October 2009 USGS Maryland-Delaware-DC Water Conditions Summary

October water levels were normal or above normal in all the streams and 25 of the 26 wells used by the U.S. Geological Survey (USGS) to assess response to climatic conditions in Maryland, Delaware, and the District of Columbia. Rainfall was above normal throughout the region. There were two record high groundwater levels in wells in Kent and Somerset Counties for October.

Precipitation

Rainfall was above normal in Maryland, Delaware, and the District of Columbia. Daily record high precipitation records were set in Delaware and the District of Columbia, according to the National Weather Service. The Hagerstown weather station does not have enough record to calculate statistics.



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 (MARFC): http://www.erh.noaa.gov/marfc/Maps/precip.html

Streamflow

Streamflow was above normal in 76% of the 29 USGS streamflow stations used to assess climatic conditions in Maryland, Delaware, and the District of Columbia. The remaining 24% of streams were in the normal range, primarily the Potomac River. These streams had below normal monthly mean streamflows in September.



October monthly mean streamflow on the Monocacy River rose at a steeper rate than the normal trend. The dark line in the 5-year hydrograph represents the current flow and the white band shows the normal range based on the period of record.



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

Groundwater

Groundwater levels were above normal in 50% of the 26 wells used by the USGS to assess climatic conditions. Wells in Delaware, and Somerset County, Maryland were at record highs for October.

In October, 46% of wells were normal and only one well in Kent County, Maryland, had water levels below normal.



The groundwater level in well SO Cf 2 in Somerset County, Maryland rose to a new record high for October. On October 28th, the water level was the highest for any time of the year, exceeding the record of 0.28 feet below land surface set in 1958. The previous October record was 0.83 feet below land surface in 1996. The 5-year hydrograph shows the water level as a dark line and normal (between the 25th and 75th percentiles) as a white band.



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

Estimated Streamflow Entering Chesapeake Bay

I WILL UPDATE THIS WHEN IT BECOMES AVAILABLE:

The estimated monthly mean streamflow entering the Chesapeake Bay for September 2009 was 25,200 cubic feet per second (cfs), which is in the normal range. Normal September streamflow entering the Bay is between 17,000 and 39,100 cfs, the 25th and 75th percentiles, respectively, of all September values. Average (mean) monthly streamflow for September is 35,600 cfs. These statistics are based on a 73-year period of record.



Reservoir Levels

The Baltimore reservoirs (Loch Raven, Liberty, and Prettyboy) are full with 75.85 billion gallons in available storage at the end of October 2009.

Water stored in the Triadelphia and Duckett Reservoirs, which serve Montgomery and Prince George's Counties, was 96% of capacity at the end of October 2009.

October 2009	Percent available /normal storage	Volume (billion gallons)	Source	
Baltimore Reservoirs			Baltimore City	
Loch Raven	100%	21.20		
Liberty	100%	36.80		
Prettyboy	100%	17.85		
Total	100%	75.85		

Patuxent Reservoirs			Washington Suburban Sanitary Commission (WSSC)
Triadelphia	95%	5.34	
Duckett	97%	4.88	
Total	96%	10.22	