

Hydrologic Conditions – August 2016

The Hydrologic Conditions Mapper for New York State has been updated for the month of August 2016 and can be accessed at:

<http://ny.water.usgs.gov/projects/eom/>

Despite heavy rainfall that fell over parts of NY on August 1, the NYS Department of Environmental Conservation issued a Drought Warning on August 3 for western New York State. A Drought Watch continued for the rest of the State. Fifty percent of the counties in New York had precipitation totals between 3.5 and 4.1 inches during August; however, precipitation totals ranged from 1.6 inches in New York City and Nassau County to 6.0 inches in Oneida County. The precipitation that fell relieved dry conditions across much of the State but did not fall uniformly. Low precipitation totals and large departures from normal quantities were recorded in the lower Hudson River area and in Ontario County. Extreme dry conditions continued north of the western Finger Lakes.

At the end of July, streamflows were generally at below-normal to normal levels. Rainfall mainly during the first half of August raised flows at many index sites generally located in the Catskill Mountain region and the Mohawk and upper Hudson River basins. Other sites that reported below-normal flow conditions in July, such as in the Southern Tier and western Adirondack Mountains regions and Cattaraugus Creek and Chenango River basins, reported normal flow levels for August. Streamflows remained well below normal levels in a band north of the western Finger Lakes in Monroe, Wayne, and Ontario Counties.

New York City reservoirs were collectively at about 80-percent capacity at the end of the month, which is just above normal capacity for the end of August.

About 32 percent of groundwater levels at index sites across the State were at or near normal levels. Only 7 percent of wells reported above-normal water levels, whereas 61 percent reported low-to-very-low water levels. Fifty-nine percent of the reporting bedrock wells had water levels that were below normal levels; whereas 63 percent of the reporting water-table wells had water levels that were below normal levels. Of the 82 reporting wells, 23 reported new record low monthly median values for August; and, of these 23 wells, 15 had also reported record low monthly median values for July. Also, of these 23 wells, only three had periods of record that exceeded 14 years. Although wells with normal and above-normal water levels could be found scattered across the State, wells with below-normal water levels appeared to be clustered in the northwestern corner of the State and across the central Finger Lakes region, as well as around the perimeter of the Adirondack Mountains and in the southeastern corner of the State, including Long Island.

Groundwater response to rainfall may not mimic surface-water response. High-intensity, short-duration rainfall will have a noticeable effect on streamflows, especially in urban areas, but quick runoff from the land surface will not facilitate infiltration of water to replenish low groundwater levels. Groundwater response will also depend on the depth and type of the aquifer in which a well is finished.

Exceedance percentages shown on the Hydrologic Conditions Mapper are calculated for individual USGS sites. This information along with additional information from other Federal, State, and local agencies assist the NYSDEC and the State Drought Management Task Force to evaluate regional conditions for determination of drought classifications.

Let me know if you have any questions.