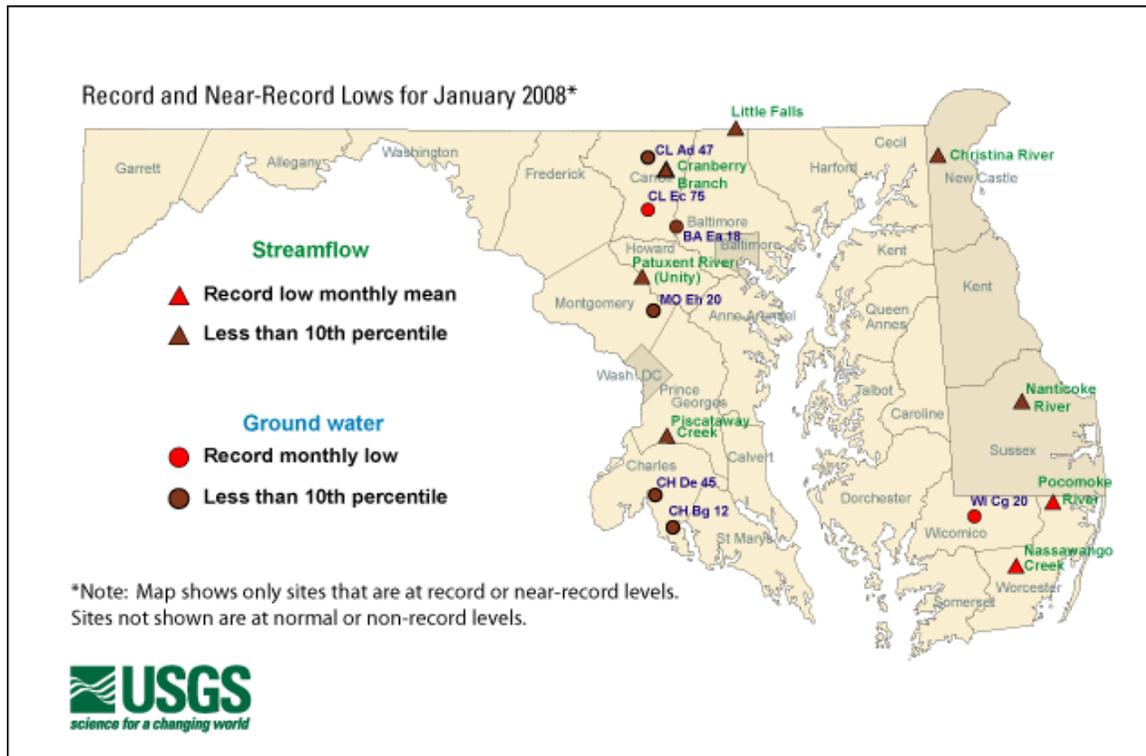


## January 2008 USGS Maryland-Delaware-DC Water Conditions Summary

Lack of rainfall in January through most of the Maryland, Delaware, and the District of Columbia region led to low streamflow and ground-water levels. More than 70% of the streams and wells used by the U.S. Geological Survey (USGS) to monitor water conditions were below normal at the end of January. Some water levels were the lowest January levels on record.

The map below shows record-low water levels in two wells and at two streams, and near record lows (below the 10<sup>th</sup> percentile) in five wells and six streams. The sites with low water levels are widespread in central and southern Maryland and Delaware. Hydrologists at the USGS state that significantly more rain or snow is needed in central and eastern Maryland to prevent low water levels next summer.



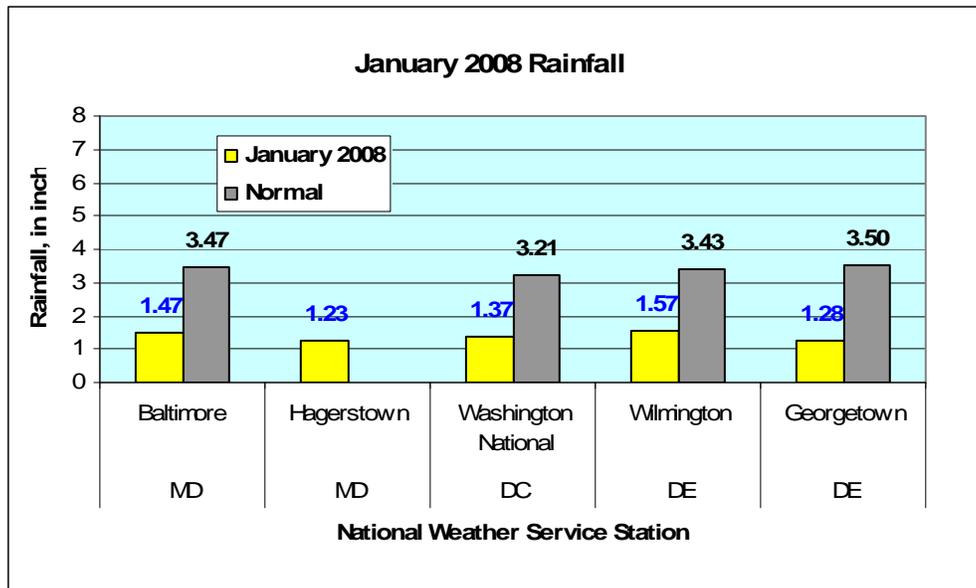
## Precipitation

January 2008 rainfall was less than half of normal at the National Weather Service stations in Maryland, Delaware, and the District of Columbia. Each station had less than 2 inches of rain or snow equivalent. At Baltimore, it was the twelfth driest January on record and at Washington National, it was the ninth driest.

Source: National Weather Service

MD and DC: <http://www.weather.gov/climate/index.php?wfo=lwx>

DE: <http://www.erh.noaa.gov/phi/>



Based on preliminary data from the National Weather Service, there is a rainfall deficit for the past 365 days in every county across Maryland, Delaware, and the District of Columbia, except Garrett County, Maryland, which is ahead by 0.80 inches. The following counties have a deficit of more than 10 inches: Sussex County in Delaware, and ten counties in Maryland including Calvert, Caroline, Charles, Dorchester, Howard, Montgomery, Somerset, St. Mary's, Talbot, and Wicomico. The District of Columbia has a deficit of 7.5 inches.

Source: <http://www.erh.noaa.gov/marfc/Maps/precip.html>

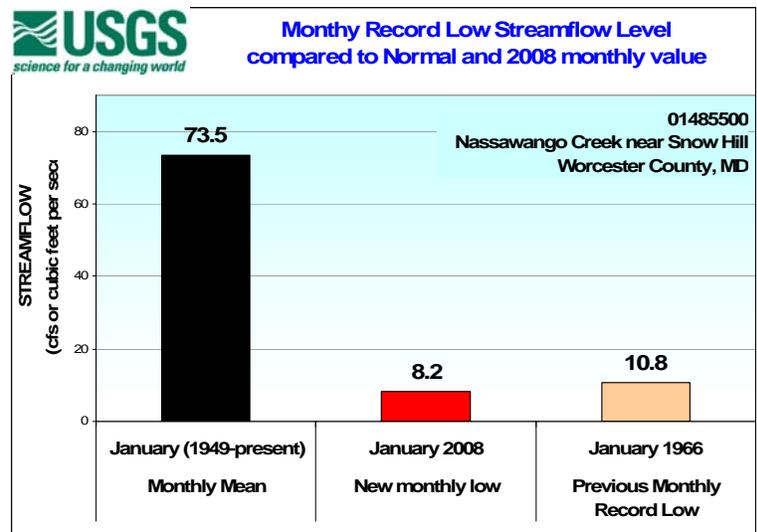
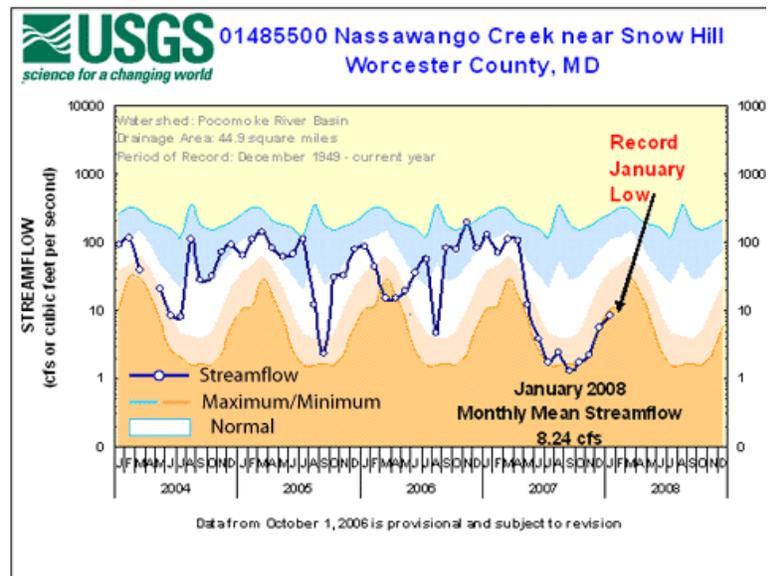
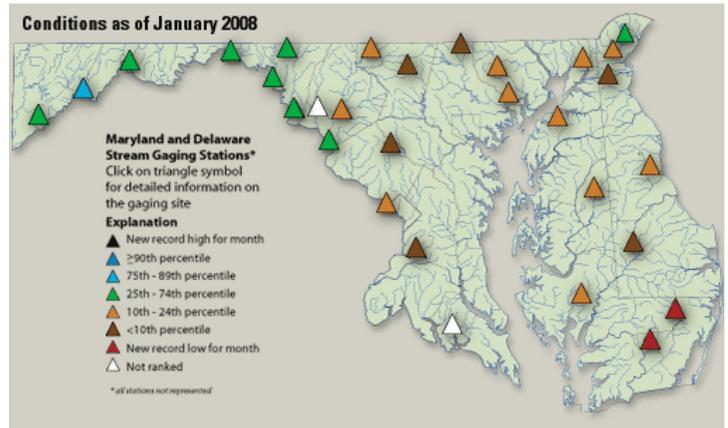
## Streamflow

Streamflow at gages used by the USGS as climate indicators across the Maryland, Delaware, District of Columbia region was below normal at 19 of 28 stations. Two sites on the southern Delmarva had the lowest January streamflow level since record-keeping began in 1949. Only one station was above normal, leaving the remainder in the normal range.

Streamflow on the Nassawango Creek near Snow Hill in Worcester County set a new record low for the third consecutive month. The USGS has been collecting streamflow data on the Nassawango since 1949. In the 5-year hydrograph for Nassawango Creek, the monthly streamflow level is shown by the dark line. In April, the level was above normal, but it quickly dropped to below normal at a rate greater than normal. New monthly records have been set in September, November, and December of 2007, and January 2008.

The monthly mean January streamflow was 8.2 cubic feet per second (cfs). This low streamflow level was lower than the record set during the 1960s drought by 2.6 cfs. Normal January streamflow is 74 cfs. Nassawango Creek is flowing 89% below the normal level. The record daily low was exceeded 21 of the 31 days this January.

The Pocomoke River in Worcester County also set a new January record low. Streamflows were also very low in the following streams: Christina River and Nanticoke River, in Delaware, and Cranberry Branch, Little Falls, Patuxent River, and Piscataway Creek in Maryland.

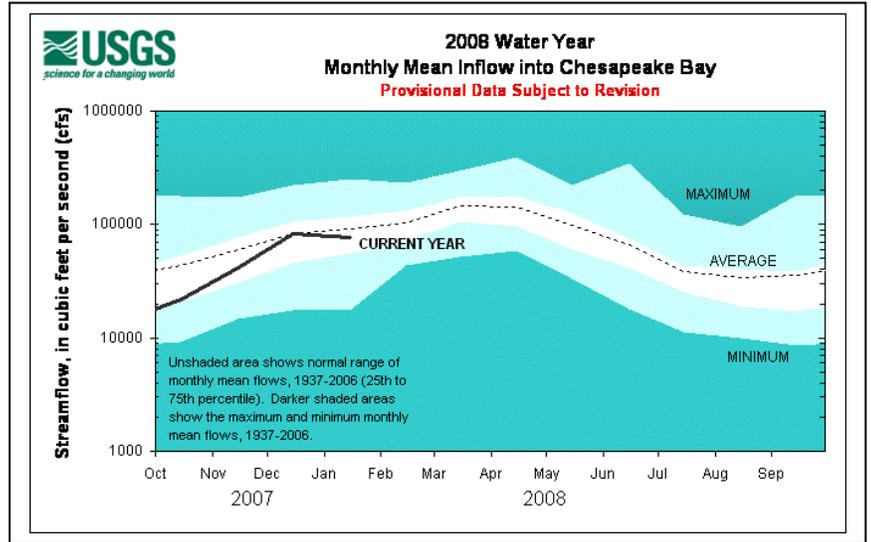




## Chesapeake Bay Freshwater Flow

Estimated streamflow entering the Chesapeake Bay is calculated monthly based on index stations on the Susquehanna River, Potomac River, and James River. The data is presented based on the current water year (WY), the natural, annual water cycle from October through September that is used by hydrologists.

The estimated mean monthly flow to the Chesapeake Bay for January was 77,700 cfs (cubic feet per second) or about 85 percent of the long-term mean for January. Average January flow is 91,000 cfs.



## Reservoirs

Water available from the Baltimore reservoir system (Loch Raven, Liberty, and Prettyboy) was 51.0 billion gallons or 67% of the available storage at the end of January. Water is being withdrawn from the Susquehanna River to allow the reservoirs to fill, yet total storage decreased by 1% because of the lack of rainfall and streamflow.

Water stored in the Triadelphia and Duckett Reservoirs, which serve Montgomery and Prince George's Counties, increased 2% to 60% of the normal capacity at the end of January.

January 2008	Percent available /normal storage	Volume (billion gallons)	Source
<b>Baltimore Reservoirs</b>			<b>Baltimore City</b>
Loch Raven	78%	15.9	Decreased 1% since December 2007
Liberty	72%	24.9	Decreased 2% since December 2007
Prettyboy	61%	10.2	Increased 3% since December 2007
<b>Total</b>	<b>67%</b>	<b>51.0</b>	Decreased 1% since December 2007
<b>Patuxent Reservoirs</b>			<b>Washington Suburban Sanitary Commission (WSSC)</b>
Triadelphia	72%	4.03	Increased 1% since December 2007
Duckett	47%	2.35	Increased 3% since December 2007
<b>Total</b>	<b>60%</b>	<b>6.38</b>	Increased 2% since December 2007