

What will this Project do to Stop Hydrilla?

The USACE Buffalo District is continuing its efforts to treat hydrilla in Cayuga Lake in the vicinity of Ithaca. For 2023, approximately 72.3 acres at the southern end of Cayuga Lake have been identified for treatment, based on observations of hydrilla

beds from fall 2022. The aquatic herbicides fluridone (Sonar® H4C, Sonar® Genesis) and chelated copper (Harpoon® Granular) will be applied within project area, which is divided into the following four treatment areas (see Figure 1):

- 1. Fall Creek:** 22.5 acres starting at Fall Creek from the SR 13 bridge to the confluence with Cayuga Lake including the lagoons at Stewart Park and the golf course. To be treated with Sonar® Genesis and Sonar® H4C.
- 2. Cayuga Lake East:** 27.4 acres at the southern end of Cayuga Lake offshore of Stewart Park. To be treated with Sonar® H4C.
- 3. Cayuga Lake West:** 6.7 acres near Treman State Marine Park west of the confluence with Cayuga Inlet. To be treated with Sonar® H4C.
- 4. Cayuga Inlet:** 15.7 acres comprised of five different areas within the Cayuga Inlet. To be treated with Sonar® H4C.

In the Fall Creek, Cayuga Lake East, and Cayuga Lake Inlet treatment areas, the Sonar® H4C application will be split into 10 treatments. For Fall Creek and Cayuga Lake East, the first two applications will occur at 20 parts per billion (ppb), and the remaining eight applications at 9 ppb. For Cayuga Inlet, the first two applications will occur at 20 ppb, and the remaining eight applications at 13.75 ppb. For Cayuga Lake West, the Sonar® H4C application will be split into 8 treatments and the first four applications will occur at 20 ppb and the last four will occur at 10 ppb. The area in Fall Creek from the SR 13 bridge to Cayuga Lake will also be treated with Sonar® Genesis to maintain a 2.5 ppb daily rate using an injection system.

Post-treatment monitoring will be conducted to determine the success of the treatment and whether future treatments will be needed. The 2022 post-treatment assessment report contains a summary of the management efforts including water monitoring results and is available on the Hydrilla Collaborative website at:

<https://hydrillacollaborative.com/Home/CaseStudies>

When will the Project Take Place?

In all four treatment areas, the first application of Sonar® H4C will occur on or about June 29, 2023, as will the Sonar® Genesis treatment in Fall Creek. A total of 10 treatments will occur in the Fall Creek, Cayuga Lake East, and Cayuga Inlet treatment areas, and a total of 8 treatments will occur in the Cayuga Lake West treatment area. Treatments will occur approximately 7 days apart, depending on dilution rates within the lake treatment area. Spot treatment of up to approximately 5 acres within the project area may be completed with Harpoon® Granular at a concentration of 1.0 ppm (1,000 ppb) on or about the week of August 14, 2023, if necessary.

Herbicide will routinely be applied on Thursdays, unless there are weather delays. The herbicide will be applied only if there are favorable weather conditions. Any changes in the treatment schedule will be communicated to the public.

Herbicide Information

For more information on Sonar® H4C, Sonar® Genesis, and Harpoon® Granular refer to the link below for product labels: <https://www.solitudelakemanagement.com/product-labels-new-york-updates>

Will There Be Any Restrictions on Use of the Lake during Treatment?

Water sampling will be conducted to monitor fluridone concentrations in the lake. This will ensure that the herbicides are applied at the targeted concentration rates, and the monitoring results will be used to determine herbicide dispersion. The Tompkins County Health Department will again be posting the monitoring results on their website which can be accessed at: <https://tompkinscountyny.gov/health/eh/water/hydrilla>

Restrictions

There are no restrictions for fishing, swimming, or livestock/pet water consumption at the proposed application rates of Sonar® H4C, Sonar® Genesis, and Harpoon® Granular.

There **ARE** restrictions for using water treated with Sonar® H4C for irrigation and for potable water treated with all three herbicides if treated water concentrations are above what is indicated in Table 1.

Table 1 Water Use Restrictions

Product	Established Row Crops/Turf/Ornamental Plants	Tobacco, Tomatoes, Peppers and Similar Plants, and Newly Seeded Crops/ Seedbeds or Areas to be Planted Including Overseeded Golf Courses	Nursery, Greenhouse, Hydroponics	Potable Water
Sonar® H4C, Sonar® Genesis	Do not use if concentrations > 10 ppb	Do not use if concentrations > 5 ppb	Do not use if concentrations > 1 ppb; <i>FasTEST</i> required	Do not use if concentrations > 50 ppb*
Harpoon® Granular	None	None	None	Do not use if concentrations > 200 ppb**

* Applications of Sonar® H4C and Sonar® Genesis will be below the listed thresholds. **ppb** = parts per billion
 ** Application of Harpoon® Granular will only exceed these concentrations in small spot treatment areas that are not expected to exceed a cumulative total of 5 acres.

Signs will be placed at all public access locations within the treatment area to notify the public of these restrictions.

Tentative Treatment Schedule (the Week of...)

June 29	1st Sonar® H4C/Genesis Treatment (Fall Creek), 1st Sonar® H4C Treatment (Lake East/West & Cayuga Inlet)
July 6	2nd Sonar® H4C/Genesis Treatment (Fall Creek), 2nd Sonar® H4C Treatment (Lake East/West & Cayuga Inlet)
July 13	3rd Sonar® H4C/Genesis Treatment (Fall Creek), 3rd Sonar® H4C Treatment (Lake East/West & Cayuga Inlet)
July 20	4th Sonar® H4C/Genesis Treatment (Fall Creek), 4th Sonar® H4C Treatment (Lake East/West & Cayuga Inlet)
July 27	5th Sonar® H4C/Genesis Treatment (Fall Creek), 5th Sonar® H4C Treatment (Lake East/West & Cayuga Inlet)
Aug 3	6th Sonar® H4C/Genesis Treatment (Fall Creek), 6th Sonar® H4C Treatment (Lake East/West & Cayuga Inlet)
Aug 10	7th Sonar® H4C/Genesis Treatment (Fall Creek), 7th Sonar® H4C Treatment (Lake East/West & Cayuga Inlet)
Aug 17	8th Sonar® H4C/Genesis Treatment (Fall Creek), 8th Sonar® H4C Treatment (Lake East/West & Cayuga Inlet)
Aug 24	9th Sonar® H4C Treatment (Cayuga Lake East & Cayuga Inlet only)
Aug 31	10th Sonar® H4C Treatment (Cayuga Lake East & Cayuga Inlet only)

Who Can I Contact for More Information?

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STEWART PARK, CAYUGA LAKE, ITHACA, NEW YORK

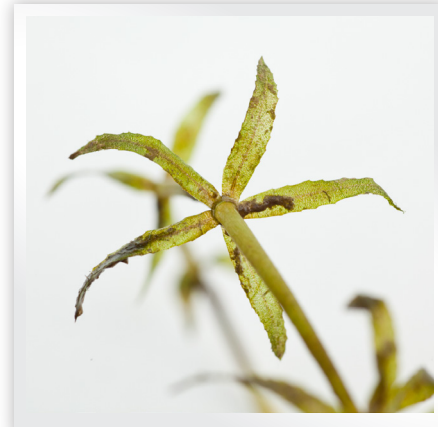
2023 HYDRILLA CONTROL DEMONSTRATION PROJECT

Stop hydrilla from expanding further into other areas of New York State and the Great Lakes!



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What is Hydrilla and What Concerns Does it Pose to Cayuga Lake?



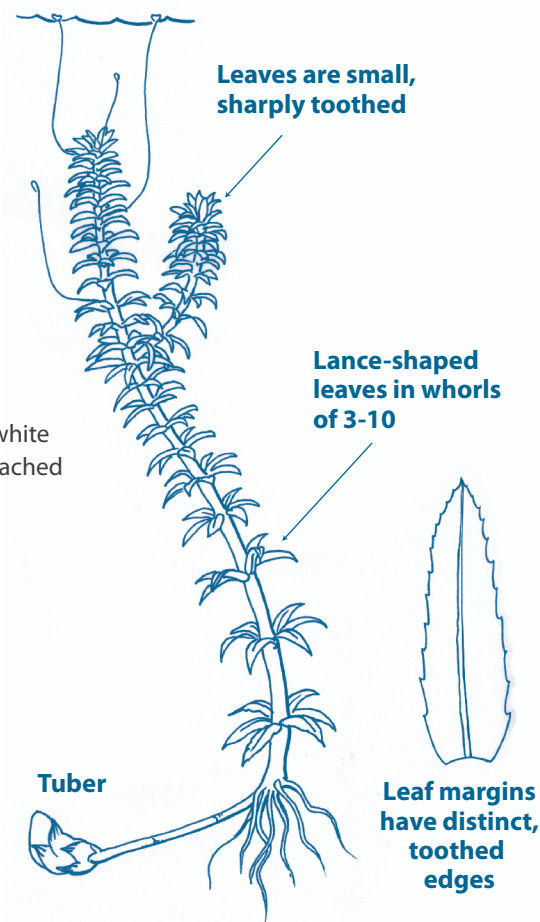
Source: Scott Kishbaugh, NYSDEC Hydrilla whorls up close

Hydrilla is a very aggressive aquatic invasive plant native to Korea. It is a submerged aquatic plant that is typically rooted in shallow water, with long stems that can grow up to 30 feet in length and up to one inch per day. These stems branch at the water's surface and grow horizontally, forming thick, dense mats. Hydrilla also produces tubers, small potato-like structures, which store food for the plant and also allow it to overwinter in the substrate of the waterbody and sprout in the spring.

What Does Hydrilla Look Like?

Key plant identification features:

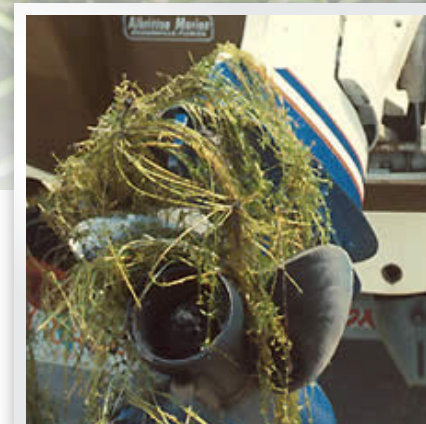
- Pointed, bright green leaves about 5/8 inch long with small teeth on the edges
- Leaves generally grow in whorls of 3-10 around the stem, though 5 leaves are most common
- Floating white flowers and small white to yellowish potato-like tubers attached to the roots



Source: Cayuga Lake Watershed Network 2012



Source: Leslie Mehrhoff, from the U.S. Forest Service



Source: Jeff Schardt, Florida DEP Hydrilla on boat

How Does it Spread?

- Primary method of spreading is through hydrilla fragments on recreational boats and trailers
- Even tiny fragments of hydrilla can sprout roots and establish new populations
- Fragments float and can be spread via wind and water currents

Why Do We Need to Stop It?

- It is one of the world's most invasive aquatic plants.
- It can grow up to one inch per day.
- It forms dense mats that block sunlight and displace native plants.
- It decreases dissolved oxygen levels which can lead to fish kills.
- It destroys waterfowl feeding areas and fish spawning sites.
- It reduces the weight and size of sportsfish due to loss of open water and native vegetation.
- It excludes boating, fishing, and swimming due to its thick mats.
- It can hurt the local economy due to impacts on tourism and waterfront property values.

Figure 1: 2023 Project Area Map

