

October 2008 USGS Maryland-Delaware-DC Water Conditions Summary

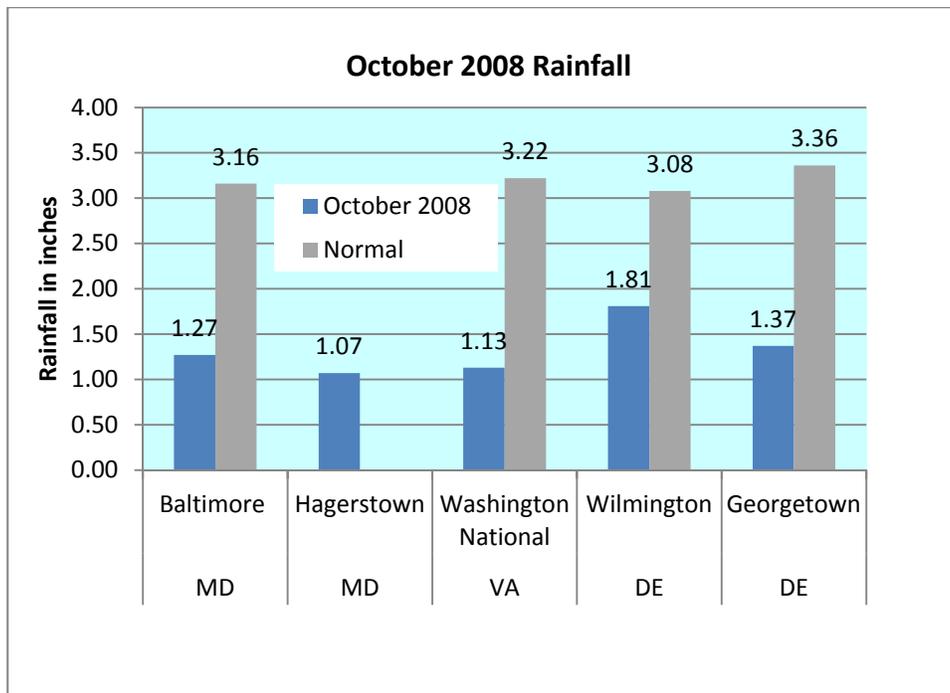
Streamflow and ground-water levels responded to the lack of rainfall in October. Rainfall was less than half the normal amount across Maryland, Delaware, and the District of Columbia. In the stream sites used by the U.S. Geological Survey (USGS) to monitor water conditions across Maryland, Delaware, and the District of Columbia, 60% of streams had normal water levels, and the remaining 40% were below normal. Eight streams were in the lowest 10th percentile and two streams had the second lowest October since the 1940s. The regions with the lowest streamflows were in western Maryland and the Delmarva Peninsula.

Ground-water levels were below normal in more than half the wells (54%) used by the USGS to assess response to climatic conditions in October. The remaining 46% of wells had normal water levels. The lowest ground-water levels were located in Baltimore and Wicomico Counties in Maryland, and Kent County, Delaware.

Precipitation

Rainfall in October was less than half the normal amount in Maryland, Delaware, and the District of Columbia based on National Weather Service data. The largest deficits were at the National Weather Service's Georgetown weather station in Delaware and Washington National station in the District of Columbia.

Precipitation since January 1, 2008 and the past 365 days was generally normal in the Maryland, Delaware, and District of Columbia areas.



Sources: National Weather Service

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

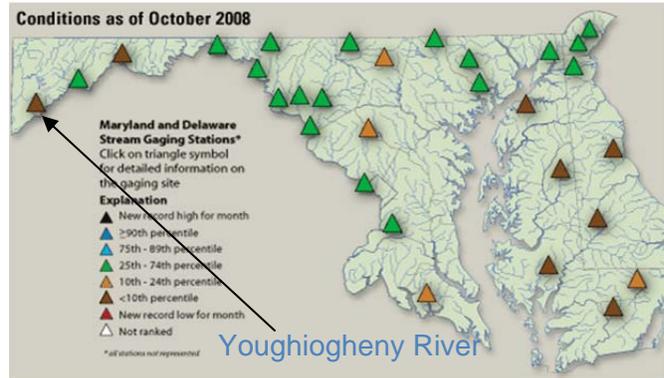
DE: <http://www.erh.noaa.gov/phi/>

Middle Atlantic River Forecast Center: <http://www.erh.noaa.gov/marfc/Maps/precip.html>

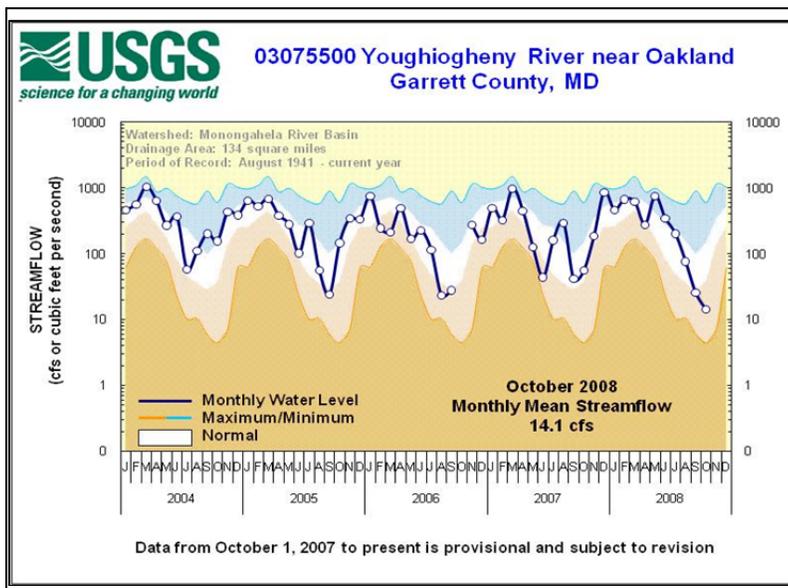
Streamflow

Monthly mean streamflow levels were normal in 60% or 18 of the 30 streams used by the USGS as climate indicators across the Maryland, Delaware, and the District of Columbia region. However, 8 streams were in the lowest 10th percentile and the remaining 4 streams were also below normal. The low streamflow levels reflect the lack of rain in October.

Of the 8 streams in the lowest 10th percentile, two streams had their second lowest and two had their third lowest October monthly mean steamflow since record keeping began. Measured flows are presented in cubic feet per second (cfs) in the table below. The Chicamacomico and Choptank Rivers have been below normal since June 2008.



Stream Name	Monthly Mean Streamflow				Year data collection began
	October 2008 (cfs)	October record low streamflow (cfs)	Rank: lowest October streamflow	Year	
Chicamacomico River near Salem, MD	4.3	3.3	2nd	2001	1948
Youghiogheny River near Oakland, MD	14.1	4.45	2nd	1953	1941
Nassawango Creek near Snow Hill, MD	2.4	2.1	3rd	1999	1949
St. Jones River at Dover, DE	5.38	3.87	3rd	1986	1968

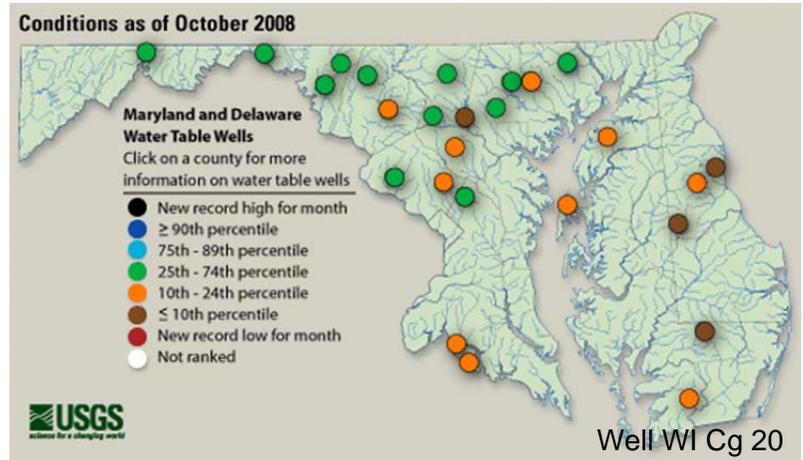


The 5-year hydrograph shows the water level as a dark line and normal (between the 25th and 75th percentiles) as a white band. The monthly mean streamflow level on the Youghiogheny River has dropped since May 2008 and is now below normal in October with 14.1 cfs. The only other year with lower monthly mean streamflow on the Youghiogheny was in 1953, when the October record low was 4.45 cfs. The streamflow level is expected to increase during the winter months while plants are dormant and recharge to ground water occurs.

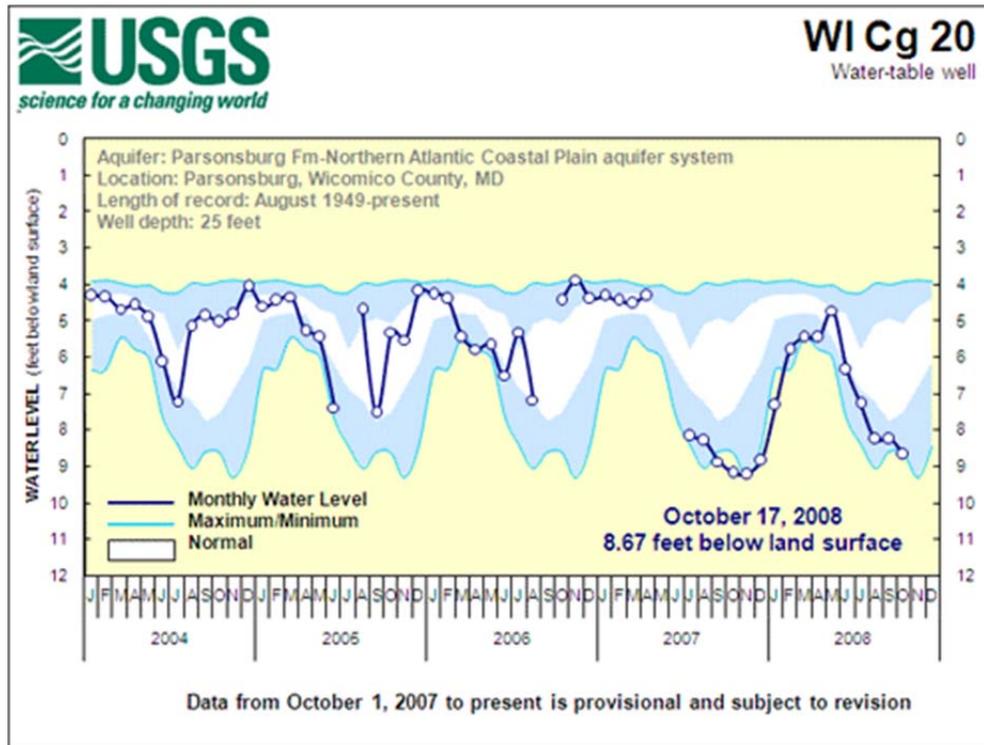
Five-year hydrographs can be viewed at:
<http://md.water.usgs.gov/surfacewater/streamflow/>

Ground Water

Ground-water levels were below normal in 14 of the 26 wells used by the USGS to assess climatic conditions. The driest regions were the Delmarva Peninsula and southern and central Maryland. Water levels in four wells were in the lowest 10th percentile. They are located in Baltimore and Wicomico Counties in Maryland, and Kent County in Delaware.



The 5-year hydrograph shows the water level as a dark line and normal (between the 25th and 75th percentiles) as a white band. The water level in well WI Cg 20 in Wicomico County continued to drop, and was in the lowest 10th percentile in October. The water level in this well has been below normal every month since June 2007 except May 2008. Ground-water levels have been below normal since January in wells in Baltimore County, Maryland and Kent County, Delaware.



Five-year hydrographs can be viewed at:
http://md.water.usgs.gov/groundwater/web_wells/current/water_table/counties

Reservoirs

Water available from the Baltimore reservoir system (Loch Raven, Liberty, and Prettyboy) decreased 1% to 88% of the available storage (66.69 billion gallons) at the end of November.

Water stored in the Triadelphia and Duckett Reservoirs, which serve Montgomery and Prince George's Counties, **decreased to 52%** of the normal capacity at the end of November.

November 2008	Percent available /normal storage	Volume (billion gallons)	Source
Baltimore Reservoirs			Baltimore City
Loch Raven	97%	20.46	Same percent as October
Liberty	81%	28.38	Decreased 1% since October
Prettyboy	100%	17.85	Increased 1% since October
Total	88%	66.69	Decreased 1% since October
Patuxent Reservoirs			Washington Suburban Sanitary Commission (WSSC)
Triadelphia	56%	3.15	
Duckett	47%	2.37	
Total	52%	5.52	