

# *Watershed* MANAGEMENT



## Drought Information Center

**September 13, 2000**

For the month of August 2000, 38 Pennsylvania counties had below normal precipitation. Departures from normal precipitation range from  $-1.80$  inches (Lancaster County) to  $+1.90$  inches (Bucks and Philadelphia Counties). The average departure from normal precipitation for all counties for the month of August is  $-0.13$  inches. For the cumulative departure from normal precipitation for the first eight months of 2000, 51 Pennsylvania counties had normal or above normal rainfall. Cumulative precipitation departures range from  $-3.90$  inches (Cambria County) to  $+8.00$  inches (Susquehanna County). The average cumulative departure from normal precipitation, for all counties for the first eight months of this year, is  $+1.80$  inches. For the first 12 days of September, 59 Pennsylvania counties had less than normal precipitation.

Compared to August 9, the Delaware River Basin shows a mixture of flow enhancements and recessions. Flow enhancements are seen in the Lackawaxen River, Pennypack Creek, Frankford Creek, and Crum Creek basins, while the mainstem Delaware River, Bush Kill, Lehigh River and Chester Creek basins show recessions. Mixed gauge readings occurred in Brodhead Creek, Neshaminy Creek, Schuylkill River and Christina River basins, while Ridley Creek Basin held fairly even. The mainstem Delaware River is down from 9,980 to 3,540 cfs. at Trenton. The Lackawaxen River is up from 285 to 393 cfs. at Hawley. The Lehigh River is down from 2,140 to 1,190 cfs. at Bethlehem. The Schuylkill River is down from 1,870 to 1,620 cfs. at Philadelphia and the Brandywine Creek is down from 178 to 126 cfs. at Chadds Ford. About 85% of the stream gauges in the Delaware River Basin are at above normal flow for September 13. The New York City Delaware River Basin storage (September 12) is 27.14% above normal and 136.386 billion gallon above the drought warning level.

Over the past five weeks, the Susquehanna River Basin also shows varying flow trends throughout its drainage area. The majority of the streams in this Basin show a slight enhancement trend, while the mainstem Susquehanna River, Chemung River, Towanda Creek, West Branch Susquehanna River, Penns Creek and Juniata River basins are in the recession category. Mixed gauge readings are seen in Conodoguinet Creek, Sherman Creek and Swatara Creek Basins while the West Conewago Creek Basin shows essentially no change. The mainstem Susquehanna River is down from 2,880 to 1,820 cfs. at Towanda, down from 4,790 to 3,420 cfs. at Wilkes-Barre, and down from 15,700 to 7,400 cfs. at Harrisburg. The West Branch Susquehanna River is down from 5,640 to 561 cfs. at Lock Haven, down from 7,030 to 1,300 cfs. at Williamsport, and down from 4,550 to 1,300 cfs. at Lewisburg. The Juniata River is down from 4,210 to 739 cfs. at Newport and the Conestoga River is up from 244 to 604 cfs. at Conestoga. About 80% of the stream gauges in the Susquehanna River Basin are at above normal flow for this date. As of September 1, nine of the 21 reservoirs of the Pennsylvania American Water

Company (Scranton – Springbrook system) remain full, with all but one of the remainder above 90% full. Drawdown continues at the very slow rate of one-half percent per week for the total system. Total system storage was at 96.9% full at the beginning of September. Harrisburg's Dehart Reservoir was drawn down by eight inches and was at 98.5% of capacity, as of the beginning of September. Hanover Borough's reservoir levels showed significant drawdown during August. Raw water storage in the two reservoirs has decreased by 108 million gallons for the month, but total system storage is still well above normal for this time of year at 93.26% full at the beginning of this month.

Compared with early August, the Ohio River Basin shows mainly decreased flows. Oswayo Creek Basin shows flow enhancement while mixed gauge readings are seen in the Clarion River Basin. Flows in Kinzua Creek Basin are about even. The Allegheny River is down from 24,000 to 6,250 cfs. at Natrona. The mainstem Ohio River is down from 40,900 to 14,500 cfs. at Sewickley. The Kiskiminetas River is down from 5,150 to 1,310 cfs. at Vandergrift. The Monongahela River is down from 15,000 to 7,150 cfs. at Braddock and the Beaver River is down from 2,410 to 1,300 cfs. at Beaver Falls. About 90% of the stream gauges in the Ohio River Basin are at above normal flow for today's date.

For August 2000, 24 of 28 stream gauging stations in Pennsylvania had a monthly mean discharge at or above average for the month of August. Sixteen gauging stations had a monthly mean discharge above the 75th percentile value, and none of these stations had a monthly mean discharge below the 45th percentile value.

Since August 9, 27 counties with monitoring wells show water level rises for three counties and drops for 24. Increases range from 0.09 to 2.84 ft. (Potter County) with an average rise of 1.10 ft. Decreases range from 0.08 to 12.87 ft. (Pike County) with an average drop of 2.23 ft. USGS August 2000 end-of-month summary figures showing percent of wells where water level is above average, have increased for the Ohio and Delaware River basins, but decreased for the Susquehanna River Basin. The percent of wells where water level is above average is about 85%, 60% and 60% for the Ohio, Susquehanna and Delaware River basins, respectively.

For the next five days, between one-half and 1.5 inches of rain are predicted for the entire state with somewhat heavier amounts likely in the extreme northeast, and also in the extreme northwest. For the period September 18 to 23, up to 2.5 inches of rain is expected along the New Jersey border, tapering to about 0.25 inches in the extreme west. Temperatures for the next ten days are expected to be somewhat below normal.