

Watershed MANAGEMENT



Drought Information Center

June 1, 1999

The past week brought considerable precipitation to the extreme western and eastern areas of the Commonwealth. In the west, Erie County received 1.6 inches, with numbers declining southeasterly to about an inch in a line from Greene to Potter Counties. Counties along the Delaware River also received in excess of an inch, with over 2 inches occurring in Chester and Delaware Counties. The lightest rainfall occurred in the south-central part of the state, where only 0.2 inch fell in Bedford through Adams Counties. Totals gradually increased northward in the center of the state, with about a half inch falling in the north-central counties. Only in Erie, Allegheny, Washington and Greene Counties was the week's rainfall sufficient to erase emerging monthly deficits for May. May precipitation deficits range from about 0.3 to 2.5 inches in the Ohio River basin, with the greater deficits occurring in the eastern side of the basin. Susquehanna River basin deficits range from about 1.8 to 2.6 inches with the greater deficits occurring along the Ohio and Delaware divides. Delaware River basin deficits range from 0.8 to 2.5 inches, with the greater numbers occurring along the Susquehanna divide.

In the Delaware River basin, flows throughout the basin decreased since last Monday. The Delaware River at Trenton decreased from 6860 cubic feet per second (cfs) to 6080. The Lackawaxen River at Hawley fell from 250 to 176; while the Lehigh River at Bethlehem decreased from 1710 to 1020, and the Schuylkill River at Philadelphia declined from 1410 to 894 cfs. In the Christina River watershed, Brandywine Creek at Chadds Ford declined from 293 to 195 cfs. Basinwide, gages are reading about 50-80% of normal.

In the Susquehanna River basin, flows in the main stem Susquehanna River are down at all gages, with Harrisburg reading 9530 cfs, compared to 11,800 last week. The Lackawanna River at Old Forge is down from 246 to 208, and the West Branch at Lewisburg is down from 3400 to 2390 cfs, where the normal is 9500 cfs. The Juniata River at Newport declined from 1870 to 1190 cfs, compared to a normal of 2970 for today. In the lower basin, the Conestoga River at Conestoga is down from 255 to 195, measured against a normal of 469 cfs.

In the Ohio River basin, flows in the Allegheny River main stem are showing effects of the week's heavier rains in that area of the state, with the flow at Natrona up from 7390 to 9440 cfs, but still below the normal of 11,900 cfs. The Kiskiminetas River at Vandergrift is down from 1070 to 903 cfs, while the Monongahela River at Braddock declined markedly from 13,500 to 4310 cfs, compared to a normal of 6460. The Beaver River at Beaver Falls is flowing at 953 cfs, half of the normal of 1910. Despite the rains in most of the basin, the Ohio River at Sewickley is down from 22,500 to 16,700 cfs, with a normal of 19,600.

Ground water declined at nearly all daily monitoring sites. Bucks and Schuylkill Counties were exceptions, showing slight increases in ground water levels.

The next five days may bring 0.5-1.0 inch of rain in most of the state, decreasing to about 0-0.25 inch in the south-central area, mostly in the form of showers and thunderstorms early in the period. The 5-10 day forecast adds another 0.5-1.0 inch in the Ohio and Susquehanna River basin areas and about 0.25-0.5 inch in the Delaware, with temperatures to be near normal in the 65-70 degree range.

As we enter the month of June, our statewide drought watch remains in effect for all counties. Deficit May rainfalls provided no recovery. We continue to observe daily stream flows in some locations that are all-time record lows for the observation days, notably in the Lehigh and Schuylkill River watersheds. Water supplies may be adequate at this particular time, because normal flows remain fairly high at this time of year. However, caution is important, because as the normal flows quickly decrease during the coming months, the 30 to 50 percents of normal that we are experiencing will become dangerously low flows for systems on surface water sources. We know ground water levels did not recover normally this spring, so systems on both ground and surface water will feel the effects of lower ground water levels and consequently lower stream flows as the summer progresses.