Watershed MANAGEMENT 

Drought Information Center

October 2, 2002

For the month of September 2002, 22 of 67 Pennsylvania counties had below normal precipitation. Departures from normal precipitation range from +3.3 inches (Lackawanna County) to -1.5 inches (Clarion County). The average departure from normal precipitation for the state as a whole for this period was +0.55 inches. Tropical storm Isadore and previous showers helped bring streamflows and monthly rainfall to above normal conditions in most counties for the first time since late spring. For the last 365 days there were 9 counties with precipitation deficits at or exceeding -10.0 inches, with the greatest being -14.5 inches in Chester County. The remaining counties exceeding -10.0 inches were Berks, Bucks, Delaware, Lancaster, Lehigh, Montgomery, Northampton and Philadelphia.

Compared to September 4 instantaneous streamflow, in the Delaware Basin, the main-stem of the Delaware River is up from 3,380 to 5,690 cfs at Trenton. The Lackawaxen River is up from 44 to 146 cfs at Hawley. The Lehigh River is up from 605 to 831 cfs at Bethlehem. The Schuylkill River is up from 368 to 1,060 cfs at Philadelphia and the Brandywine Creek is down from 71 to 63 cfs at Chadds Ford. The New York City Delaware River Basin storage (October 3) is 50.2% (135.974 billion gallons) of normal, which is 40.166 billion gallons below normal.

Reviewing instantaneous streamflow from September 4 over the past four weeks in the Susquehanna Basin, the main stem Susquehanna River is up from 820 to 6,260 cfs at Towanda, up from 1,220 to 12,300 cfs at Wilkes-Barre, and up from 3,630 to 15,100 cfs at Harrisburg. The West Branch Susquehanna River is up from 393 to 1,400 cfs at Lock Haven, up from 766 to 2,580 cfs at Williamsport, and up from 999 to 4,440 cfs at Lewisburg. The Juniata River is up from 829 to 1,210 cfs at Newport. The Yellow Breeches Creek near Camp Hill was up from 84 to 98 cfs.

For the Ohio Basin, the Allegheny River is up from 3,300 to 6,500 cfs at Natrona. The main-stem Ohio River is up from 6,440 8,620 cfs at Sewickley. The Kiskiminetas River is up from 231 to 1,360 cfs at Vandergrift. The Monongahela River is up from 1,810 to 4,270 cfs at Braddock and the Beaver River is down from 1,240 to 953 cfs at Beaver Falls.

Instantaneous streamflow readings for October 1st at 5:45 a.m. indicate that there were 20 (out of 162 reporting) stream gages registering flows below the 25th percentile, 8 less than the 10th percentile and 4 at a record lows. Areas of concern still remain in the southcentral and southeastern portions of the state, however drought conditions are also becoming more evident in the western counties. Streamflow levels across the state have begun to drop to below normal conditions in spite of the above normal rainfall we received in the last few weeks. In the southeast for example, streamflows on the East Branch Brandywine Creek are again approaching record lows for the gage Chadds Ford.

Overall, the USGS 30-day duration graphs for streamflow have begun to increase and improve across the state, however the improvements still find gages in warning and emergency. Three gages in the Delaware Basin are in the watch range, 2 are in warning and 1 is in emergency, and in the Susquehanna Basin 3 gages are now in watch, 2 are in warning and 3 are in emergency. For comparison, the previous monthly report had 41 gages in drought conditions for the Delaware and Susquehanna River Basins. The Potomac Basin currently has one gage in watch. In the Ohio River Basin, there are 8 gages in watch and 1 in warning.

The USGS 30-day duration graphs continue to drop with groundwater levels significantly below normal in the Middle and Lower Delaware River Basins and in the Lower Susquehanna River Basin. Groundwater levels in these areas only recovered slightly from the rains and remain in warning and emergency. In the Delaware Basin, 2 wells are in watch, 2 are in warning and 6 are in emergency. For the Susquehanna River Basin, 7 wells are in watch, 1 is in warning and 3 are in emergency. In the Ohio Basin with 2 wells are in watch and 2 are in emergency.

Precipitation for the period October 9 through October 17 is projected to be below normal with temperatures above normal.