CAYUGA LAKE, AURORA AND ITHACA, NY HYDRILLA CONTROL DEMONSTRATION PROJECT

AQUATIC PLANT CONTROL RESEARCH PROGRAM, RIVERS AND HARBORS ACT OF 1958 (P.L. 85-500), AS AMENDED

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22 January 2026

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AGENDA

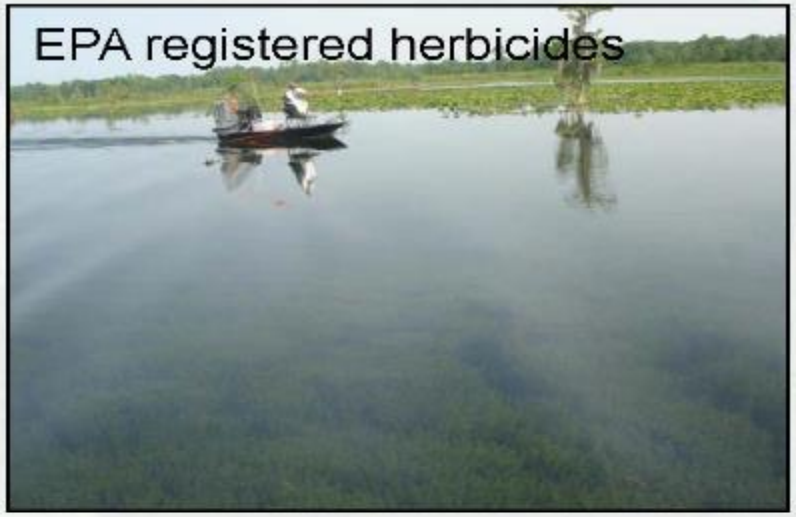
- Thank you to our many partners!
- Project goals
- Overview of herbicides used
- Overview of treatment and water monitoring
- Point intercept results
- Next steps
- Questions and comments

GOAL: PROTECT WHAT'S IMPORTANT

1. Public safety – responsible use of a well understood herbicides
2. Protect and restore the Great Lakes/Finger Lakes and the associated ecological and economic benefits
3. Significantly reduce the risk of hydrilla spreading and potentially eradicate it in the project area where possible

Management Options for Hydrilla are Limited

EPA registered herbicides



Grass Carp – SE Reservoirs

Mechanical Harvesting
(hand pulling, diver suction dredge)

Environmental Extremes

Selective Biocontrol

Do Nothing

SELECTED HERBICIDES AND USE RESTRICTIONS

Product	Irrigation – Row crops, turf, trees or plants	Irrigation – Newly seeded areas, including overseeded golf course greens	Irrigation – Nursery, Greenhouse, Hydroponics	Drinking, culinary or food processing purposes
Harpoon (chelated copper)	None	None	None	< 200 ppb
Sonar H4C (fluridone pellet)	7 days	Fastest required	< 1ppb	< 50 ppb*

* Applications of these products will be below the listed thresholds.

PESTICIDES CONTAINING SINGLE FLUORINATED CARBON

https://www.epa.gov/ingredients-used-pesticide-products/pesticides-containing-single-fluorinated-carbon

"In 2023, the Biden EPA went through a public rulemaking process and clearly defined PFAS as not including single fluorinated compounds. This deliberate exclusion of single fluorinated carbons was based on extensive scientific evidence and public input demonstrating that molecules with only one fluorinated carbon lack the persistence and bioaccumulation properties that are commonly associated with forever chemicals. EPA-approved single fluorinated compounds are not forever chemicals, they are not PFAS, and do not pose any risks of concern when used as labeled."

ITHACA

ERDC

2025 Fluridone Treatment Areas
Cayuga Lake at Ithaca, NY

0 0.125 0.25 0.5 Miles

N

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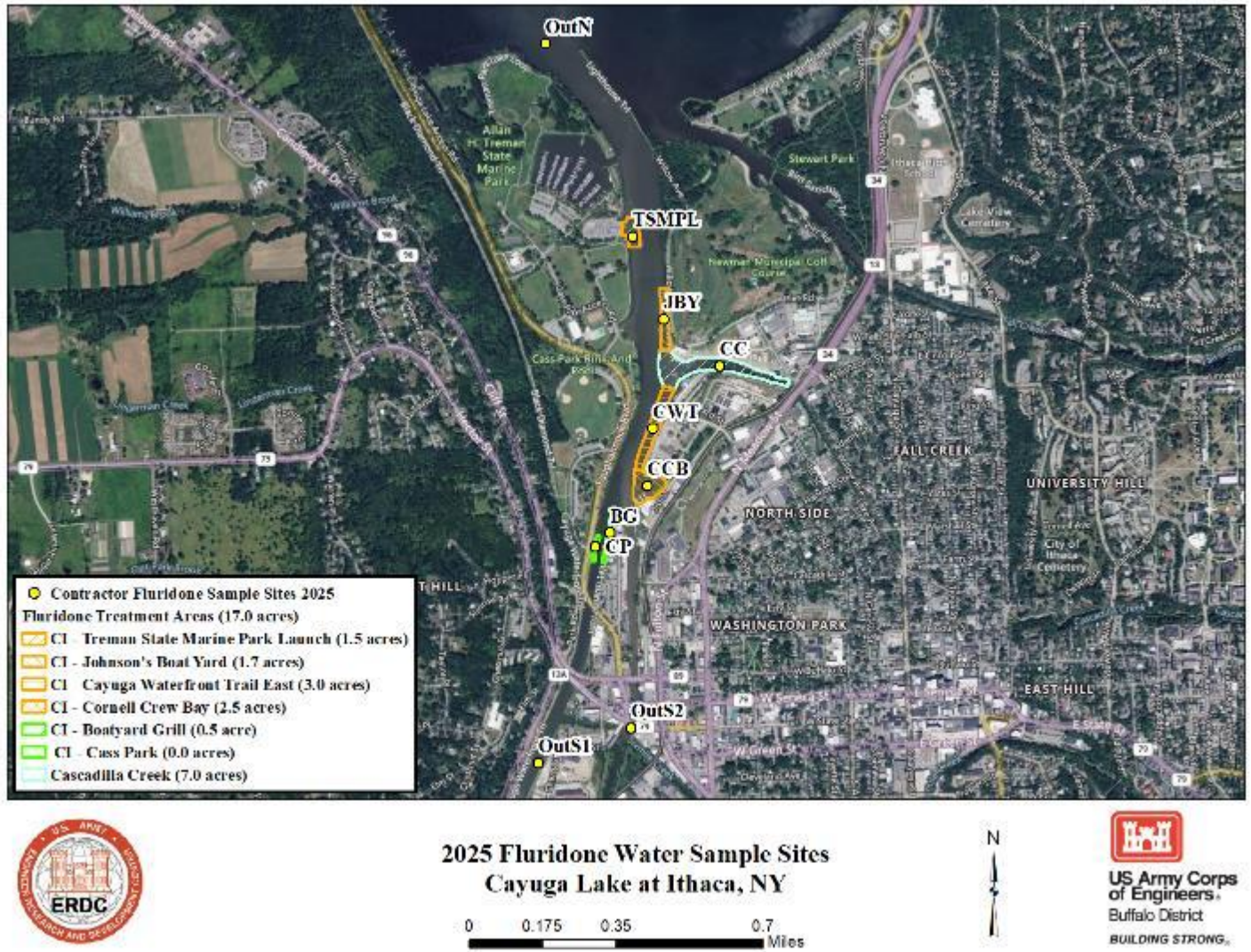
CAYUGA LAKE INLET

Sonar H4C, 17.0 acres

- 2 applications @ 20 ppb
- 8 applications @ 13.75 ppb
- Weekly on Thursdays
- Jun 26 – Aug 28

WATER MONITORING



2025 Fluridone Water Sample Sites
Cayuga Lake at Ithaca, NY

0 0.175 0.35 0.7 Miles

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Water samples were collected weekly during the treatment period, including finished drinking water

All Bolton Point water results <0.5 ppb

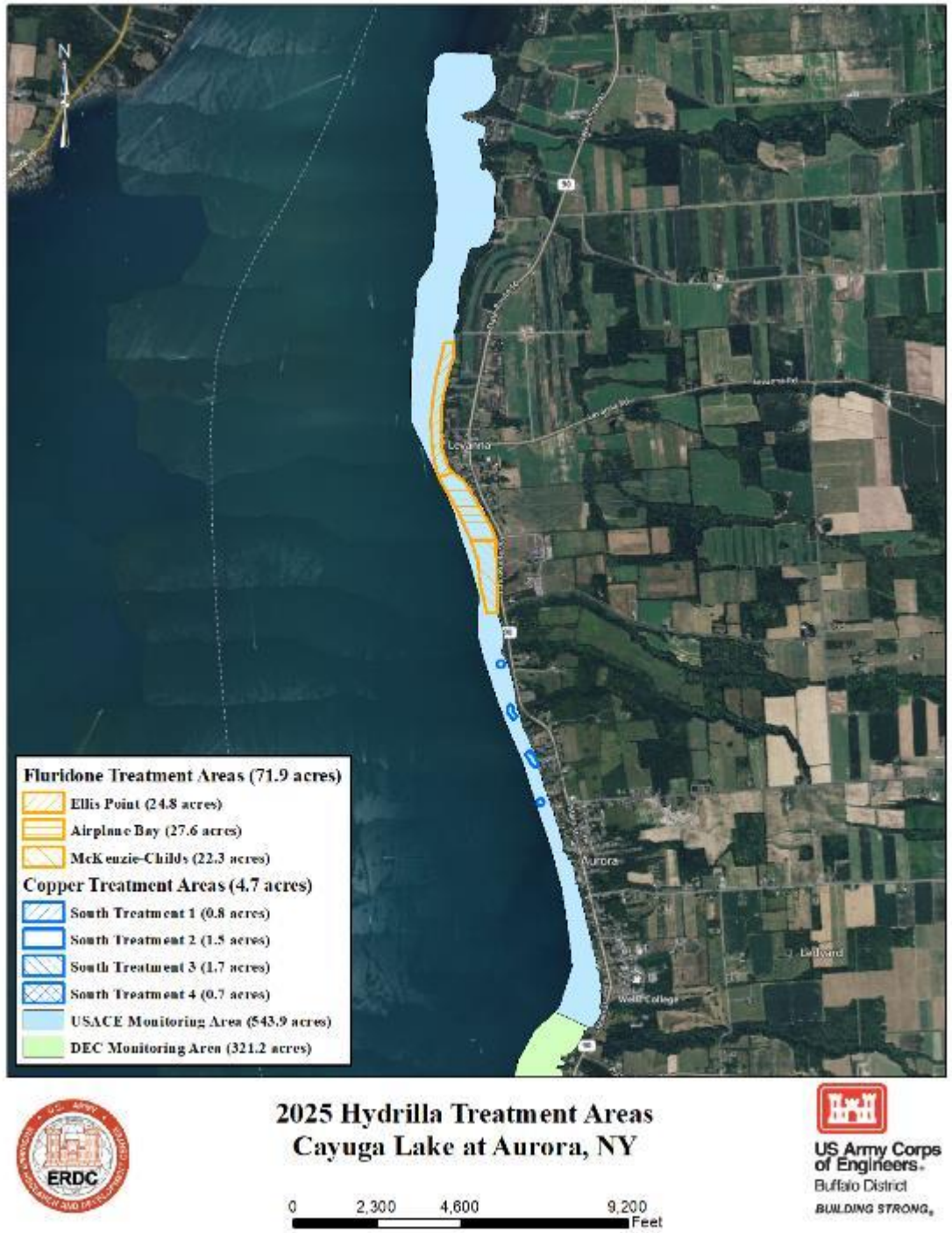
All samples were were less than 5 ppb within the treatment areas with the exception of CC which ranged between 6 and 10 ppb for much of August.

Residues were all below 1.0 ppb with the exception of CCB(1.1 ppb) by 10/30.

POINT INTERCEPT SAMPLING

- Hydrilla was found for two of the three sample dates. Found one locations in late September which was 0.25%.
- Frequency of other aquatic plants (coontail, eelgrass, sago pondweed, white stem pondweed, Eurasian watermilfoil) in the project area is relatively good throughout the year.
- The areas south of the Cascadilla Creek are areas of concern.

Aurora



Treatment

North Treatment Areas (71.9 acres)

Sonar H4C
3 applications @ 20 ppb
1 application @ 15 ppb
6 applications @ 12.5 ppb
Weekly on Wednesdays;
Jun 25 – Aug 27

Copper Treatment Areas (4.7 acres)

Harpoon
1 application @ 1 ppm
Aug 6

Water Monitoring

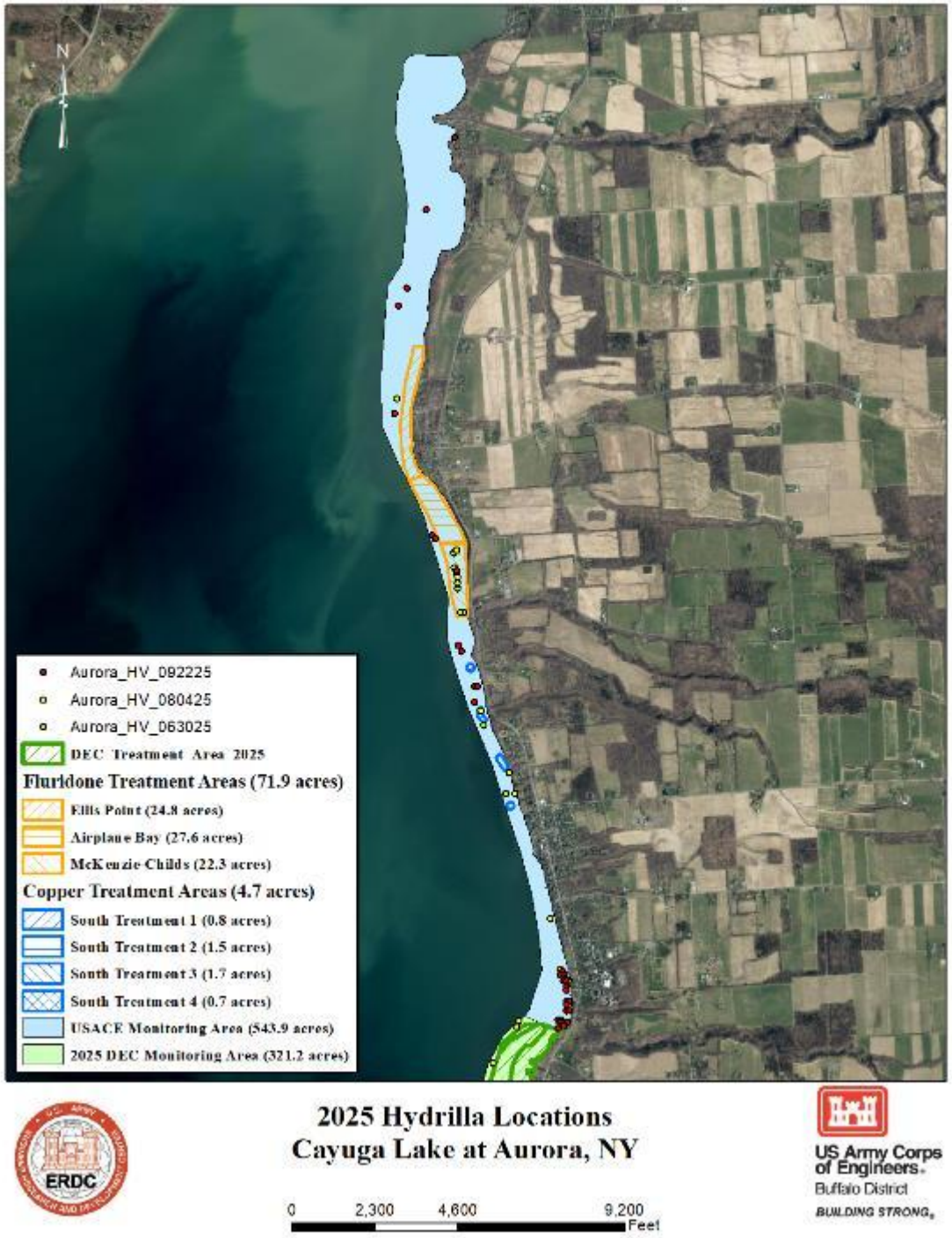
Water samples were collected weekly during the treatment period, including finished drinking water

All finished drinking water samples < 0.5 ppb
There were four samples from McKenzie Childs Water Supply that were 1.0 – 1.2 ppb.

Concentrations within treatment areas range between 1.0 – 5.0 ppb with most < 2.0 ppb

All sites were <0.5 ppb by Sep 12th.

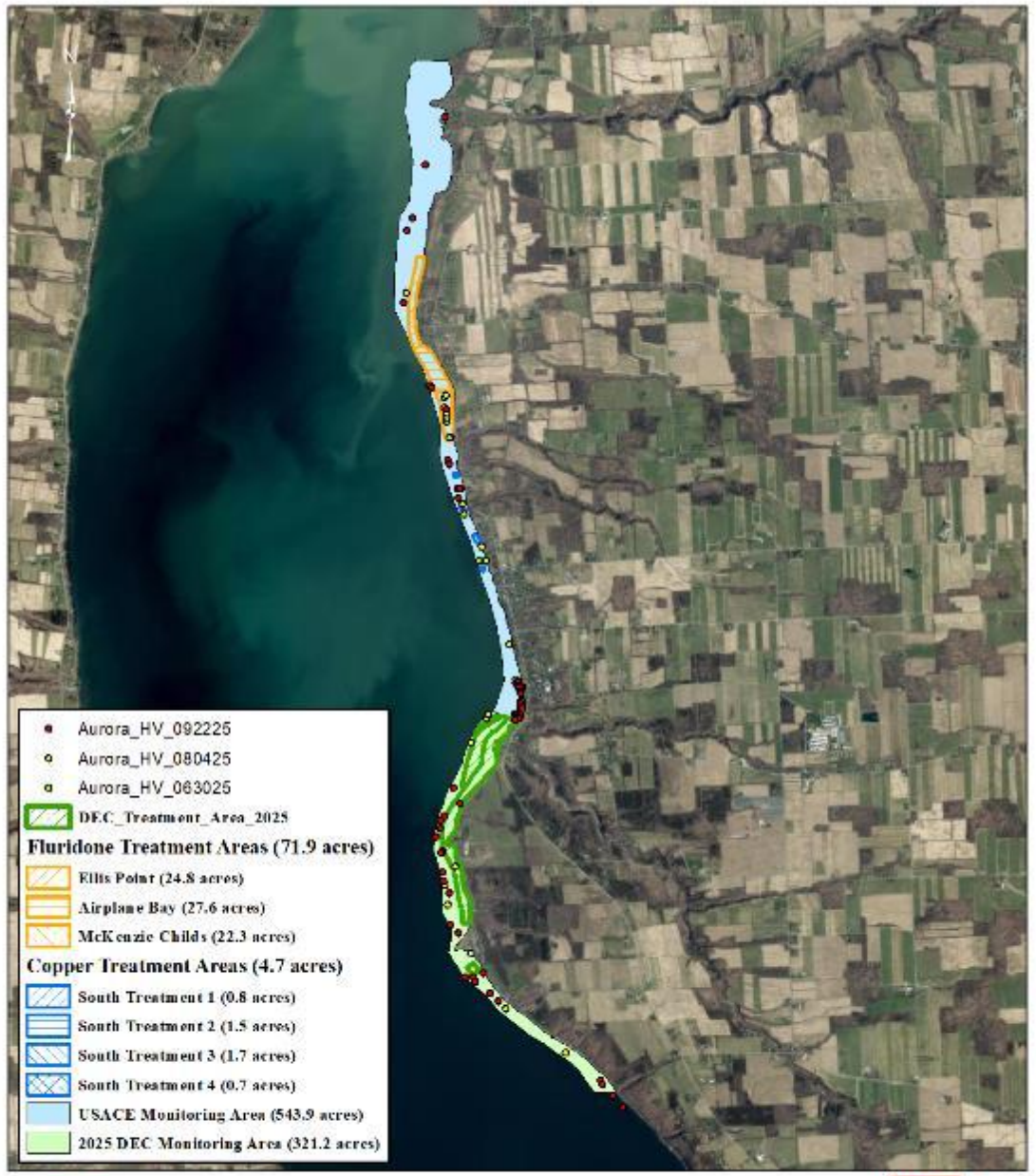
Cumulative Point Intercept Sampling



The percent occurrence of hydrilla was 2.6% or less throughout the year

Had effective control within treatment areas however, reocurrence of patches within previously treated areas and new patches discovered farther north of Ellis Point.

Still have good frequency of occurrence of other SAV including eelgrass, coontail, white-stem pondweed, sago pondweed, elodea. Starry stonewort and Curly Leaf pondweed are dominant at different times of the year



2025 Hydrilla Locations
Cayuga Lake at Aurora, NY

0 3,700 7,400 14,800 Feet

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PATH FORWARD

- Complete data processing and analysis for 2025
- Prepare post-treatment summary reports, end of March 2025
- Help support local partners with development of treatment plans and monitoring in 2026

ADDITIONAL RESOURCES

- New York Invasive Species Information: http://www.nyis.info/, select hydrilla from the aquatic plants tab
- Cornell Cooperative Extension/Tompkins County: www.stophydrilla.org, includes FAQs regarding fluridone
- Finger Lakes PRISM: http://fingerlakesinvasives.org/
- Cayuga Lake Watershed Network: http://www.cayugalake.org/
- Center for Aquatic and Invasive Plants: http://plants.ifas.ufl.edu/node/183
- SOLitude Lake Management: http://www.solitudelakemanagement.com/product-labels-new-york-2017