

Deer Lake

Aquatic Plant Management Plan

SUMMARY

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This Aquatic Plant Management Plan for Deer Lake presents a strategy for managing aquatic plants by protecting native plant populations, managing curly leaf pondweed, and preventing establishment of invasive species. The plan also covers a response to zebra mussels, an aquatic invader found in the lake in late 2016 that has expanded considerably. The plan includes data about the plant community, watershed, and water quality of the lake. It also reviews a history of aquatic plant management on Deer Lake. It is available at <https://www.deerlakewi.com/>

This plan will guide the Deer Lake Improvement Association (DLIA) and the Wisconsin Department of Natural Resources (WDNR) in aquatic plant management for Deer Lake over the next five years (from 2024 through 2028).



Lake Management Goals, Objectives, and Actions

The DLIA Board and Environmental Committee will track implementation of plan actions and evaluate progress toward reaching plan goals and objectives. The DLIA will seek financial and technical support from partner organizations.

Goal 1) Protect and restore healthy native aquatic plant communities.

Deer Lake supports a healthy and diverse native plant community. The littoral zone, which contains all of the aquatic vegetation, occurs in a relatively narrow band around the lake margins. If waterfront property owners remove plants from even narrow corridors in front of their properties, the result would be significant negative effects on healthy, desirable native stands of plants. Native aquatic plants are responsible for the lake's excellent fisheries, and they help to sustain high water quality. Removing extensive areas of native plants would remove the benefits they provide and potentially hasten the spread of undesirable non-native plants such as curly leaf pondweed or even Eurasian watermilfoil (if introduced).

Whole lake plant surveys to evaluate the native plant community are planned every 3 -5 years.

Program Guidance to protect native plants

- Use only early season herbicide treatments for curly leaf pondweed control measures to limit impacts to native plants.
- Educate lake residents regarding native plant values.



Photo by Ed Ronkowski

Goal 2) Prevent the introduction of aquatic invasive species.

Aquatic Invasive Species (AIS) are aquatic nonindigenous species whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Progress toward this goal is measured through regular professional monitoring.

Actions to prevent AIS introduction

- Staff at the landing will deliver AIS prevention messages and gather data through the Clean Boats, Clean Waters Program.
- A decontamination station using a mild bleach solution and signs will be installed at the Town of St. Croix Falls public landing.
- Polk County now has an ordinance that requires boats to be decontaminated if a station is present at a landing.



Goal 3) Respond rapidly and aggressively to any newly introduced invasive, non-native aquatic plant and/or animal species.

An Aquatic Invasive Species Rapid Response Protocol is updated and included in the plan.

The WI DNR does not currently allow active zebra mussel control efforts. As a result, the DLIA plans to:

- Establish ongoing zebra mussel monitoring
- Support adult and juvenile zebra mussel control research efforts
- Encourage DNR to allow investigation into the use of low-impact methods to alleviate the impacts of zebra mussels in Deer Lake.



Zebra Mussels

Goal 4) Minimize curly leaf pondweed, prevent its spread, and restore healthy native plant communities in its place.

Early season curly leaf pondweed (CLP) herbicide control measures from 2010 through 2022 have successfully reduced dense growth of the invasive aquatic plant curly leaf pondweed from over 32 acres to under 8 acres. Native aquatic plants now thrive in areas where CLP used to grow early in the year. In fact, growth has decreased so much that beds of curly leaf pondweed in Deer Lake do not reach the minimum size where herbicide treatment is allowed by DNR. As a result, no herbicide treatment will occur in 2023.



Going forward we will:

- Monitor CLP growth each year
- As CLP growth approaches minimum thresholds where early season control measures are allowed, we will proceed with permitting and request grant funds for management.
- If CLP reaches thresholds, herbicide treatment will resume in order to contain future CLP growth.



Curly Leaf Pondweed

Goal 5. Educate and engage the public regarding lake stewardship.

A knowledgeable public that understands lake issues and takes action is critical to protect the lake.

Priority topics for education include:

1. Individuals of Deer Lake understand and support aquatic plant management efforts.
2. Everyone inspects boats, trailers, and equipment; removes vegetation; and drains ballast tanks, motors, and live wells upon entering and when leaving the lake.
3. Individuals of Deer Lake take action to mitigate runoff and erosion that carries nutrients and sediment from their property to the lake.
4. Boaters practice no-wake boating within 200 feet of the shoreline (500 feet for wake boats).
5. Individuals of Deer Lake can distinguish between invasive and native plants. They allow native aquatic plants next to the shoreline to grow.
6. Individuals of Deer Lake understand the importance of and maintain natural shorelines.
7. Individuals of Deer Lake quarantine equipment such as docks and lifts for at least one month prior to moving them from one lake or river to another.

The DLIA will use a variety of methods to reach lake residents and visitors including:

- Annual meeting presentations and handouts
- Deer Tales newsletter
- DLIA website and Facebook account
- DLIA email list
- Deer Lake directory
- New homeowner packet
- Neighborhood groups/gatherings
- Signs
- Coordination with fishing tournament organizers

