

November 14, 2022

Drought Report

Summary: November 7 – November 14

Preface

This report summarizes the various indicators utilized in drought monitoring; it is current to noon on November 14th, 2022. Each parameter (precipitation, surface, 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 0.6 to 3.0 inches. The 90-day precipitation departures show counties ranging from 25% below up to 75% above normal precipitation.

The last week saw much rain fall throughout Pennsylvania. This has led to broad improvements in 90-day deficits in areas where precipitation was most needed. All three counties that were on “Watch” last week have now improved to “Normal” condition for this indicator. Though conditions have considerably improved there are lingering deficits in the south-central region of the state.

Surface Water – For this date, there are two gages that show instantaneous flow at less than the 10th percentile, a significant improvement over the last month. Since the last report 11 counties have returned to “Normal” condition leaving only three in “Watch” condition for this indicator reflecting improved precipitation numbers throughout the state.

Groundwater – Groundwater has been more varied throughout the commonwealth and is typically a lagging indicator. Several counties (17) in the commonwealth read “Watch”, one “Warning”, and four are now reading “Emergency”. These are scattered in the state and are reflective longer term deficits that will require sustained rain to restore to “Normal” percentiles. With much of the state reliant on groundwater this indicator will be closely monitored, and the reporting of Public Water Suppliers weighed considerably.

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 hard 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 11 PWSAs on voluntary water use restrictions and three on mandatory water use restrictions. There have been no changes to this list since the last report.

The following PWSs implementing voluntary measures:

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

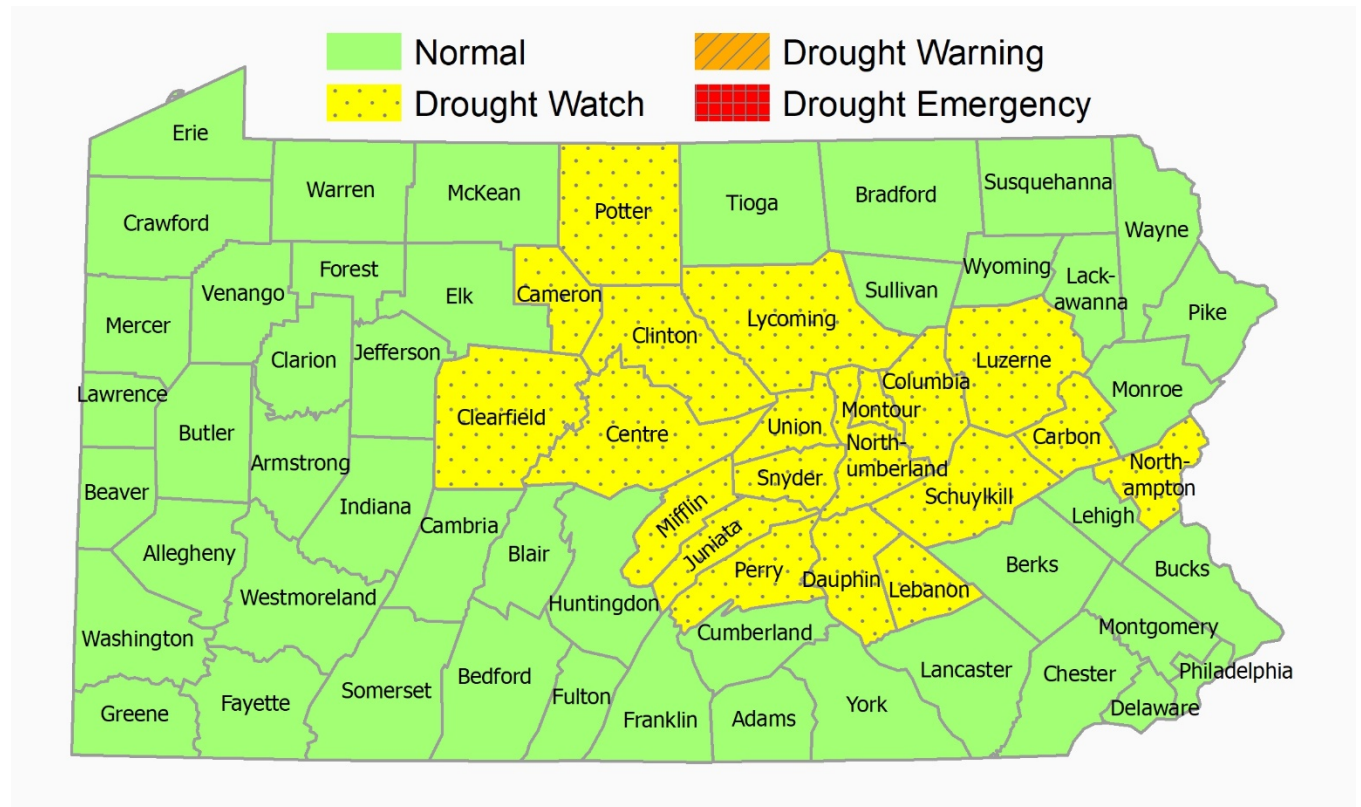
The following PWSs are implementing mandatory measures:

- Hazleton City Authority (PWS 2408001), Luzerne County
- Porter Township Municipal Authority (PWSID 4180055), Clinton County
- Roulette Township Water Authority (PWSID 6530007), Potter County

Forecast – The 7-day forecast indicates approximately 0.2 to 2.0 inches of precipitation for the state, with the highest amounts concentrated in the northwestern portion of the state and the lowest in the middle western portion of the state. The 8 to 14-day forecast indicates 0.83 to 1.5 inches of precipitation for the state, with precipitation focused in the western and eastern portions of the state leaving a band in the central to northeastern portions of the state with the least.

Summary – The rains throughout the week have had a positive impact throughout the state and eliminated most precipitation deficits though some longer-term surface water deficits remain. Groundwater is showing some more significant issues in the longer term. Groundwater plays a critical role in water supply throughout Pennsylvania with many public water suppliers relying on wells as a primary or supplemental source. While some rain is forecast in the coming weeks much more will be needed to overcome present deficits. Additionally, public water suppliers are continuing to apply restriction measures to conserve supply.

Below is a map of the current drought declarations:



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