

## Hydrologic Conditions – September 2017

The Hydrologic Conditions Mapper for New York State has been updated for the month of September 2017 and can be accessed at:

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

During September, monthly precipitation totals, which averaged 2.4 inches, were below normal quantities across most of the State. This continues a downward trend in precipitation that started in August following a 7-month period when monthly precipitation totals were above normal quantities. Precipitation totals ranged from 1.5 inches in Monroe County to 4.6 inches in Cattaraugus County, the only county to record above normal precipitation quantities during the month and this was achieved by only 0.4 inch. The largest negative departure from normal precipitation quantities was recorded in Oswego County (-2.9 inches).

Ninety-four percent of the index streamflow sites recorded monthly streamflows in their respective normal ranges. One site, Oatka Creek at Garbutt in Monroe County, recorded above-normal flows for the month, but had dropped to normal flow levels by the end of the month. The only index site that recorded below-normal streamflows was on Long Island, where, except for January 2016, monthly streamflows have been below-normal levels since July 2015. A Drought Watch designation, as issued by NYS Department of Environmental Conservation (DEC), has continued in effect for Nassau and Suffolk Counties since July 2016.

High-water levels along the Lake Ontario shoreline continue to recede and were about 2.4 feet below the peak level that occurred during the last week of May (<https://www.glerl.noaa.gov/data/dashboard/GLWLD.html>). Average lake levels during September were about 1.1 feet higher than the long-term monthly average water level (<https://www.glerl.noaa.gov/data/dashboard/GLWLD.html>).

New York City reservoirs were collectively at about 79 percent of capacity at the end of the month; more than the normal storage capacity of about 76 percent ([http://www.nyc.gov/html/dep/html/drinking\\_water/maplevels\\_wide.shtml](http://www.nyc.gov/html/dep/html/drinking_water/maplevels_wide.shtml)).

With few exceptions, groundwater levels were at or above normal levels across the State. Twenty-nine percent of all index wells reported above-normal water levels for the month. An additional 62 percent reported water levels in their respective normal ranges. Only eight index wells, or 9 percent, reported low-to-very-low water levels, and these wells were scattered across the State. An equal percentage of water-table and bedrock wells (29 percent) recorded above-normal levels. A higher percentage of water-table wells (11 percent) recorded below-normal levels compared to bedrock wells (6 percent). Of the 90 reporting wells, 6 wells reported new record high monthly median levels for September; all of these wells have periods of record less than 15 years. Although the Hydrologic Conditions Mapper showed only three reporting wells on Long Island—two of which reported below-normal water levels—the USGS Groundwater Watch (at <https://groundwaterwatch.usgs.gov/>) showed that the majority of wells in central and western Suffolk County reported below-normal water levels at the end of September.

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.

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