

July 25, 2011 Drought Report

Precipitation

Precipitation drought indicators, based on the 90-day departure, have shown a significant downturn since the July 5 drought report. Nine counties are now at 26% to 50% below normal cumulative precipitation levels for this time of year with departures ranging from -3 inches up to -4.5 inches. Three weeks ago, most counties were at normal or above normal for 90-day departure amounts, except for 5 counties that at 25% were below average conditions.

Precipitation Indicators based on the 90-day departure show the following counties in “Watch”:
Venango, Clarion, Jefferson, Elk, Cambria, Blair, Berks, Bucks and Philadelphia. The following counties are in “Warning”:
Chester, Montgomery and Delaware.

Surface Water

A review of the county streamflow monitoring gages indicates that the 30-day average streamflow values are continuing their downward trends with an increase in the number of counties in drought watch/warning/emergency from 8 to 25.

The instantaneous streamflows are at normal or above normal in the northeastern and southwestern portions of the state and normal or below normal in the western portion of the state with several streamflows significantly below normal.

Groundwater

Since July 5, the two groundwater monitoring wells that serve 4 counties have moved from “watch” levels to “warning”. In addition, 7 other counties have moved from “normal” into “watch”. The 4 counties in warning are: McKean, Potter, Perry, and Juniata and the 5 counties in watch: Mercer, Lawrence, Allegheny, Clearfield, and Cameron.

Forecast

The 7-day forecast calls for between 0.5 and 1.0 inches of precipitation in the central portion of the state with lesser amounts between 0.25 and 0.5 inches for the remainder of the state.

Summary

Approximately two-thirds of the state has begun to indicate stress. Counties located predominantly across the Appalachian Plateaus and in the extreme southeast are displaying drought indicators in watch, warning, or emergency due to the continued lack of precipitation over the past 2 months. Within these areas there are several watersheds of particular concern. Due to the dry conditions in Two Lick Creek / Yellow Creek Watersheds (Indiana County), water conservation activities have been initiated that are contained in the Two Lick Creek / Yellow Creek Watershed Drought Management Plan, which is part of the Consent, Order and Agreement (COA) that DEP signed in 1988. Additionally, low flow water quality conditions on the Schuylkill River are beginning to cause concern for the Philadelphia Water Department. Last summer, low flow conditions were reached that required intervention by releases from Blue Marsh because there was not enough water in the river to meet demand and maintain adequate flow (>100 CFS) over the Fairmount Dam.

Areas in the eastern portion of the state and the southwest where precipitation has been closer to normal remain in mostly normal conditions.

It is recommended that a Drought Task Force meeting be scheduled to meet in the next 2 weeks to discuss conditions. If meaningful precipitation isn't received, a recommendation will be made to declare a drought watch and/or warning for affected areas of the state.