Hydrologic Conditions – March 2022

The Hydrologic Conditions Mapper for New York State has been updated for the month of March 2022 and can be accessed at:

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

During March, monthly precipitation totals averaged 3.4 inches, and 0.3 inches above normal quantities across the State. The highest precipitation amount (4.4 inches) was recorded in Lewis County and the largest positive departure from normal quantities (1.3 inches) was recorded in St. Lawrence County. The lowest precipitation amount (1.8 inches) was recorded in Monroe County and the largest negative departure from normal quantities (1.6 inches) was recorded in Nassau County.

Of the 32 index streamflow sites, 19 recorded normal levels, 13 recorded wet levels, and none of the sites recorded dry or very dry levels during March. National weather service (NWS) flood stages were not exceeded at any of the 32 index streamflow sites during March.

The New York State Department of Environmental Conservation (NYSDEC) reported that all drought regions in New York State were in normal status at the end of March.

Average lake levels of Lake Ontario during March were about 1.0 feet above long-term monthly average water levels (https://www.glerl.noaa.gov/data/wlevels/).

New York City reservoirs were collectively at about 99.1 percent of capacity at the end of the month; about 1.6 percent more than the normal storage capacity of about 97.5 percent (https://www1.nyc.gov/site/dep/water/reservoir-levels.page).

Fifty-three percent of the index groundwater wells with sufficient data for the month and period of record (93 in total) reported normal water levels for the month. Forty percent reported above-normal water levels, 7 percent reported low water levels, and none of the index groundwater wells reported very-low water levels. There was no discernible strong geographical distribution of the different water level classifications among the index wells. Bedrock and water-table wells both had higher percentages of wells reporting water levels in their respective above-normal ranges (39 and 41 percent, respectively) than percentages of wells reporting water levels in their respective below-normal ranges (17 and 2 percent, respectively).

Seven of the 93 wells with sufficient data reported new record high monthly median levels for March. Six of those wells have periods of record of 21 years or less. The other well that reported a new high monthly median level is a water-table well located in Niagara County that has records dating back to 1973; though, records do not exist for this well for a total of 7 years between 1997 and 2004. None of the 93 wells with sufficient data reported new record low monthly median levels for March.

Although the Hydrologic Conditions Mapper showed only four reporting wells with sufficient data on Long Island—three of which reported normal water levels and one which reported low water levels—the USGS Groundwater Watch (at https://groundwaterwatch.usgs.gov/) showed that many other wells in Nassau and Suffolk Counties continue to indicate below-normal water levels at the end of March.

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,

assists the NYSDEC and the State Drought Management Task Force with evaluating regional conditions for determination of drought classifications.

Alex Graziano, Hydrologist, New York Water Science Center

Phone: 518-527-5843 Email: agraziano@usgs.gov