

Prepared in cooperation with the
Suffolk County Water Authority

State of the Aquifer Report

The purpose of the State of the Aquifer web page is to provide a USGS clearinghouse for Long Island groundwater resources. As such, the web page gives a synopsis of general groundwater conditions across Long Island. The resources detailed in each section also include publication citations that point users to further information.

Background

In recent years, more and more people have become concerned about Long Island's supply of freshwater. Currently, there is no comprehensive, island-wide resource that summarizes recent U.S. Geological Survey (USGS) research related to the Island's aquifer system.

A webpage will be developed by the USGS that will compile published data from the hydrologic-surveillance program, in place since the mid-1970's, and various USGS sources, and supplement this information with more recent seasonal and annual hydrologic

data. This information and other USGS technical assistance will be provided to the Suffolk County Water Authority (SCWA) to help them produce an easy to understand annual report that will provide a snapshot of the state of Long Island's aquifer system.

The USGS webpage (and possibly the SCWA report) may include the following content:

1. Hydrogeologic framework, hydrologic cycle, and general groundwater-flow information.
2. Population and landuse showing the extent of urbanization through maps and figures using current landuse/landcover and census data.

3. Precipitation and recharge analyzing annual precipitation and departure from long-term means represented as figures and tables and describing aquifer-recharge zones.

4. Groundwater withdrawals showing density of supply wells, estimates of withdrawals, location of sewer districts, and the effects of withdrawals and sewerage on the aquifer system.

5. Water quality and some general water-chemistry information represented as figures and/or graphs and possibly emerging contaminants in groundwater and/or areas of saltwater movement. Also using maps to show locations of wastewater treatment plants that discharge to groundwater and areas served by residential septic systems.

6. The groundwater system represented as figures and tables showing seasonal and annual changes using selected groundwater and streamflow monitoring stations.

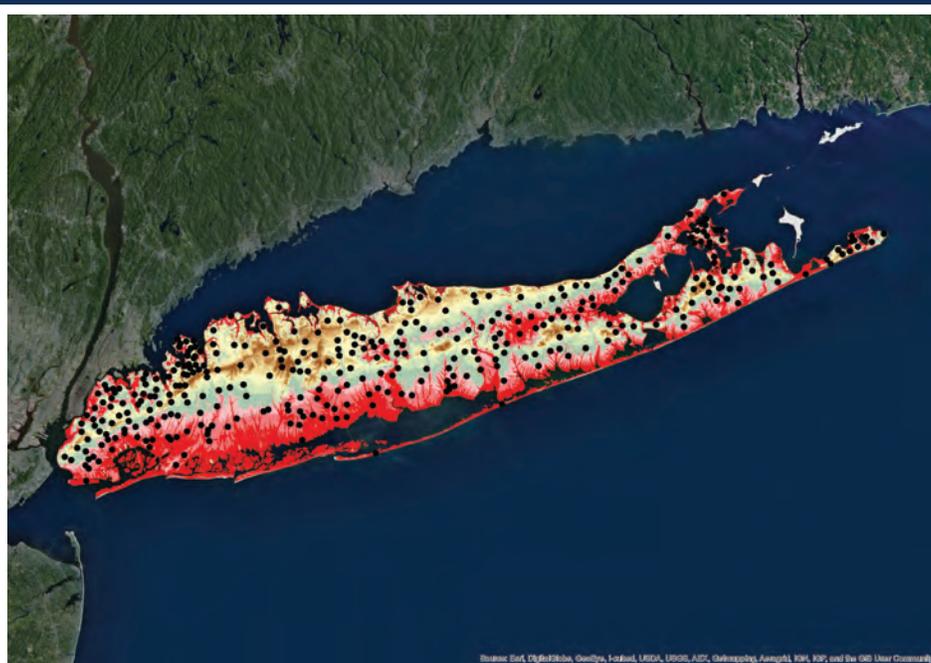
7. References

It is hoped that such resources will provide the information needed to inform the public on the current state of the aquifer so that sound water-management decisions can be made.

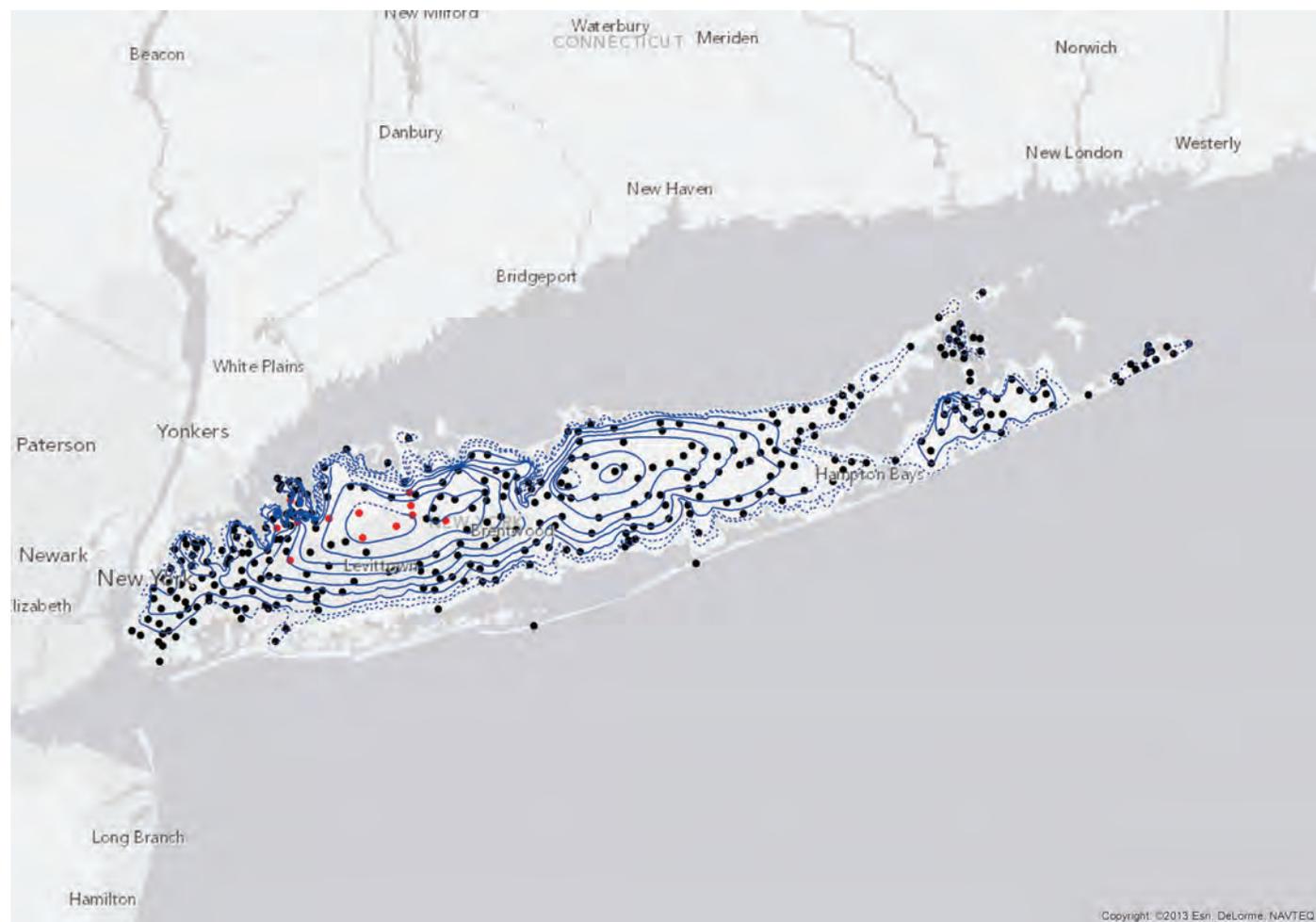
References

Monti, Jack, Jr., Como, Michael, and Busciolano, Ronald, 2013, Water-table and Potentiometric-surface altitudes in the Upper Glacial, Magothy, and Lloyd aquifers beneath Long Island, New York, April-May 2010: U.S. Geological Survey, Scientific Investigations Map 3270, 4 sheets, scale 1:125,000, <http://dx.doi.org/10.3133/sim3270>.

Long Island Depth to Water Viewer



Groundwater Conditions on Long Island, New York in 2010 Viewer



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