from normal to much above normal in the west and from much above normal to much below normal across the eastern part of the state.

Commonwealth Drought Task Force: The next meeting is scheduled for February 14, 2017 at 11:00 a.m. at PEMA Headquarters.

Drought Report Details

Precipitation – Over the last 7 days, county rainfall ranged from 0.1 to 1.2 inches across the state. The 90-day precipitation deficit shows counties ranging from 50% below normal to 50% above normal.

The precipitation indicators based on a 90-day departure indicate 9 counties are now in “Watch” (Carbon, Dauphin, Juniata, Mifflin, Monroe, Northumberland, Perry, Snyder and Union).

Surface Water- Instantaneous streamflow across the Commonwealth ranged from normal to much above normal in the Ohio River Basin to from normal to much below normal across the Susquehanna and Delaware River Basins. For this date there were 2 gages reporting instantaneous flow at less than the 10th percentile.

The 30-day running average streamflow indicators are showing 7 counties in drought “Watch” (Chester, Lehigh, Mifflin, Northampton, Philadelphia, Snyder and Union) and 1 county in “Warning” (Berks) and no counties in “Emergency”. Two counties returned to “Normal” drought trigger status this reporting period.

Groundwater – The 30-day moving average indicators for groundwater levels are showing 12 counties in drought “Watch” (Berks, Bucks, Carbon, Chester, Lackawanna, Lancaster, Lehigh, Monroe, Montgomery, Northampton, Pike and Schuylkill); 4 counties in “Warning” (Centre, Dauphin, Lebanon and Northumberland) and 7 counties in “Emergency” (Cumberland, Delaware, Franklin, Mifflin, Montour, Philadelphia and Union).

Palmer Drought Severity Index – The Palmer soil moisture indicator is showing all counties in “Normal” drought trigger status for this reporting period.

Public Water Supply Agencies (PWSA's) – Public water suppliers are requested to continue to follow the county wide declarations unless there is a need for more stringent restrictions at which point water suppliers may initiate their own voluntary or mandatory water use restrictions.

Forecast – The 7-day forecast projects precipitation to range from up to 1.0 inch in the northwest corner, from 1.0 to 1.25 inches in the remaining Ohio River Basin, and 1.0 to 1.5 inches in the Susquehanna and middle and lower Delaware River Basins with a maximum of 2.0 inches located in the upper Delaware River Basin.

Current Drought Status

