

RAPID RESPONSE PLAN FOR HYDRILLA (*Hydrilla verticillata*)



Prepared for Mount Riga Corporation

322 Main Street

Lakeville, CT 06039

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Hydrilla (*Hydrilla verticillata*) is an invasive aquatic plant species that can severely impact ecosystems, water quality, and recreation in freshwater bodies. Early detection and rapid response (EDRR) are key strategies in managing and controlling its spread. In Connecticut, the presence of hydrilla in water bodies has raised concerns, and effective strategies need to be implemented.

Mount Riga Corporation owns two lakes, Riga Lake and South Pond. MRI has a Lake Management Committee (LMC) and Citizen Scientists comprised of volunteers from the community who are responsible to educate the community members on practices that contribute to the environmental health of the lakes, train citizen scientists in water testing and identification of lake invasive species, monitor lake health by collecting data through regular water testing. The LMC is responsible for advising and presenting recommendations to the MRI Board of Directors.

MRI is committed to improving and maintaining the health of our lakes, and adopting an early detection and rapid response plan for hydrilla is critical to our success in fulfilling this commitment.

Key components of a Hydrilla Rapid Response Plan include Early Detection and Monitoring, Rapid Response, Containment, Management and Long-Term Control, Communication and Education, and Collaboration and Partnerships.

A. Early Detection and Monitoring:

1. **Surveys and Monitoring:** Regular surveys of water bodies are critical for early detection. This can involve:
 - **Visual Inspections:** Monitoring water bodies, especially those that are known to have been previously affected by hydrilla, such as lakes and rivers.
 - **Aquatic Plant Surveys:** These surveys help identify invasive species, including hydrilla. Aquatic ecologists use divers, sonar, or even drones for this purpose.
 - **Water Quality Monitoring:** Hydrilla thrives in nutrient-rich waters, so keeping track of water quality parameters like nitrogen and phosphorus levels can help predict or spot potential hydrilla growth.
2. **Collaboration with Agencies:** Local, state, and federal agencies (such as the Connecticut Department of Energy and Environmental Protection or DEEP) often work together with local environmental groups and researchers to conduct surveillance programs.
3. **Citizen Reporting:** Educating the public on how to identify hydrilla and encouraging citizen reports of suspected sightings can significantly aid early detection. Providing easy access to online reporting tools or apps could streamline this process.

MRI has worked with limnologists since 2009 to monitor the health of our lakes and conduct surveys of aquatic plants. Water testing and monitoring is now in its 8th year and in 2024 MRI had both lakes visited for searches of hydrilla, in addition to the annual aquatic plant surveys

conducted, by Northeast Aquatic Research. **No invasive species were observed at either lake in 2024.**

MRI has a contract with Applied Watershed Sciences (AWS) for the 2025 season which includes each lake being visited by limnologist Hillary Kenyon and an aquatic plant survey of each lake, in addition to monthly water sampling. No new invasive species were found at either lake in 2025.

Hydrilla



Hydrilla is a submersed aquatic plant that typically grows rooted in the sediment but can grow as a free-floating plant when fragmented. Hydrilla forms dense mats of vegetation that quickly outcompete native species for habitat. It also makes navigating waterways difficult for boats. It grows fast and is adaptable to many environments. It can grow in water up to 20ft deep, threatening most of the littoral zone of the Riga Lakes.

Hydrilla Identification:

- Leaves are whorled around the stem in groups of 5 (leaves are whorled in groups of 4 to 10 for Connecticut River hydrilla). Leaves are lance-shaped, with serrated margins.
- Stems grow up from the sediment to the surface of the water. At the water's surface, stems are highly branched, forming dense vegetation mats. Stems produce reproductive structures called turions (pictured below: vegetative buds that can grow into new plants).



Photo credit: Office of Aquatic Invasive Species, Connecticut Agricultural Experiment Station

Hydrilla Distribution

Hydrilla was first identified in Mystic, Connecticut, in 1989 and has spread to a number of other Connecticut waterbodies. Prior to being discovered in Coventry Lake during 2015, hydrilla was primarily limited to a number of small privately-owned waters with limited access.

A distinct subspecies of hydrilla was found in the Connecticut River in 2016 near Glastonbury. Unlike the other strains, the Connecticut River strain is more robust, has more leaves per whorl, and produces more turions, but does not produce tubers. Beginning in 2023, Connecticut River strain of hydrilla was discovered in several public waters, including Amos Lake, Bashan Lake, Congamond Lake, East Twin Lake, Gardner Lake, Middle Bolton Lake, Pachaug Pond, Pameacha Pond, and Pocotopaug Lake. Additionally, the non-Connecticut River strain of hydrilla was also first documented in Lake Lillinonah during 2023.

B. Rapid Response Strategies:

Once hydrilla is detected, rapid intervention is essential to prevent its spread.

If you think you have found hydrilla:

- Take a clear photo and note its location using the “dropped pin” feature on the Google Maps app on a smartphone (if you have cell service). If you cannot use a smartphone to obtain latitude & longitude coordinate position, try to triangulate the location based on shoreline features.

- If floating, take the stalk and bag it. If rooted, leave it alone, as pulling it may cause it to break and spread further.
- Contact the Lake Management Committee or our limnologist directly:
 - Barbara Heinemann – 781-962-3223, vp@mountriga.org
 - Chris Moore – 203-687-6776, chris.moore@yale.edu
 - Hillary Kenyon, limnologist – 203-848-4610
 - hillary@appliedwatershedsciences.com

The Lake Management Committee (LMC) will work with Applied Watershed Sciences and the MRI board to develop a response strategy and plan based on the location and amount of hydrilla present to include quantifying the extent of invasion, containment, long-term control, and communication.

LMC and MRI leadership will discuss the following with AWS and take actions as appropriate:

1. Notification to appropriate agencies and authorities.
2. Community notification and request to report any identified locations.
3. Quarantine options to mitigate the risk of spread inclusive of suspending all access to the lake, and closure of the guest beach.
4. Assessment and mapping of the infestation.
5. Early eradication options will be considered such as hand harvesting, suction harvesting and benthic barriers among others.

Recommended Options for Early Eradication

The most recommended early actions are hand harvesting and bottom barriers (benthic barriers), each of which has a high potential for success, low cost on a localized basis, and limited permitting needs. Where growths are too dense for effective hand harvesting and too extensive for cost-effective bottom barrier placement, suction harvesting could be considered. Benthic barriers are likely the best first rapid response option for MRI lakes, as recommended by our limnologist. However, as expanded growths indicate that tubers and turions have probably been deposited, treatment with fluridone is more commonly recommended, with repeat treatment in a second year and careful follow-up monitoring.

Some common management strategies in Connecticut could include:

1. **Mechanical Removal:** This involves the physical removal of hydrilla plants from water bodies. Mechanical harvesters or hand-pulling can be used in smaller areas. In some cases, divers are hired to manually remove the plants from deeper areas. This is not a recommended option for MRI lakes as there is risk of fragmentation and spreading.
2. **Chemical Control:** Herbicides like fluridone or endothall are often used to control hydrilla. These chemicals are applied carefully to ensure they target only the invasive species without harming native plants or wildlife. Application of herbicides in Connecticut requires a Permit to Apply Chemicals from CT DEEP. Contact information for CT DEEP is included in section D. 1 of this plan.

LMC is in the process of detailing the permitting process and requirements and will add to this plan once completed. CT DEEP will only work with an experienced professional vendor for the herbicide application permit. Solitude Lake Management Company has agreed to be our resource. Please see section D below for contact information.

Twin Lakes is treating East Twin Lake with the product Sonar. This is an herbicide with the active ingredient fluridone, and they are reporting positive results as of August of 2025 after treating the entire 150 acre bay every 3 weeks since May 2025.

3. **Biological Control:** Introducing natural predators or competitors, such as the grass carp, can help control hydrilla populations. However, this approach must be monitored closely to avoid unintended ecological consequences.
4. **Public Education:** Educating local communities, boaters, and anglers about preventing the spread of hydrilla is essential. This includes cleaning boats and equipment, avoiding the transport of invasive plants, and reporting new infestations.
5. **Collaborative Management:** In Connecticut, state agencies and local entities should continue working together to coordinate rapid response efforts. Sharing information between different stakeholders can help in implementing a more effective, timely control strategy.
6. **Monitoring Post-Response:** After an initial treatment or removal effort, continued monitoring is crucial to ensure that the hydrilla does not re-establish itself. Regular follow-up surveys will help assess the effectiveness of the response and adjust strategies if necessary.

Challenges in Connecticut:

- **Limited Resources:** Managing hydrilla requires substantial financial and human resources, which can sometimes be a challenge for local governments, environmental groups, and lake associations.
- **Public Awareness:** Many people are unaware of how to spot and report hydrilla, which can delay early detection.
- **Ecological Sensitivity:** Water bodies in Connecticut are home to diverse aquatic species, and chemical control methods need to be carefully managed to avoid harming native ecosystems.

C. Communication and Education:

The most effective method of controlling hydrilla infestations is through **prevention**. Public education is the key to preventing the spread of hydrilla and other aquatic invasive plants.

The LMC has been educating the MRI community on hydrilla over the last three years and in both 2024 and 2025 developed materials including flyers, signage, and electronic information shared through emails and on the MRI website. Communications include what is hydrilla, how

to identify hydrilla, what to do and who to contact if you find hydrilla, and the threats of hydrilla in Connecticut.

Please see the 2025 flyer Mt. Riga Lakes Health Update attached to this plan document.

D. Collaboration, Partnerships and Resources:

If hydrilla is suspected in Connecticut, there are several resources and organizations that can be contacted for assistance. Below is a list of key contacts for reporting sightings, seeking guidance, and acting on managing hydrilla:

1. Applied Watershed Sciences LLC.

- MRI lake management company
- 86 Sherman St., Norwich, CT 06360, 203-848-4610, hillary@appliedwatershedsciences.com
- Hillary Kenyon M.S. Certified Lake Manager - limnologist & owner

2. Connecticut Department of Energy and Environmental Protection (DEEP)

- **Phone:** 860-424-3034 (for reporting invasive species)
- **Email:** deep.invasives@ct.gov
- **Website:** CT DEEP Invasive Species Program
- DEEP is the primary state agency responsible for invasive species management in Connecticut, including hydrilla. They offer guidance, conduct surveys, and manage state-level response efforts.
- Permitting process overview: <https://portal.ct.gov/deep/permits-and-licenses/permitting-process-overview>
- General Permit for Point Source Discharges Fact Sheet: [pesticidepdf.pdf](#)
- Aquatic Pesticide Application Fact Sheet: <https://portal.ct.gov/deep/permits-and-licenses/factsheets-waste-and-materials-management/aquatic-pesticide-application-fact-sheet>

3. Connecticut Agricultural Experiment Station (CAES)

- **Phone:** 203-974-8500
- **Website:** CAES Aquatic Invasive Species Program
- CAES provides research and monitoring on invasive species, including hydrilla. They can assist with identification and management advice.

4. U.S. Army Corps of Engineers (New England Division)

- **Phone:** 978-318-8800

- **Website:** U.S. Army Corps of Engineers – New England
- They may be involved in aquatic plant management and could provide insight into broader invasive species control efforts in water bodies, especially those near federal lands or infrastructure.

5. Local Environmental or Conservation Organizations

Many local environmental groups and watershed associations are involved in monitoring and managing invasive species. Examples include:

- **Connecticut River Conservancy:** [Website](#)
- **Friends of the Farmington River:** [Website](#)

Local groups often coordinate with DEEP and provide a valuable resource for community-level surveillance and education on aquatic invasive species.

7. The Invasive Plant Atlas of New England

- **Website:** [Invasive Plant Atlas of New England](#)
- This online resource allows citizens and scientists to track invasive plant species in the region. It includes detailed information on hydrilla and how to report sightings.

8. Connecticut Department of Public Health (DPH)

- **Phone:** 860-509-8000
- **Website:** DPH – Aquatic Plant Management
- While primarily concerned with public health, DPH can be a resource in the event that hydrilla infestation impacts drinking water sources or recreational water bodies. For reference, fluridone herbicide that is most often used for systemic Hydrilla infestations has long been used in and approved for use in drinking water reservoirs. It is considered an extremely well researched and low-risk herbicide with many decades of use history.

How to Report Suspected Hydrilla:

When reporting suspected hydrilla infestation, be prepared to provide the following details:

- **Location:** Exact body of water (lake, river, pond) with GPS coordinates if possible.
- **Description:** A detailed description of the plant or a photo (if safe and possible to take one).
- **Date of Sightings:** When you noticed the plant or suspected infestation.

These resources will help ensure that the appropriate authorities and organizations are informed so that rapid response efforts can begin.

9. Additional Vendor Resources:

- a. **SePRO** - Products (including herbicides) to protect and restore water
 - i. Josh Burnside 267-605-2381 josh.burnside@sepro.com

- b. **Solitude Lake Management – Provide services including herbicide application and CT DEEP permitting application**
Dominic Meringolo
Senior Project Manager
Environmental Engineer
dmeringolo@situdelake.com
P: 508.865.1000 | **M:** 508.373.4526

E. 2025 Lake Health Flyer