



Capital Region PRISM AIS Lake Survey Report

Date: July 24th and 28th 2020

Site Name: Grafton Lake State Park

General Information: (518) 279-1155

Physical Address: 254 Grafton Lakes State Park Way Grafton, NY

County: Rensselaer

GPS Location of Site/Parking lot: 42.769431 -73.464224

Regional Contact:

Andy Damon Stewardship Specialist

NYS Office of Parks, Recreation & Historic Preservation

Saratoga-Capital District 19 Roosevelt Dr. Saratoga Springs, NY 12866

(O): 518-584-2000, ext. 152 (C): 518-646-3652 andy.damon@parks.ny.gov

Long Pond: 122 acres, Perimeter 2.4 miles, Mean depth 14 ft.

Shaver Pond: 44 acres, Perimeter 1.4 miles, Mean Depth: 28 ft.

Second Pond: 31 acres, Perimeter 1.1 miles, Mean depth 14 ft.

Mill Pond: 19 acres, Perimeter .74 miles, Mean depth 10 ft.

Survey Leader: Kristopher Williams Team Leader / Lauren Henderson AIS Coordinator

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Email: kbw44@cornell.edu

iMapInvasives User ID: 9274

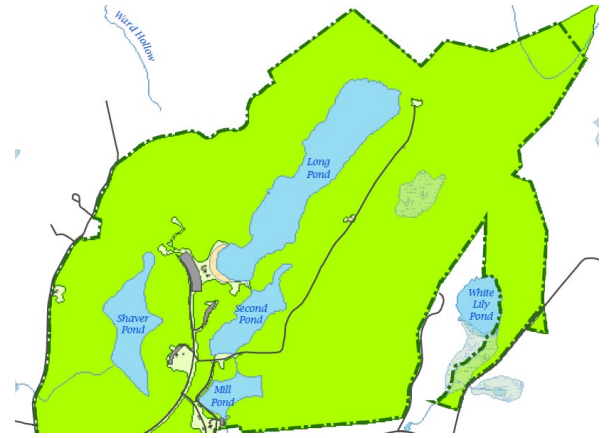


Image Courtesy of OPRHP

Summary

On July 24th and 28th 2020 the Capital Region PRISM conducted an Early Detection Aquatic Invasive Species Survey of the four main water bodies of Grafton Lakes State Parks in Rensselaer County. Long, Shaver, Second, and Mill Ponds were surveyed for new and preexisting aquatic invasive species. A meandering rake toss method was completed along the edge (littoral zone) of the shoreline to survey for aquatic invasive species. Rake tosses were supplemented with visual inspection of the surface and subsurface.

Aquatic Invasive Species Present

- Eurasian Water-milfoil; (*Myriophyllum spicatum*) is a very high threat species with an assessment score of 100. http://nyis.info/wp-content/uploads/2018/01/5cdc8_Myriophyllum.spicatum.NYS_.pdf For General Information: http://nyis.info/invasive_species/eurasian-watermilfoil/
- No other AIS species were observed.

Areas of Concern:

Eurasian Water-milfoil (*Myriophyllum spicatum*) has been detected and treated in the Grafton Lakes State Park prior to 2020. The Capital Region Prism surveyed the four ponds to detect the possible intrusion of other new invasive species to the region. In addition the PRISM delineate preexisting populations of Eurasian Water Milfoil. Preexisting populations can be monitored and evaluated for post treatment monitoring purposes. Please note the estimated presence polygons and data tables below for specific points as posted in iMap Invasives. The team drew polygons in Collector and cross walked presence polygons into iMap Invasives for record keeping.



- The North/Northwest end of Long Pond has sparse to trace populations of Eurasian Water-milfoil (EWM); (*Myriophyllum spicatum*) growing as single strands and occasional clumps. Little to no EWM was observed around the boat launch/dock. The Northern end of the pond needs to be monitored as a potential for the sparse and trace populations to grow in to dense mats exists.
- The western shore has four dense monocultures, coving a combined area of a half-acre. Outside of these four populations there are sparse to trace populations of single species and small clumps.
- Overall the majority of the littoral zone/perimeter on the east side had trace populations of EWM growing in gravel beds. The beach area, eastern shore to the northern boat launch is relatively AIS free and not of concern.
- Mill Pond is problematic with its shallow geomorphology with a mean depth of 10 feet. There are sparse and trace points of EWM found along the perimeter and parts of the center of the pond. At this time there are no dense mats forming of EWM. The Pond should be monitored for future potential problems.
- Second and Shaver Pond are relatively free of AIS macrophytes with healthy populations of native plants. No action other than future monitoring for early detection and rapid response should be done on these two water bodies.

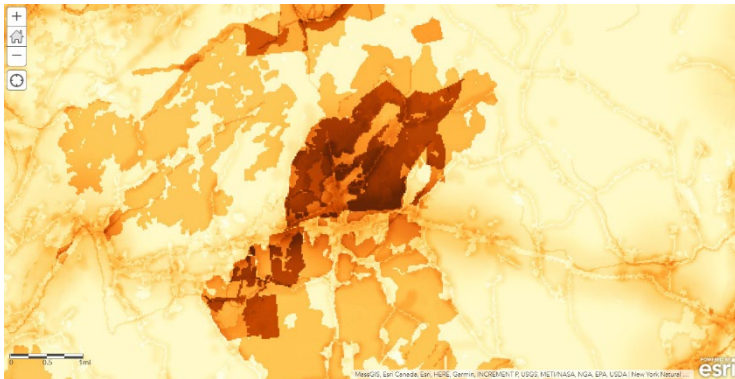
Site Description:

The Grafton Lake State Park is within a proposed NYS Bird Conservation Area. Grafton Lake State Park is a stopover site for Neotropical migratory songbirds especially forest dwelling migrants during both spring and fall migrations. The four main ponds at Grafton LSP are accessible by non-motorized boats. There is a strong presence of personal watercraft recreation.

iMapInvasives Prioritization Model:

The area is ranked high on the New York State Natural Heritage prioritization model. The comprehensive score is high as indicated by a strong coloring on the heat map. The vector of transition exist and the region is surrounded by protected and natural areas.

- <https://www.arcgis.com/home/webmap/viewer.html?webmap=57d30ff9bff7426c8950d90b0ba43bba&extent=-81.0352,39.2503,-70.2686,45.8067>



Does this site contain previously treated infestations? If yes- What species?

- Yes Eurasian Water-milfoil; (*Myriophyllum spicatum*) Confirm with the OPRHP. **Suction Harvesting**

Survey Techniques:

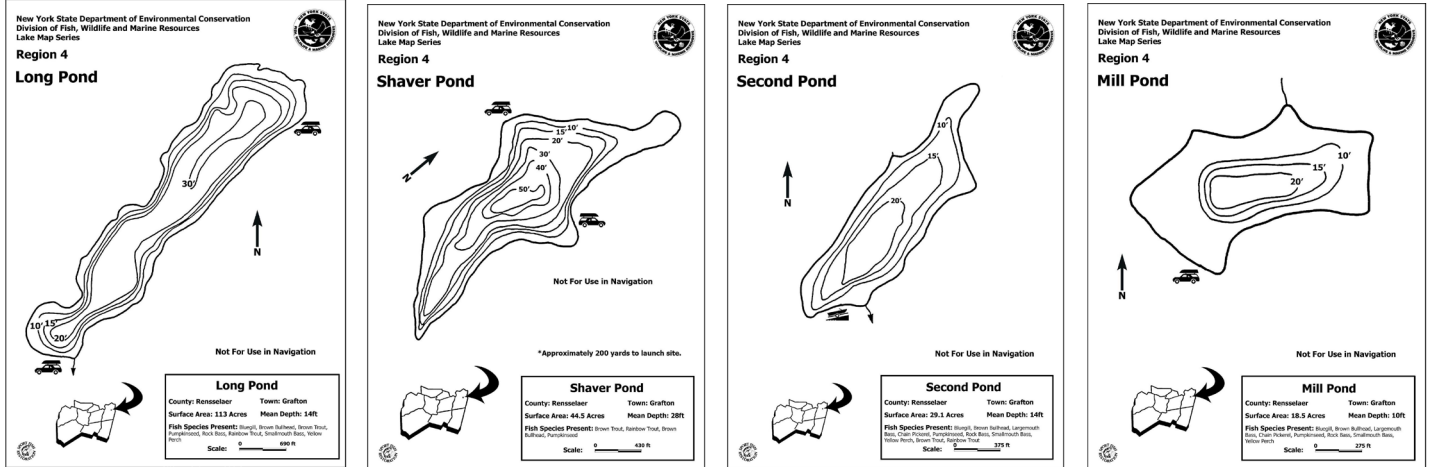
- Meandering rake tosses with in the Littoral Zone
- Visual Inspection of Surface and Subsurface



Map:

Contour maps of the survey area.

Searched Area: Grafton Lake State Park (Entire Littoral Zone) Long, Second, Shaver, Mill Ponds.



Images courtesy of the NYS DEC <https://www.dec.ny.gov/outdoor/67404.html>

Section 2: Survey Result Summary

Long Pond

Common Name	Scientific Name	Location (GPS)	Growth Type	Phenology	Abundance
Eurasian Water-milfoil; European Water-milfoil	Myriophyllum spicatum	Note iMap Invasive Polygons	Submerged/Rooted	Emergent Growth	Sparse/dense
No other AIS Identified/observed					

Native species observed in the four ponds at Grafton Lake State Park.

1. *Myriophyllum sibiricum* - Northern watermilfoil
2. *Najas flexilis* - Slender/bushy naiad
3. *Elodea sp.* (E. canadensis, E. nuttallii) - Elodea, waterweed
4. *Nymphaea odorata* - White water lily
5. *Ceratophyllum demersum* - Coontail
6. *Chara vulgaris* - Chara, muskgrass
7. *Potamogeton amplifolius* - Large-leaf pond
8. *Nymphoides cordata* - Little Floating Heart
9. *Nuphar variegata* - Spatterdock
10. *Brasenia schreberi* - Watershield
11. *Sagittaria spp.* - Arrowhead
12. *Pontederia cordata* - Pickerel Weed
13. *Potamogeton perfoliatus* - Clasping Pondweed



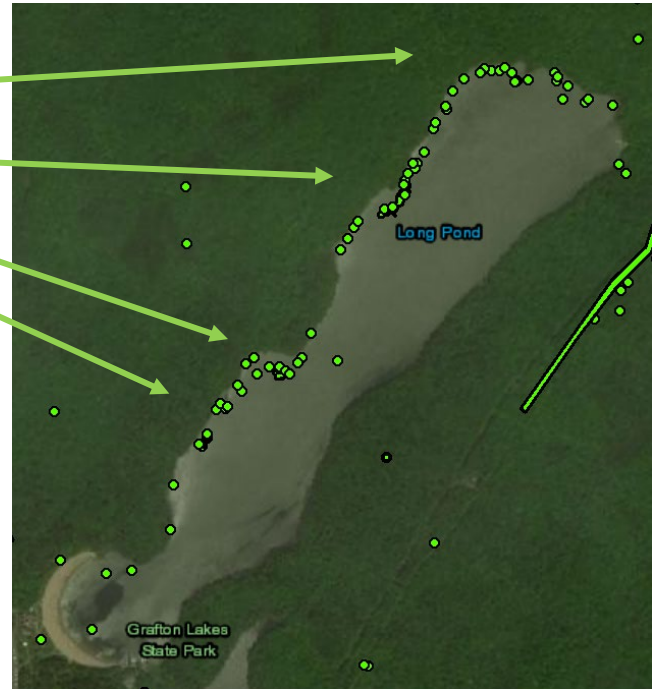
Searched Area: Long Pond

Areas of Concern Locations:

1. North/ North West End By Boat Launch
2. West Shore
(Four Monocultures Developing)

North End (Long Pond)

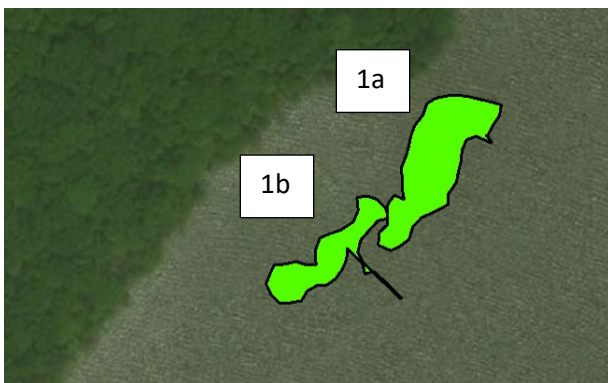
Eurasian Water-milfoil (*Myriophyllum spicatum*) as indicated in the light blue polygon is present in trace to sparse populations often in clumps or small single specimens. The presence of the milfoil in this area exists as the second highest concentration in the lake and should be monitored for future growth.



West Shore Infestation 1a,b

Location 1a: 42.79186 °-73.4407 °
Area: 797.17 m² (0.20 acres)
iMap Invasives Presence Id: Presence #1061118

Location 1b: 42.79159 °-73.44111 °
Area: 419.31 m² (.11 acres)
iMap Invasives Presence Id: Presence #1061119



Presence Species Polygons created in Collector (Western Shore)





Western Shore Infestation 2

Location: 42.78821 ° -73.44404 °

Area: 497.07 m² (0.12 acres)

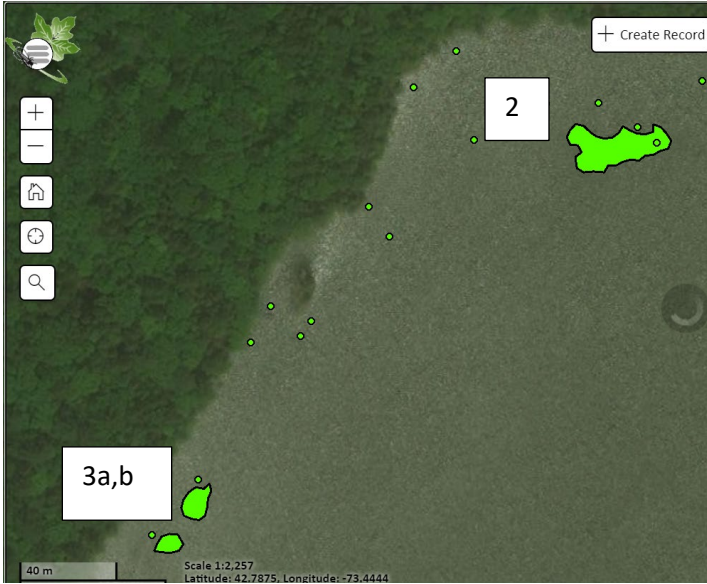
iMap Invasives Presence #1061120

Western Shore Infestation 3a,b

Location: 42.7869 ° -73.44615 ° / 42.78675 ° -73.44628 °

Area: 119.6 m² / 66.72 m²

iMap Invasives Presence #1061122 , #1061123



Mill Pond

Common Name	Scientific Name	Location (GPS)	Growth Type	Phenology	Abundance
Eurasian Water-milfoil; European Water-milfoil	<i>Myriophyllum spicatum</i>	Note iMap Invasive Polygons	Submerged/Rooted	Emergent Growth	Sparse/dense
No other AIS Identified/observed					

Eurasian Water-milfoil (*Myriophyllum spicatum*) is found in Mill Pond mostly as sparse or trace populations spread over a diffuse area. Note the presence points on the map below. Mill Pond is problematic with its shallow geomorphology with a mean depth of 10 feet. At this time there are no dense mats forming of EWM. The Pond should be monitored for future potential problems. Note there are pockets of native Northern watermilfoil (*Myriophyllum sibiricu*) present.





Survey Result: Shaver Pond

Common Name	Scientific Name	Location (GPS)	Growth Type	Phenology	Abundance
No AIS Identified/observed					

iMap Invasives presence observation #488441 from 1/1/2008 as observed by United States Geological Survey (USGS) -NAS Database (6414) states that there is Eurasian Water-milfoil (*Myriophyllum spicatum*) found in Shaver Pond. The Capital Region PRISM did not observe Eurasian Water-milfoil in Shaver Pond. The pond was free of Aquatic Invasive Species. There is a strong presence of native Northern watermilfoil (*Myriophyllum sibiricu*)



Survey Result: Second Pond

Common Name	Scientific Name	Location (GPS)	Growth Type	Phenology	Abundance
No AIS Identified/observed					

iMap Invasives presence observation #488435 from 1/1/1994 as observed by United States Geological Survey (USGS) -NAS Database (6414) states that there is Eurasian Water-milfoil (*Myriophyllum spicatum*) found in Second Pond. A report for Banded Mysterysnail (*Viviparus georgianus*) iMap presence observation #450559 was made in 2015.

The Capital Region PRISM did not observe Eurasian Water-milfoil in Second Pond. The pond was free of AIS Macrophytes.



Section 3: Summary of Recommendations

This page provides recommendations of any treatment methods, monitoring methods, and restoration efforts based on the survey.

Treatment: Describe briefly any recommendations for future treatment methods, why they are recommended, and any alternatives to consider. Please use abundance and site-specific factors in your treatment recommendation. Optional: Attach or reference BMP guidance document

Selective Control Strategies:

- Harvest/Suctioning
- Chemical Treatment with Selective Herbicide

- ProcellaCOR

-A number of chemicals impact the growth and survival of *M. spicatum*. Amine salts of Endothal (Hyrothol 191®), and Dipotassium Salts of Endothal (Aquathol K®), Diquat dibromide (Reward®), Komeen® have been found to be effective. Some of these herbicides may also affect other non-target rooted submerged plants, including some rushes. Treatment is most effective in still water in the spring while the plant is actively growing.

The amine formulations of 2,4-D granules (Navigate®, Aquakleen®, Aquacide®) are effective on controlling Eurasian watermilfoil and will not damage most non-target grasses. This herbicide method, however, is not appropriate for large unmanageable areas of milfoil. One lose-dose application (10 µg/ L) of fluridone (brand names Sonar® and Avast!®) applied in the early stages of growth has the potential to provide season-long control of milfoil. However, this application rate causes collateral damage to native vegetation. Liquid triclopyr (Renovate 3® and Renovate® OTF) can control milfoil without unintended damage to cattails and grasses. *Note: Always check state/provincial and local regulations for the most up-to-date information regarding permits for control methods. Follow all label instructions. Mention of chemicals, particularly the mention of brand names in this profile does not represent a recommendation by NY Sea Grant or Cornell University.* http://nyis.info/invasive_species/eurasian-watermilfoil/

Non-Selective Control Strategies

- Benthic Mats

Basic Primer on EWM Control:

- https://www.dec.ny.gov/docs/water_pdf/ch6p2.pdf

Post- Survey Monitoring: Briefly explain the monitoring procedure, when it will occur, and who will complete it. Consider the phenology of species when suggesting time-lines. If a separate management or monitoring plan was developed or to be completed, attach or describe here.

- The Capital Region PRISM will commit to Early Detection AIS Surveys in Moreau State Park in a Collaboration with the NYS OPRHP on an annual basis. The PRISM will continue to monitor the infestation(s) of Eurasian Water-milfoil; (*Myriophyllum spicatum*) and delineate their size using collector polygons. The PRISM will also monitor for other AIS.

Will post-treatment management be handled by another person/entity? Not Applicable at this time.

If yes- please provide the contact information:

Will an Invasive Species Management Plan be created? Not Applicable at this time.

