Watershed MANAGEMENT 

Drought Information Center

January 8, 2002

On December 5, Secretary David E. Hess announced the upgrading of 22 drought watch counties to drought warning. Also, 7 additional counties were designated in drought watch. There are now 31 counties in drought watch and 31 counties in drought warning. 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 December 2001, 52 of 67 Pennsylvania counties had below normal precipitation. Departures from normal precipitation range from –1.6 inches (Lancaster County) to 0.6 inches (Armstrong County). The December average departure from normal precipitation for the state as a whole is –0.51 inches. Cumulative rainfall for the year 2001 ranged from 26.6 inches (Bedford County) to 41.4 inches (Greene County). For the first 8 days of January 19 of 67 counties have below normal precipitation, with average rainfall for the period being approximately 0.8 inches. Normal for the first 5 days of December is approximately 0.8 inches.

Compared to December 5, in the Delaware Basin, the main-stem of the Delaware River is down from 3,770 to 3,280 cfs at Trenton. The Lackawaxen River is up from 68 to 92 cfs at Hawley. The Lehigh River is down from 1,110 to 944 cfs at Bethlehem. The Schuylkill River is up from 571 to 1,280 cfs at Philadelphia and the Brandywine Creek is up from 106 to 251 cfs at Chadds Ford. The New York City Delaware River Basin storage (January 8) is 64.6 % below normal. The NYC Delaware River Basin storage levels declined to drought levels on November 26.

Over the past four weeks in the Susquehanna Basin, the main stem Susquehanna River is down from 4,510 to 3,000 cfs at Towanda, down from 7,300 to 4,290 cfs at Wilkes-Barre, and down from 21,100 to 14,700 cfs at Harrisburg. The West Branch Susquehanna River is down from 4,290 to 1,970 cfs at Lock Haven, down from 8,450 to 3,990 cfs at Williamsport, and down from 9,570 to 3,860 cfs at Lewisburg. The Juniata River is down from 1,160 to 967 cfs at Newport. The Conestoga River is up from 55 to 69 cfs at Lancaster.

For the Ohio Basin, the Allegheny River is down from 13,600 to 9,040 cfs at Natrona. The main-stem Ohio River is down from 15,800 to 10,400 cfs at Sewickley. The Kiskiminetas River is up from 548 to 1,640 cfs at Vandergrift. The Monongahela River is up from 3,800 to 13,700 cfs at Braddock and the Beaver River is down from 2,700 to 1,510 cfs at Beaver Falls.

Instantaneous streamflow readings for January 8 at 1:45 a.m., indicate that there were 54 (out of 159 reporting) stream gages registering flows below the 25th percentile, 45 less than the 10th percentile and 3 at record lows. These statistics reflect the continued below normal streamflows across the

central and eastern portions of the state. It also should be noted that streamflows continue to remain below normal relative to long-term averages. The recent rain and snowfall event was not enough to bring streamflow up to sustained normal flows.

USGS December 2001 end-of-month summary figures showing percent of wells where water level is above average decreased in all three river basins. The percent of wells where water level was above average was about 0%, 28% and 36% for the Delaware, Susquehanna and Ohio River basins, respectively. Groundwater levels are increasing slightly, however they remain significantly below normal during the normal recharge period. Compared to the December 4 readings, 20 of 59 groundwater monitoring wells show a decrease in levels. Increases range from 0.02 (Adams County) to 9.08 (Clarion County) feet. Decreases range from 0.03 (Schuylkill County) to 7.16 (Potter County) feet. Based on the moving 30-day average, the groundwater levels are peaking and have begun to drop or are continuing to decline. The recent snowfall and rain event has had little long-term affect on groundwater levels.

For the period January 8th through January 18th, approximately 0.5 to a potential maximum of 1.5 inches (western portions) of rain is projected to fall across the state.