Hydrologic Conditions – December 2016

The Hydrologic Conditions Mapper for New York State has been updated for the month of December 2016 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 December.

Fifty percent of the counties in New York reported precipitation totals between 2.4 and 3.00 inches during December; however, precipitation totals ranged from 1.66 inches in Clinton County to 5.41 inches in Cattaraugus County. Most counties reported precipitation deficits; the largest deficit, 1.62 inches below normal monthly precipitation totals, was reported for New York County. Precipitation totals exceeded normal quantities in the southwest corner of the State and in the Tug Hill-Mohawk River valley area. Calendar year-to-date precipitation quantities are generally 5 to 15 inches below normal across the State, and are more than 15 inches below normal on Long Island (NOAA Northeast River Forecast Center).

Streamflows were generally at normal flow levels across the State; however, above-normal flows existed at some sites in the areas that received above-normal quantities of precipitation (as mentioned above). Most index sites that had been in the below-normal flow range for the past two months or longer were now at normal levels. The only exception was the site on Long Island, which, except for January 2016, has recorded below-normal monthly flows since June 2015. Many streams, especially those in the Adirondack Region, were ice-covered during most of December, which is typical for this time of year.

New York City reservoirs were collectively at about 66-percent capacity at the end of the month. Storage has increased since November, but is less than the 87-percent capacity that is typical for the end of December.

Thirty-seven percent of groundwater levels at index sites across the State were at or near normal levels; up from 33 percent during November. Eight wells (10 percent) reported above-normal water levels and 53 percent (down from 64 percent during November) continued to report low-to-very-low water levels. Sixty-one percent of the reporting water-table wells, and only 38 percent of the reporting bedrock wells, had water levels that were below normal levels. Of the 79 reporting wells, 26 reported new record low monthly median values for December and most of these had also reported record low monthly median values for one or more months from August to November. Record high monthly median levels were reported at four wells. Of these 30 wells, which recorded either monthly low or high record levels, only two had periods of record that exceeded 14 years. Although wells with normal and below-normal water levels could be found scattered across the State, wells with above-normal water levels appeared to be clustered in a band across the Finger Lakes region to the southwestern corner of 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.