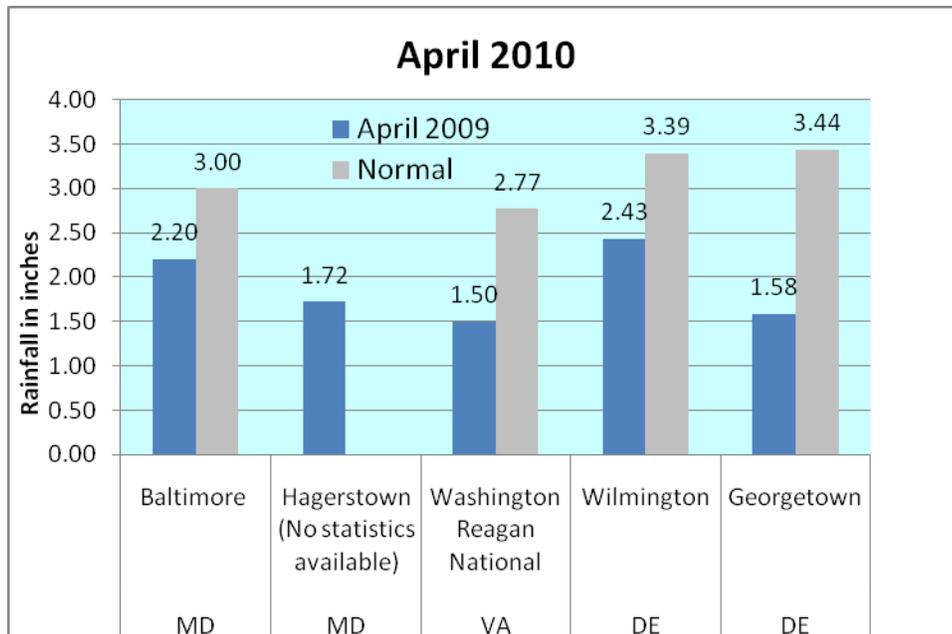


## April 2010 USGS Maryland-Delaware-Washington, D.C. Water Conditions Summary

Although April rainfall was below normal, the previous months were very wet and snowy (record setting), leaving an abundance of water stored in the ground. The result was a range of groundwater levels from a record high in Kent County, Maryland, to a record low in Carroll County. Water levels in streams and wells used by the U.S. Geological Survey (USGS) to assess response to climatic conditions in Maryland, Delaware, and the District of Columbia showed less variation with 66% of the streams within the normal range.

### Precipitation

April rainfall was below normal at the National Weather Service stations in Maryland, Delaware, and at the Washington Reagan Airport. For the last 365 days in Maryland, departures from normal precipitation ranged from 4 inches below normal in Garrett County, to 20 inches above normal in Worcester County. In Delaware, rainfall was 17 inches above normal over the past 365 days.



Sources: National Weather Service

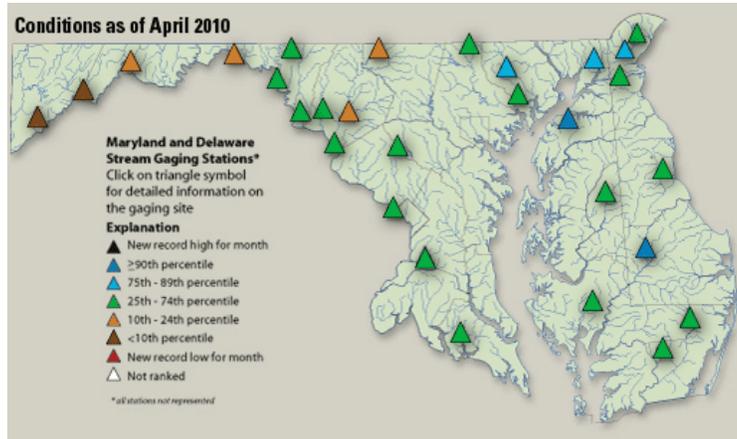
MD and DC: <http://www.weather.gov/climate/index.php?wfo=lwx>

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

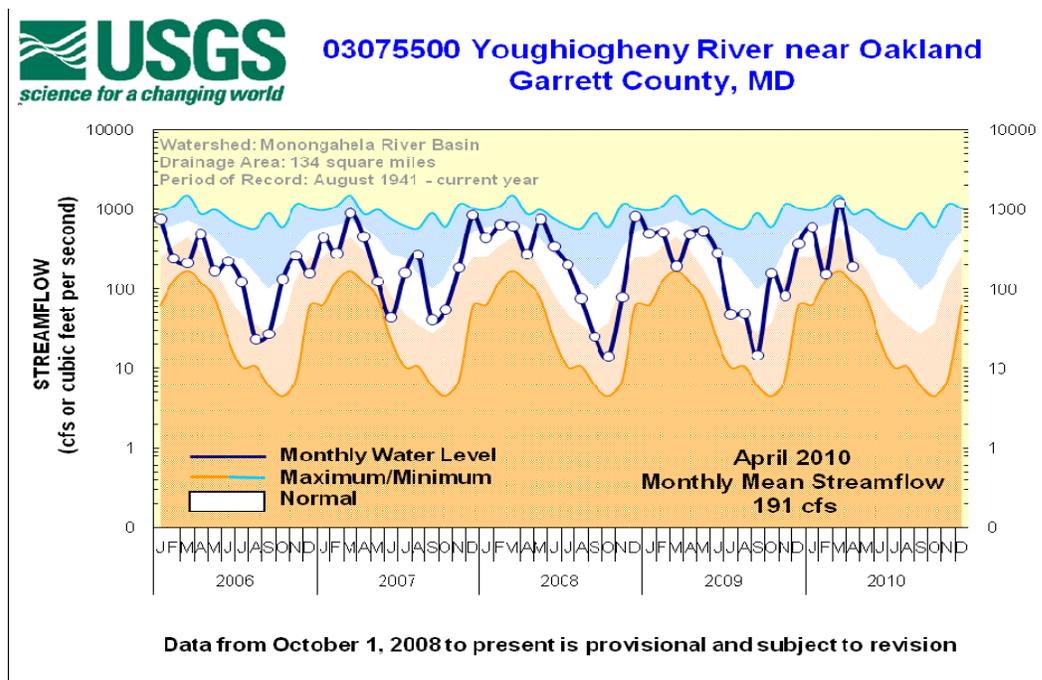
Middle Atlantic River Forecast Center (MARFC): <http://www.erh.noaa.gov/marfc/Maps/precip.html>

## Streamflow

Monthly mean streamflow was normal in 19 of the 29 USGS streamflow stations used to assess climatic conditions in Maryland, Delaware, and the District of Columbia. The Savage and Youghiogheny Rivers were in the lowest (10<sup>th</sup> to 24<sup>th</sup>) percentile for monthly mean streamflow. The two streams in the highest (75<sup>th</sup> to 89<sup>th</sup>) percentile were in Delaware and Kent County, Maryland.



April monthly mean streamflow on the Youghiogheny River dropped abruptly from a near-record high to the lowest percentile in only one month; streamflow in February was 1,180 cubic feet per second (cfs) and 191 cfs in April. Snowmelt contributed to the high flows in February. The dark line in the 5-year hydrograph represents the current monthly mean streamflow and the white band shows the normal range (25<sup>th</sup> to 74<sup>th</sup> percentile) based on the period of record.

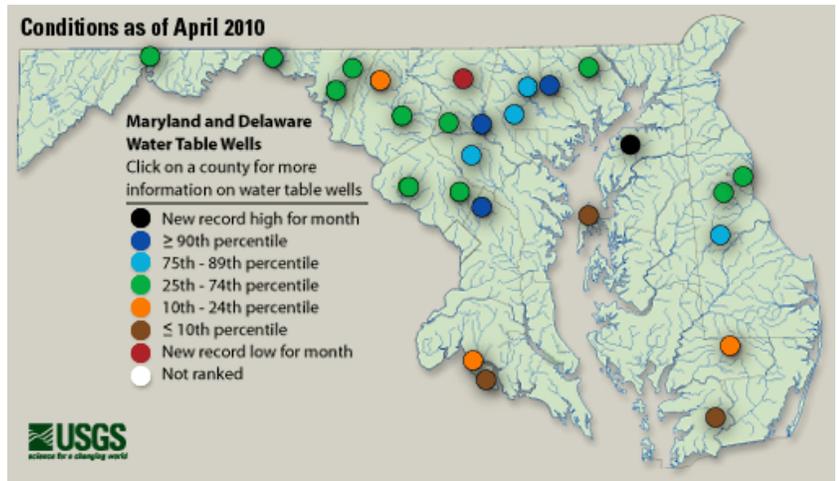


Five-year hydrographs can be viewed at: <http://md.water.usgs.gov/surfacewater/streamflow/>

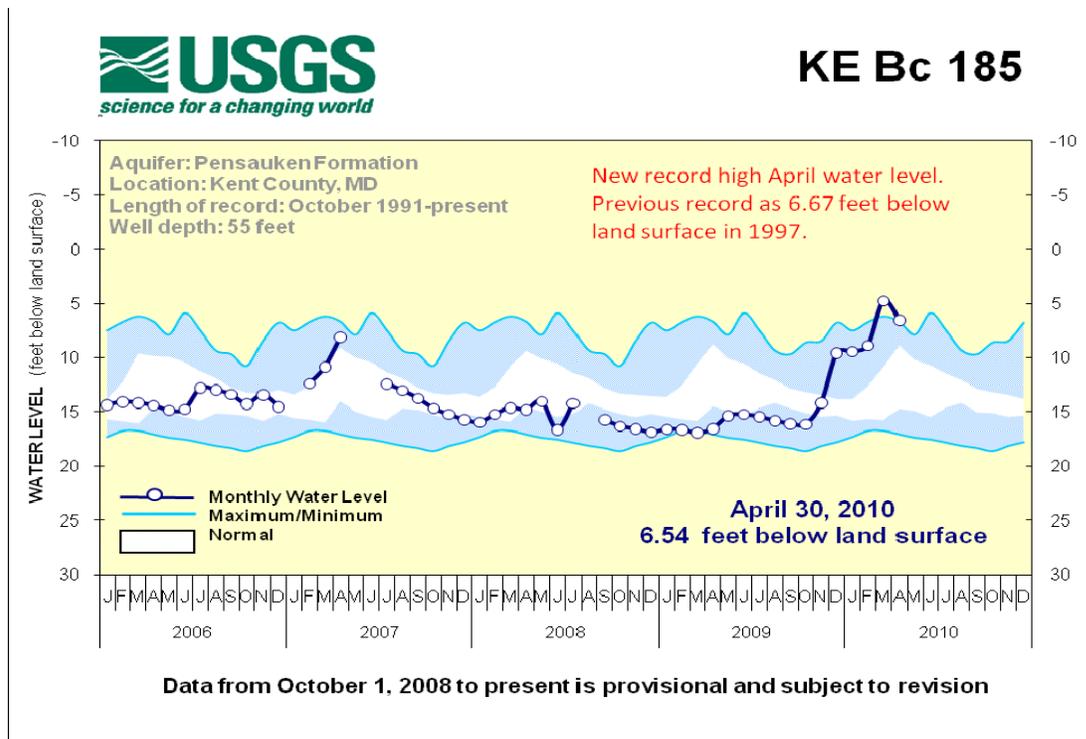
## Groundwater

April groundwater levels range from a record high in Kent County, Maryland, to a record low in Carroll County. The well in Kent County, Maryland set a record high for the second consecutive month.

The water levels in wells used by the USGS to assess climatic conditions in April were evenly distributed from above normal to below normal: 31% above, 35% normal, and 27% below normal. The lowest groundwater levels were in Carroll and Frederick Counties, southern Maryland, and the southern part of the Delmarva Peninsula.



The groundwater level in well KE Bc 185 in Kent County, Maryland dropped since March, but still set a record high level for April at 6.54 feet below land surface. The previous April record was 6.67 feet below land surface. Record keeping began in 1991 at this well. The 5-year hydrograph shows the water level as a dark line and normal range (between the 25<sup>th</sup> and 75<sup>th</sup> 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](http://md.water.usgs.gov/groundwater/web_wells/current/water_table/counties)

## Reservoir Levels

Storage in the Baltimore reservoirs (Loch Raven, Liberty, and Prettyboy) was 100% of available storage again in April, with 75.85 billion gallons in available storage.

The Triadelphia and Duckett Reservoirs, which serve Montgomery and Prince George's Counties, was at 100% of normal capacity with 11.33 billion gallons at the end of April 2010.

April 2010	Percent available /normal storage	Volume (billion gallons)	Source
<b>Baltimore Reservoirs</b>			<b>Baltimore City</b>
Loch Raven	100%	21.20	
Liberty	100%	36.80	
Prettyboy	100%	17.85	
<b>Total</b>	<b>100%</b>	<b>75.85</b>	
<b>Patuxent Reservoirs</b>			<b>Washington Suburban Sanitary Commission (WSSC)</b>
Triadelphia	100%	6.15	
Duckett	100%	5.18	
<b>Total</b>	<b>100%</b>	<b>11.33</b>	