

Watershed MANAGEMENT



Drought Information Center

January 20, 1999

We have not recovered from the drought, yet; although, the holiday weekend brought localized flooding to some areas of the Commonwealth, as the entire state received significant precipitation in mixed forms of snow, sleet and rain. Counties east of the Susquehanna River main stem received in excess of 2.0 inches. Delaware Basin counties fared best, with totals generally in the 2.4-2.7 inch range; Monroe County stood out with 3.8 inches. Precipitation in the Susquehanna basin west of the main stem and in the Allegheny and Beaver basins was generally in the 1.7-2.0 inch range. Precipitation in the northwestern and southwestern corners of the state ranged from 1.0 to 1.7 inches, generally below 1.5. Significantly, the precipitation event has brought six-month deficits to below 7 inches in all counties except Philadelphia and to below 5 inches in all but 14 counties. January will likely be an above-normal month in every county, as most counties have already received rainfall in excess of the normal monthly total.

Stream flows throughout the Delaware River basin are showing the runoff effects of the precipitation and melt which occurred during the past 5 days. Flows are generally 2 to 5 times normal, except in the extreme lower basin below the Schuylkill River where tributary flows peaked rapidly on Monday and Tuesday and have already declined to pre-storm, below-normal levels. Those streams may prove to be indicative of what will occur statewide as little groundwater recharge results from the melt occurring on ice-covered, frozen ground.

Susquehanna River main stem flows are generally at 2-3 times their Friday levels and well above normal, at least temporarily. Tributary flows in both the upper and lower portions of the basin peaked late Monday and are showing precipitous declines in the upper basin and rapid declines in the lower basin, probably reflecting temperature differences and varying rates of extended melt. In the West Branch Susquehanna basin, increases are not quite as marked, and while flows are generally well above normal at this time, a number of headwater streams are already back down below normal. Juniata basin flows have generally returned to near-Friday levels and are hovering near normal.

Upper Allegheny basin flows are generally still on the increase but appear to be near peaking. In the lower Allegheny basin, flows peaked yesterday, but remain above normal at this time. In the Monongahela basin, flows peaked Monday and are generally below Friday levels already. Beaver basin flows mirror the upper Allegheny.

Ground water levels in the counties south and east of Blue Mountain are showing some modest improvements resulting from the precipitation and melt. In the mountainous areas, the effects to date are minimal. The Union County well, which has been somewhat of a standout by declining steadily

since mid-May and then continuing its decline through all of January's precipitation, finally showed a 0.03-foot increase on Tuesday. Overall, ground water levels remain well below normal and in emergency status in many counties.

The five-day forecast again looks encouraging, showing predictions of 1.5-2.5 inches of precipitation in the Ohio River basin and 2.5-4.0 inches in most of the Susquehanna and Delaware basins, with the heaviest concentrations centered in the Pocono and upper main stem Susquehanna basin area. The 6-10 day forecast adds only another 0.1-0.25 inches to those numbers. Temperatures in the 6-10 day timeframe are predicted to be above, to much above, normal.