



# News Release

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

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**Release:**

March 5, 2003

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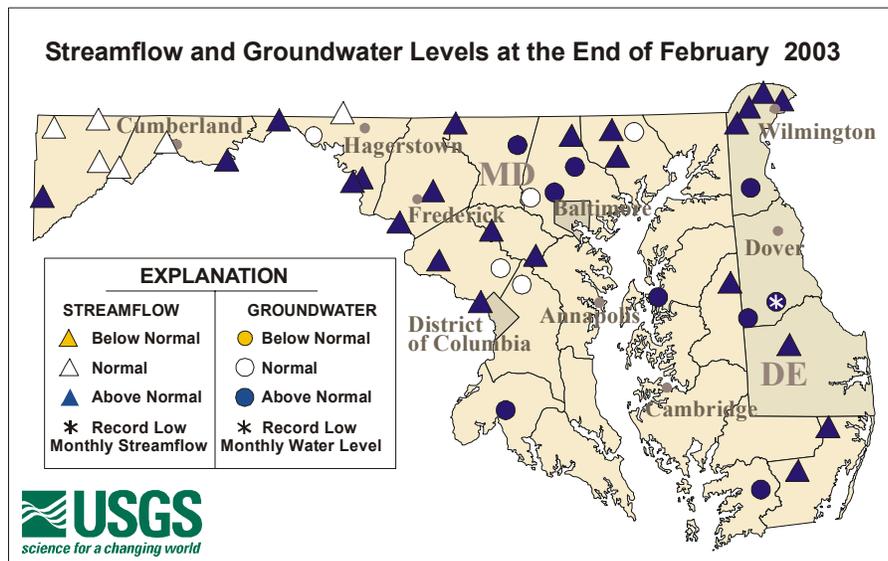
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## Exceptionally Wet February Leads to High Water Levels

Record-setting snowfall led to nearly double the amount of normal total precipitation in February and left water levels in streams and wells at high levels across Maryland and Delaware, according to hydrologists at the U.S. Geological Survey (USGS) in Baltimore. If temperatures had not stayed cool, there was the potential for major flooding, similar to flooding in 1996 when there was rainfall on top of snow. Real-time streamflow data are essential to gauging stream response to runoff, and can be used to monitor possible flooding. Streamflow data can be monitored on the web at <http://waterdata.usgs.gov/nwis/rt>.

The USGS is the principal source of data for river depth and flow. The National Weather Service uses precipitation data and USGS streamflow data to evaluate the threat of flooding. More information about flood forecasting is available at: [http://water.usgs.gov/wid/FS\\_209-95/mason-weiger.html](http://water.usgs.gov/wid/FS_209-95/mason-weiger.html).



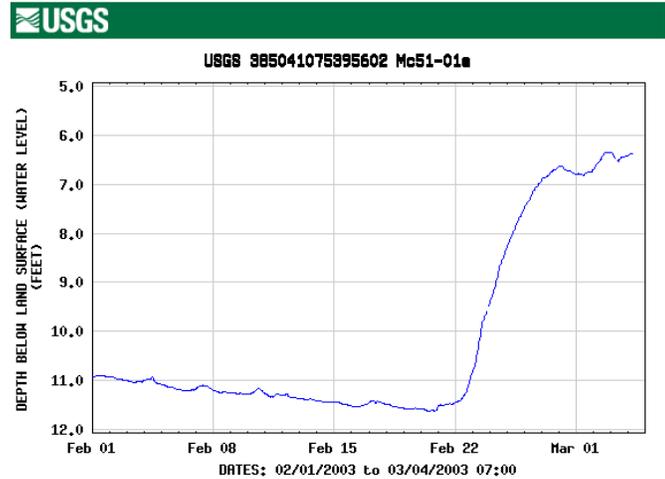
For news For release and images, go to [http://md.water.usgs.gov/publications/press\\_release/current/](http://md.water.usgs.gov/publications/press_release/current/)

Streamflow during the last 7 days of February and monthly streamflow ranged from above normal to normal at most USGS streamflow-gaging stations across Maryland and Delaware. Only Wills Creek in western Maryland had slightly below normal monthly streamflow, but daily streamflow was normal by the end of the month. Five-year monthly streamflow hydrographs can be viewed on the USGS website at <http://md.water.usgs.gov/surfacewater/streamflow/>. Average monthly streamflow at the Potomac River near Washington, D.C. was 9 percent above normal (see graphs at <http://md.water.usgs.gov/monthly/poto.html>).

Total flow into the Chesapeake Bay during February averaged 60.9 bgd (billion gallons per day), which is 11 percent below average. Although the river flow into the Bay has recovered to near normal levels, higher flow may occur this spring with melting snow and continued rains. The possible consequences of increased streamflow into the Bay include degraded water-quality conditions in the spring and summer as larger amounts of nutrients and sediment are carried into the Bay. Higher nutrient levels lead to algal blooms, which can decrease the amount of dissolved oxygen in the Bay and result in fish kills. The algal blooms, along with increased amounts of sediment, can cause a decrease in the light needed by the underwater grasses in the Bay. The grasses are important habitat for crabs and food for waterfowl. More information about water and the Chesapeake Bay can be found at <http://chesapeake.usgs.gov/>.

Groundwater levels were in the normal to above normal range at the end of February, including a deep, bedrock well in Baltimore County, Maryland that had been below normal for since October 2001. For 5-year hydrographs of groundwater levels across Maryland and Delaware, visit: <http://md.water.usgs.gov/groundwater/>.

A well in Kent County, Delaware responded to the rainfall and set a new record high for the month. Another well in Kent County, Delaware, which is measured using real-time technology, shows how the water level in the well responded to a combination of warm air temperatures, slight thawing of the ground, and rainfall, resulting in recharge to the aquifer (see graph).



Reservoir storage levels continued to increase in February due to above normal rainfall and snowmelt. Storage in the Baltimore Reservoir System increased 10 percent to 77 percent of capacity at the end of February. However water restrictions in the area served by these reservoirs will remain in effect until the total storage is more than 81 percent of capacity. The contents of the Triadelphia and Duckett Reservoirs on the Patuxent River also increased and are now at 100 percent of capacity. Reservoirs in the region typically need to be about 80 percent of capacity at this time of year to meet the upcoming warm weather water demands. Reservoir data graphs can be viewed at: <http://md.water.usgs.gov/waterwatch>.

Streamflow and groundwater levels are used to gauge water conditions and may 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 restrictions. For more information on streamflow and groundwater levels in Maryland and Delaware, see Water Watch at: <http://md.water.usgs.gov/waterwatch>.

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 serves the Nation 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 enhance and protect our quality of life.

\* \* USGS \* \* \*