



# News Release

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

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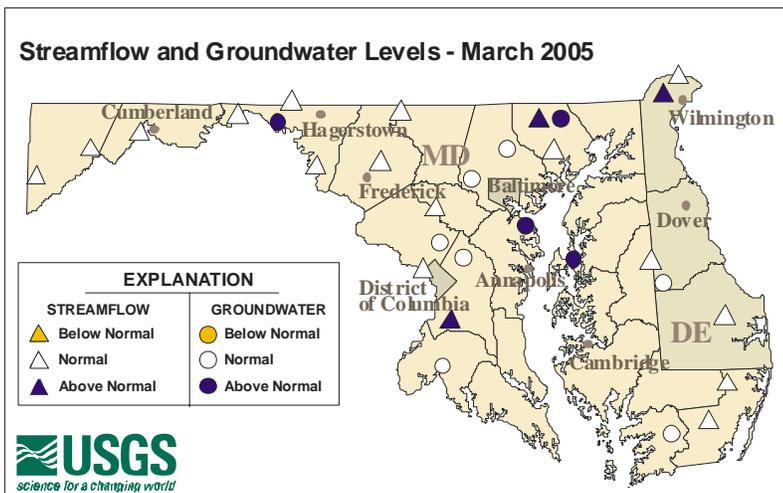
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## March 2005 Water Levels near Normal

Water levels in Maryland, Delaware, and Washington, D.C. were normal to above normal in March. However, flow to the Chesapeake Bay was below normal for the second month since the summer of 2004, according to hydrologists at the U.S. Geological Survey (USGS).



### Status of Streams and Wells

This map shows the location and status of wells and streams used by the USGS to monitor water levels in Maryland, Delaware, and Washington, D.C. for March 2005. Water levels were normal to above normal throughout the region.

### Chesapeake Bay

Despite the more than 4 inches of rainfall the region experienced at the end of March, monthly mean streamflow into the Chesapeake Bay during March averaged 87.8 bgd (billion gallons per day), which was 8 percent below normal. Normal flow for March is 95.3 bgd. Additional information about USGS studies to help with the protection and restoration of the Chesapeake Bay and its watershed can be found at <http://chesapeake.usgs.gov>. For information on water resources in the Chesapeake Bay, visit: <http://md.water.usgs.gov/monthly/bay.html>.

### Streamflow

Streamflow levels were near normal in streams in Maryland, Delaware, and Washington, D.C. in March. Current and historical streamflow data can be found on the web at: <http://waterdata.usgs.gov/>. Five-year monthly streamflow hydrographs from the USGS stream-gaging network can be viewed on the web at: <http://md.water.usgs.gov/surfacewater/streamflow/>

Daily streamflow for the Potomac River near Washington, D.C. averaged 16.4 bgd in March, which is 6 percent above normal. Except for February 2005, monthly flow has been normal to above normal since October 2002. More information on the Potomac River is available at: <http://md.water.usgs.gov/monthly/poto.html>.

## Groundwater

Above normal rainfall in March kept groundwater at normal to above normal levels in wells used by the USGS to monitor unconfined or shallow aquifer response to climatic conditions in Maryland and Delaware. The highest groundwater levels are typically in March or April before the growing season begins. For 5-year hydrographs of groundwater levels for the climatic indicator wells, visit: <http://md.water.usgs.gov/groundwater/>.

## Precipitation

Abundant rainfall at the end of March in Maryland, northern Delaware, and Washington D.C. brought the monthly precipitation levels to above normal, according to preliminary rainfall data from the National Weather Service (NWS). Precipitation levels were slightly below normal in southern Delaware. Temperatures were below the long-term averages in Maryland, Delaware, and Washington, D.C.

## Reservoir Storage

Storage in the Baltimore reservoir system remained at 100 percent of capacity in March. The Baltimore reservoirs (Loch Raven, Liberty, and Prettyboy) have been nearly full since May 2003. Storage in the Triadelphia and Duckett Reservoirs on the Patuxent River, which serve Montgomery and Prince Georges Counties, was also at 100 percent of capacity in March.

### Recently Released Fact Sheet:

#### **Ground-Water Vulnerability to Nitrate Contamination in the Mid-Atlantic Region**

by Earl A. Greene, Andrew E. LaMotte, Kerri-Ann Cullinan, and Elizabeth R. Smith

The U.S. Environmental Protection Agency's (USEPA) Regional Vulnerability Assessment (ReVA) Program has developed a set of statistical tools to support regional-scale, integrated ecological risk-assessment studies. One of these tools, developed by the USGS, is used with available water-quality data obtained from USGS National Water-Quality Assessment (NAWQA) and other studies in association with land cover, geology, soils, and other geographic data to develop logistic-regression equations that predict the vulnerability of groundwater to nitrate concentrations exceeding specified thresholds in the Mid-Atlantic Region.

The models were developed and applied to produce spatial probability maps showing the likelihood of elevated concentrations of nitrate in the region. These maps can be used to identify areas that currently are at risk and help identify areas where groundwater has been affected by human activities. This information can be used by regional and local water managers to protect water supplies and identify land-use planning solutions and monitoring programs in these vulnerable areas.

This publication is available online at: <http://md.water.usgs.gov/publications/fs-2004-3067/html/index.html>. The companion Scientific Investigations Report is also available online at <http://md.water.usgs.gov/publications/sir-2004-5118/>.

## U.S. Geological Survey

Streamflow and groundwater levels are used to assess current water conditions and can be used to predict the potential for flooding and drought conditions. These USGS data have been provided to State and local water resource managers and are critical for making appropriate decisions on water regulation. For more information on streamflow and groundwater levels in Maryland, Delaware, and Washington, D.C., visit Water Watch at: <http://md.water.usgs.gov/waterwatch/>.

The USGS, a Bureau within the Department of the Interior, has served the Nation and the world for 125 years by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and make important decisions and enhance and protect our quality of life.