

Watershed MANAGEMENT



Drought Information Center

December 12, 2000

Month-end data for November was less than encouraging as precipitation, surface water and ground water indicators dipped into watch levels in a number of counties. The affected area extends generally from the central southern tier northeastward through the Susquehanna River Basin to the eastern northern tier and upper Delaware Basin. At this time, our observations indicate the possibility for a winter drought to emerge. December and January precipitation will be important.

For the month of November 2000, all 67 Pennsylvania counties had below normal precipitation. Departures from normal precipitation range from -1.90 inches (Columbia, Elk, Montour and Schuylkill Counties) to -0.20 inches (Erie County). The average departure from normal precipitation for the state as a whole, for the month of November, is -1.39 inches. For the cumulative departure from normal precipitation for the first eleven months of 2000, 38 Pennsylvania counties had below normal precipitation. Cumulative precipitation departures range from -5.50 inches (Cambria County) to $+6.20$ inches (Philadelphia County). The average cumulative departure from normal precipitation, for Pennsylvania for the first eleven months of this year, is -0.40 inches. For the first 11 days of December, 55 Pennsylvania counties are at greater than 75 percent below normal precipitation. The remaining 12 counties are at between 51 to 75 percent below normal precipitation.

Compared to November 13, the Delaware River Basin shows flow recession for the mainstem Delaware River, Lackawaxen, Lehigh, and Schuylkill Rivers while the rest of the Basin is holding fairly steady. The mainstem Delaware River is down from 6,810 to 3,410 cfs. at Trenton. The Lackawaxen River is down from 459 to 201 cfs. at Hawley. The Lehigh River is down from 817 to 787 cfs. at Bethlehem. The Schuylkill River is down from 1,090 to 731 cfs. at Philadelphia and the Brandywine Creek is up slightly from 155 to 177 cfs. at Chadds Ford. Practically all of the stream gauges in the Delaware River Basin are at below normal flow for December 12.

Over the past four weeks, the Susquehanna River Basin shows predominantly recessions and somewhat unchanged flows. Recessions are seen on the mainstem Susquehanna River, and in the in the Lackawanna River, Conodoguinet Creek, West Conewago Creek and Conestoga River basins. Mixed gauge changes occurred in the West Branch Susquehanna River and Juniata River basins while there were some discharge enhancements in Swatara Creek, Sherman Creek and Chemung River basins. The mainstem Susquehanna River is down from 5,860 to 3,850 cfs. at Towanda, down from 8,450 to 5,360 cfs. at Wilkes-Barre, and down from 12,100 to 10,300 cfs. at Harrisburg. The West Branch Susquehanna River is down from 2,370 to 1,690 cfs. at Lock Haven, down from 3,630 to 2,850 cfs. at Williamsport, and down from 4,040 to 3,020 cfs. at Lewisburg. The Juniata River is down from 1,770 to 1,250 cfs. at Newport and the Conestoga River is down slightly from 207 to 157 cfs. at

Conestoga. About 95% of the stream gauges in the Susquehanna River Basin are at below normal flow for this date.

Compared to mid-October, in the Ohio River Basin, watercourses show flow enhancements except for the Kiskiminetas River Basin which has mixed gauge changes. The Allegheny River is up from 9,680 to 10,700 cfs. at Natrona. The mainstem Ohio River is up from 15,800 to 20,600 cfs. at Sewickley. The Kiskiminetas River is down from 2,280 to 1,730 cfs. at Vandergrift. The Monongahela River is up from 3,340 to 4,310 cfs. at Braddock and the Beaver River is up slightly from 1,510 to 1,580 cfs. at Beaver Falls. About 70% of the stream gauges in the Ohio River Basin are at below normal flow for today's date.

For November 2000, 27 of 28 available stream gauging stations in Pennsylvania had a monthly mean discharge below average for the month of November. Twelve gauging stations had a monthly mean discharge below the 30th percentile value.

Since November 13, 29 counties with monitoring wells show water level rises for 16 counties and drops for 13. Increases range from 0.03 to 2.84 ft. (Potter County) with an average rise of 0.62 ft. Decreases range from 0.03 to 9.94 ft. (Adams County) with an average drop of 1.55 ft. USGS November 2000 end-of-month summary figures showing percent of wells where water level is above average, have decreased for the Delaware and Susquehanna River basins, but increased slightly for the Ohio River Basin. The percent of wells where water level is above average for the past month, is about 20%, 25% and 53% for the Delaware, Susquehanna and Ohio River basins, respectively. For the Delaware and Susquehanna River Basins, these percentages have dropped significantly from the October figure of 45% for both major basins.

For the next five days, between one-half and one inch of precipitation is predicted for the entire state, with slightly higher amounts possible in the extreme northwest. For the period December 17 to 22, from 0.10 to 0.25 inches of precipitation is forecast for all but some extreme south to southeastern areas. Temperatures for the next ten days are expected to be normal to somewhat above normal.