

News Release

Date: October 18, 2007

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Drought Watch

Some Mid-Atlantic Streams and Wells Reach Record Lows

The drought continues to intensify in parts of Maryland, Delaware and the District of Columbia, with many area streams reaching record to near-record low flows. Ground-water levels also continue to fall. According to hydrologists at the U.S. Geological Survey (USGS), the areas most strongly affected by the drought include Northern Virginia, Southern Maryland, Central Maryland, the lower Eastern Shore, and southern Delaware, although even the mountains of Western Maryland and the West Virginia panhandle are feeling the effects.

Dry conditions in the Mid-Atlantic are part of a larger, regional drought affecting the southeastern United States, centered on northern Georgia and western South Carolina. Although declining streamflows and falling water tables are expected in late summer and early autumn, by mid-October the ground water normally begins to recharge. This year, the abnormally dry summer has been followed by an equally dry autumn, and ground-water levels continue to decline. Fortunately, normal precipitation throughout the previous winter and spring had appreciably recharged ground water, so the decline is not as severe as it could have been. If the dry weather continues through the winter/spring recharge period this year, however, ground-water levels and streamflow could be severely impacted by next summer.

Record low flows have been measured by USGS scientists in the Monocacy River in Frederick County, the Patuxent River in Montgomery County, Piscataway Creek in Charles County, Winters Run in Harford County, the Choptank River in Caroline County and Nassawango Creek in Worcester County. Low flow in the Patuxent is breaking previous monthly records set during in 1986, and flow on the Monocacy broke a monthly record set in 1963. Piscataway Creek had no measurable flow for the month of October, and has set a new record low. Information on water conditions in the MD-DE-DC area is available on the web at: <http://md.water.usgs.gov/waterdata/>

Several streams that did respond to a brief runoff event several weeks ago from scattered local showers, such as the Northeast Branch of the Anacostia River, quickly returned to low flow conditions within a matter of hours. Reagan National Airport has recorded only a trace of rain since October 1, and BWI has recorded 0.13 inches over the same period, with less than a half inch total since September 1. Normal rainfall for the first two weeks of October should be nearly 2 inches. Rain forecast for this weekend is expected to help, but will not alleviate the drought.

Water levels in five of the 22 observation wells monitored by the USGS in Maryland and Delaware reached record monthly lows for October, breaking previous record lows from the mid-1980's. A

water-table well near LaPlata in Charles County is at an all-time low, and also set record lows in September and July.

Prior to the last drought in 2002, there were several months in the autumn of 2001 in which precipitation was significantly below normal. This is the time of year when ground-water usually begins to recharge. Precipitation remained abnormally low throughout that winter, with only 0.36 inches of rain recorded at BWI in February 2002. By March, rainfall had returned to near-normal, but the lack of winter ground-water recharge resulted in water shortages that summer. The drought ended with significant above-normal rainfall in October 2002.

This year, above-normal precipitation in the fall and early winter of 2006 fully recharged the ground water, bringing water tables up to normal. Both May and September 2007 were very dry months, with less than one inch of rain each. Adequate ground-water levels provided ample water supplies through the dry May, but by September, water tables had declined. September 2007 was the fourth-driest on record, and both ground-water levels and streamflows have been dropping rapidly. Water levels for October 2007 will be record-setting unless there is a major storm.

Water supplies in the Baltimore City reservoirs and in the Potomac Basin are reported to be generally adequate. The USGS will begin more frequent monitoring of ground-water levels in response to the abnormally dry conditions, and data will be available again in early November.

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Record Low Mid-October 2007 Water Levels					
USGS Streamflow Gaging Station	County	Monthly mean in cubic feet per second (cfs)			
			Previous		
		Mid-October 2007	Record Low	Year	Normal for October
Choptank River near Greensboro, MD	Caroline	9.2	9.9	1965	29.1
Monocacy River at Bridgeport, MD	Frederick	2.4	3.2	1963	32.0
Nassawango Creek near Snow Hill, MD	Worcester	1.1	1.6	1986	9.4
Patuxent River near Unity, MD	Montgomery	2.6	4.2	1986	14.8
Piscataway at Piscataway, MD	St Marys	0	1.3	1986	13.2
Winters Run near Benson, MD	Harford	10.5	13.4	1969	28.1
USGS Water Table Monitoring Wells	County	Depth in feet below land surface			
			Previous		
		Mid-October 2007	Record Low	Year	Normal for October
CH De 45 near La Plata, MD	Charles	11.63	11.31	1998	8.04
CL Ad 47 Union Mills, MD	Carroll	4.51	3.80	1986	3.13
MO Eh 20 near Fairland, MD	Montgomery	16.72	16.36	1986	13.73
WA Ci 82 near Lappans, MD	Washington	55.37	54.55	1988	52.01
WI Cg 20 near Parsonsburg, MD	Wicomico	9.12	8.61	1980	6.48

Summary of hydrologic conditions for Mid-October 2007. Streamflow is given in cubic feet per second, and ground-water levels are reported in feet below land surface.