

Hydrologic Conditions – January 2017

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

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

As issued by NYS Department of Environmental Conservation (DEC), a Drought Watch has continued in effect for New York through the month of January.

Fifty percent of the counties in New York reported precipitation totals between 2.8 and 3.6 inches during January; however, precipitation totals ranged from 1.94 inches in Yates County to 4.64 inches in Cattaraugus County. Most counties reported above-normal precipitation quantities for the month. The largest surplus, 1.67 inches above normal monthly precipitation totals, was reported for Cattaraugus County. The largest deficit, -0.73 inches, was reported for Warren County.

Except for a site on Long Island, monthly streamflows at the index stations were at normal or above-normal flow levels across the State. Flows were sustained to varying degrees by snowmelt during the first week of January and then were recharged by rainfall during the second week when monthly high flows were recorded at many sites. Rain that fell during the fourth week of the month caused a second rise in streamflows at many sites. No flooding was reported during either of these events. Many streams, especially those in the Adirondack Region, were periodically ice-covered during January, which is typical for this time of year. With regards to the Long Island site, except for January 2016, monthly streamflows have been below-normal levels since June 2015. Long Island has been severely impacted by the recent drought and monthly precipitation quantities consistently fall short of normal quantities for this time of year. Surface-water hydrology on Long Island is strongly tied to groundwater discharge rates, and if groundwater levels are low, which is and has been the case, then surface flows will remain low.

New York City reservoirs were collectively at about 77 percent of capacity at the end of the month. Storage has increased since December, but is less than the long-term average storage of 88 percent of capacity, which is typical for the end of January.

Thirty-three percent of groundwater levels at index sites across the State were at or near normal levels; down from 37 percent during December. Eight wells (10 percent) reported above-normal water levels and 57 percent (up from 53 percent during December) continued to report low-to-very-low water levels. Sixty-seven percent of the reporting water-table wells, and 40 percent of the reporting bedrock wells, had water levels that were below normal levels. Of the 78 reporting wells, 32 reported new record low monthly median values for January and most of these had also reported record low monthly median values for one or more months from August to December. Record high monthly median levels were reported at four wells. Of these 36 wells, which recorded either monthly low or high record levels, only four had periods of record that exceeded 15 years. Although wells with below-normal water levels appeared to be clustered in the northwestern and southeastern corners of the State, no other discernible pattern among the reporting wells was identified; wells with normal, above-, and below-normal water levels could be found scattered across the State.

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.

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