Hydrologic Conditions – August 2021

The Hydrologic Conditions Mapper for New York State has been updated for the month of August 2021 and can be accessed at:

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

During August, monthly precipitation totals averaged 5.4 inches, and 1.5 inches above normal quantities across the State. The highest precipitation amount (9.2 inches) and the largest positive departure from normal quantities (5.0 inches) were recorded in New York City. The lowest precipitation amount (1.9 inches) and largest negative departure from normal quantities (1.3 inches) were recorded in Niagara County.

Of the 32 index streamflow sites, 4 recorded normal levels, 27 recorded wet levels, 1 recorded dry levels, and none of the sites recorded very dry levels during August. The respective National Weather Service (NWS) flood stages were exceeded at 3 of the 32 index streamflow sites: Genesee River at Wellsville, NY (04221000); Oneida Creek at Oneida, NY (04243500); and Black River near Boonville, NY (04252500). The respective NWS flood stages at seven non-index streamflow sites located across the southern parts of New York State were also exceeded during August, and the respective NWS major flood stages were exceeded at two of those streamflow sites: Tuscarora Creek above South Addison, NY (01525981) and Owasco Inlet below Aurora Street at Moravia, NY (04235299).

A Drought Watch designation, as issued by New York State Department of Environmental Conservation (NYSDEC), continues in effect for five of the nine drought regions (Long Island, Mohawk/Upper Hudson, Adirondack, Great Lakes, and Southern Tier).

Average lake levels of Lake Ontario during August were about 0.2 feet below long-term monthly average water levels (https://www.glerl.noaa.gov/data/wlevels/).

New York City reservoirs were collectively at about 96.3 percent of capacity at the end of the month; about 14.9 percent more than the normal storage capacity of about 81.4 percent (https://www1.nyc.gov/site/dep/water/reservoir-levels.page).

Forty 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-nine percent reported above-normal water levels and 11 percent reported low to very-low water levels. Other than the absence of low to very-low water levels among index wells across the southern parts of the state, there was no discernible strong geographical distribution of wells that fell into the different classifications. Bedrock and water-table wells had similar percentages of wells reporting water levels in their respective below-normal ranges (both at 11 percent) and above-normal ranges (50 percent and 48 percent, respectively).

Of the 93 wells with sufficient data, 3 reported new record low monthly median levels for August; all 3 of those wells have periods of record of 17 years or less. Eleven of the 93 wells reported a new record high monthly median level; all 11 of those wells have periods of record of 19 years or less.

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

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.

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