

Skaneateles Lake Watershed Wave Reviews

Summer 2026 Edition

Historical Lake Temperature Data and New Nine Element Plan Page on the Skaneateles Website

By Camille Marcotte, Cornell Cooperative Extension Onondaga County

Ever wondered how Skaneateles Lake temperature has changed over time? New historical data on the Skaneateles Lake watershed website offers temperature profiles from 1975-2025 from the surface to 200 feet for the months of July, August, September and October.

Visit the Skaneateles Lake website for resources and tips on how to protect the water quality of Skaneateles Lake www.skanlakeinfo.org

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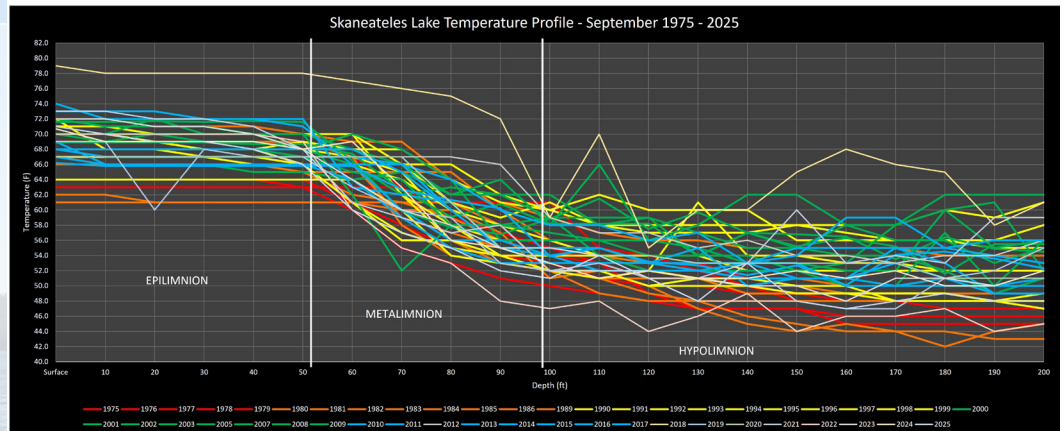
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Brought to you by the City of Syracuse Department of Water
Sharon F. Owens, Mayor

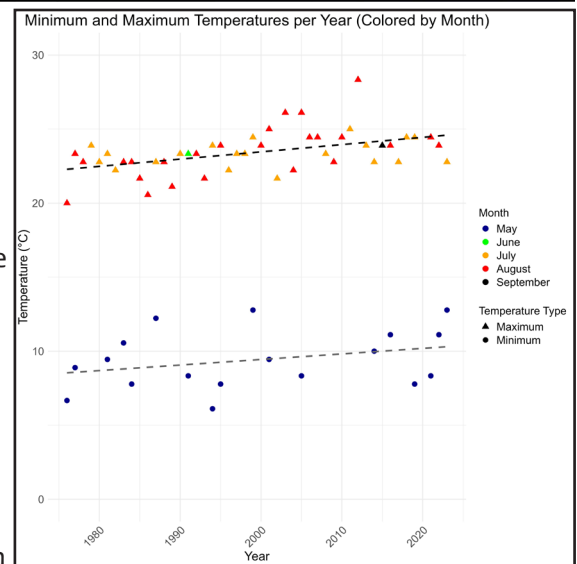
The Skaneateles Watershed Education Program works to protect the water quality of Skaneateles Lake, a treasured resource that serves as the primary drinking water source for Skaneateles and the City of Syracuse. The City of Syracuse has funded this program since its inception in 1996.

White lines on the graphs show the separation between the epilimnion, metalimnion and hypolimnion.

- Epilimnion: The warm top layer of the lake (surface waters)
- Metalimnion: The layer between the epilimnion and hypolimnion where temperature changes rapidly
- Hypolimnion: The cold bottom layer of the lake



A separate graph shows minimum and maximum temperatures for the months of May, June, July, August, and September for each year. Dotted lines show an increasing trend over time for the maximum and minimum temperatures. Access the temperature profiles: www.skanlakeinfo.org/lake-data.



In addition to the temperature data, there is now a page dedicated to the Skaneateles Nine Element (9E) Plan. This page provides a brief background and links directly to the plan which can be viewed/downloaded, including both appendices. The page also includes a FAQ-type section answering commonly asked questions about the 9E plan, like: what are the nine elements, what are the water quality indicators that will be tracked, and now that the plan is approved, what happens next. View the new page: www.skanlakeinfo.org/nine-element-plan.

Have a suggestion for the Skaneateles Lake watershed website? Contact Camille Marcotte at ctm78@cornell.edu.

Cornell Cooperative Extension
Onondaga County



Reforestation Old Farmland with 5,000 Native Trees to Protect Local Drinking Water

By Central New York Land Trust

Over the past two years, the Central New York Land Trust (CNYLT) has planted 5,000 native trees with the help of more than 220 volunteers. The effort culminated during Earth Week 2026, when over 160 volunteers from 25 partner organizations gathered at the 144-acre O'Neill Family Farm Preserve in Skaneateles to plant 3,500 native seedlings in a single day.

Volunteers included New York State Senator Rachel May and Dr. Robin Wall Kimmerer, award-winning author and Emeritus Professor at SUNY-ESF. Together, participants planted eight native tree species including River Birch, Swamp White Oak, Red Maple, Sugar Maple, Silver Maple, Sycamore, White Oak, and Tulip Poplar.



Central New York Land Trust banner. Credit: Central New York Land Trust

The reforestation project is designed to improve wildlife habitat, enhance water quality, and restore former agricultural fields. The planting site was carefully selected using field assessments and mapping to identify areas that drain into Skaneateles Lake, the primary drinking water source for the City of Syracuse.

Tree species were selected with guidance from The Nature Conservancy and purchased through Onondaga County Soil and Water Conservation District's annual bare-root tree sale. To improve survival rates, CNYLT installed an 8-foot-tall deer enclosure around the 2026 planting area and continues to monitor and maintain trees planted in 2025.

CNYLT is grateful to the many volunteers and community partners who made this project possible and looks forward to continuing reforestation efforts at the O'Neill Preserve in the years ahead. For a snapshot of the day, check out the [short YouTube video](#) showcasing the event.

Project Partners:

Skaneateles Lake Association, Baltimore Woods Nature Center, Town of Skaneateles, Waygate Technologies, Baxter Inc., Finger Lakes Land Trust, SUNY College of Environmental Science and Forestry, NYS DEC, City of Syracuse, Rotary Club of Skaneateles, Skaneateles Sunrise Rotary Club, Tully Rotary Club, Friends of Pleasant Valley, GoNative! Perennials, Ecological Preservation Society at Colgate University, ReUnited of United Way, Marywood University, Cornell Cooperative Extension – Onondaga County, Trout Unlimited Iroquois Chapter, The Nature Conservancy, Southern Glazer's Wine and Spirits, and Plant Baby Plant.



Volunteers planting trees. Credit: Central New York Land Trust



Senator Rachel May with volunteers. Credit: Central New York Land Trust

Shotwell Brook Constructed Wetland and Stream Restoration Project

By Kim Clark, Onondaga County Soil and Water Conservation District

Construction of a wetland project and restoration of a 200-foot stream section is completed in the Shotwell Brook watershed. This project supports New York's "Resilient NY" initiative and the Skaneateles Lake Harmful Algal Bloom (HAB) Action Plan by reducing the amount of sediment and phosphorus entering the lake. This initiative was the collaboration of many different agencies including the US Fish & Wildlife Service, Department of Environmental Conservation, Skaneateles Lake Watershed Ag Program, the City of Syracuse and the landowner. A huge thank you to Gian Dodici of the US Fish & Wildlife Service.

Built on 1.2 acres of abandoned agricultural land, the constructed wetland and its extensive floodplain are designed to capture and store water during intense high-flow storm events. A re-established channel upstream of the wetland directs high flow events that exceed bank full into the new wetland, decreasing stream velocity and allowing settling out of sediment. Filtering by wetland plants also removes nutrients and fine sediments before reaching the Lake.

Part of this project included restoration of a 200-foot section of severely incised stream channel. The project involved the creation of 330 feet of meandering stream allowing the stormwater to reach its floodplain. Creating an expansive floodplain provides enhanced benefits for the watershed such as carbon sequestration, downstream flood mitigation and water quality improvements including sediment trapping, nutrient removal and chemical detoxification. Tree and millet planting and wood duck box installation rounded out the project, improving both aquatic and terrestrial habitats.

These conservation practices are intended to reduce the occurrence of flood events due to increased water storage in the wetland and extensive floodplain reach for the stream. The ultimate goal of the combined projects is to reduce stream flows during high intensity storm events that generate significant sediment plumes in Skaneateles Lake, negatively impacting the water quality of the City's drinking water intake located north of the Shotwell Brook outlet.



Before (top) and after (bottom) photos of the constructed wetland. Credit: Onondaga County Soil & Water



Before (top) and after (bottom) photos of the stream restoration. Credit: Onondaga County Soil & Water

Pork Street Wetlands Project

By Mark Burger, Onondaga County Soil and Water Conservation District

In November of 2025, a wetland creation project on a portion of low-lying farm field off Pork Street, Town of Skaneateles, NY, commenced. The project was intended to capture sediment laden storm runoff during high flow storm events from two Shotwell Brook tributaries. The wetland was designed to be shallow ~2.7 acres in size and attenuate approximately a five-year storm event.

Over the course of seven months numerous problems were encountered, including six different types of soils, a harsh winter, lots of ancient tile lines in the field, and many other logistical challenges. The completed 2.2-acre wetland was deeper than originally planned and will attenuate stormwater from a 50-year event. A lot of native seed material was planted at the project site to jump start the establishment of vegetation. Soon, habitat nest boxes will be installed to help attract a variety of bird species in the next spring season.

Many thanks to the following agencies for funding and support: City of Syracuse, Department of Water; US Fish and Wildlife Service; Skaneateles Lake Watershed Agricultural Program; Onondaga County SWCD; Tucker Farms; and Elmer Richards & Sons Farm.



*Before photo of the Pork Street wetlands project.
Credit: Onondaga County Soil & Water*



*After photo of the Pork Street wetlands project with seed and mulch cover applied.
Credit: Onondaga County Soil & Water*

Skaneateles Lake Watershed Database Migration: New Software Makes It Easier to Track Watershed Activity and Violations

By Rich Abbott, City of Syracuse Water Department

For almost a century, the Syracuse Water Department (SWD) has collected data on over 3,500 properties in the Skaneateles Lake Watershed. File folders primarily contained information on septic system designs and Sanitary Code Violations. With the adoption of updated Watershed Rules and Regulations in 2005, all building and land disturbing activities (>5,000 sq. ft.) required review by the SWD. The packet accompanying town permit applications significantly increases the documents stored in property folders.

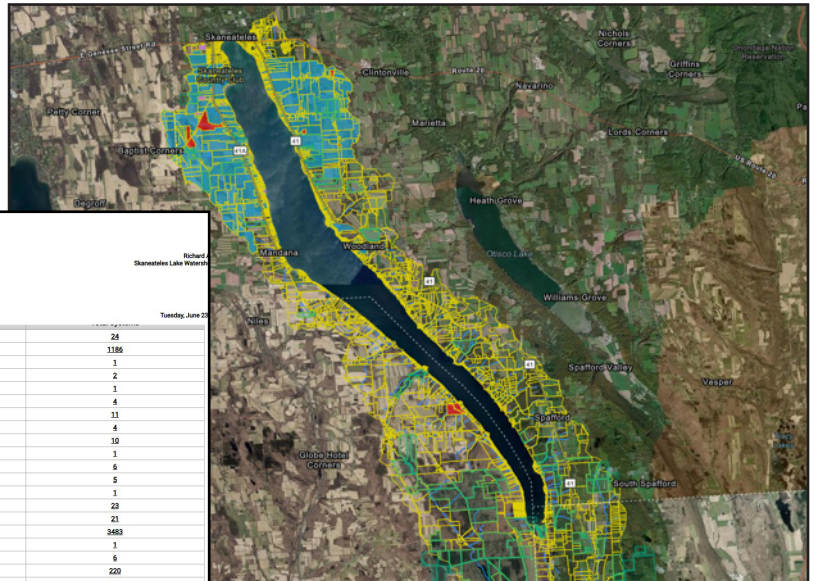
From 2004 - 2006, the SWD implemented the Skaneateles Lake Demonstration Project, funded through the USEPA. As part of this project, Enhanced Treatment Units (ETUs) were installed at nineteen sites replacing legacy septic systems. These ETUs are documented in property files. Additionally, there are currently over one hundred onsite wastewater treatment systems (OWTS) requiring service agreements specifying annual/semi-annual operation and maintenance (O&M) that have been installed in the watershed. Certified O&M service providers submit contract renewals and service reports to the SWD for permit compliance. Violation notices are sent to property owners, if necessary, for expired contracts and failing septic components. Updating SWD software will allow for easier tracking of watershed property records and violations, which will help to protect water quality in Skaneateles Lake.

(database migration continued...)

The SWD’s database management system serves as an important repository for all the watershed activity mentioned above. In 2025 the SWD was awarded a grant through the Finger Lakes - Lake Ontario Watershed Protection Alliance (FOLLOWPA) to migrate its legacy database - transferring data to a newer, more advanced system. The modern database features an online management program that identifies, inventories, and manages OWTS compliance and service data.

City of Syracuse Watershed Inspectors routinely patrol the lake and watershed to investigate construction activities and inspect OWTS for failures. The SWD has also incorporated ArcGIS into the annual property inspection program since 2012, creating zones that allow for more efficient watershed inspection. Watershed Inspectors can now use tablets in the field to record property inspections allowing for real-time tracking of inspected properties.

Migrating to the new database has several benefits, including improved performance, scalability, and maintainability, allowing the SWD to take advantage of new features and technologies that were not available in the legacy system. This will make it easier for SWD to track watershed inspection activity and violations, as well as ETUs in the watershed, and overall maintain Skaneateles Lake’s exceptional water quality.



System/Category Summary Report
Carmody Compliance Solutions
 Regulator

System/Category	Yes	No	Total
1 Absorption Bed	24	0	24
2 Absorption Trench	1186	0	1186
3 Aerobic (Consolidated)	1	0	1
4 Aerobic (Enviro Guard)	2	0	2
5 Aerobic (Fusion ZF)	3	0	3
6 Aerobic (Fusion ZF-450)	4	0	4
7 Aerobic (Fusion)	11	0	11
8 Aerobic (Jet)	4	0	4
9 Aerobic (Knight)	10	0	10
10 Aerobic (Multi Flo 750)	1	0	1
11 Aerobic (Multi Flo)	5	0	5
12 Aerobic (Norweco)	5	0	5
13 Aerobic (Singular)	1	0	1
14 Aerobic Treatment Units (ATU)	22	1	23
15 Bottomless Sand Filter (NY-BSF)	12	9	21
16 Conventional Septic System	3482	1	3483
17 Deep Trench	0	1	1
18 Drip Irrigation	3	3	6
19 Dry Well	220	0	220
20 Eject Standard	93	2	95
21 Foam Filter	1	1	2
22 Full Clean	1	0	1
23 Holding Tank	1	0	1
24 Mound	1	65	66
25 Peat Biofilters	2	0	2
26 Raised System	0	15	15
27 Sand Filter	0	47	47
28 Trench Filter	8	0	8

Service and Event Flags

Sort Flags by System Type: **Septic System** | Sort Flags by Tracking Type: **All Components**

Click on a numbered box below to: send data to a map, create a post card, excel file, etc.
 You can also [Create an Excel Mailing List](#) using multiple components and dates.

Description	Installed Systems	Service Coming Due (In Days)				Past Due Status (In Days)		
		90	60	30	Due	30-59	60-89	90+
Aerobic (Fusion ZF)	1							1
Aerobic (Fusion ZF-450)	4							1
Aerobic (Fusion)	11							6
Aerobic (Knight)	10							1
Aerobic (Multi-Flo)	6							1
Aerobic (Norweco)	5							2
Aerobic Treatment Units (ATU)	23							2
System Component Totals	60	0	0	0	0	0	0	14

Top right: Skaneateles Lake watershed map from ArcGIS showing watershed properties which City of Syracuse Watershed Inspectors can update in real-time.

Middle: Screenshot of Carmody software showing an inventory of the different types of onsite wastewater treatment systems in the watershed.

Bottom right: Carmody software screenshot showing installed OWTS and their service dates.

Credit: City of Syracuse

Skaneateles Lake Wave Reviews

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Stay connected!

Join our Water Quality List-serve to receive digital WAVE Reviews, event announcements, and more. Skaneateles Watershed Residents and those looking to protect water quality in their community are encouraged to join.

List serve accessible through this direct link <http://eepurl.com/bQ22XP> or by visiting our website at www.cceonondaga.org and searching for our 'Skaneateles Lake' landing page.

Don't forget to check out the new Skaneateles Lake Watershed website at www.skanelakeinfo.org

Important Contacts for the Skaneateles Watershed

Cayuga County Health Department 315-253-1405
Cayuga County Soil & Water Conservation District 315-252-4171
Cornell Cooperative Extension of Onondaga County 315-424-9485
Cortland County Health Department 607-753-5036
Cortland County Soil & Water Conservation District 607-756-5991
NYS DEC Region 7 Environmental Permits (Onondaga & Cayuga) 315-426-7438
NYS DEC Region 7 Environmental Permits Sub-office (Cortland) 607-753-3095
NYS DEC Spill Prevention and Response 800-457-7362
NYS DEC Region 7 Water & Wastewater (Stormwater, Dam Safety, Flood Control) 315-426-7500
Onondaga County Health Department 315-435-3252
Onondaga County Soil & Water Conservation District 315-457-0325
Skaneateles Lake Watershed Agricultural Program 315-457-0325
Syracuse Water Department (Skaneateles) 315-448-8366

This newsletter was created by Camille Marcotte of Cornell Cooperative Extension Onondaga County and Rich Abbott, City of Syracuse Water Department.

Skaneateles Lake Watershed Education Program

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