Northeast U.S. Streamflow and Groundwater Levels

A Drought Update
February 28, 2017

William Coon, Hydrologist
Daily Streamflow – Compared to Historical Streamflow

September 29, 2016

February 24, 2017
Groundwater Climate Response Network – MA, CT, RI

September 28, 2016
Groundwater Climate Response Network – MA, CT, RI

February 24, 2017
Groundwater Climate Response Network – VT, NH, ME

September 28, 2016
Cattaraugus Creek at Gowanda, NY – 76 years of record
Cattaraugus County, NY
Bedrock aquifer, 8 years
Susquehanna River at Conklin, NY – 102 years of record
Broome County, NY

Sand-gravel aquifer, 36 yrs

Bedrock aquifer, 31 yrs
Oatka Creek at Garbutt, NY – 70 years of record
Genesee County, NY

Sand-gravel aquifer, 18 yrs

Bedrock aquifer, 18 yrs
Saco River at Cornish, ME – 99 years of record
York and Androscoggin Counties, ME

Sand-gravel aquifer, 27 yrs

Bedrock aquifer, 16 yrs
Ipswich River near Ipswich, MA – 85 years of record (affected by withdrawals and regulation)
Essex County, MA
Sand-gravel aquifer, 52 yrs
Pawcatuck River at Wood River Junction, RI – 75 years of record
Washington County, RI

Sand-gravel aquifer, 39 yrs

Sand-gravel aquifer, 50 yrs
Pomperaugh River at Southbury, CT – 83 years of record
New Haven and Fairfield Counties, CT

“Till” aquifer, 24 yrs

Sand-gravel aquifer, 50 yrs
Connetquot Brook near Central Islip, NY – 36 years of record
Suffolk County, NY

Depth:
- Upper Glacial: 91 ft
- Magothy: 962 ft
- Lloyd: 1395 ft

Record:
- Upper Glacial: 68 yr
- Magothy: 66 yr
- Lloyd: 66 yr
Massachusetts Reservoirs

Quabbin Reservoir
Sept. 1, 2016 – 85.1% of capacity
Feb. 1, 2017 – 79.9% of capacity

Wachusett Reservoir
Sept. 1, 2016 – 91.0 % of capacity
Feb. 1, 2017 – 91.3% of capacity

Overall Status “Below Normal”

Source: Massachusetts Water Resources Authority

http://geology.com/state-map/maps/massachusetts-rivers-map.gif
New York City Reservoirs

Percent of Capacity
Sept. 28, 2016 – 70.7%  
(Normal – 76.0%)

Feb. 27, 2017 – 87.1%  
(Normal – 87.2%)

Source: New York City Environmental Protection

http://www.dos.ny.gov/watershed/images/lgmap.jpg
Summary

Streamflows in the Northeast are generally in normal or above-normal flow ranges, except for parts of CT and southeastern NY (Long Island), where they are below normal.

GW levels in New York are generally in normal or above-normal ranges, however, below-normal water levels can be found scattered across the State, especially on Long Island.

GW levels in New England States are a “mix” with many wells still reporting below-normal levels throughout the six-State area.
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