

Watershed MANAGEMENT



Drought Information Center

April 5, 1999

The statewide drought "watch" remains in effect. We closed out the month of March with monthly precipitation deficits northwest of a line from Washington to McKean Counties. While counties in the central and eastern portions of the state experienced precipitation surpluses for March, the surpluses were not great enough to eradicate most longer-term, 3- and 6-month deficits. Ground water levels were even less encouraging. Seventeen of 46 county monitoring wells ended the month in non-normal drought status. Seven (Blair, Bucks, Crawford, Delaware, Pike, Somerset and Wayne--Erie data is not yet available, but will likely be in emergency as well) of those were in "emergency" status. Seven of the 28 stream-flow monitoring sites were in "watch" status, with a half dozen more nearing "watch" levels.

We are not aware of any public water supply systems that currently have restrictions in place; although, some are reporting lower than normal ground water levels or springs that have not fully recovered. Caution is in order. Supplies appear adequate at this time, but ground water reserves could prove inadequate later in the summer. The evapo-transpiration season is fast approaching, when normal precipitation does little to recharge ground water.

The state generally received about 0.5-1.5 inch of rain last week, with the heavier concentrations occurring in the Susquehanna and upper Ohio River basins. The lower Delaware River and lower Ohio basins received the least.

Stream flows in the Delaware River basin continued a general decline during the week. All main stem Delaware River gages are decreased, with the flows at Trenton down from 17,000 cubic feet per second (cfs) last Monday to 13,900 cfs this morning. The Lackawaxen River at Hawley is down from 849 to 513 cfs; the Lehigh River at Bethlehem decreased from 3290 to 2420 cfs; and the Schuylkill River at Philadelphia is down from 4390 to 1900 cfs today. In the Christina River watershed, flows are up somewhat, following the weekend's rain, with Brandywine Creek at Chadds Ford reading 391 cfs, compared to 369 last Monday, although it is nearing a peak this morning. Throughout the basin, nearly all gages are reading below normal, with many at half or a third of the long-term averages for the day.

In the Susquehanna River basin, stream flows in the main stem Susquehanna River are increased from last Monday, reflecting the heavier precipitation that fell in that basin during the week. Flows at Harrisburg are increased from 60,300 cfs last Monday to 71,100 cfs today. The Lackawanna River at Old Forge is down from 869 to 600 cfs. In the West Branch watershed, flows are mixed, with the larger streams showing increases and the smaller streams showing decreases, generally. The main stem at Lewisburg is up from 16,800 to 23,200 cfs. In the Juniata River watershed, flows are generally up in the upper watershed and down in the lower watershed. The main stem at Newport is down from 5630

to 4660 cfs. Tributary flows in the lower basin are generally decreased as reflected by the Conestoga River at Conestoga, down from 704 to 501 cfs. Basinwide, somewhat more than half of the gages appear below normal this morning, with all lower basin gages reading below normal.

In the Ohio River basin, flows in the main stem Allegheny River are up noticeably from last week, with flows at Natrona increased from 21,800 to 28,600 cfs. Allegheny tributaries are increased as well; although, the Kiskiminetas River at Vandergrift is down from 6110 to 3730 cfs. In the Monongahela River watershed, flows are all decreased from last Monday, with the river at Braddock down from 16,900 to 9060 cfs. The Beaver River watershed is showing increases, with the river at Beaver Falls up from 1580 to 2070 cfs. The Ohio River at Sewickley is down from 40,700 to 39,100 cfs. The majority of gages are above normal, with perhaps a fifth or quarter of them below normal today, primarily in the lower half of the basin.

Ground water declined at all daily monitoring wells during the week, except the wells in Clinton, Pike, Potter, Union and Warren Counties. As indicated above, ground water levels are generally lower than we would like to see at this time of year.

The three-day forecast indicates the possibility of about 0.1-0.2 inch of precipitation statewide, with most of that to occur during the end of the period. The five-day outlook indicates a total of 0.5-1.0 inch in most of the Susquehanna basin and most of the Ohio basin, except the southwest, which indicates only 0.25-0.5 inch. The Delaware basin would receive up to 0.5 inch. The ten-day forecast adds 0.5-1.0 inch statewide. Temperatures are to remain above normal, in the 45-50 degree range.

Our hopes for full recovery by early April have been dashed. It appears as though we may remain in "watch" status for awhile. Guarded caution remains in order, while we hope that we avoid deterioration of water supply conditions by early summer.