

## Hydrologic Conditions – October 2017

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

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

During October, monthly precipitation totals averaged 5.2 inches and 1.4 inches above normal quantities across most of the State. This reflects a rebound in precipitation deficits that were recorded during August and September. Most of this precipitation fell during one or two storm events that occurred on October 8-9 and 29-30. Precipitation totals ranged from 3.0 inches in Washington County to over 9 inches (or 5.0 inches more than normal precipitation quantities) in Jefferson County. The largest negative departure from normal precipitation quantities was recorded in Rockland County (-1.35 inches). In general, the greatest precipitation and positive departures were recorded in counties in west-central New York, the western Adirondack Mountains region, and the Catskill Mountains. Counties reporting lower than normal precipitation quantities were generally located along the eastern boundary of the State. On a positive note, Suffolk County, which has not reported above-normal precipitation totals since January 2016, exceeded normal monthly totals for October by 1.2 inches.

Eighty-one percent of the index streamflow sites recorded monthly streamflows in their respective normal ranges. Five sites, scattered around the State (western and central N.Y. and western Adirondack Mountains region), recorded above-normal flows for the month. Monthly peak flows occurred at most streamflow sites on October 30; with the stages at six sites exceeding their respective National Weather Service minor-flood-stage thresholds. 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. This condition existed despite above-normal precipitation quantities reported for both Nassau and Suffolk Counties. 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.

Water levels along the Lake Ontario shoreline continued to recede and were about 3.1 feet below the peak level that occurred during the last week of May 2017. Average lake levels during October were only about 0.8 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 78 percent of capacity at the end of the month; more than the normal storage capacity of about 75 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)).

The majority of groundwater wells (59 percent) reported normal water levels for the month. An additional 12 percent reported above-normal water levels and 29 percent reported low-to-very-low water levels. There was no discernible geographical distribution of wells that fell into a particular classification; rather, wells in all conditions were scattered across the State. Water-table wells recorded higher percentages of both above-normal (14 percent) and below-normal (37 percent) levels than bedrock wells. A higher percentage of bedrock wells (68 percent) had water levels in their respective normal ranges than did water-table wells. Of the 91 reporting wells, one well reported a new record high monthly median level and two reported new record low monthly median levels for October; all of these wells have periods of record less than 15 years. Although the Hydrologic Conditions Mapper showed only four 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 October.

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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