



# News Release

U.S. Department of the Interior  
U.S. Geological Survey

**Address:**

Maryland-Delaware-D.C. District  
8987 Yellow Brick Road  
Baltimore, MD 21237

**Email and Homepage:**

wsmcpher@usgs.gov  
<http://md.water.usgs.gov/>

**Release:**

November 6, 2002

**Contact:**

Wendy S. McPherson

**Phone:**

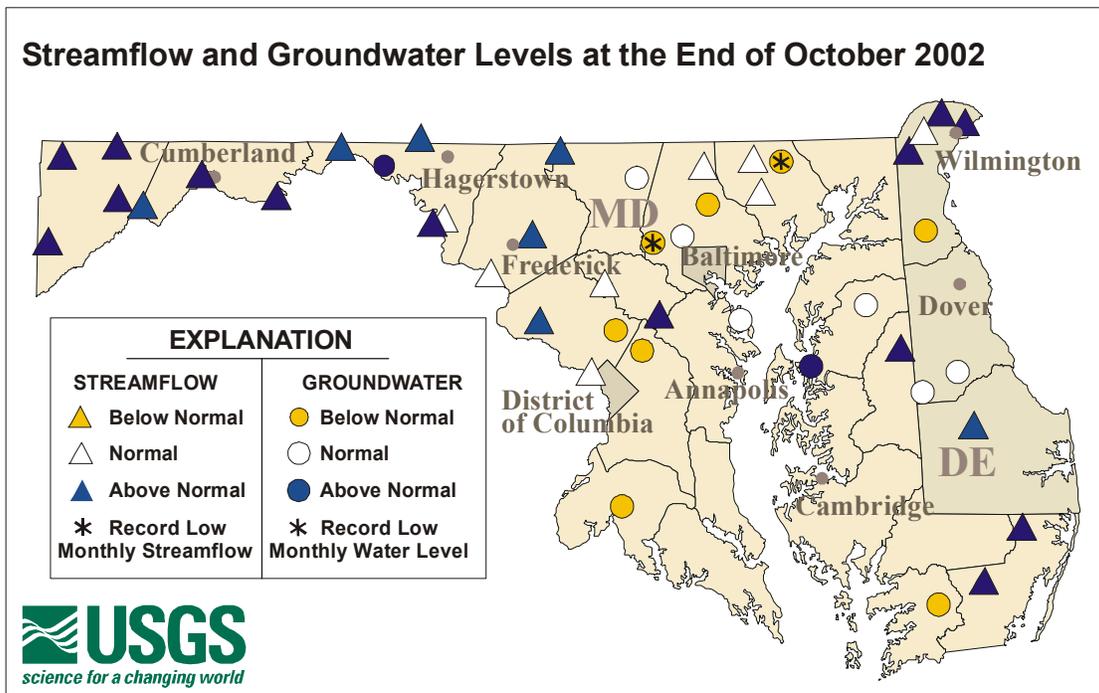
(410) 238-4255

**Fax:**

(410) 238-4210

## Water Levels Rise Across Maryland and Delaware, But Drought Persists in Some Areas

Above normal rainfall in October caused streams and groundwater levels to rise throughout most of Maryland and Delaware. Water levels usually increase in the fall because seasonal changes cause less water to be lost to evaporation or used by plants, but the abundant rainfall has brought the levels up more quickly than expected. Streamflows are normal to above normal across both states and have been slowly increasing from one storm to the next, according to hydrologists at the U.S. Geological Survey (USGS).



For news release and images, go to [http://md.water.usgs.gov/publications/press\\_release/current/](http://md.water.usgs.gov/publications/press_release/current/)

Groundwater levels reflect the long-term effects and severity of drought and are the last hydrologic elements to recover from drought conditions. Groundwater levels rose in most wells across Maryland and Delaware, with some water levels reaching normal levels, but the drought persists in some areas. Eight wells in Baltimore, Charles, Harford, Montgomery, Prince Georges, and Somerset Counties in Maryland had levels below normal at the end of October. Two of these wells, one in Baltimore County and one in Harford County, continued to set record lows for October.

In the Piedmont region (roughly the area between I-95 and the Blue Ridge mountains), the 5-year hydrograph for a well in Baltimore County, Maryland shows that the groundwater level has been dropping since summer 2001 and has not responded to recent rainfall (see graphs at <http://md.water.usgs.gov/groundwater/>). In contrast, in the Coastal Plain region (roughly south and east of I-95), the groundwater level in a well located in Kent County, Delaware, rose by almost 1.57 feet since September. Real-time groundwater levels and streamflow are monitored by the USGS across the Nation at 15-60 minute intervals and the data are transmitted to USGS offices every 1 to 4 hours. This information can be viewed within minutes of arrival at: <http://waterdata.usgs.gov/>.

Streamflows during the last 7 days of October ranged from normal to above normal at streamflow stations across Maryland and Delaware. Five-year monthly streamflow hydrographs can be viewed on the USGS website at: <http://md.water.usgs.gov/surfacewater/streamflow/>. Although October was the first month of normal streamflow during the last 9 months at Deer Creek in Harford County, Maryland, a new record low daily streamflow was set at the beginning of October. Average monthly streamflow at the Potomac River near Washington, D.C. was 67 percent above normal (see graphs at <http://md.water.usgs.gov/monthly/poto.html>). Total flow into the Chesapeake Bay during October averaged 27.4 bgd (billion gallons per day), which is only 2 percent below average.

The normal to above normal streamflows have helped to refill reservoirs, but only slightly. Storage in the Baltimore Reservoir System increased to 46 percent of capacity at the end of October, and the contents of the Triadelphia and Duckett Reservoirs on the Patuxent River remained the same at 43 percent of capacity. Reservoirs in the region are typically at about 80 percent of capacity this time of year

Tracking streamflow and groundwater levels is essential to gauge drought severity and recovery. These USGS data have been provided to State and local water resource managers and are critical for making appropriate decisions on water restrictions. For more information on how the drought is affecting streamflow and groundwater levels in Maryland and Delaware, see Drought Watch at: <http://md.water.usgs.gov/drought/>. Please note that the streamflow and groundwater level data are provisional and subject to change.

The real-time streamflow stations used in this analysis are operated in cooperation with the Maryland and Delaware Geological Surveys, the Maryland State Highway Administration, the U.S. Army Corps of Engineers, the Maryland Department of Natural Resources, the Maryland Department of the Environment, and other agencies. The observation wells used in this analysis are operated in cooperation with the Maryland and Delaware Geological Surveys. The USGS publishes data for 128 streamflow stations and 379 wells across Maryland and Delaware.

The USGS, a bureau within the Department of the Interior, is the Nation's largest water, earth and biological science, and civilian mapping agency providing reliable, impartial scientific information to resource managers, planners, and other customers. This information is gathered in every state by USGS scientists to minimize the loss of life and property from natural disasters, contribute to the sound conservation and the economic and physical development of the Nation's natural resources, and enhance the quality of life by monitoring water, biological, energy, and mineral resources.

\* \* \* USGS \* \* \*