What will this Project do to Stop Hydrilla?

The U.S. Army Corps of Engineers (USACE) Buffalo District has identified a 15-mile section of the Erie Canal, from the confluence with the Niagara River east to Lockport to focus on due to the documented presence of hydrilla in that stretch of the canal. They have established two treatment areas:

- **Western block:** 7 miles between the Route 265 Bridge in Tonawanda to Bear Ridge Road in Lockport
- **Eastern block:** 8 miles between Bear Ridge Road and the Pendleton Guard Gate in Lockport

Purpose of the Demonstration Project:
To develop selective control methods to manage hydrilla in a flowing water system while minimizing impacts on native vegetation.

During treatment, the New York State Canal Corporation will shut down or significantly reduce flow in the 15-mile section of the Erie Canal for 48 hours. The western block contains the majority of the large hydrilla beds and will receive direct herbicide application. After the 48 hours, the flow in the canal will be returned to pre-treatment levels. As this occurs, the portion of herbicide-treated water from the western block will begin moving east toward Lockport, following the typical direction of flow within the canal at this time of year. As the water moves, it will treat the hydrilla beds in the eastern treatment block without the need for additional herbicide to be applied in that section. This approach will significantly reduce the amount of herbicide used, providing cost savings and reducing exposure to non-target plants.

Goals of the treatment:
- To reduce the total mass of hydrilla in the 15-mile section of the Canal by more than 95%
- To reduce hydrilla tubers by more than 85%

Post-treatment monitoring will be done to determine the success of the treatment and to determine whether additional canal-wide treatments will be needed in the future.

When will the Project Take Place?

The USACE has identified two potential weeks for the aquatic herbicide application: the weeks of July 21st and July 28th. Late July has been selected as hydrilla will be most susceptible to the herbicide at that time of the growing season, and to avoid important local events like Canal Fest. The treatment will take place for 48 hours between Tuesday and Thursday during either the week of July 21st **OR** the week of July 28th to minimize disruptions during peak weekend use.

Weather conditions leading up to those two weeks could impact the timing of the treatment. Periods of little rainfall provide optimal conditions due to lower flows within the canal. If there is heavy rain leading up to the application, the treatment dates will need to be rescheduled. Any changes in the schedule of the treatment will be communicated to the public.

What Restrictions will be in Place on the Canal during the Project?

The herbicide endothall (Aquathol K) will be applied to the section of the Erie Canal to be treated as per label directions. The herbicide degrades naturally by bacterial action in the water, and has a half-life of 5-8 days. Half-life refers to the time it takes for 50% of the chemical to degrade or break down.

A water sampling program will be implemented to determine endothall concentrations within the 7-mile treatment area, as well as within downstream areas following the resumption of flow in the canal. This sampling program will ensure that the herbicide is applied at the targeted concentration rate (1.5 ppm), and will also determine the rates at which the herbicide disperses and degrades within the canal as it moves downstream.

The following restrictions will be associated with the application of this herbicide in Erie Canal:

- **Swimming:** After application, swimming is prohibited for one day. Outside the treatment area, swimming is not prohibited.
- **Fishing:** There are no restrictions on catching and eating fish.
- **Livestock Consumption:** Consumption of treated water is prohibited for 14 days. This restriction does not apply to chance or accidental exposure to animals from treated water (e.g., a dog drinking water from the canal).
- **Irrigation:** Canal water for irrigation of annual nursery or greenhouse crops, including hydroponics and newly seeded or transplanted annual crops, newly seeded or transplanted ornamentals, and newly sodded or seeded turf should not be used for 7 days after the herbicide application.

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

Who Can I Contact for More Information?

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HYDRILLA CONTROL DEMONSTRATION PROJECT

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

Source: Chris Evans, River to River CWMA, Bugwood.org

02EE-004637-0001-02TTO

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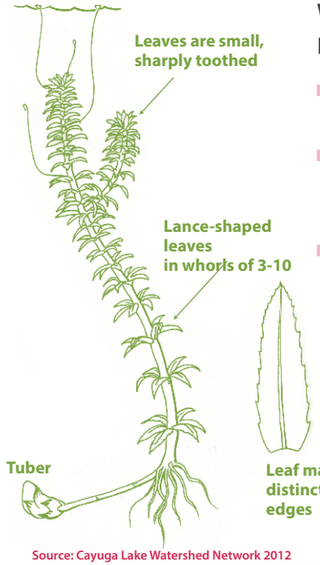
Why do We Need to Stop Hydrilla?

- It is one of the world's most invasive aquatic plants.
- It can grow up to one foot 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 eliminates 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 our local economy due to impacts on tourism and waterfront property values.

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

What is Hydrilla?

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. 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.



Source: Cayuga Lake Watershed Network 2012

What does Hydrilla Look Like?

Key plant identification features:

- Pointed, bright green leaves about ⅝ 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: Scott Kishbaugh, NYSDEC
Hydrilla whorls up close

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

Where was Hydrilla Found on the Erie Canal?

Hydrilla was discovered by the U.S. Fish and Wildlife Service growing in the Tonawanda Creek section of the Erie Canal in Western New York in September 2012. The infestations known today extend from the outlet of the canal near the Niagara River in Tonawanda and North Tonawanda, to the Lockport area approximately 15 miles to the east. Currently, hydrilla beds are patchy and limited to the shallow shoreline areas outside of the main navigational channel throughout the 15-mile stretch.

Project Area Map