

Eagle Lake Aquatic Invasive Species Management Plan

2024 Report



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Aquatic Invasive Species Management Plan

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Executive Summary

Eagle Lake, located in Essex County, New York, is a 410-acre naturally occurring waterbody that supports a diverse ecosystem, recreational activities and many vital functions for the community around it. However, Eurasian watermilfoil (*Myriophyllum spicatum*), an aquatic invasive species (AIS), poses a significant threat to its ecological balance and usability. This Management Plan provides a comprehensive framework of options and recommendations to manage and mitigate the impacts of Eurasian watermilfoil through mechanical, physical, chemical, and biological control methods, complemented by prevention and public engagement strategies. We also focus on prevention and rapid response tools for other AIS that are not yet present. The Plan aligns with community goals and integrates adaptive management to protect the lake's biodiversity and recreational value.

How to use this Management Plan

This plan provides a roadmap for managing **Eurasian watermilfoil (*Myriophyllum spicatum*)** and preventing new aquatic invasive species in Eagle Lake. After reading, stakeholders should:

- **Understand the Issue** – Review the current state of the lake, past management efforts, and invasive species threats.
- **Explore Management Options** – Compare mechanical, chemical, biological, and prevention strategies to determine the best approach.
- **Take Action** – Follow the implementation steps, secure funding, and engage in monitoring and adaptive management.
- **Get Involved** – Participate in community efforts, volunteer programs, and public education to support long-term lake health.

This plan should be revisited regularly to adapt to changing conditions and improve management efforts over time.

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1: Introduction

Eagle Lake is a vital ecological and recreational resource. However, the lake faces a significant threat from the aquatic invasive species Eurasian watermilfoil (*Myriophyllum spicatum*) (EWM), which was documented in 31.7% of surveyed locations during a 2024 aquatic vegetation survey.

This and other invasive plants have the potential to outcompete native species, degrade water quality, and interfere with recreational activities such as boating and fishing. The Management of Eagle Lake is overseen by the Eagle Lake Property Owners Inc (ELPOI), The New York State Department of Environmental Conservation (DEC), the Adirondack Park Agency (APA), and the towns of Ticonderoga and Crown Point.

The Eagle Lake Invasive Species Management Plan aims to address these challenges through a combination of prevention, control, and community engagement strategies, ensuring the lake's ecological health and usability for future generations

Purpose of the Plan

The purpose of this plan is to develop and implement effective strategies to prevent the introduction of new invasive species, as well as manage and mitigate the impacts of invasive species currently in Eagle Lake, notably Eurasian watermilfoil which has a significant presence. By prioritizing prevention, adaptive management, and public involvement, the Plan seeks to maintain the lake's ecological integrity while promoting sustainable recreational use.

2: Current State of Eagle Lake

Physical and Ecological Features

Eagle Lake is located in Essex County, NY supports a diverse and rich ecosystem. The lake is home to numerous species, people, and activities, but has been affected by the widespread distribution of Eurasian watermilfoil (*Myriophyllum spicatum*).

Eagle Lake is located in Essex County, NY in the towns of Ticonderoga and Crown Point. It is a 410- acre lake with roughly 7.8 miles of shoreline. Eagle Lake has an average depth of 20 ft with a maximum depth of around 45 ft. The Lake is three miles long and half a mile wide with an East West orientation. The lake is bisected by State Route 74. This road is carried across the lake by a causeway and a bridge. This bridge is low, allowing smaller motorized watercraft and rowing vessels to pass underneath while restricting taller watercraft. The Lake drains into the Hudson River Watershed via Paradox and Schroon Lakes. The Lake has one public access point on the Northwest shore just off route 74. There is a water only access lean-to and beach on state forest land in the Northeast corner of the lake. Both public areas are maintained by the Department of Environmental Conservation. The Lake is stocked with fish yearly from a local fish hatchery by the DEC.

Invasive Species Inventory

Eurasian watermilfoil is the main source of nuisance from invasive species in Eagle Lake. In 2024 EWM was documented at 39 of 123

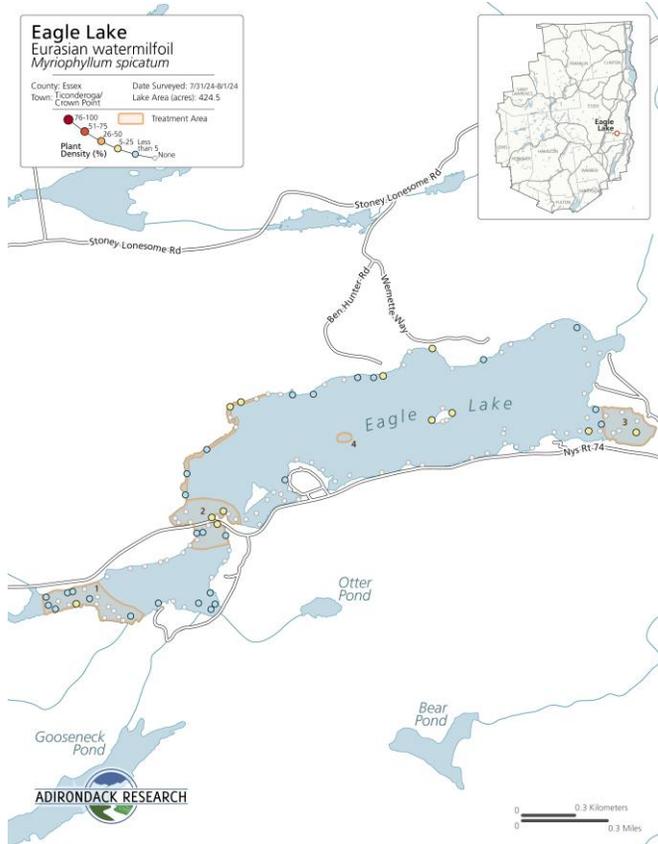


FIGURE 1. EAGLE LAKE EWM DETECTIONS BY ADIRONDACK RESEARCH 2024

(31.7%) sampling stations within the lake. The densest beds of EWM were recorded at two submerged islands in the center of the lake. 2024 was a low year for milfoil across the Adirondack Park, likely caused by intense rainstorms in 2023 causing excessive sedimentation in lakes. Curly-leaf pondweed (*Potamogeton crispus*) (CLP) is believed to be present in the lake but has not been documented in a number of years.



Ecological and Recreational Impact

Invasive species pose significant threats to the ecological balance of Eagle Lake. Native species can be quickly out competed by invasives like Eurasian watermilfoil, reducing biodiversity within the littoral zone of the lake. Invasive species like Eurasian watermilfoil also pose a significant threat to recreation. The two submerged islands in the middle of the lake have moderately dense beds of EWM. The beds have the potential to interfere with motorboats, tangling or bogging down the propeller.

Community Use and Perceptions

Eagle Lake is used by residents, anglers and recreators alike. The lake is limited in use based on the low bridge separating the main body of the lake from the smaller lake with the public access.

Early Identification and Baseline Surveys (1989 & 1994)

The first documented observations of Eurasian watermilfoil in Eagle Lake date back to the late 1970s when residents noticed dense vegetation disrupting recreational activities. By 1989, EWM was confirmed and had spread significantly, forming dense mats primarily in shallow littoral zones. Surveys in 1989 (Darrin Fresh Water Institute) and 1994 (DEC) utilized observational mapping methods, manually documenting the distribution and general density of EWM in various sections of the lake using qualitative characteristics such as trace, sparse, moderate, and dense.

The 2003 GPS Survey

In 2003, a GPS-based survey was conducted to establish an accurate baseline of EWM distribution and density. This survey represented a significant technological advancement, allowing for precise geospatial mapping of infestation areas. GPS units were used to delineate EWM beds and to describe densities. Over 20 distinct beds were documented, covering approximately 50 acres. More than half of the documented infestation were described as dense. These were noted to

be concentrated in shallow areas near tributary inflows.

Tier III Aquatic Macrophyte Survey (2008)

In 2008, a focused survey by Allied Biological assessed the aquatic plant community within a quarter mile of proposed herbicide treatment zones highlighted in green on the map below. The objective was to document the distribution of native and invasive species to inform chemical management strategies. This survey

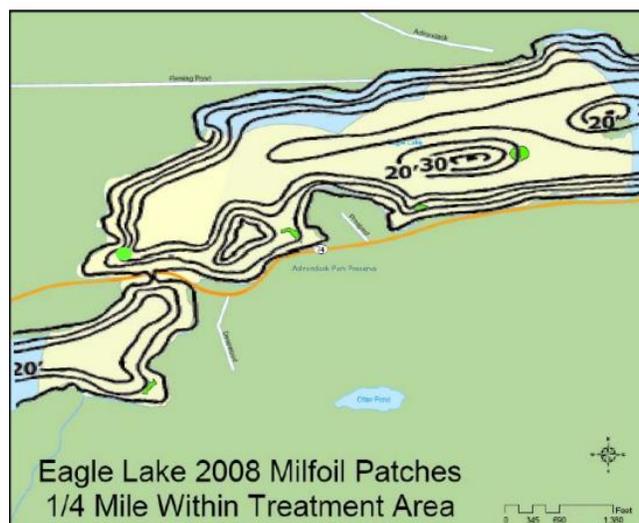


FIGURE 3. EAGLE LAKE 2008 HERBICIDE TREATMENT AREAS

used a different methodology than other surveys on Eagle Lake. This survey identified quadrats on the edge of EWM beds in and out of the proposed treatment zones. Eurasian watermilfoil was the dominant species in this survey often found at dense levels, several native pondweeds were also identified.

Surveys in Ti Bay (2011 & 2015)

In 2011 and 2015, localized surveys in Ti Bay provided additional insights into the distribution of invasive milfoil and their impact on native plant communities. These surveys were traditional top-down rake toss surveys like the one depicted below. For this type of survey, a surveyor stands on the shore, a dock, or a boat and tosses a rake into the water, as the rake is pulled back in the tine's pick up any plants in their path for the surveyor to identify. The surveyor is also looking into the water to identify any emergent aquatic vegetation or any submergent vegetation that is identifiable. In a lake such as Eagle Lake where water clarity is good, many plants can be identified visually by looking into the water. In these surveys EWM was documented as the dominant species in Ti Bay exhibiting the near complete monocultures. The survey team also noted the lack of biodiversity in the bay.

Comprehensive AIS Survey (2018 & 2021)

In 2018 and 2021, Adirondack Research performed aquatic invasive species early detection surveys funded by APIPP (Adirondack Park Invasive Plant Program). Eagle Lake was chosen as one of many lakes to be surveyed for



FIGURE 4. GRAPHIC DEMONSTRATING A RAKE TOSS USED FOR SAV SAMPLING

in providing a snapshot of the lake's milfoil beds. For these studies, the crew traversed the littoral zone in a zig zag pattern throwing rakes every 200ft for species identification, as depicted in the images below. Beds of EWM were mapped out using GPS equipped devices. The team delineated about 60 acres of Eurasian watermilfoil on Eagle Lake in 2018, by far the most abundant species in the littoral zone. Mapping was conducted by collecting sonar recordings from the lake and using a software called BioBase to interpret the sonar readings to determine native plant vegetation displayed in green. This survey represented a broad-scale analysis of aquatic invasive species in the

Adirondack Park This provides a snapshot into how much of the area inhabited by aquatic plants is the invasive Eurasian watermilfoil. In 2021, Eagle Lake was again chosen for the same project supported by APIPP. EWM was once again documented as being a dominant species across the lake. Mapping was conducted in the same way using sonar recordings and BioBase to generate native plant vegetation areas in green.



FIGURE 5 IMAGE DEPICTING THE "ZIG ZAG" PATTERN USED WHEN SURVEYING FOR AIS IN THE 2018 AND 2021 SURVEYS OF EAGLE LAKE

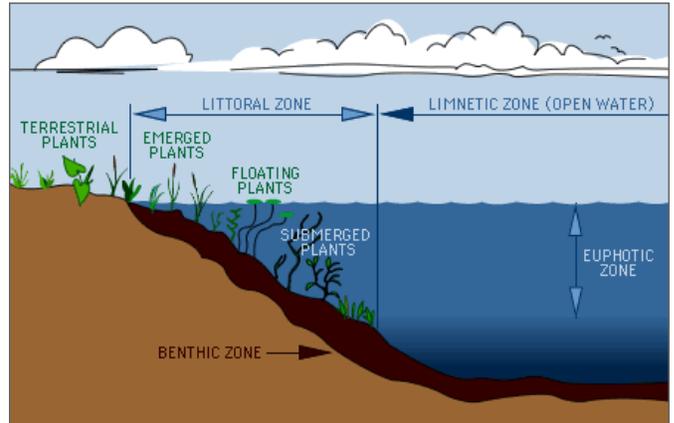


FIGURE 6. IMAGE DEPICTING THE LITTORAL ZONE OF A WATERBODY, THE AREA WHERE ENOUGH LIGHT PASSES THROUGH FOR PLANTS TO GROW

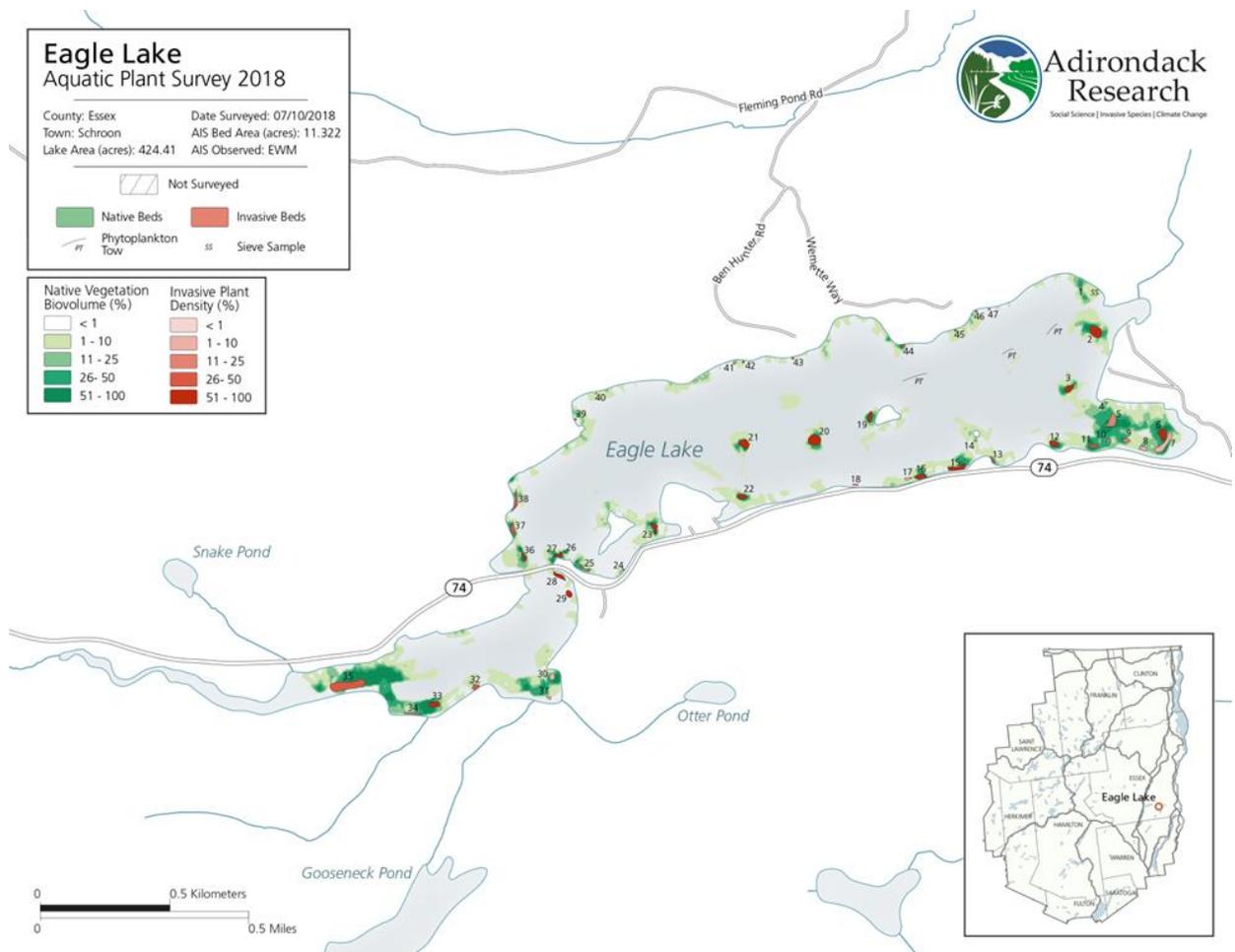


FIGURE 7. MAP OF EWM PRESENCE BY ADIRONDACK RESEARCH 2018

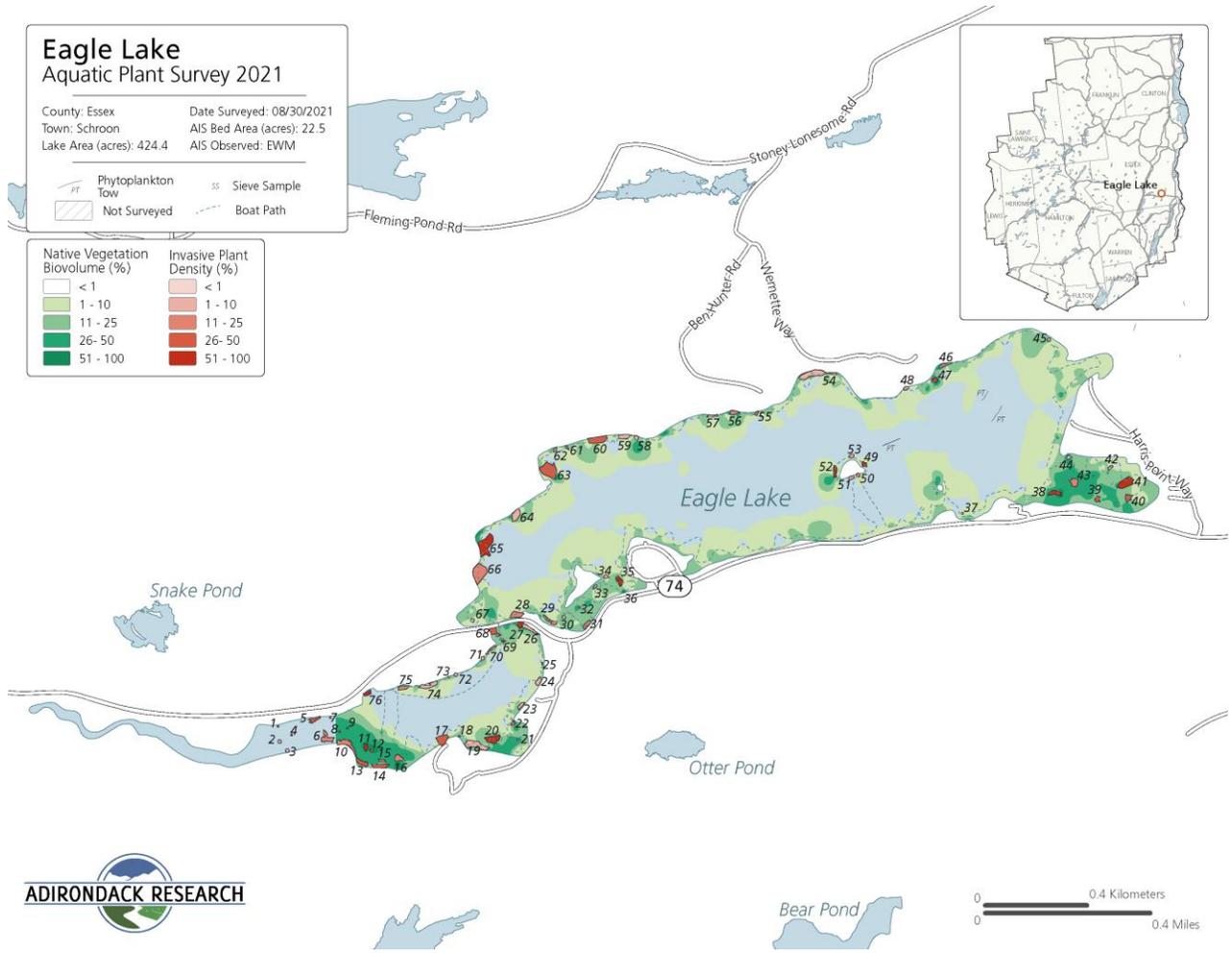


FIGURE 8. MAP OF EWM PRESENCE BY ADIRONDACK RESEARCH 2021

2024 Eagle Lake Plant Survey



FIGURE 9. ADIRONDACK RESEARCH CONDUCTING AN AQUATIC PLANT SURVEY ON EAGLE LAKE JULY 2024 (PHOTO BY ELPOI)

As part of a grant Eagle Lake received from the NYS DEC to fund this Invasive Species Management Plan, a complete lake survey was conducted utilizing the Polygon/Point Intercept Study protocol developed by Adirondack Research. This survey was carried out during the height of the growing season in 2024. This survey is what Adirondack Research calls a PPD (Point-Polygon Delineation) survey. This consists of navigating to preset points throughout the entire littoral zone of the lake and throwing a rake toss to the left and right. All species taken up on the rake are recorded for their density, as

well as total rake density. In addition to these points, polygons are also created showing each bed of EWM observed by the survey crew. This results in greater detail descriptions of EWM populations in Eagle Lake as well as native species as compared to a traditional top-down rake toss survey. This survey confirmed the presence of EWM at 39 of 123 survey stations and 27 distinct beds despite 2024 being a low growth season across the region. EWM was by far the most frequently detected species. Three native milfoil species were also detected during the survey in trace amounts.

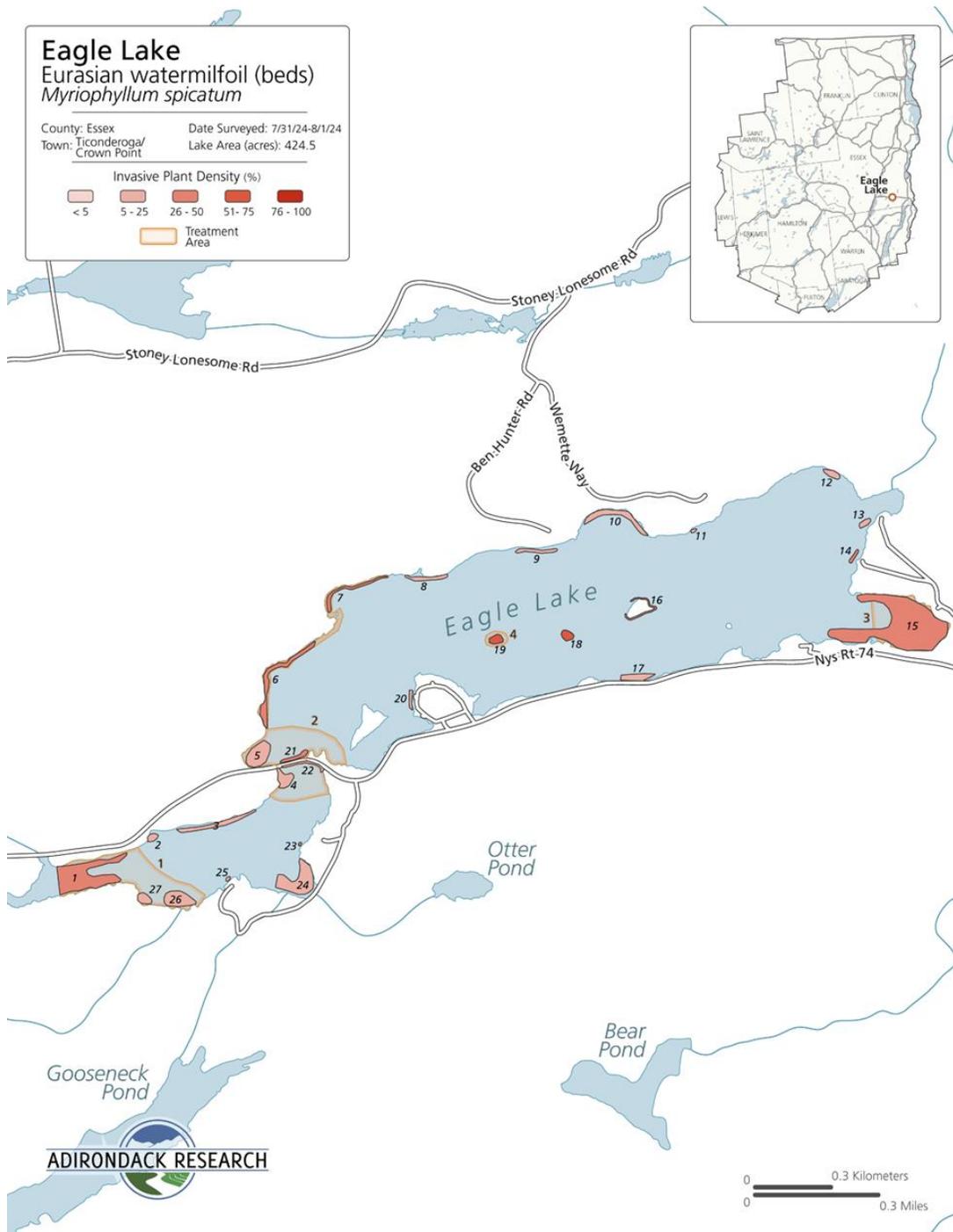


FIGURE 10. EAGLE LAKE EWM BEDS OBSERVED BY ADIRONDACK RESEARCH JULY 2024



FIGURE 11. EWM POINT INTERCEPT SURVEY PRESENCE JULY 2024

Lake Protectors

Citizen science is a popular option for many lake associations to engage the community in lake management efforts. In 2024 ELPOI engaged in citizen science by adopting the Adirondack Park Invasive Plant Program's (APIPP) Lake protector program. This program consists of local community members taking a short training session on Aquatic AIS and plant ID. Community members then conduct an AIS survey of the lake, reporting results to APIPP using electronic or handwritten forms. ELPOI conducted a Point Intercept survey by tossing rakes at predetermined points on Eagle Lake and identifying submerged aquatic vegetation (SAV) to the best of their ability, primarily looking for AIS such as EWM. Eagle Lake community members were able to detect Eurasian watermilfoil at 32 of 123 stations.

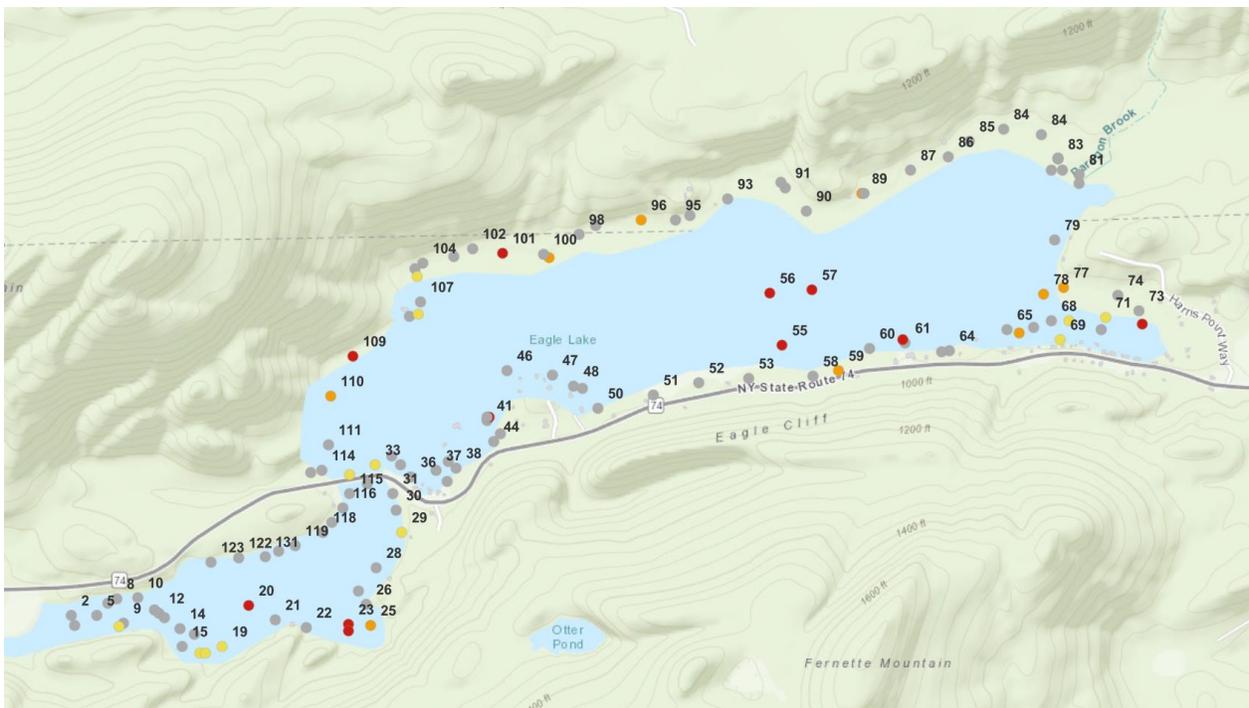


FIGURE 12. MAP SHOWING SURVEY STATIONS WITH EWM PRESENT FROM THE 2024 LAKE PROTECTORS SURVEY (CITIZEN SCIENCE)

Ecological and Management Implications

These surveys reveal the pervasive nature of Eurasian watermilfoil on Eagle Lake. Dense beds of EWM have dominated the littoral zone in Eagle Lake for decades, with implications on altering habitat for fish, lowering biodiversity, and impeding recreational activities like swimming, boating, and fishing. Management strategies should be informed by the detailed data collected during these aquatic

surveys. Continued monitoring and adaptive management are essential to inform effective management.

Past Management

Since Eurasian watermilfoil was first documented in Eagle Lake over 30 years ago, numerous management strategies have been implemented to try and gain control over EWM. The three main methods that ELPOI has

historically tried have been hand harvesting, benthic mats and herbicide treatment.

Hand Harvesting

Over the last twenty years, hand harvesting has taken place with various degrees of intensity. Thousands of pounds of invasive milfoil have been removed from Eagle Lake by hired professional divers and local volunteers. These dive efforts did achieve short-term success, but

the lake has seen little long-term change to milfoil populations.

Benthic Mats

Benthic Mats were used between 2007-2013 on Eagle Lake. These mats were labor intensive to install/maintain, slow to affect, non-selective, and also displayed little long-term success at managing milfoil in Eagle Lake.



FIGURE 13. BENTHIC MATS BEING REMOVED FROM EAGLE LAKE, FALL 2011

Herbicide Treatment

In the summer of 2008, the Eagle Lake Property Owners, Inc. (ELPOI) initiated a comprehensive aquatic plant survey to support a permit application for the use of the herbicide Renovate™ in managing the invasive Eurasian watermilfoil (*Myriophyllum spicatum*) in Eagle Lake. At that time, no other lake within the Adirondack Park had secured a permit from the Adirondack Park Agency (APA) for the application of Renovate™ for milfoil control, making ELPOI's proposal one of the first of its kind.

Given the novelty of herbicide use for invasive species management within the park, the APA approached the application with careful consideration, requesting additional measures such as a containment barrier to ensure minimal environmental impact. Over the following years, ELPOI worked closely with the APA, engaging in thorough discussions and revisions to address regulatory and ecological concerns. Despite these collaborative efforts and legal guidance, ELPOI was ultimately unable to meet the requirements necessary for permit approval and decided to withdraw the application in 2014.

Since Eagle Lakes initial 2008 application, the APA was spurred to develop a clearer regulatory framework for herbicide use in aquatic environments, leading to the successful approval of similar permits for other lakes in the Adirondack Park. This evolution in policy reflects the growing understanding of herbicide applications as a tool for invasive species management while balancing ecological safeguards. As ELPOI continues its stewardship of Eagle Lake, the organization remains committed to working with the APA and other stakeholders to explore effective, science-based solutions for maintaining the health of the lake.

4: Stakeholder Engagement and Volunteering

As part of this management plan, a short survey was conducted with local stakeholders in July of 2024 (property owners and community members) to assess knowledge of invasive species, use of the lake, and opinions on different management strategies and options. The results of that survey are shown on the table below.

Survey 1: Initial Survey

The survey, which was designed by Adirondack Research and administered to stakeholders for the Eagle Lake Invasive Species Management Plan, provided valuable insights into stakeholder awareness, concerns, and suggestions regarding aquatic invasive species (AIS) and their impact on Eagle Lake. The following analysis summarizes the responses and their implications for the management plan.

Stakeholder Awareness and Experience

Survey responses indicate a wide range of familiarity with AIS among stakeholders. Some respondents demonstrated a high level of knowledge about the specific challenges posed by AIS, such as Eurasian watermilfoil, while others expressed limited awareness. This disparity highlights the need for tailored educational initiatives to increase awareness and equip stakeholders with practical management strategies.

Long-term property ownership on Eagle Lake was a common characteristic among respondents, with many reporting more than 10 years of experience. This longevity fosters a strong sense of stewardship and a vested interest in the health of the lake's ecosystem.

Respondents frequently referenced observing changes over time, particularly increases in invasive plant growth and reductions in water clarity and native species populations.

Concerns and Observations

Respondents frequently cited concerns about AIS's impact on the lake's ecosystem and recreational opportunities. Many identified invasive plants as a critical issue, with Eurasian watermilfoil being a primary focus. Stakeholders also expressed concerns about the introduction of other invasive species through boating and fishing activities.

Some responses emphasized the challenges of enforcing AIS prevention measures. Stakeholders noted that people unfamiliar with proper practices, such as cleaning and inspecting boats, posed a significant risk. These concerns underline the importance of effective communication and the need for readily accessible boat inspection stations.

Concerns over popular herbicide treatments such as ProcellaCOR were also noted in the

survey. Feelings were that adding additional foreign substances to the lake could create a new set of problems, specifically for drinking water.

Stakeholder Engagement and Volunteering

Responses regarding willingness to volunteer for AIS monitoring and control were mixed. While



FIGURE 14. EAGLE LAKE PROPERTY OWNERS INC. ANNUAL MEETING 2024

Interest in educational workshops and seminars was present, with many respondents indicating a desire to learn more about AIS prevention and control, while interest in participating in management efforts showed more hesitation. This suggests an opportunity to further engage stakeholders through targeted educational campaigns, potentially increasing community involvement in AIS management.

Survey 2: Follow up Survey

A second survey was conducted among Eagle Lake residents as part of this management plan. Building on the results of the previous survey, this survey focused on gauging support for the likely recommendation to apply ProcellaCOR EC, as well as identifying any concerns about its use. It also aimed to gather input on preferred

some stakeholders expressed enthusiasm for getting involved, others cited limited time or resources as barriers. This underscores the importance of providing flexible and accessible volunteering opportunities, such as short-term projects or virtual training sessions.

complimentary management strategies, such as increased monitoring and hand harvesting. As well as explore ways for the community to be actively involved in these efforts. These surveys are an important part of ensuring residents have a voice in AIS management decisions and can contribute to the long-term health of Eagle Lake.

The survey gathered responses from thirty-two residents, including twenty-eight seasonal and four full-time residents, providing insights into the community's awareness of aquatic invasive species (AIS), support for management strategies, and willingness to engage in conservation efforts. One key focus was the proposed use of ProcellaCOR EC as a chemical treatment for AIS control. Awareness of this treatment varied, with nine respondents being somewhat familiar, seven not so familiar, seven very familiar, seven not at all familiar, and two extremely familiar. These results suggest a need for more educational outreach to ensure residents understand how ProcellaCOR EC works, its effectiveness, and potential environmental impacts. In terms of support, fourteen respondents were neutral, seven indicated a positive view, and eight expressed very positive support. Only two respondents had negative or very negative opinions. The most commonly cited concern regarding chemical

treatment was its impact on drinking water quality, with multiple respondents emphasizing this issue. Other concerns mentioned included effects on native vegetation, water clarity, and cost. Several residents requested more transparency regarding long-term research, post-treatment monitoring, and case studies of ProcettaCOR EC use in other lakes. These concerns highlight the importance of clear communication regarding safety measures, scientific findings, and regulatory oversight associated with ProcettaCOR EC.

Beyond chemical treatment, respondents identified several complimentary AIS management strategies they would like to see implemented. Hand harvesting was frequently mentioned as a preferred method, along with enhanced monitoring programs and stricter regulations on lake use. Some respondents suggested other strategies, specifying the need for continued monitoring of current and identified AIS. This indicates that some residents strongly support data collection and observation as an essential part of AIS management. One respondent mentioned that they needed more information before choosing a strategy, highlighting a knowledge gap that could be addressed through additional outreach. Another respondent noted that the survey did not allow them to select multiple options, suggesting that they support a combination of management approaches rather than relying on a single method. These responses indicate that while ProcettaCOR EC is generally accepted, a hybrid approach—including manual removal, stricter

lake policies, proactive monitoring, and data collection—would likely receive broader community support.

Community involvement remains a crucial factor in the success of AIS management efforts. Many residents expressed a willingness to contribute in various ways, while others cited limitations such as age, time constraints, or mobility issues. Several respondents emphasized the importance of continued communication, requesting regular updates through newsletters, access to research on ProcettaCOR EC, and details on its effectiveness in other lakes. A few respondents suggested increasing transparency by providing more public information on regulatory approval processes and scientific studies. Others expressed interest in directly monitoring AIS near their property, participating in community-based programs, or assisting with outreach efforts. However, some respondents indicated that they were unable to participate actively due to personal limitations but still valued being kept informed. One respondent explicitly suggested they could help monitor AIS near their property if given proper guidance. These responses suggest that improving engagement through clear, accessible communication and offering flexible volunteer opportunities could help more residents play a role in AIS management. Overall, the survey results highlight cautious support for chemical treatment, strong interest in alternative management strategies, and a need for ongoing education and engagement to build confidence in the Eagle Lake AIS management plan

5: Goals, Objectives, and General Strategies

The success of the Eagle Lake Invasive Species Management Plan relies on clear goals, measurable objectives, and well-defined strategies to achieve sustainable management of aquatic invasive species (AIS). This section outlines the broad vision for lake management, the specific objectives that will guide implementation, and the general strategies that will be used to reach those goals. The following section will detail the preferred management approaches, their costs, and their implementation timelines.

Goals

The long-term vision for Eagle Lake is to maintain a healthy, accessible, and ecologically balanced lake that supports recreation, property values, and biodiversity while minimizing the impacts of aquatic invasive species. To achieve this, the plan establishes three overarching goals:

1. Maintain a Sustainable Population of Aquatic Invasive Species (AIS) That Does Not Interfere with Recreational Use or Lake Health

- **Short-term target (3-5 years):** Contain Eurasian watermilfoil (*Myriophyllum spicatum*) in high-use areas to mitigate impacts on recreation and native habitat.
- **Long-term target (10-20 years):** Reduce AIS populations to maintenance levels, where routine control methods (such as hand-harvesting) can be conducted with minimal financial burden.

2. Prevent the Introduction of New AIS

- **Short-term target:** Implement high-priority prevention strategies such as boat inspections, public education, and early detection surveys.
- **Long-term target:** Establish a permanent prevention framework supported by community stewardship, partnerships, and funding mechanisms.

3. Foster Community Stewardship and Proactive Lake Management

- **Short-term target:** Increase awareness among stakeholders through outreach and educational initiatives.
- **Long-term target:** Build a community-driven lake management program, with residents and visitors actively involved in prevention, monitoring, and management efforts.

Objectives

To achieve these goals, the following measurable objectives have been established:

1. **Ensure unobstructed recreational use of Eagle Lake, including boating, fishing, and swimming.**
 - Target: Minimize the presence of dense Eurasian watermilfoil mats in boat lanes, and popular fishing and swimming areas.
2. **Enhance property values by maintaining a healthy and well-managed lake ecosystem.**
 - Target: Reduce the negative aesthetic and economic impacts of AIS by controlling large infestations and improving water quality.
3. **Reduce long-term management costs by implementing proactive and cost-effective control measures.**
 - Target: Transition from large-scale, high-cost interventions to routine maintenance and early detection efforts.
4. **Develop a well-informed and engaged community that actively participates in lake management decisions.**
 - Target: Establish a reliable communication network that keeps stakeholders updated on AIS issues and best management practices.

General Strategies to Achieve These Goals

These strategies provide a broad framework for implementing the Eagle Lake Invasive Species Management Plan. More detailed tactics, specific methods, and cost-benefit analyses will be outlined in the following section.

AIS Control Strategies

- Implement targeted control methods such as ProcellaCOR, diver-assisted suction harvesting (DASH), benthic barriers, or hand-harvesting based on site conditions and cost-effectiveness.
- Focus control efforts first on high-use areas (boat launches, swimming areas, and fishing locations), then expand to all areas as resources allow.
- Conduct annual surveys to track the success of management interventions and adjust strategies accordingly.

AIS Prevention Strategies

- **Boat Inspections:** Reduce the risk of new AIS introductions by enforcing clean, drain, and dry protocols.
- **Surveillance and Monitoring:** Expand early detection programs to identify new invasions before they become widespread.
- **Partnership Development:** Strengthen relationships with APIPP, DEC, and other agencies for technical and financial support.
- **Public Education:** Increase awareness through signs, workshops, newsletters, and social media campaigns.

Community Engagement and Stewardship Strategies

- Train local volunteers in AIS identification, hand-harvesting, and data collection.
- Establish an annual “Lake Health Day” to celebrate management successes, promote awareness, and recruit new stakeholders.
- Develop sustainable funding mechanisms, including membership contributions, grant opportunities, and local fundraising events to support long-term efforts.

6: Options for Management, Costs and Case Studies

There are many different options, methods, and tool to manage and control Eurasian watermilfoil and other AIS. This section covers the method, case studies, and costs of some of the more commonly used and documented tools in aquatic invasive species management. The methods vary widely in cost, difficulty, and practicality.

OPTION: Mechanical Control

Mechanical control methods, including harvesters and benthic mats, offer a non-chemical, lower labor-intensive approach for suppressing milfoil growth. While these methods can be effective, they are not without their downsides, such as no selectivity and little demonstrated long term control. Mechanical harvesters work by cutting milfoil with a rotating or slicing cutting head attached to a raft or watercraft via a conveyor belt. The cutting head can be lowered 8-10ft into the water for an adjustable harvesting depth. Harvested plant material is then stored on the raft/watercraft for appropriate disposal on shore. This method is nonselective, meaning the harvester cuts all plants in the path, native and invasive. A lot of fragments are collected and disposed of using a harvester, they still can leave many floating fragments in the water column. Depending on weather and water conditions these fragments can repopulate the harvested bed or create a new bed in another part of the waterbody. Harvesters are commonly used by many lake associations and management organizations due to their low cost and the instantaneous relief they can provide in areas of navigational, recreational and aesthetic importance. Aquatic weed harvesters typically cost between \$2000-

\$28000/day and can cover an area of 2-2.5 acres in a day. Harvesters are typically combined with a transport bringing the total cost closer to \$5000 a day. While having strong immediate short-term success at an affordable cost, harvesters lack the long-term success to justify their cost year after year.



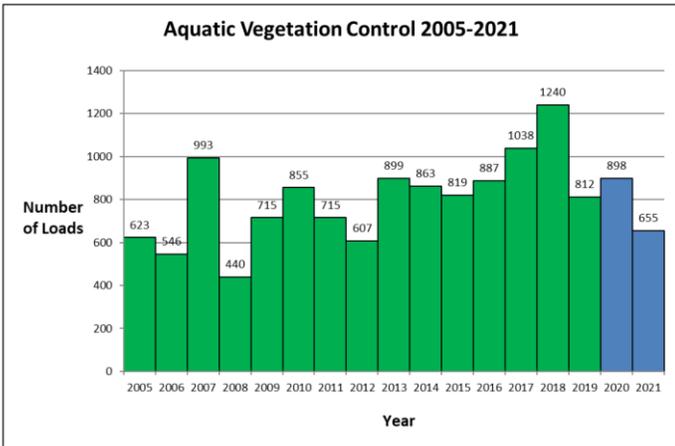
FIGURE 15. AQUATIC WEED HARVESTER ON GEORICA POND

Case study: Georgica Pond and Sodus Bay

Georgica Pond on Long Island has been harvesting since 2016. In 2016 they harvested 55,740lbs of plant material. Only two years since then have had less harvested with the most

recent data, 2022 having 72,060lbs harvested.¹ Another example is from the Wayne County Soil and Water District which began harvesting on

Sodus Bay in 2005. In subsequent years the amount harvested fluctuated up and down but remained on average the same².



*In 2021, the District's Aquatic Vegetation Control Program harvested in 3 embayments and was not able to access South of Sodus Bay Bridget to address the water chestnut infestation due to low water and access. Each load is an average of 4.5 tons of material.

FIGURE 16. TRUCKLOADS OF SAV HAULED OUT OF SODUS BAY DURING HARVESTING EACH YEAR

Benthic mats are anchored over infestation areas to block sunlight, preventing photosynthesis and eventually killing the plants. This method is particularly useful in small, high-priority zones or near recreational areas such as docks and swimming spots. Benthic mats are relatively inexpensive, costing \$300–\$500 per mat, and are reusable with proper maintenance. However, they require careful placement to avoid smothering native species and periodic removal to ensure debris does not accumulate. Physical control methods can also be logistically challenging in deeper areas or where frequent recreational activities occur.

OPTION: Physical Control

Physical removal methods such as Diver-Assisted Suction Harvesting (DASH) and hand-harvesting are key components of the management plan. DASH involves divers manually removing milfoil plants and feeding them into a suction hose connected to a boat-based filtration system. Hand harvesting is similar but without the suction hose. While this is a strong selective method for AIS control, it is very labor intensive, and costs can add up quickly in order to see desired results.

This method is highly effective for areas with dense milfoil infestations, allowing targeted removal with minimal disturbance to native plants. However, DASH can be labor-intensive and costly, with expenses averaging \$1,500–\$2,000 per acre, depending on the infestation size and lake conditions. Hand-harvesting is a cost-effective option for sparse infestations or areas where protecting native plants is critical, as it allows precise removal of individual plants. However, hand-harvesting is time-consuming and less practical for large-scale infestations.

¹ (Friends of Georgica Pond Foundation, 2022)

² (Wayne County Soil and Water Conservation District, 2021)



FIGURE 17. DIVER LOCATING AND REMOVING EWM PLANT - PHOTO: MEG MODLEY

Case study: Upper Saranac Lake.

Upper Saranac Lake (USL) is the 6th largest lake within the Adirondack Park and is located in the towns of Harrietstown, and Santa Clara. Eurasian watermilfoil, the most widespread aquatic invasive species in the Adirondack Park, was first documented in USL in 1996. The Upper Saranac Foundation, the group in charge of managing Upper Saranac Lake, began managing EWM in 2004 as part of a 3-year push using divers hand harvesting to remove EWM from the lake. In the first year the

divers removed 20 tons of milfoil from the 5,200-acre lake.³ In the following two decades of intense hand harvesting, milfoil levels have been brought down to what the Upper Saranac Lake Foundation calls “maintenance levels.” This means that USF can internally fund the hand harvesting of every plant that can be detected each year. In 2024 just 34.1lbs of EWM were removed from Upper Saranac Lake. This method has allowed USF to get ahead of the milfoil curve and gain control over it in Upper Saranac Lake, but it was extremely labor intensive and expensive.

³ 2023 Upper Saranac Lake Aquatic Invasive Species Management Project Report

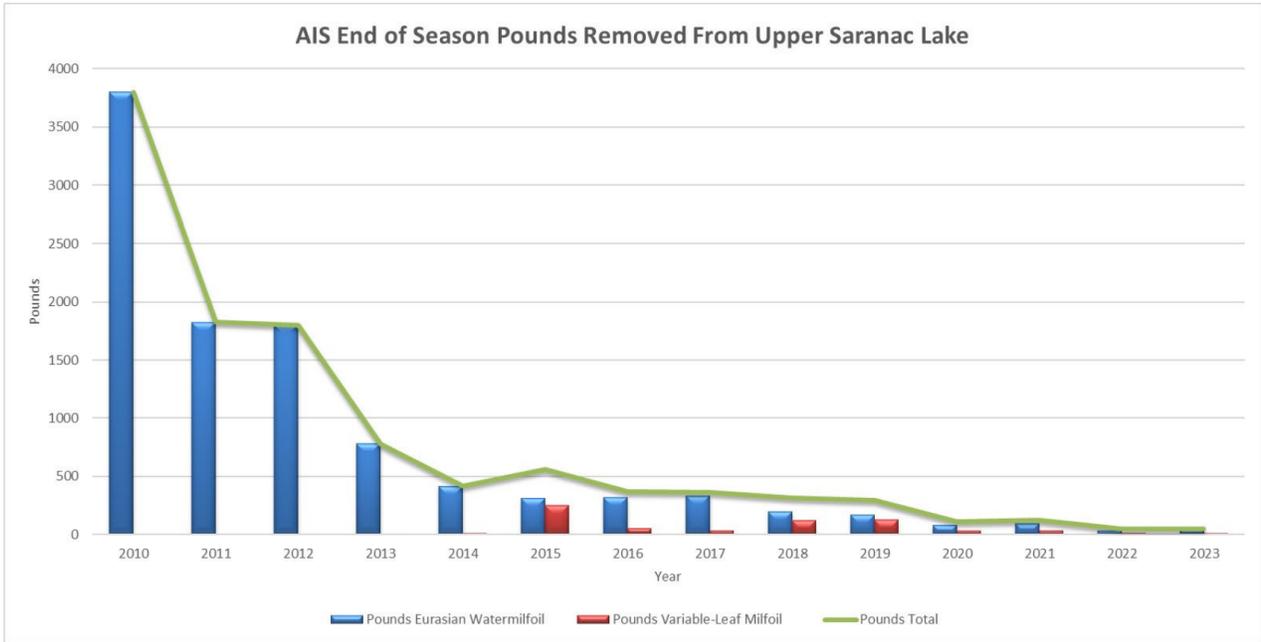


FIGURE 18. POUNDS OF INVASIVE MILFOIL REMOVED FROM UPPER SARANAC LAKE BY YEAR

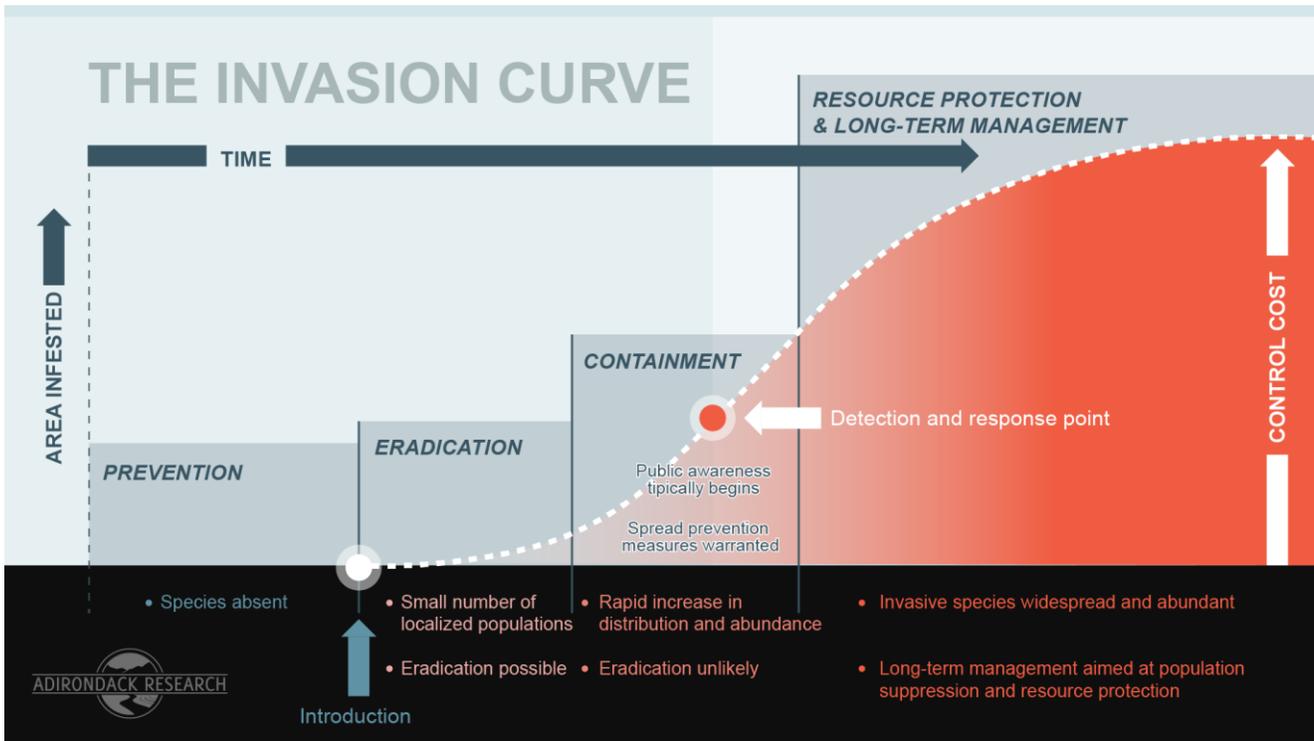


FIGURE 19. THE INVASION CURVE, OFTEN USED TO CATEGORIZE THE VARIOUS STAGES OF AN INVASIVE SPECIES WITHIN THE SCOPE.

OPTION: Chemical Control

Chemical treatment with ProcellaCOR EC, a targeted aquatic herbicide, offers a promising solution for controlling Eurasian watermilfoil in Eagle Lake. ProcellaCOR EC is specifically formulated to disrupt milfoil growth with minimal impact on native plants and aquatic organisms. Its long-lasting efficacy of around 3 years makes it a cost-effective choice.

Case Study: Paradox Lake

The EPA first approved ProcellaCOR EC for use in 2017, with NYS approving its use in 2019. ProcellaCOR's rapid degradation in the environment reduces the risk of long-term contamination, being completely untraceable in the water column within 2-3 days. The EPA and the NYS DEC do not impose a maximum allowable amount for ProcellaCOR in drinking water, meaning no drinking water restrictions. Nearby, the Vermont Department of Health does impose a maximum allowable amount 3mg/day which is a 400 times greater concentration than what was applied in Paradox Lake (6 parts per billion)⁴. In New York State aquatic chemical control requires a New York State Department of Environmental Conservation (NYSDEC) permit, as well as within the Adirondack Park, additional approval is needed by the Adirondack Park Agency (APA). The APA permit requires a detailed aquatic plant survey before and after treatment to ensure

desired results and native population health. The first use of ProcellaCOR EC within the Adirondack Park was in 2021 in Minerva Lake, located in Essex County, since then ProcellaCOR has been used in additional lakes within the Adirondack Park. Paradox Lake being the nearest to Eagle Lake to use ProcellaCOR. All the lakes that have used ProcellaCOR in the Adirondack Park have expressed desired results in the treatment areas, with many still reporting a healthy presence of native milfoils that are most susceptible to ProcellaCOR EC. Transparent communication and rigorous monitoring are essential to ensure community support and compliance with regulatory requirements. with treatments typically costing between \$750-\$3500 per acre, depending on dosage and application depth. Clear deeper lakes pay a much higher price than shallow lakes.

OPTION: Biological Control

The introduction of predator to Eurasian watermilfoil such as the milfoil weevil (Euhrychiopsis lecontei) poses a promising biological control method. These insects like to feed on Eurasian watermilfoil, weakening its growth and allowing native species to recover without disturbing soil, chemicals or direct intervention. Studies have had difficulty demonstrating success in real world application.

While appearing environmentally friendly, biological control can be unpredictable, feeding

⁴ (Paradox Lake ProcellaCOR treatment Frequently Asked Questions, 2023)

on native plants or becoming a nuisance themselves. In addition, biological control methods can be as costly, at \$2,000–\$3,000 per acre, requiring consistent monitoring to evaluate effectiveness. There is currently no commercial supplier of weevils Milfoil weevil

Case Study: Gilbert Lake, WI

Gilbert Lake, WI was used as a case study by the Wisconsin Department of Natural Resources designed to build off lab studies done previously. This study was designed to measure the efficacy of stocking ponds with the native Weevil (*Euhrychiopsis lecontei*) commonly known as the Milfoil Weevil. In July of 1997, 27,363 Weevil eggs were stocked at 3 plots of EWM in Gilbert Lake, enough to bring weevil density to 2 per plant.

In follow up surveys the same year and the following year revealed that weevil populations in the plot had fallen significantly below the 2 weevil per plant target to 0.03 weevils per plant. This was determined to be due to the weevils moving freely about the lake and distributing themselves beyond the plots of EWM. Samples of EWM populations in Gilbert Lake before and in the years following revealed no change in EWM populations and noted some beds had increased EWM levels. While lab results indicated success, the lack of ability to practically contain the weevil to the milfoil bed, and the high cost of \$0.40 per weevil proved not

has been primarily used as a control method in the Midwest in states such as Illinois and Minnesota. Results there have been mixed, initially showing success on dense beds, but milfoil has made a strong return in subsequent years.⁵

successful in managing EWM populations in Gilbert Lake.⁶

OPTION: Prevention and Education

Prevention is a cornerstone of the management plan, focusing on reducing the risk of new invasive species introductions, while education provides tools to stakeholders allowing them to better understand the issues at hand and make informed decisions.

Installing a boat washing station at the lake's access point will ensure that boats and equipment are cleaned before entering or leaving the lake, preventing the spread of AIS. Public education campaigns, including workshops, informational brochures, and signage, will raise awareness among residents and visitors about the importance of "Clean, Drain, Dry" practices. These efforts are relatively low-cost, with expenses primarily tied to equipment installation and outreach materials, and they provide long-term benefits by reducing future management cost.

⁵ (Laura Barghusen, 2001)

⁶ (Laura L. Jester, 1999)

7: Adaptive Management and Early Detection – Rapid Response

Management of an invasive species is not a one and done situation. It takes years of community support, evaluating progress, adapting management strategies to fit current needs.

Early Detection – Rapid Response (EDRR)

Managing the existing Eurasian watermilfoil (*Myriophyllum spicatum*) population is a top priority of this plan and of ELPOI, but an equally important goal is preventing future introductions of aquatic invasive species (AIS). The best way to protect Eagle Lake from new invasions is through an Early Detection – Rapid Response (EDRR) strategy. EDRR provides a structured and proactive approach to identifying and addressing new invasions before they become widespread and difficult to control.

Successful EDRR involves establishing a clear framework and process for monitoring, detection, and immediate action. Early detection relies on routine surveys conducted by trained professionals, volunteers, and citizen scientists who are familiar with both native and invasive species. Rapid response ensures that once an invasive species is detected, the necessary steps—such as containment, treatment, and mitigation—can be taken swiftly to prevent establishment and spread.



FIGURE 20. ADIRONDACK RESEARCH TEAM PERFORMS ED WORK LOOKING FOR SPINY WATER FLEA (*BYTHOTREPHES LONGIMANUSON*) EAGLE LAKE USING A PLANKTON TOW

Citizen science initiatives play a key role in EDRR, engaging Eagle Lake residents in monitoring efforts. Training community members to identify and report changes in aquatic plant populations enhances the ability to detect problems early and fosters a sense of stewardship among residents. Additionally,

Involving volunteers reduces monitoring costs and strengthens the overall resilience of the lake community. The more people, both trained professionals and everyday lake users, keeping an eye on the lake, the greater the chance of detecting a new invasive species early. With a larger network of observers, unusual plant growth or other ecological changes can be reported quickly, leading to a faster and more effective response.

A critical aspect of EDRR is securing the necessary resources in advance. By having response protocols, trained personnel, and dedicated funding in place before a new invasion occurs, ELPOI can drastically reduce the time between detection and management. Scientific studies and real-world case studies have demonstrated that invasive species are significantly easier and less costly to control when interventions occur early in an invasion, rather than after populations have become well established. This proactive approach can save both time and financial resources while protecting the ecological integrity of Eagle Lake.

Adaptive Management

Adaptive management is a dynamic and science-based approach to natural resource management that allows strategies to be adjusted over time based on ongoing monitoring, survey results, and evolving best practices. Because invasive species management is complex and conditions in Eagle Lake are constantly changing, it is essential to maintain a flexible and responsive approach to intervention efforts.

Regular monitoring is the backbone of adaptive management. Annual surveys of Eurasian watermilfoil coverage, native plant health, and water quality will provide the necessary data to evaluate the effectiveness of management actions. These surveys will help identify trends, assess the success of control methods, and highlight areas that may require additional attention. By analyzing this data, management strategies can be refined to improve efficiency and effectiveness.

Eurasian watermilfoil has been present in Eagle Lake since at least 1988. Over the decades, it has spread extensively throughout the lake's littoral zone, making recreation difficult in some areas and significantly altering the lake's ecological balance. Without adaptive management, control efforts could stagnate, allowing milfoil to regain dominance even after significant reductions. By remaining adaptable and responsive to new information, ELPOI can ensure that management strategies evolve to meet the lake's changing conditions and new challenges as they arise.

The following sections outline a comprehensive plan to gain control over Eurasian watermilfoil, restore ecological balance, and prepare ELPOI to respond swiftly and effectively to potential new AIS introductions. By integrating both EDRR and adaptive management principles, Eagle Lake can be protected not only today but for generations to come.

8: Implementation Plan

Action Steps

The Eagle Lake Aquatic Invasive Species (AIS) Management Plan integrates a comprehensive strategy to control Eurasian watermilfoil (*Myriophyllum spicatum*) using a combination of targeted ProcellaCOR EC herbicide applications, hand harvesting, and an Early Detection and Rapid Response (EDRR) plan. This approach prioritizes ecological restoration, enhances recreational access, and minimizes impacts on native plant species.

The ProcellaCOR EC treatment is the primary method for reducing large, dense EWM infestations, as it selectively targets milfoil while preserving native aquatic vegetation. The application of ProcellaCOR EC, a systemic herbicide specifically formulated to target Eurasian watermilfoil with minimal impact on native plants, will be conducted in designated treatment zones. These zones were selected based on historical and recent surveys that mapped EWM density, native plant presence, and water movement patterns. Adirondack Research, in collaboration with Ready Scout LLC, a licensed herbicide applicator, is ensuring these designated zones comply with Adirondack Park Agency (APA) regulations, requiring at least 24 survey stations within the treatment boundaries and an additional 12 buffer stations to assess ecological impact. The highest-priority areas, as mapped in the survey, include Ti Bay, where past studies identified near monocultures of Eurasian watermilfoil that have drastically reduced biodiversity.

Other key treatment zones include the causeway, where conditions favor rapid spread due to concentrated boat traffic, and around the boat launch/outlet for the lake where shallow

conditions and flow of the lake are favorable to strong EWM populations. All three of these areas have shown high regrowth rates in previous surveys. Additionally, scattered patches around submerged islands and mid-lake formations have been mapped for treatment to prevent their expansion into larger infestations, and to provide quick relief for users of the lake. These treatment zones will be addressed in a phased manner based on funding availability, with priority given to the most severely impacted locations.

Following herbicide application, a robust post-treatment monitoring plan will be implemented to assess effectiveness and potential regrowth. This monitoring will inform adaptive management strategies, ensuring that any regrowth is addressed promptly. While ProcellaCOR EC is the primary tool for large-scale reduction, hand harvesting will be utilized in areas that are financially unapt for chemical treatment, such as steep, narrow habitats and shallow zones around the islands and northern shoreline. Trained divers will manually remove milfoil, ensuring that plant fragments are collected using mesh containment bags to prevent further spread. This method is

particularly valuable for maintaining low-density infestation zones and addressing post-treatment regrowth in herbicide-treated areas. Seasonal assessments will guide the frequency and extent of hand harvesting, allowing for a flexible, site-specific response

In addition to direct treatment efforts, a proactive early detection and rapid response (EDRR) plan will be implemented to prevent the introduction of new aquatic invasive species and ensure long-term management of Eurasian watermilfoil. Eagle Lake’s approach to managing future aquatic invasive species (AIS) must follow a structured Early Detection and Rapid Response (EDRR) framework, overseen by Eagle Lake Property Owner’s Inc. (ELPOI). This framework ensures a proactive and coordinated response to potential invasive threats, with a focus on early detection, threat assessment, permitting, and rapid action. Given the increasing risk of Hydrilla (*Hydrilla verticillata*) as a new invader, alongside other potential AIS, this system is essential for maintaining the ecological integrity of the lake.

The EDRR process begins with annual monitoring and early detection efforts, during which trained personnel and volunteers survey the lake for new AIS introductions. If no invasive species are found, monitoring continues as part of routine lake management. However, if an invasive species is detected, the process shifts toward assessing the threat level, which involves identifying the species, evaluating its potential for spread, and determining its ecological and recreational impact.



FIGURE 21. POTENTIAL TREATMENT ZONES FOR PROCELLACOR EC ON EAGLE LAKE

Once the threat is quantified, ELPOI will work with relevant stakeholders to customize a rapid response plan tailored to the specific species and infestation level. This plan will reference pre-developed management strategies that outline possible control methods, ensuring a quick and effective response. Before any treatment actions can be implemented, the necessary permitting applications must be submitted, adhering to state and federal regulations. The permitting process will be streamlined by maintaining an up-to-date permitting plan, allowing for faster approvals when action is needed.

Following approval, rapid response actions will be deployed, utilizing appropriate management techniques such as mechanical removal, herbicide application, or other control methods as outlined in the response plan. After intervention, the system returns to ongoing monitoring, ensuring the effectiveness of management efforts and detecting any re-emergence of the invasive species.

At the core of this process is education, organization, and funding, which support the success of the EDRR framework. ELPOI will ensure that local stakeholders, volunteers, and partnering organizations are well-informed and prepared to respond effectively. Maintaining a dedicated funding source for rapid response actions will be critical in preventing small infestations from becoming widespread problems. The invasion curve highlights the importance of early intervention, showing that

detecting and controlling AIS in the earliest stages of invasion is significantly more cost-effective, easier to manage, and has a much higher likelihood of success. As an infestation progresses, the costs and difficulty of management increase exponentially, and complete eradication becomes nearly impossible.

By proactively managing potential AIS threats such as Hydrilla and other species of concern, ELPOI can protect Eagle Lake’s water quality, native ecosystems, and recreational value for future generations. Investing in early detection and response efforts not only minimizes long-term ecological damage but also prevents the financial burden of large-scale, ongoing control efforts. This science-backed approach ensures that Eagle Lake remains a thriving, healthy waterbody for years to come.

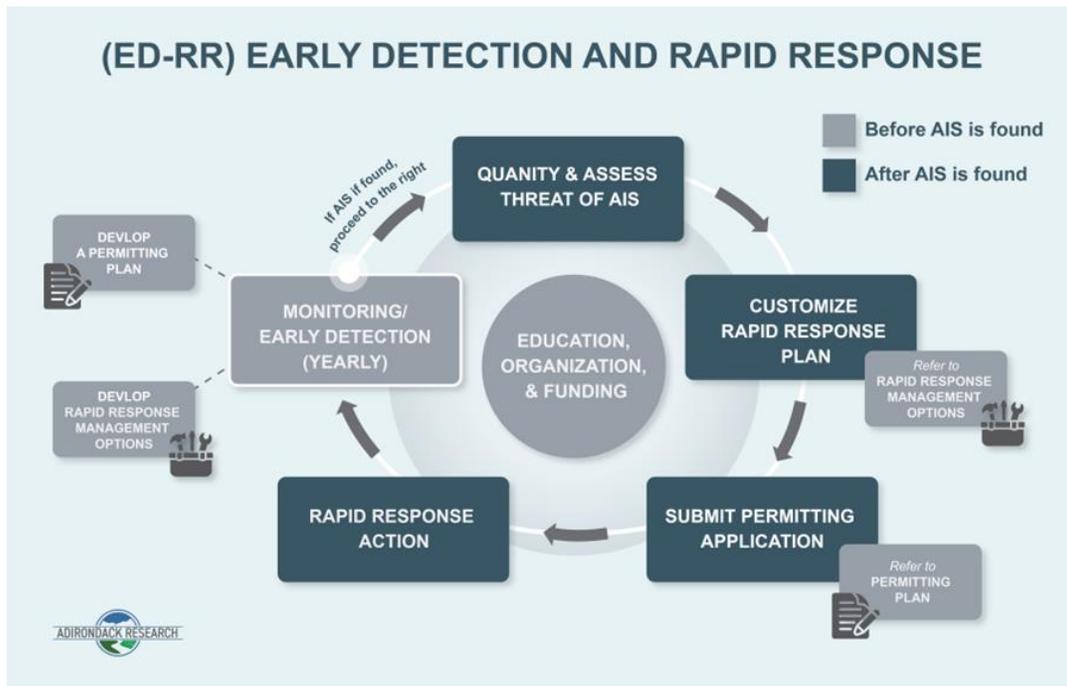


FIGURE 22. EDRR (EARLY DETECTION - RAPID RESPONSE) FRAMEWORK

This plan includes a structured surveillance network utilizing over 120 monitoring stations distributed throughout the lake to detect new infestations early. Lake stewards and volunteers will be trained to identify and report invasive species, enabling rapid response efforts to contain and remove newly detected threats before they become established.

To ensure that the lake is prepared for future invasive species threats, the EDRR plan will also include a dedicated financial reserve for immediate action when a new invasive is identified. Establishing an emergency response fund will allow for swift deployment of professional divers, herbicide treatments, or physical removal teams without delays caused by waiting for grants or external

funding. A streamlined decision-making framework will be put in place so that management actions—such as herbicide application, benthic barriers, hand harvesting, or biological controls—can be implemented immediately based on best available science and regulatory guidelines.

The EDRR strategy will also emphasize adaptability, ensuring that management practices remain flexible to address not only Eurasian watermilfoil but also potential new invaders, such as hydrilla (*Hydrilla verticillata*) or water chestnut (*Trapa natans*), which have been recorded in nearby waterbodies. By maintaining relationships with regional invasive species management organizations, researchers, and state agencies, Eagle Lake will stay informed about emerging threats and best practices for rapid containment.

Additionally, the EDRR strategy incorporates preventative measures, such as the installation of boat washing tools at key access points and public outreach campaigns to promote "Clean, Drain, Dry" practices among boaters and lake users. Educational initiatives will focus on the role of lake users in preventing the spread of invasives through recreational activities, reinforcing responsible boating, fishing, and watercraft maintenance habits.

By ensuring that financial, logistical, and management strategies are in place before an invasion occurs, Eagle Lake will be equipped to respond quickly and effectively to new threats, protecting its ecological health, biodiversity, and recreational value for future generations.

The success of the Eagle Lake Aquatic Invasive Species Management Plan will depend on the seamless integration of chemical, mechanical, and preventative strategies, ensuring a proactive and adaptable approach to aquatic invasive species control. By utilizing targeted ProcettaCOR EC applications in the most severely affected areas, implementing ongoing hand-harvesting efforts in locations unsuitable for herbicide treatment, and maintaining a robust early detection and rapid response framework, Eagle Lake will be well-equipped to manage existing infestations and prevent future invasions. The combination of scientific monitoring, community engagement, and financial preparedness will provide the flexibility needed to address new challenges as they arise, allowing for an effective, long-term strategy that prioritizes both ecological health and recreational enjoyment. Through sustained collaboration between stakeholders, lake users,

and management experts, this plan will serve as a model for balancing invasive species control with environmental stewardship, ensuring the lake remains a valuable and vibrant resource for years to come.

Funding and Resources

The Eagle Lake Property Owners, Inc. (ELPOI) will initiate a comprehensive capital fundraising campaign to support the implementation of the Eagle Lake Aquatic Invasive Species (AIS) Management Plan. This effort will focus on securing financial resources necessary for effective invasive species control, long-term monitoring, and ecological restoration efforts in Eagle Lake.

One major funding avenue will be state and federal grants. ELPOI will seek funding through competitive programs that support invasive species management, habitat restoration, and water quality improvement. Key opportunities include the NYSDEC Invasive Species Management Grant Program, which funds local efforts to mitigate and control aquatic and terrestrial invasive species, and the New York State Environmental Protection Fund (EPF), which provides resources for projects that enhance environmental conservation and stewardship. Additional potential funding sources include the National Fish and Wildlife Foundation (NFWF), which funds conservation initiatives focused on habitat restoration and invasive species management. ELPOI will actively monitor grant cycles, prepare competitive applications, and collaborate with agencies to ensure eligibility for funding opportunities.

Beyond grants, ELPOI will strengthen partnerships with regional organizations to provide additional financial and logistical support. Key potential partners include the Adirondack Park Invasive Plant Program (APIPP), which specializes in invasive species management and provides technical expertise; the Adirondack Watershed Institute (AWI) at Paul Smith's College, which offers scientific support, training, and equipment for AIS surveys; the Town of Ticonderoga and Essex County Soil & Water Conservation District, which could serve as potential funding sources and logistical partners; and lake associations and conservation groups, whose collaboration can lead to shared resources and advocacy for broader AIS management initiatives.

ELPOI will also engage local businesses, outdoor recreation outfitters, and eco-tourism providers, to build financial and promotional support. Sponsorship opportunities may include event sponsorships, where businesses support fundraising events such as community education days, lake clean-up initiatives, or AIS management workshops. Businesses may also provide direct financial contributions, particularly those with vested interests in maintaining a healthy lake ecosystem. In-kind donations such as equipment, volunteer hours, and expertise from local businesses will further supplement financial contributions.

Community involvement will be another essential component of the fundraising strategy. ELPOI will initiate grassroots fundraising efforts to encourage direct financial contributions from residents and supporters. This may include membership dues and donation drives, where

ELPOI members and local residents are encouraged to contribute through annual or one-time donations. Crowd funding campaigns on platforms like GoFundMe or specialized environmental funding sites will help attract online donations. Additionally, fundraising events such as lake festivals, guided ecology tours, or silent auctions will generate community interest and financial support.

To ensure sustained funding, ELPOI may want to explore the creation of an AIS Management Endowment Fund, allowing interest from the fund to support ongoing management and monitoring. Additionally, working with philanthropic foundations focused on conservation may provide long-term financial security for AIS control efforts.

By employing this multi-faceted capital fundraising strategy, ELPOI aims to secure the necessary resources to effectively manage aquatic invasive species in Eagle Lake, protecting the lake's ecological integrity and ensuring sustainable recreation for future generations.

Evaluation Metrics

Success in managing Eurasian watermilfoil (*Myriophyllum spicatum*), preventing new aquatic invasive species (AIS) introductions, and fostering community stewardship will be measured using a combination of ecological, recreational, economic, and stakeholder engagement indicators. These metrics will ensure that progress is objectively assessed and transparently reported.

Ecological success will be measured by reductions in Eurasian watermilfoil coverage,

with annual aquatic vegetation surveys using GPS mapping to track changes in density and distribution, particularly in high-use recreational areas such as boat lanes, fishing spots, and swimming areas. The effectiveness of control efforts will also be evaluated through the recovery of native aquatic plants, with annual species richness assessments comparing treated and untreated areas. Additionally, habitat resilience will be monitored through surveys of fish and macroinvertebrate populations, ensuring that invasive species management does not disrupt critical habitat.

Recreational and economic benefits will be assessed by tracking user satisfaction and property values. Annual surveys of boaters, anglers, and swimmers will be conducted to determine whether milfoil interference in recreational activities has declined. In addition, public perception surveys will assess whether stakeholders notice improvements in lake conditions. The plan will also monitor property value trends, analyzing whether maintaining a well-managed, healthy lake positively impacts real estate values. Another key metric is the reduction in long-term AIS management costs, with a focus on transitioning from expensive large-scale interventions to more cost-effective, routine maintenance. The percentage of the budget dedicated to proactive versus reactive AIS management will be a key indicator of progress.

AIS prevention and early detection success will be measured by tracking boater compliance with prevention protocols, the number of boat inspections conducted annually, and the percentage of intercepted boats carrying AIS

fragments. The goal is to increase voluntary compliance with “clean, drain, and dry” protocols and establish a permanent prevention framework that is community-supported. The effectiveness of early detection and rapid response efforts will be determined by measuring how quickly new AIS are detected, the time from detection to containment, and the number of new AIS introductions over the 10-to-20-year management horizon.

Community engagement and stewardship will be evaluated based on participation in educational initiatives, volunteer monitoring, and lake management programs. The number of stakeholders attending workshops, signing up for lake steward programs such as Lake Protectors, and participating in outreach efforts will be tracked to assess the level of community involvement. The effectiveness of communication efforts will be measured by engagement with newsletters, website updates, and social media outreach will serve as a long-

term indicators of community-driven lake management. The success of fundraising initiatives and the number of property owners actively engaged in AIS prevention will also be key measures of success.

To ensure transparency and accountability, an annual progress report will be developed to summarize achievements, challenges, and areas for improvement. This report will incorporate data from all evaluation metrics and be used to inform adaptive management strategies. Regular stakeholder meetings will provide a forum for reviewing progress, discussing new threats or challenges, and refining management strategies based on scientific findings and real-world effectiveness. By integrating these evaluation metrics, the Eagle Lake AIS Management Plan ensures that efforts to manage AIS, protect recreational access, and build a community-driven stewardship program are continually assessed and improved upon.

Conclusion

Community involvement is integral to the plan’s success. The Eagle Lake Property Owners Inc. (ELPOI) will play a central role in coordinating efforts, supported by Adirondack Research, APIPP, and other stakeholders. Public meetings and workshops will keep residents informed and involved, building support for management actions and encouraging volunteer participation.

Glossary

- APA – Adirondack Park Agency
- AIS – Aquatic Invasive Species
- CLP – Curly leaf pondweed
- DEC - Department of Environmental Conservation
- EWM – Eurasian watermilfoil
- SAV – Submerged Aquatic Vegetation
- ELPOI – Eagle Lake Property Owners Inc.
- EPF – Environmental Protection Fund
- AWI – Adirondack Watershed Institute
- APIPP - Adirondack Park Invasive Plant Program
- EPA – Environmental Protection Agency
- EDRR – Early Detection Rapid Response
- DASH – Diver Assisted Suction Harvesting

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Appendix

Eagle Lake Survey 1

Eagle Lake Survey 2

Action Plan

2024 Survey Report

Additional Resources

