

October 25, 2022

Drought Report

Summary: October 18 – October 25

Preface

This report summarizes the various indicators utilized in drought monitoring; it is current to noon on October 25th, 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 to 1.9 inches. The 90-day precipitation departures show counties ranging from 25% below up to 75% above normal precipitation.

Though there was little rain throughout the central part of the state over this week, the precipitation throughout the last few months have yielded steady surpluses across the commonwealth. This led the last county that has yet to return to “Normal” for this indicator, Dauphin County, moving from “Watch” back to “Normal” despite only receiving 0.4” of rain.

Surface Water – For this date, there are five gages that show instantaneous flow at less than the 10th percentile while most indicators throughout the state read normal or higher. Conditions continue to improve throughout the commonwealth as understood from individual gages, nevertheless a few isolated counties within central Pennsylvania (Huntingdon and Juniata) have descended from “Normal” into “Watch” for this indicator even while Berks in eastern Pennsylvania improved from “Watch” to “Normal”.

Groundwater – Groundwater has been more varied throughout the commonwealth and is typically a lagging indicator. Several counties (12) in the commonwealth read “Watch” despite those regions receiving rain in the last few months. There was little change in groundwater county indicators throughout the state with only one county (Northampton) reverting from “Watch” to “Normal” conditions. The well in Butler County was brought online and is currently reading “Watch” after the transducer was repositioned. In addition, it should be noted that several wells have reached maturity in their data collection, meaning that fewer counties reference another county’s observation well. This increases the granularity and accuracy of the data received from each county.

Palmer Drought Severity Index – The Palmer Drought Severity Index (PDSI) yielded no changes compared to last week’s report. This indicator is currently viewed with some skepticism, as a result, complex data such as precipitation, groundwater, restriction declarations by public water suppliers, and surface water data are the favored drought indicators in decision making.

Public Water Supply Agencies (PWSAs) – Presently, DEP is aware of 12 PWSAs on voluntary water use restrictions and two on mandatory water use restrictions. There are no changes from the prior report.

The following PWSs implementing voluntary measures:

- BCI Municipal Authority (PWSID 6170052), Clearfield County
- Duncannon Water System (PWSID 7500019), Perry County
- Driftwood Borough (PWSID 6120001), Cameron County
- Galeton Borough Water Authority (PWSID 6350010), Potter County
- Jersey Shore Area Joint Water Authority (PWSID 4410156), Lycoming County
- Lock Haven (PWSID 4180048), Clinton County
- Mahandy Township Authority (PWSID 3540011), Schuylkill County
- Palmerton Municipal Water Authority (PWSID 3130012), Carbon County
- Pennsylvania American Water Company – Bangor District (PWSID 3480038), Carbon County
- Tower City Borough Authority (PWSID 3540045), Clinton County
- South Renovo Water System (PWSID 4180059), Clinton County
- Waterville Water Association (PWSID 4410187), Lycoming County

The following PWSs are implementing mandatory measures:

- Hazleton City Authority (PWS 2408001), Luzerne County
- Porter Township Municipal Authority (PWSID 4180055), Clinton County

Forecast – The 7-day forecast indicates approximately 0.2 to 0.83 inches of precipitation for the state, with the highest amounts in the southcentral portion of the state and the lowest in the western portion of the state. The 8 to 14-day forecast indicates 0.2 to 0.83 inches of precipitation for the state, with a similar profile to the 7-day forecast.

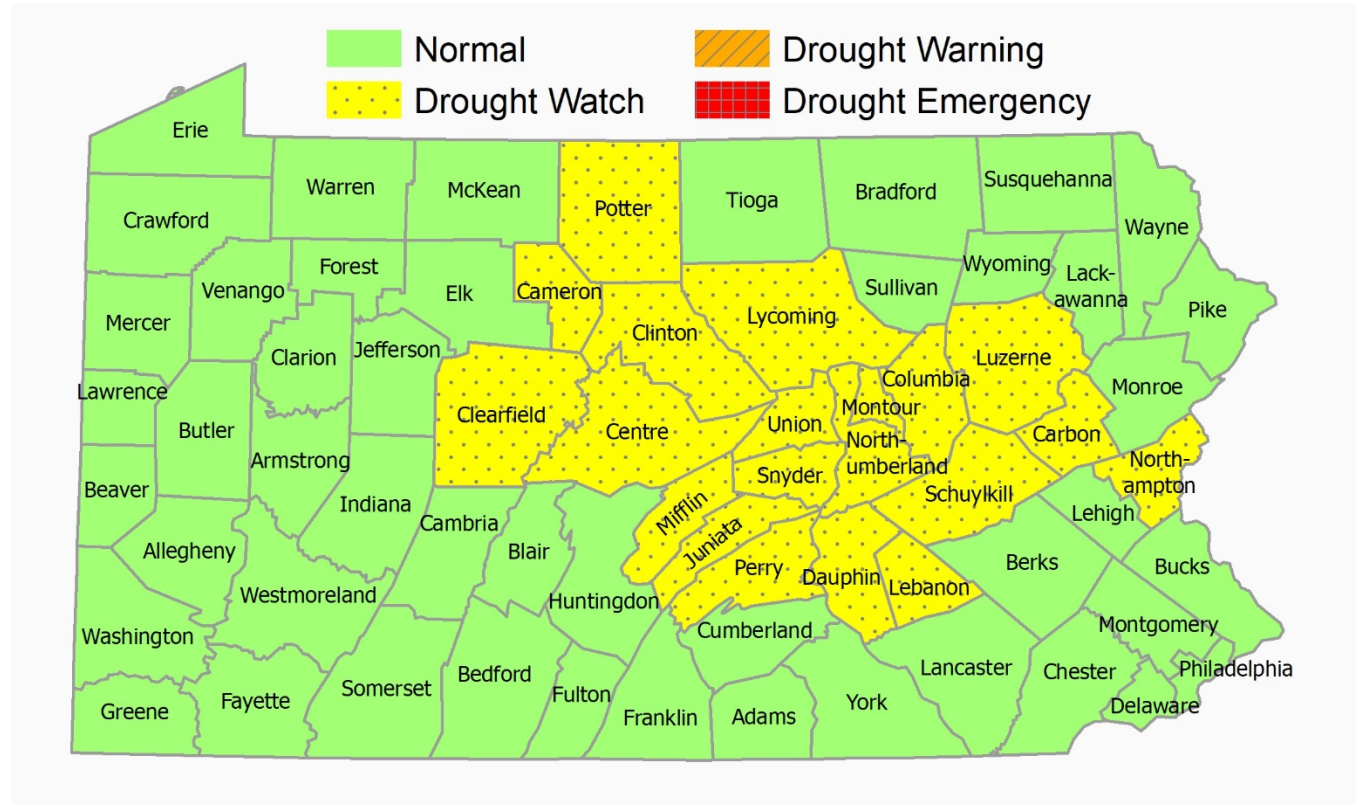
Summary – Though there was little rain throughout the week since the last report precipitation conditions remain stable owing to the persistent rains that have occurred over the last few months. Despite some small changes, surface water remains steady, and PDSI is unchanged. Groundwater, however, is a lagging indicator and has yet to see much change from its condition during drier months. Groundwater plays a critical role in water supply throughout Pennsylvania with many public water suppliers relying on wells as a primary or supplemental source. Forecasts indicate rain focused in areas of the state where it is needed, which is an encouraging sign. Public water suppliers (a key drought information resource) have seen no alterations of their restrictions at present.

As a result of otherwise persistent rains, several counties were removed from drought watch declaration status at the last Drought Task Force Meeting on October 17, 2022. The ones that remain suffer from continued issues with groundwater or have public water suppliers who maintain current restrictions. The counties lifted from Watch status are listed below:

- Berks
- Bradford
- Bucks
- Delaware
- Lackawanna
- Lehigh
- McKean
- Monroe
- Montgomery
- Philadelphia
- Pike
- Sullivan
- Susquehanna
- Tioga
- Wayne

- Wyoming

Below is a map of the current drought declarations:



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