Watershed MANAGEMENT 

Drought Information Center

August 8, 2001

In response to growing precipitation deficits and declining ground water levels DEP Secretary David E. Hess announced a drought watch in 23 central and southcentral counties today. These counties are indicated on the drought status map and in the news release at http://www.dep.state.pa.us/dep/subject/hotopics/drought.

For the month of July 2001, 64 of 67 Pennsylvania counties had below normal precipitation. Departures from normal precipitation range from -3.40 inches (Philadelphia County) to 1.50 inches (Greene County). The average departure from normal precipitation for the state as a whole, for the month of July, is -1.58 inches. Cumulative rainfall for the period January through July 2001 ranged from 16.9 inches (Clinton County) to 29.3 inches (Bucks County). For the first 6 days of August 49 of 67 counties have below normal precipitation, with average rainfall for the period being approximately 0.5 inches. Normal for the first 6 days of August would be approximately 0.7 inches. The departure from normal for the last 30 days is -2.0 inches across the state.

Thunderstorms have occurred at various locations across the state resulting in isolated heavy rainfall. This type of event produces significant runoff, leading to a sudden increase in flow. This flow dissipates very quickly after the storm and returns to pre storm flow conditions. There are minimal benefits to groundwater from this kind of rainfall event.

Streamflows remain below normal across most river basins in the state. Some streamflows are fluctuating due to hydropower releases and sudden downpours.

Compared to July 9, in the Delaware Basin, the main-stem of the Delaware River is down from 4,790 to 3,970 cfs at Trenton. The Lackawaxen River is down from 152 to 34 cfs at Hawley. The Lehigh River is down from 1,490 to 1,070 cfs at Bethlehem. The Schuylkill River is down from 1,280 to 812 cfs at Philadelphia and the Brandywine Creek is down from 180 to 94 cfs at Chadds Ford. The New York City Delaware River Basin storage (August 8) is 5.62 % below normal and 71.619 billion gallons above the drought warning level.

Over the past four weeks in the Susquehanna Basin, the main stem Susquehanna River is down from 3,220 to 1,510 cfs at Towanda, down from 4,860 to 1,400 cfs at Wilkes-Barre, and down from 10,700 to 4,740 cfs at Harrisburg. The West Branch Susquehanna River is down from 1,270 to 491 cfs at Lock Haven, from 2,880 to 825 cfs at Williamsport, and from 2,880 to 1,200 at Lewisburg. The Juniata River is down from 1,250 to 1,110 cfs.

For the Ohio Basin, the Allegheny River is down from 5,600 to 4,210 cfs at Natrona. The main-stem

Ohio River is down from 29,300 to 10,100 cfs at Sewickley. The Kiskiminetas River is down from 1,090 to 488 cfs at Vandergrift. The Monongahela River is down from 19,600 to 4,930 cfs at Braddock and the Beaver River is down from 1,490 to 881 cfs at Beaver Falls.

USGS July 2001 end-of-month summary figures showing percent of wells where water level is above average decreased in the Delaware Basin, was unchanged in the Susquehanna Basin, and increased in the Ohio Basin. The percent of wells where water level was above average was about 40%, 30% and 40% for the Delaware, Susquehanna and Ohio River basins, respectively. Groundwater levels are dropping across the state in response to below normal precipitation over the last 4 weeks. Compared to the July 9 readings, 4 of 33 groundwater monitoring wells show an increase in levels with the remaining decreasing from the July 9 levels. Increases range from 0.09 to 2.51 feet. Decreases range from 0.28 to 14.17 feet

For the period August 7th through August 16th, 0.35 to 0.5 inches of rainfall is predicted to fall in the western part of the state with 1.0 to 2.0 inches predicted to fall in the eastern portion of the state.