

Hydrologic Conditions – February 2018

The Hydrologic Conditions Mapper for New York State has been updated for the month of February 2018 and can be accessed at:

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

During February, monthly precipitation totals averaged 3.3 inches and 0.9 inches below normal quantities across the State. The highest precipitation amount (5.7 inches and 2.9 inches above normal quantities) was recorded in Westchester County. The lowest precipitation amount was recorded in Yates County (1.6 inch and 0.1 inches below normal quantities). The largest positive departure from normal quantities was recorded in Westchester County where the total precipitation, 5.7 inches, was 2.9 inches above normal quantities. The largest monthly deficits were in the Oswego County (-0.3 inches below normal quantities).

All index streamflow sites, except the one on Long Island, recorded flows at normal and above-normal levels. Twenty-nine of the 32 index streamflow sites recorded above-normal levels. On Feb 21 - 23, unseasonably warm temperatures caused rapid snowmelt that resulted in localized flooding. Most of the flooding was caused by ice jams that produced large and erratic fluctuations in stage at 3 USGS streamgages. Water levels rose above the NWS-defined flood stages; of those, 2 sites —Mohawk River at Freeman's Bridge at Schenectady, and Great Chazy River at Perry Mills—exceeded their respective moderate flood stages and one site—East Branch Ausable River at Au Sable Forks—exceeded its major flood stage for at least brief periods. Below-normal flows existed at the index streamflow site 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.

Water levels along the Lake Ontario shoreline reached winter-time lows during December. Average lake levels during February were about 1.0 foot above long-term monthly average water levels. (<https://www.glerl.noaa.gov/data/dashboard/GLWLD.html>).

New York City reservoirs were collectively at about 95 percent of capacity at the end of the month; about 8 percent more than the normal storage capacity of about 87 percent (http://www.nyc.gov/html/dep/html/drinking_water/maplevels_wide.shtml).

Forty-two percent of the index groundwater wells reported normal water levels for the month. Forty-three percent reported above-normal water levels and 14 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. Bedrock wells recorded a lower percentage (35 percent) of wells with water levels in their respective above-normal ranges compared to water-table wells (49 percent). However, 14 percent of bedrock wells as well as 14 percent of water-table wells had water levels in their respective below-normal ranges. Of the 90 reporting wells, 13 wells reported new record high monthly median levels and 4 reported new record low monthly median levels for February; 13 out of these 17 wells have periods of record less than 16 years. Although the Hydrologic Conditions Mapper showed only 3 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 February.

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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