

August 30, 2022

Drought Report

Summary: August 22 - August 30

Preface

This report summarizes the various indicators utilized in drought monitoring; it is current to noon on August 30th, 2022. Each parameter (precipitation, surface water, groundwater, 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 “Watch” and “Warning” declarations are determined by the Commonwealth Drought Coordinator and the Department of Environmental Protection (DEP), with support of the Drought Task Force; “Emergency” declarations follow a similar process but are given final approval by the Governor.

Drought Report

Precipitation – Over the past week, there was varying precipitation across the state, ranging from 0.0-1.3 inches. The 90-day precipitation departures shows counties ranging from 75% below up to 25% above normal precipitation.

The precipitation indicators based on a 90-day departure is showing nine counties in drought “Watch” (Centre, Clarion, Franklin, Juniata, Lackawanna, Lebanon, Northampton, Perry, and Pike), 13 counties in “Warning” (Bucks, Cameron, Clinton, Dauphin, Lycoming, Montgomery, Philadelphia, Potter, Schuylkill, Snyder, Sullivan, Tioga, and Wyoming), and three in “Emergency” (Montour, Northumberland, and Union) condition. Since the last report 15 counties have improved from “Emergency” to “Warning” (3), “Warning” to “Normal” (1), “Warning” to “Watch” (4), or from “Watch” to “Normal” (7) condition and one county has declined in condition from “Watch” to “Warning”. These changing indicators reflect a nearly statewide improvement of precipitation conditions within the last week.

Surface Water – For this date, there are 19 gages showing instantaneous flow at less than the 10th percentile. The 30-day moving average streamflow indicators are showing 17 counties in drought “Watch” (Bradford, Columbia, Dauphin, Elk, Forest, Jefferson, Juniata, Lebanon, McKean, Mercer, Montour, Northumberland, Susquehanna, Tioga, Wayne, Westmoreland, and Wyoming), four counties in “Warning” (Berks, Pike, Snyder, and Union), and four in “Emergency” (Lycoming, Potter, Schuylkill, and Sullivan) condition. Since the last report five counties have improved from “Warning” to “Watch” (1), or from “Watch” to “Normal” (4) condition and four counties have declined in condition from “Warning” to “Emergency” (1), or from “Normal” to “Watch” (4). Surface water is following similar patterns to the precipitation indicators throughout the state with some modest improvements throughout.

Groundwater – The 30-day moving average indicators for groundwater levels are showing 10 counties in drought “Watch” (Bradford, Columbia, Juniata, Lackawanna, Luzerne, Monroe, Montour, Perry, Pike, and Union), three counties in “Warning” (Dauphin, Lebanon, and Schuylkill), and five counties in “Emergency” (Huntingdon, Lawrence, McKean, Mercer, and Potter) condition. Since the last report four

counties have improved from “Watch” to “Normal” condition. Though the recent rains have improved conditions statewide for precipitation and surface water gages there has yet to be broader improvement in groundwater. This is likely due to groundwater being a lagging indicator. It’s hoped that with some more persistent rains these values will improve.

Palmer Drought Severity Index – The Palmer soil moisture indicator is displaying 38 counties in drought “Watch” (Adams, Allegheny, Armstrong, Beaver, Berks, Bucks, Butler, Cameron, Centre, Chester, Clearfield, Clinton, Columbia, Cumberland, Dauphin, Delaware, Elk, Fayette, Franklin, Greene, Indiana, Juniata, Lancaster, Lawrence, Lebanon, Lycoming, Mifflin, Montgomery, Montour, Northumberland, Perry, Philadelphia, Snyder, Somerset, Union, Washington, Westmoreland, and York), 24 counties in “Warning” (Bradford, Carbon, Clarion, Crawford, Erie, Forest, Fulton, Huntingdon, Jefferson, Lackawanna, Lehigh, Luzerne, McKean, Mercer, Monroe, Northampton, Pike, Potter, Schuylkill, Sullivan, Susquehanna, Tioga, Venango, Warren, Wayne, and Wyoming), and no counties in “Emergency” condition. Since the last report 45 counties have improved from “Emergency” to “Warning” (15), “Emergency” to “Watch” (5), “Warning” to “Watch” (20), “Warning” to “Normal” (5) throughout the state. The Palmer Drought Severity Index (PDSI) is currently viewed with some skepticism, as a result, hard data such as precipitation, ground water, and surface water data are the favored drought indicators in decision making. These recent improvements reflect the recent rains throughout the state.

Public Water Supply Agencies (PWSAs) – Presently, DEP is aware of six PWSs on voluntary water use restrictions and two on mandatory water use restrictions.

The following PWSs implementing voluntary measures:

- BCI Municipal Authority (PWSID 6170052), Clearfield County
- Driftwood Boro (PWSID 6120001), Cameron County
- Jersey Shore Area Joint Water Authority (PWSID 4410156), Lycoming County
- Lock Haven (PWSID 4180048), Clinton County
- Palmerton Municipal Water Authority (PWSID 3130012), Carbon County
- Pennsylvania American Water Company – Bangor District (PWSID 3480038), Carbon County

The following PWSs are implementing mandatory measures:

- Galeton Borough Water Authority (PWSID 6350010), Potter County
- Waterville Water Association (PWSID 4410187), Lycoming County

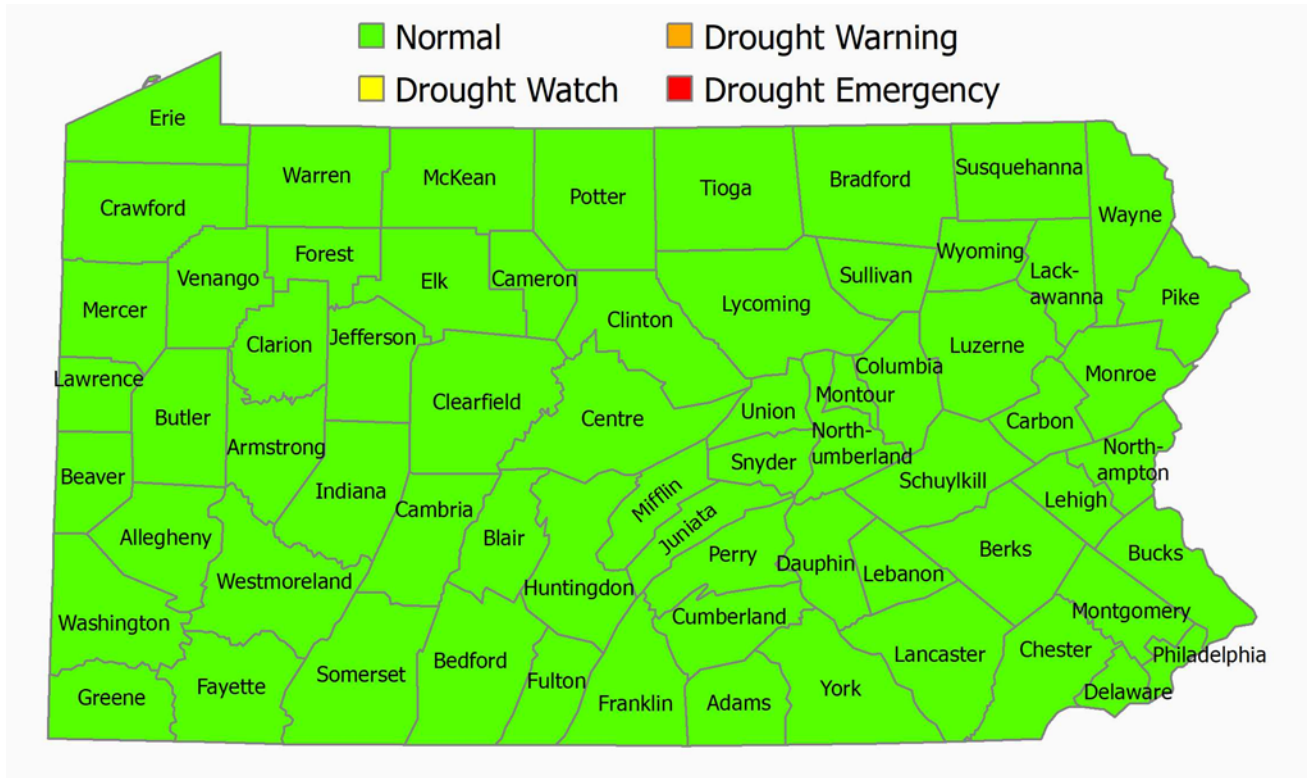
Requests for Instream Flow Requirement (IFR) Reduction – There are no active IFR Reduction requests.

Forecast – The 7-day forecast indicates approximately 0.6 to 2.66 inches of precipitation for the state, with the highest amounts in the eastern and western portions of the state and the lowest values in the central portions of the state. The 8 to 14-day forecast indicates 0.02 to 0.4 inches of precipitation for the state, with the southern and western portions of the state receiving the most precipitation and the north central portion receiving the least.

Summary – The 90-day precipitation departures are showing nine counties in drought “Watch”, 13 counties in “Warning”, and three in “Emergency” condition. Instantaneous streamflow varies across the

Commonwealth, however, there are 19 gages showing instantaneous flow at less than the 10th percentile. The 30-day moving average streamflow indicators are showing 17 counties in “Watch”, four counties in “Warning”, and four counties in “Emergency” condition. The 30-day moving average groundwater well levels are showing 10 counties in “Watch”, three counties in “Warning”, and five counties in “Emergency” condition. The 10 counties showing “Watch” indicators for groundwater are based on five wells, the three counties in “Warning” are based on two wells, and the five counties in “Emergency” are based on three wells since several counties have groundwater monitoring indicators that reference a neighboring county.

A Drought Task Force meeting has been scheduled for Wednesday, August 31st at 10am. Conditions will continue to be closely monitored.



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