



ANNUAL MEETING

AUGUST 2, 2026

BELGRADE CENTER
FOR ALL SEASONS

Protecting the Lakes. Preserving Our Legacy.





WATER QUALITY UPDATE

Dr. Danielle Wain

Lake Science Director, 7 Lakes Alliance



7 Lakes Water Quality Monitoring Program

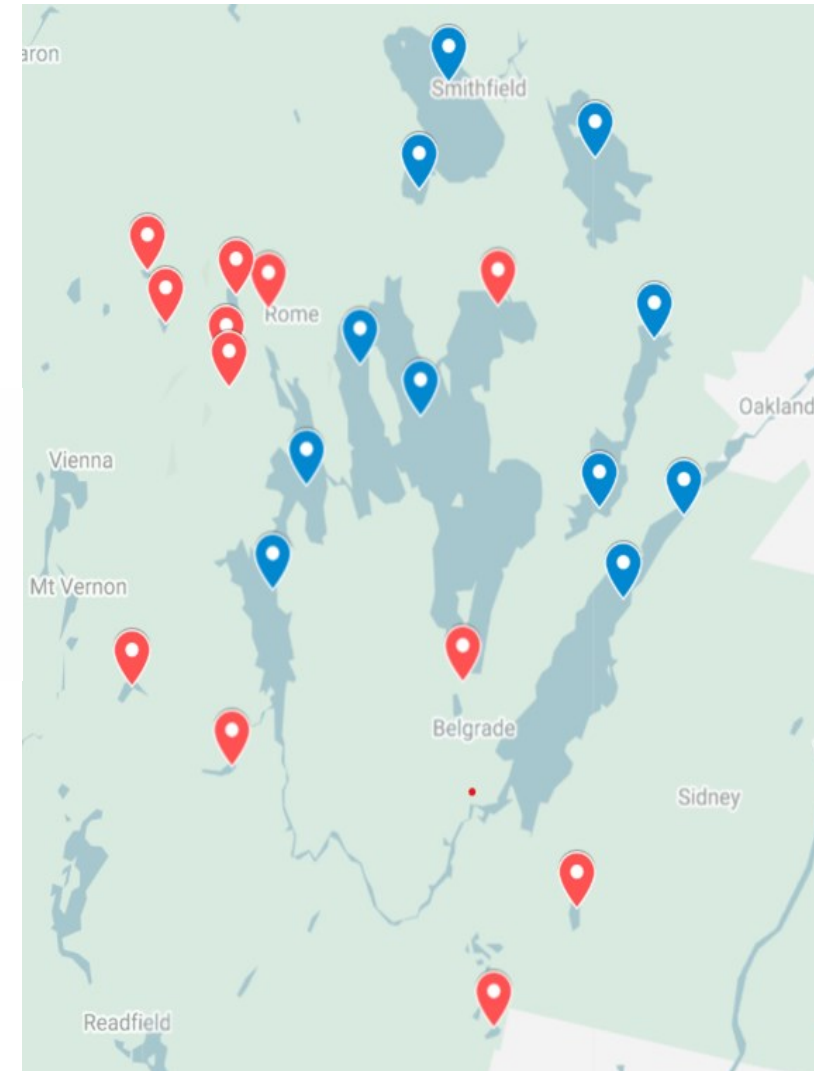
Year-round monitoring

- 115 lake sampling visits, 1100+ lake water samples
- 400+ stream samples, autosamplers continuously deployed

Funding sources

- Klingenstein Philanthropies
- Harold Alfond Foundation
- United States Geological Survey - Maine WRRl
- Private donors

Colby





Measuring water quality impacts

What drives excessive growth of algae?
Where do nutrients enter the lake from?
How are lakes changing over time?

**External
Loading**

**Internal
Loading**



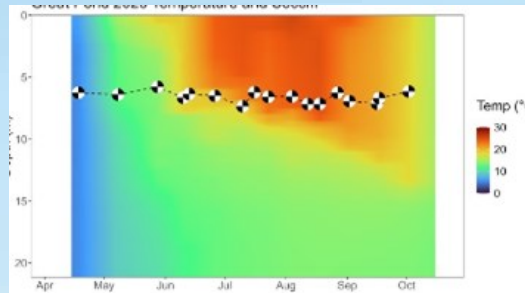


Measuring water quality impacts

Water clarity



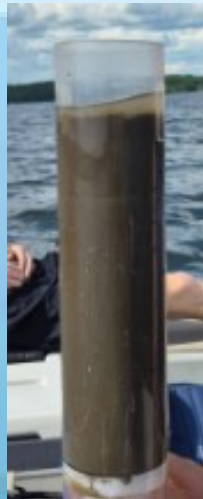
Temperature and Oxygen



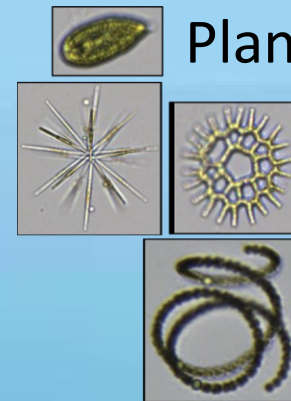
Water samples

External Loading

Sediment



Plankton

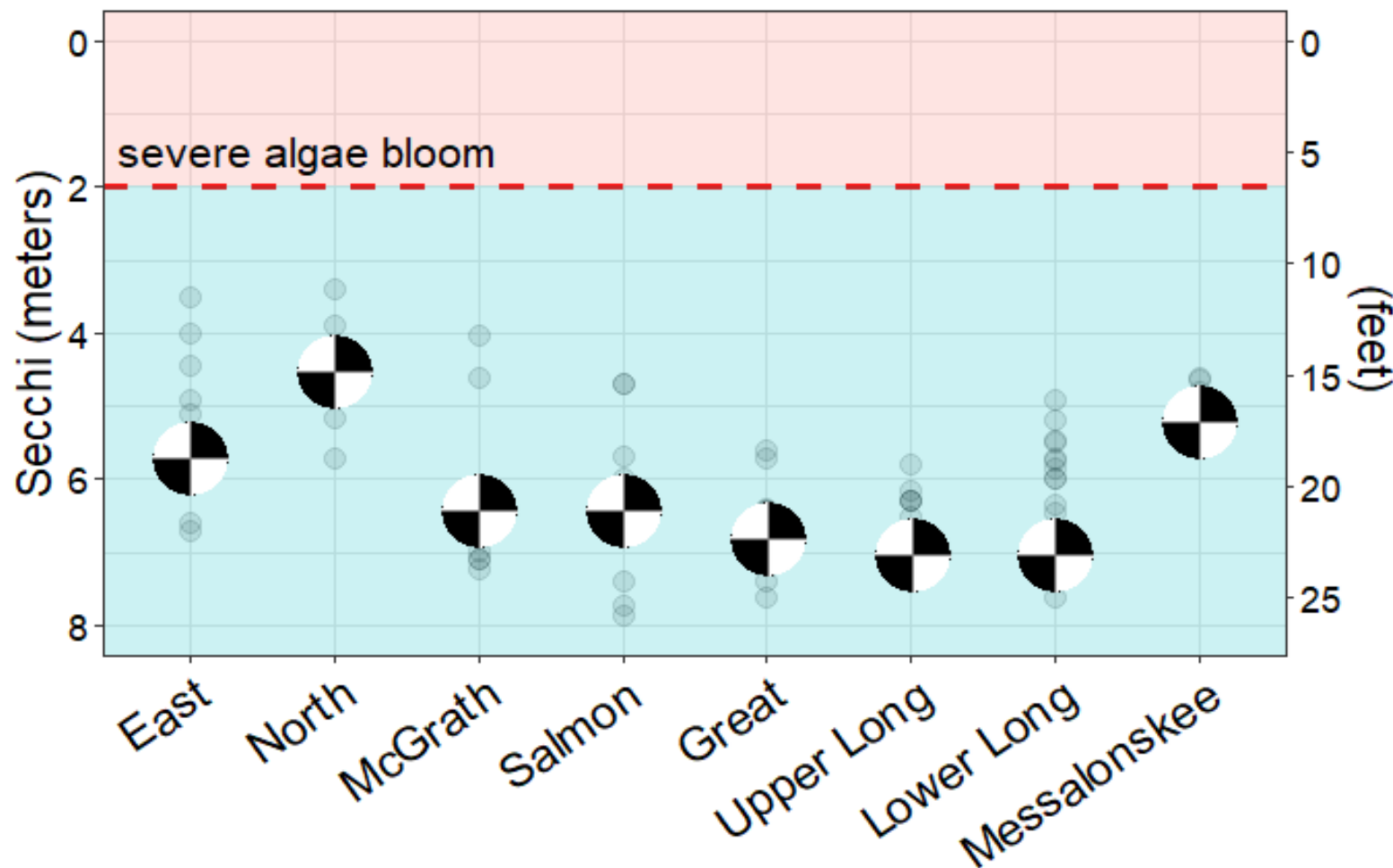


Internal Loading



How are the lakes right now?

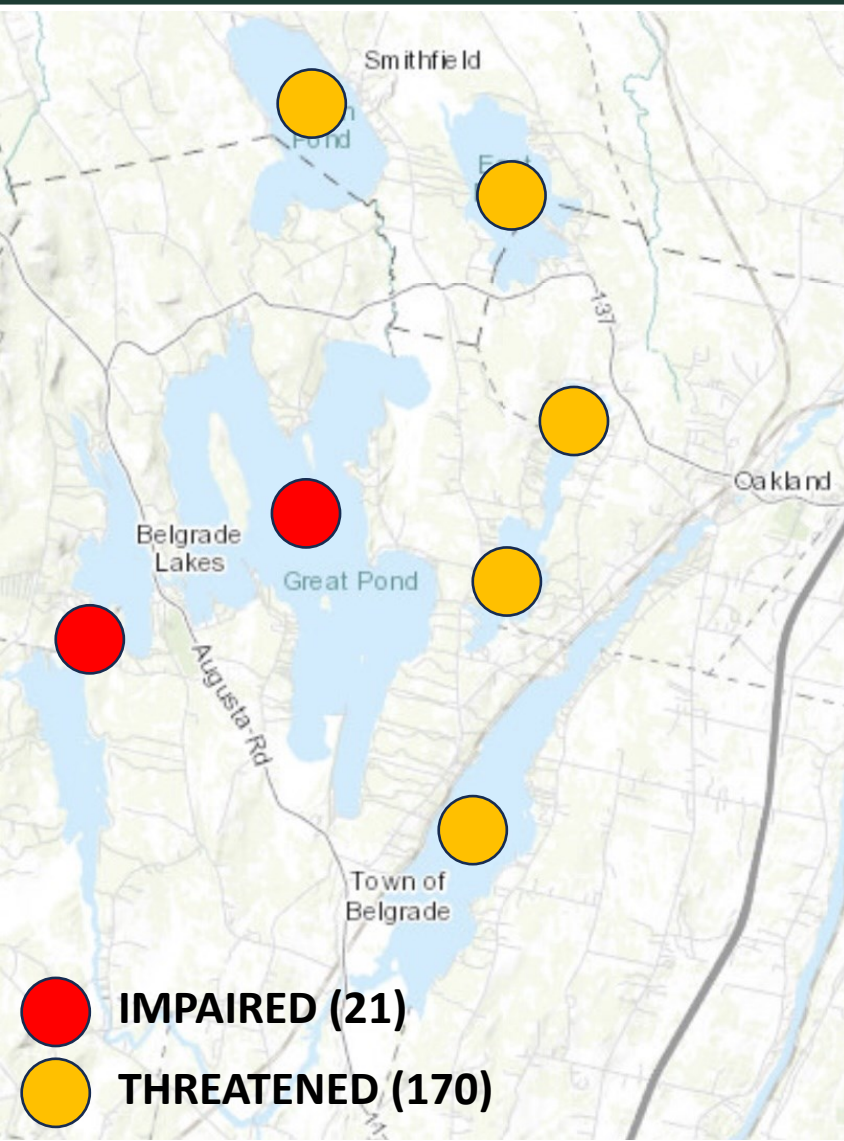
Latest Water Clarity (28-July)



- North Pond has not bloomed yet this summer, although we anticipate it might be coming
- The East Pond alum treatment has been holding thus far
- Great Pond and Long Pond continue to have the clearest water in the Belgrades



All of the Belgrade Lakes are listed as impaired or threatened by the state



- Great Pond and Long Pond are listed as impaired due to declining water clarity over the past 30 years
- East Pond was removed from the impaired list after the alum treatment
- North Pond is being considered for impaired status due to recent blooms
- Our other lakes are listed as threatened due to:
 - Past blooms
 - Declining trends in water clarity
 - Watershed development threat
 - Sensitivity to additional phosphorus inputs due the hydrology, watershed, and sediment chemistry



WBMP have been developed for GP and LP

GREAT POND

BELGRADE & ROME, MAINE

WATERSHED-BASED MANAGEMENT PLAN

(2021-2031)



© alexander wall



MARCH 2021

LONG POND

BELGRADE, MOUNT VERNON,
& ROME, MAINE

WATERSHED-BASED MANAGEMENT PLAN

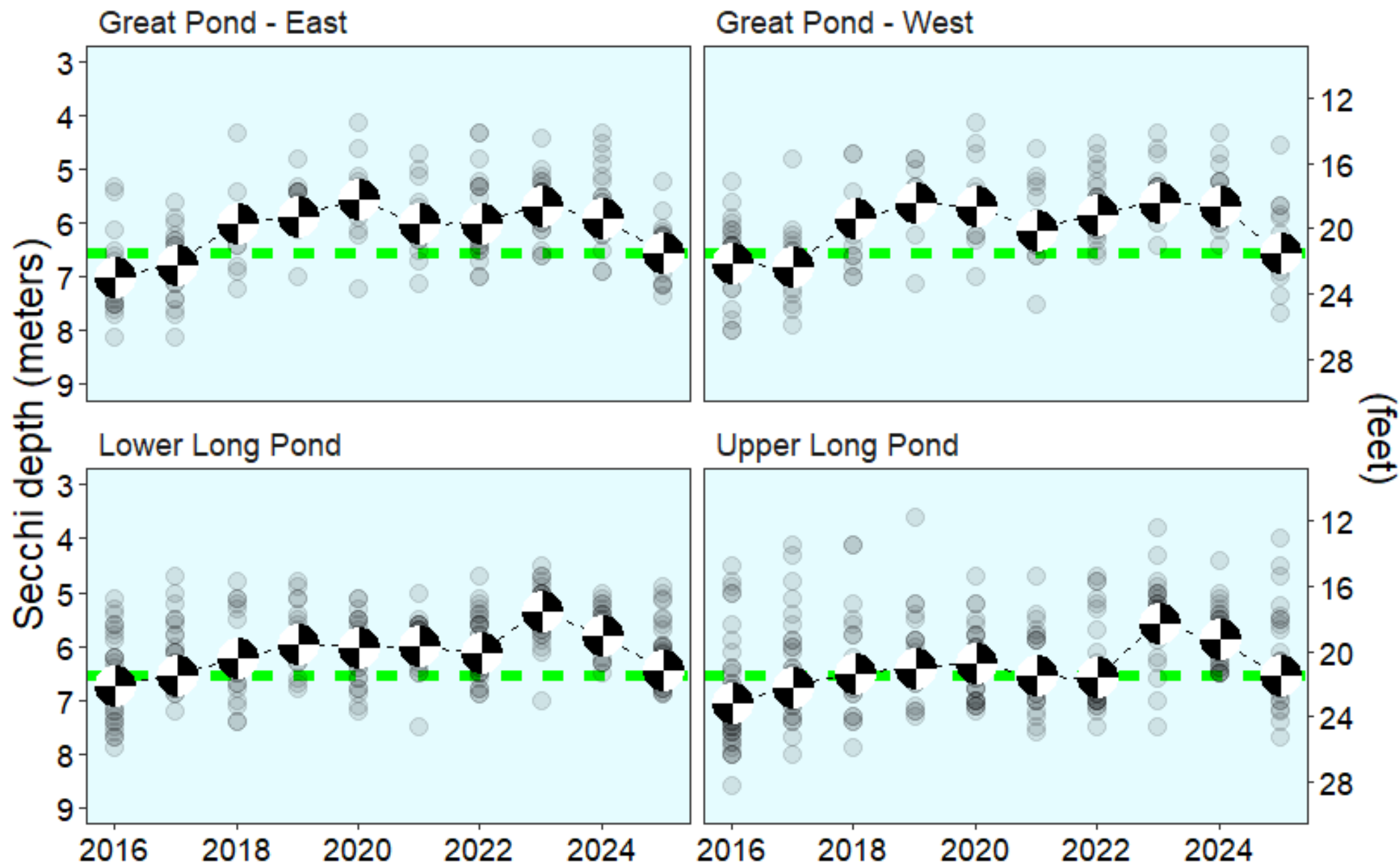
(2022-2032)



Ensuring Our Future

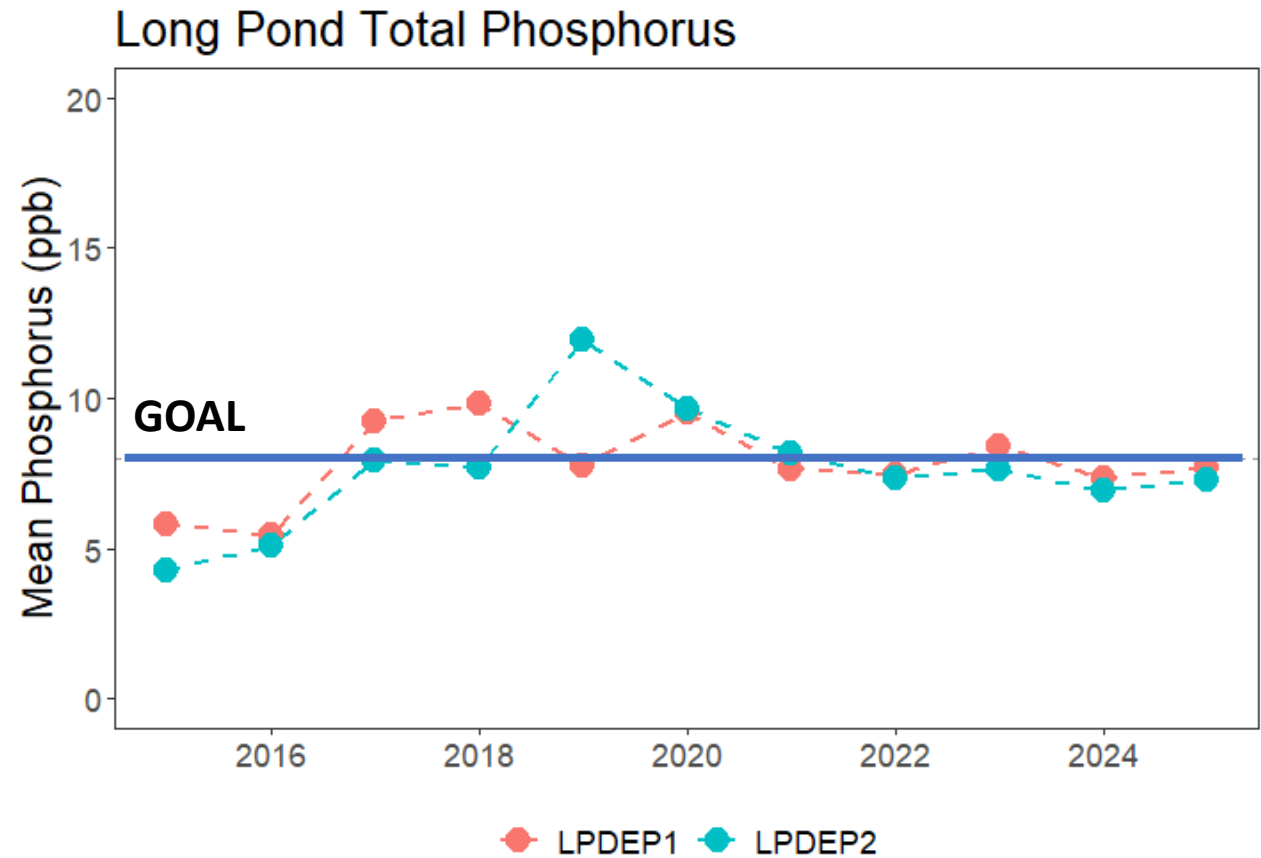
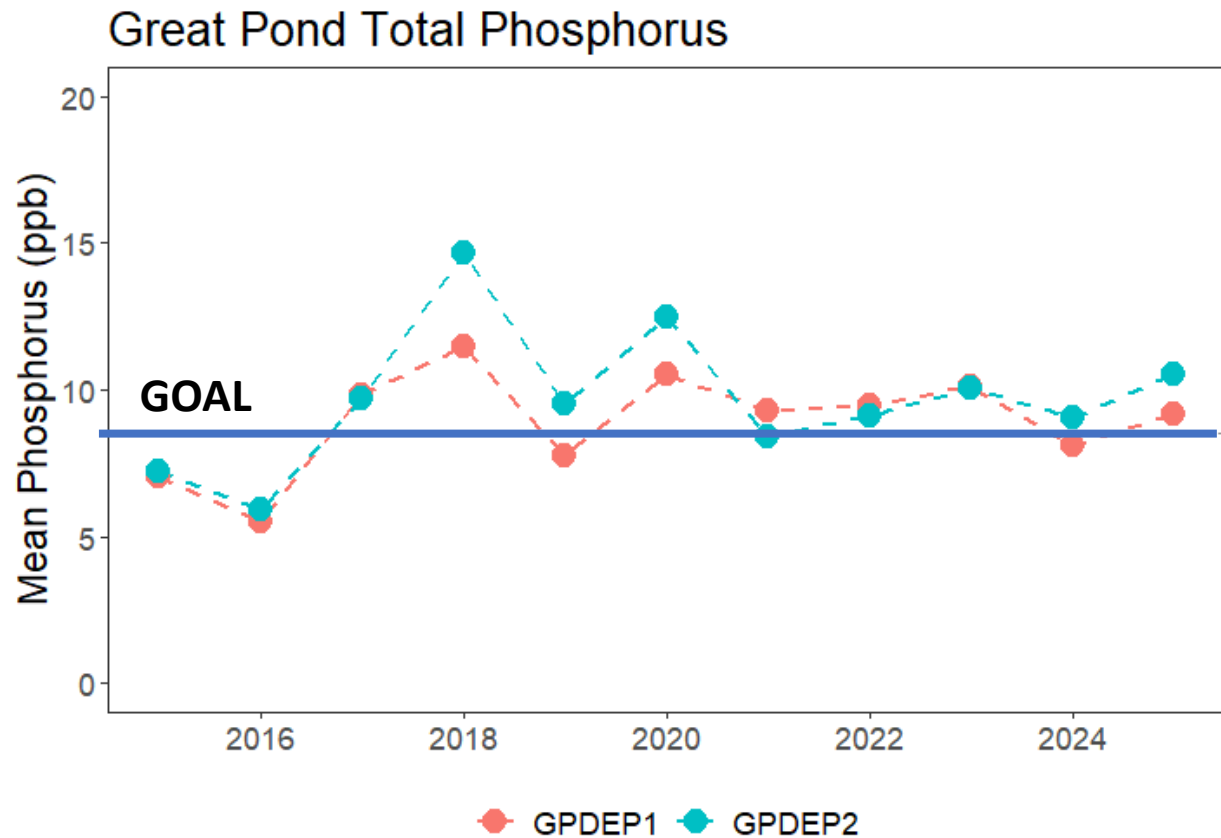
MARCH 2022

Long-term Water Clarity Trends





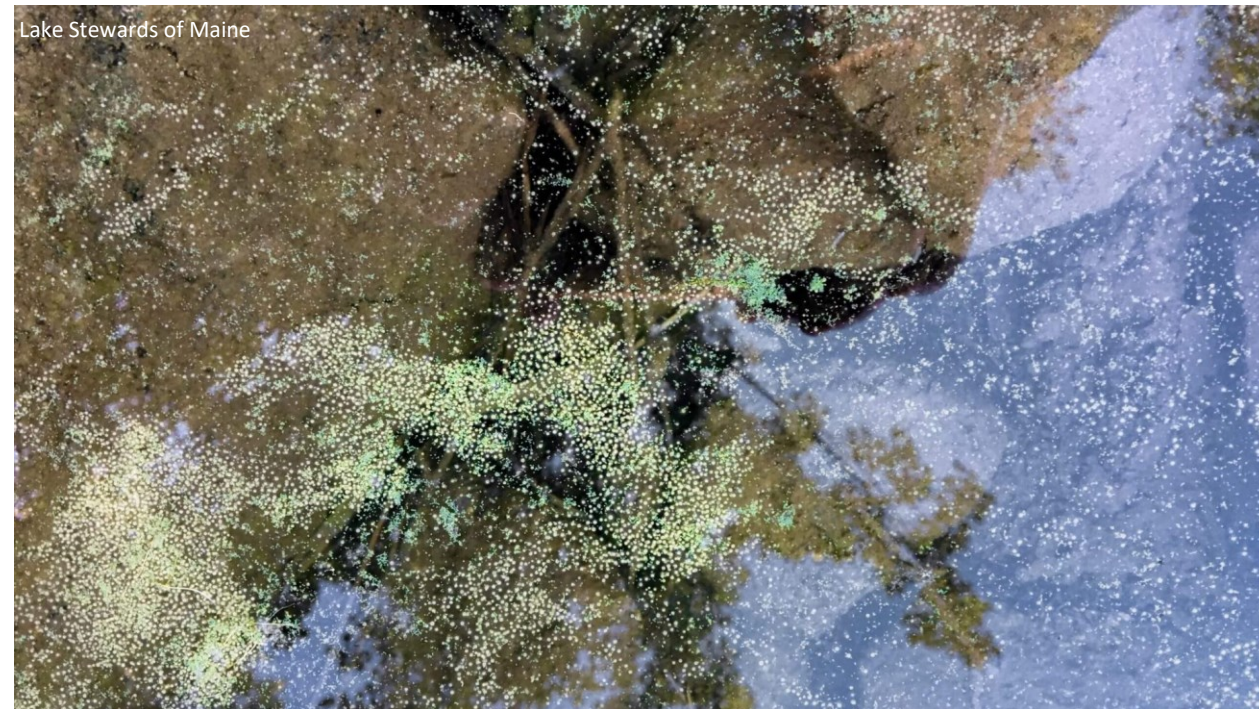
We are meeting our phosphorus goals on Long Pond, but not Great Pond



WE STILL HAVE WORK TO DO!



Additionally, both lakes suffer from *Gloeotrichia* blooms



In North America, Gloeo appears in relatively clear lakes during summer months and early fall

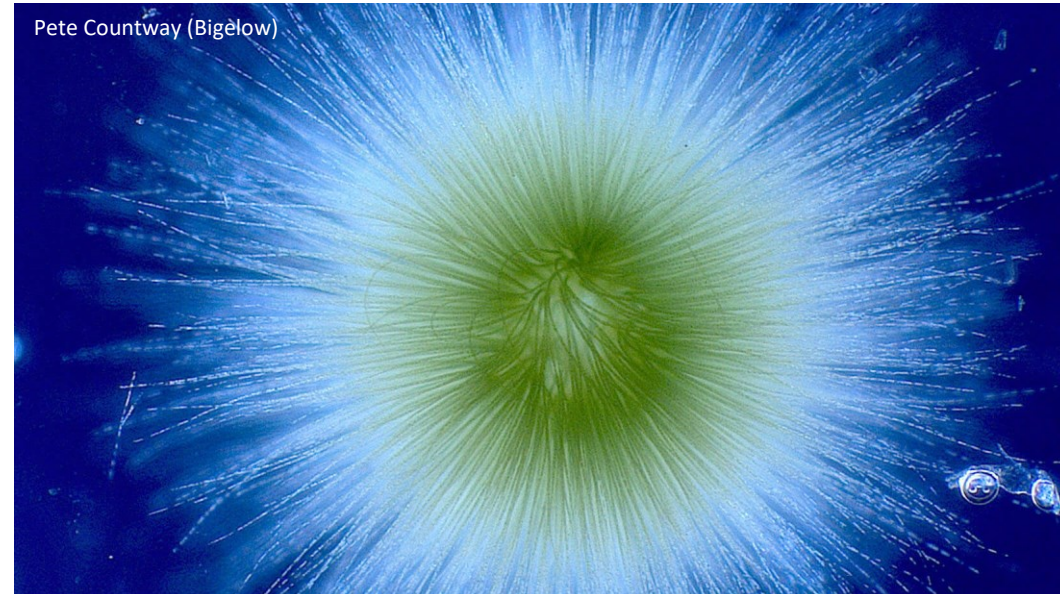
- *Gloeotrichia* (Gloeo for short) is a large (~2 mm) colonial cyanobacteria
- Beyond being a nuisance, Gloeo can also cause some lake users to get itchy skin when they go swimming
- On other lakes, we get whole lake cyanobacteria blooms of other genres; on Great and Long Pond, we get local blooms of Gloeo, mostly on the shoreline
- Genetic analysis at Bigelow indicates our strains do not appear to have the genes to produce toxins



Gloeo life cycle creates challenges for observations

- The colonies develop in lake sediments in the spring, recruiting phosphorus from the sediments for growth
- Light at the sediments is required for their growth (which is why clearer lakes are susceptible in the presence of phosphorus laden sediments)
- Once the right conditions are met, the colonies form gas vesicles which allow them to float to the surface, where colonies continue to grow and divide
- Once at the surface, the colonies can be distributed horizontally by physical processes

Spatiotemporal variability makes observing and predicting Gloeo blooms difficult!





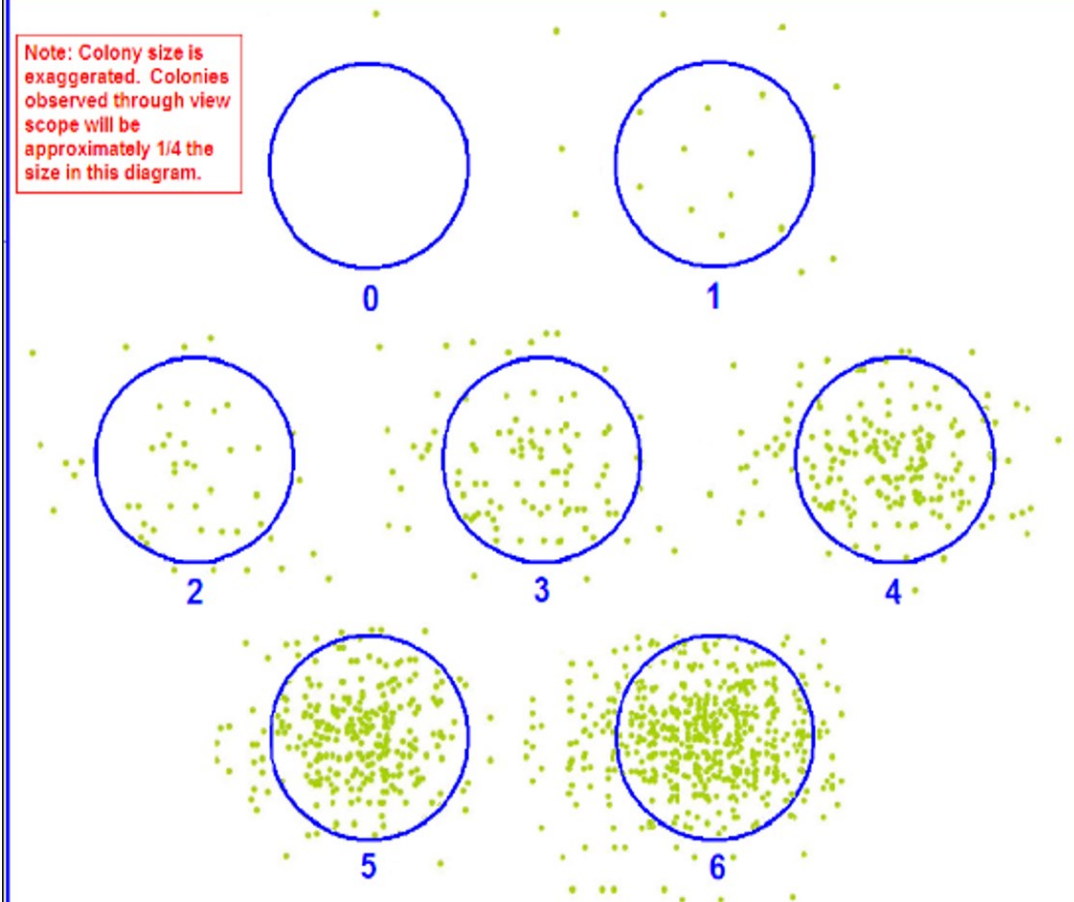
Since 2005, BLA volunteers have observed Gloeo at their docks



Training session at 7 Lakes in 2023 run by Maine DEP

Abundance Estimation Density Scale for *Gloeotrichia echinulata*

Note: Colony size is exaggerated. Colonies observed through view scope will be approximately 1/4 the size in this diagram.



Densities in circles above represent what you might see through your view scope. Move the bottom of the scope around (approx. 3 feet) to verify that conditions are consistent. Record the date, time and GLOEO= _____ on your field sheet (& phone app, if you are using one).

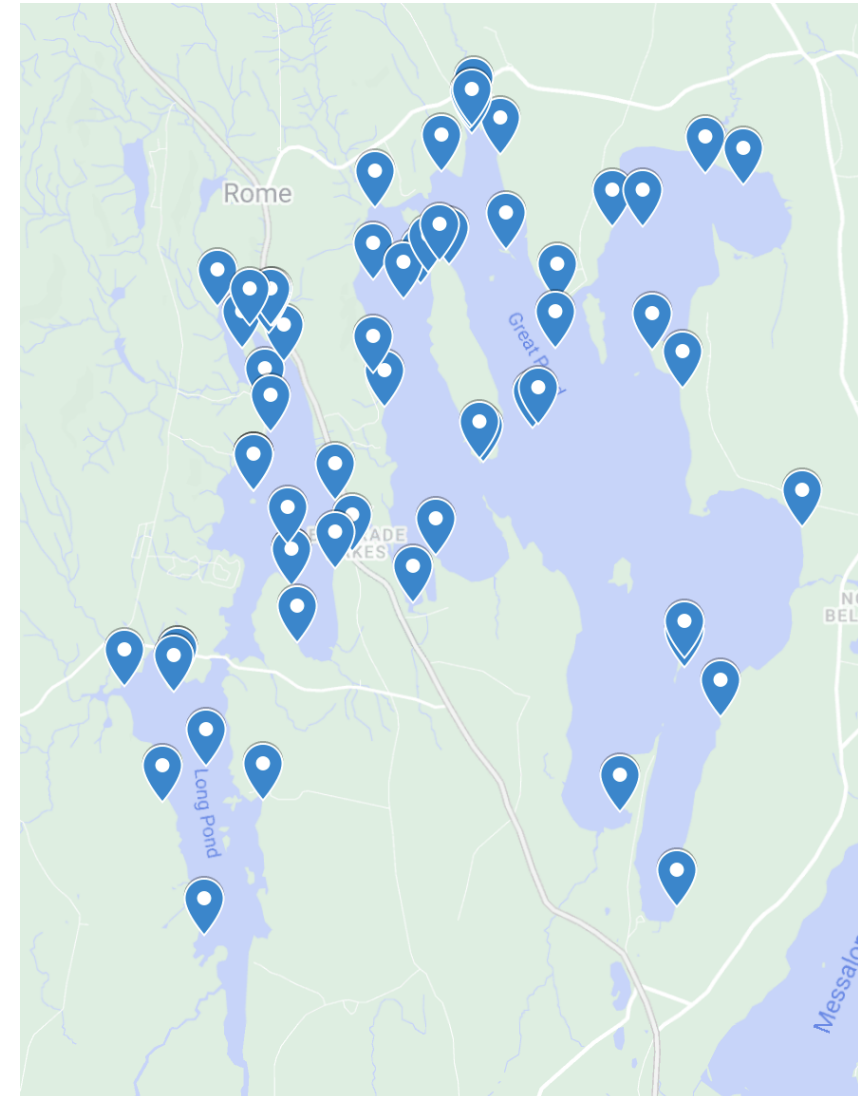


There have been 72 sites across Great Pond and Long Pond

Lake	No. of Sites	No. of Observations
Great	45	4143
Long-North	19	899
Long-South	8	758

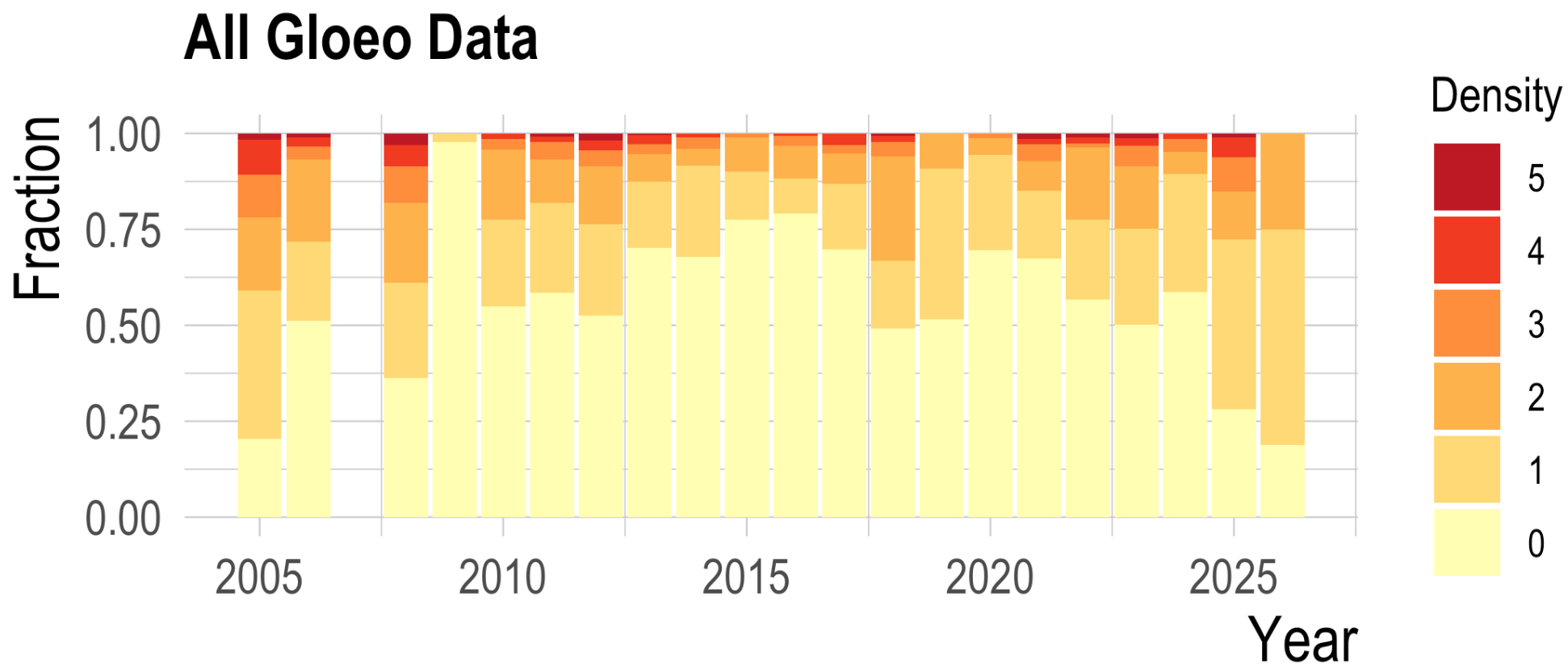


1183 observations!





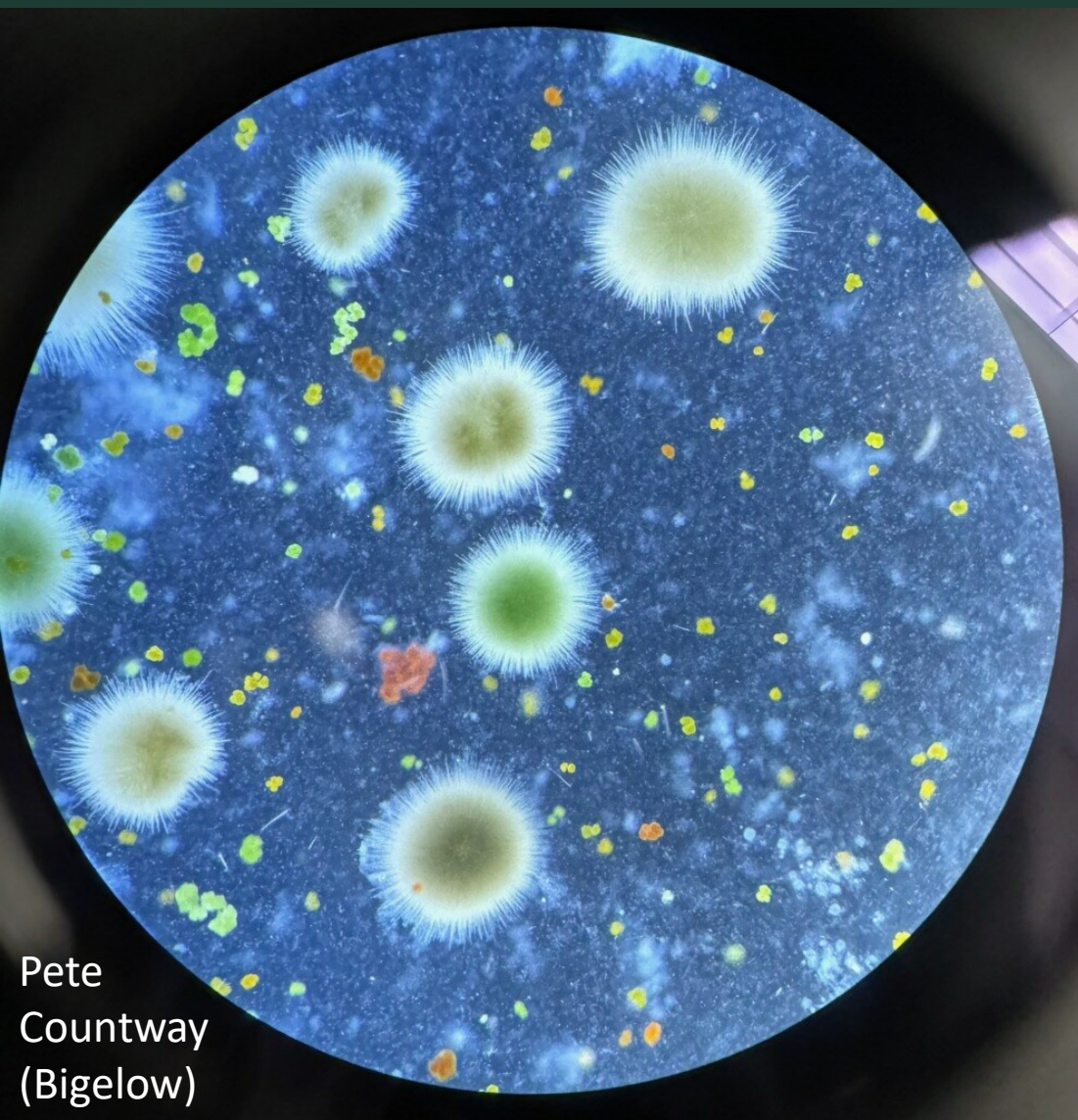
2025 was a really bad year!



GLOEO IS OFTEN WORSE WHEN THE WATER IS CLEAR!



Thanks to all the volunteers!



Pete
Countway
(Bigelow)



QUESTIONS?



INVASIVE AQUATICS UPDATE

Sharon Mann

Invasive Aquatics Director, 7 Lakes Alliance

Photo credit: Dick Greenan



Invasive Aquatic Species

BLA Update

August 2026





Invasive Species- they get around

Messalonskee Lake

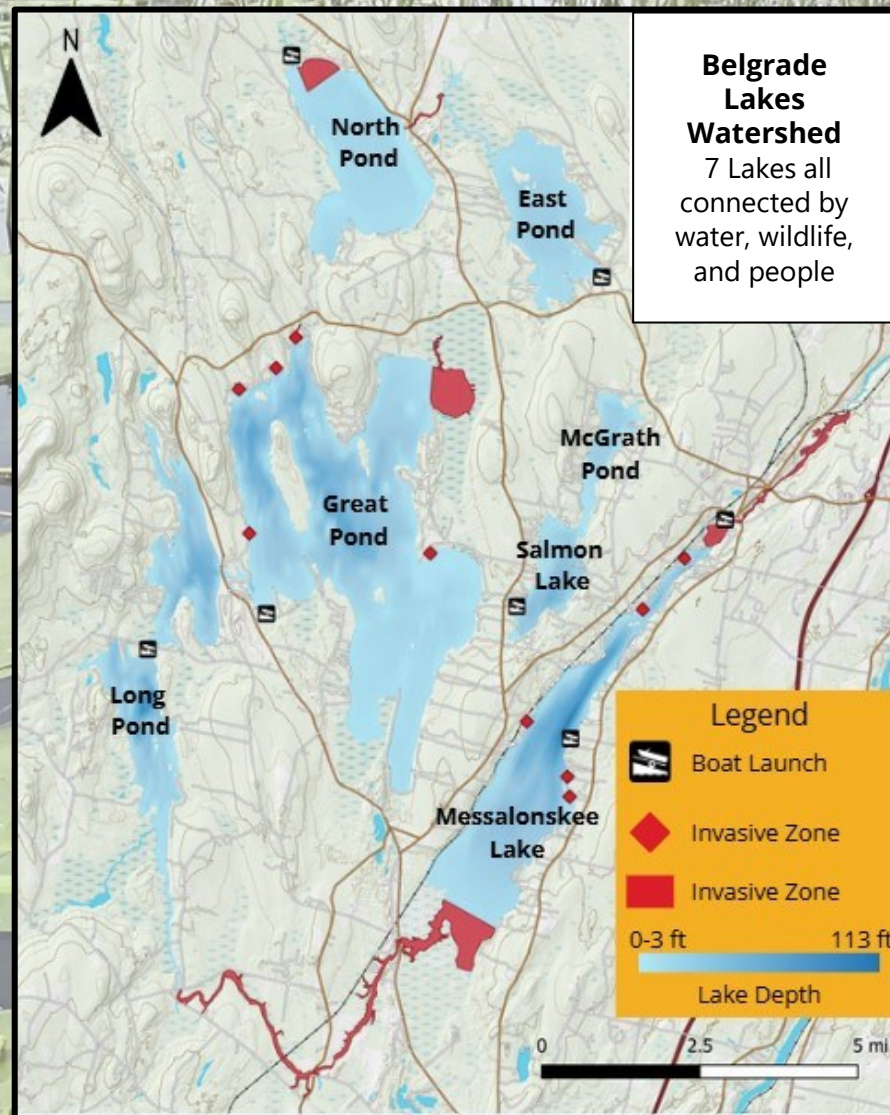
Milfoil, Belgrade Stream (1990),
14 other areas now.

Great Pond

Milfoil, Great Meadow Stream
(2010), 4 more streams (2012),
and 2 coves (2023).

Long Pond

Connected to Belgrade Stream by
Wings Mills Dam. High risk of
spread. No current infestations.



**Belgrade
Lakes
Watershed**
7 Lakes all
connected by
water, wildlife,
and people

Salmon Lake

Eurasian milfoil, Kozy Cove
(2012) treated with herbicide,
removed from list 2015

McGrath Pond

No current infestations.

East Pond

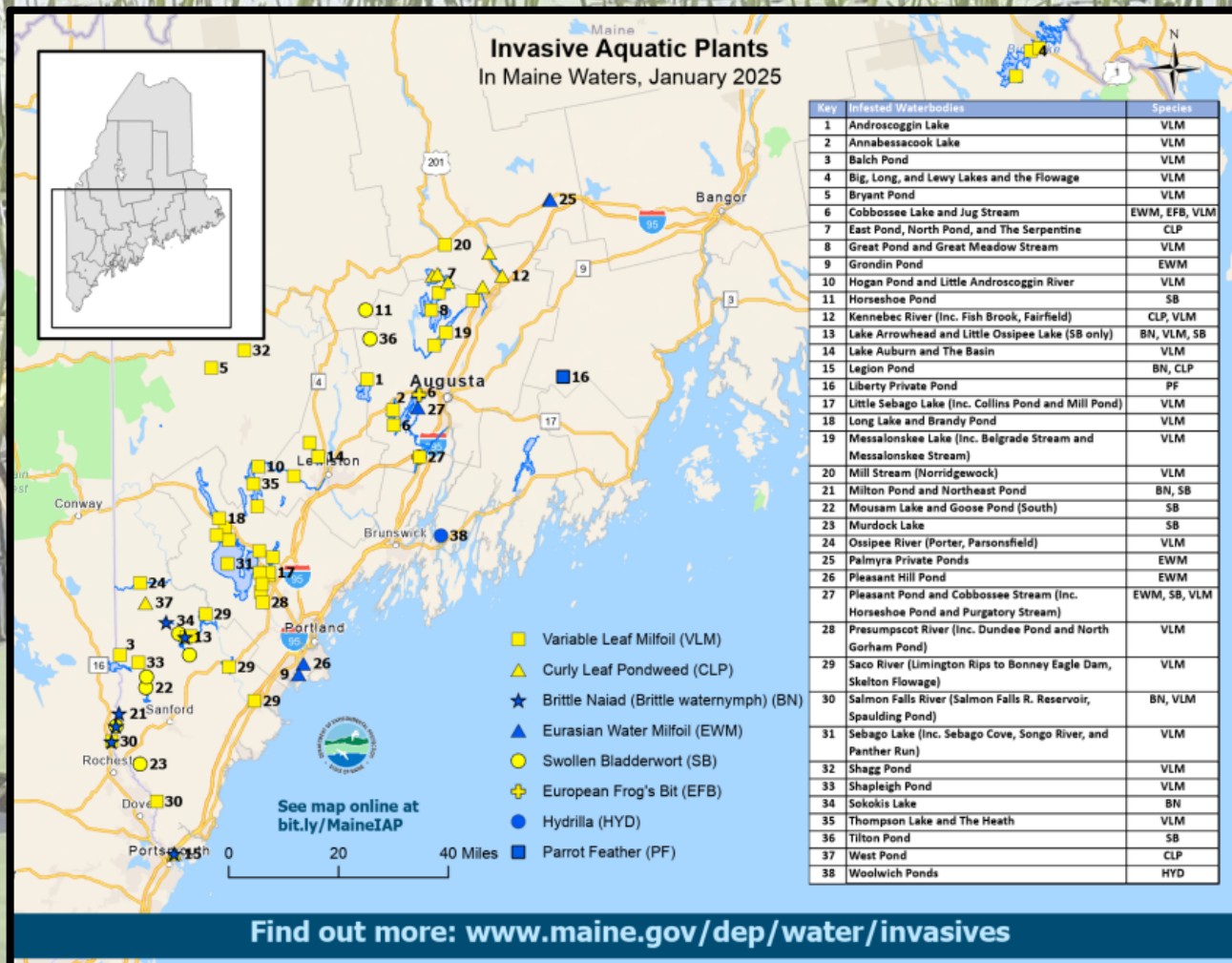
Curly-leaf, Serpentine (2021)

North Pond

Curly-leaf, Old Mill Stream
(2021), throughout lake (2025).



Invasive Aquatic Plant Infestations in the State





Infestation Project Structure and Funding

So how does this work?

- **7 Lakes manages** invasives throughout the **watershed**.
- **ME-DEP** offers competitive grant opportunities to **fund** remediation projects.
- **Lake Associations** contribute **match** for state grants.
- **Regional applications** are favored as more work is accomplished **together** than alone.



Belgrade Lakes Association

Long Pond & Great Pond



North Pond Association

North Pond



East Pond Association

East Pond



Friends of Messalonskee

Messalonskee Lake



McGrath Pond Salmon Lake Association

McGrath Pond & Salmon Lake



Variable-Leaf Milfoil Remediation

Thus Far in 2026

- 1,160 hours underwater
- 150 gallons of VLM removed
- Perimeter survey GP & LP
- Ongoing mngt all sites

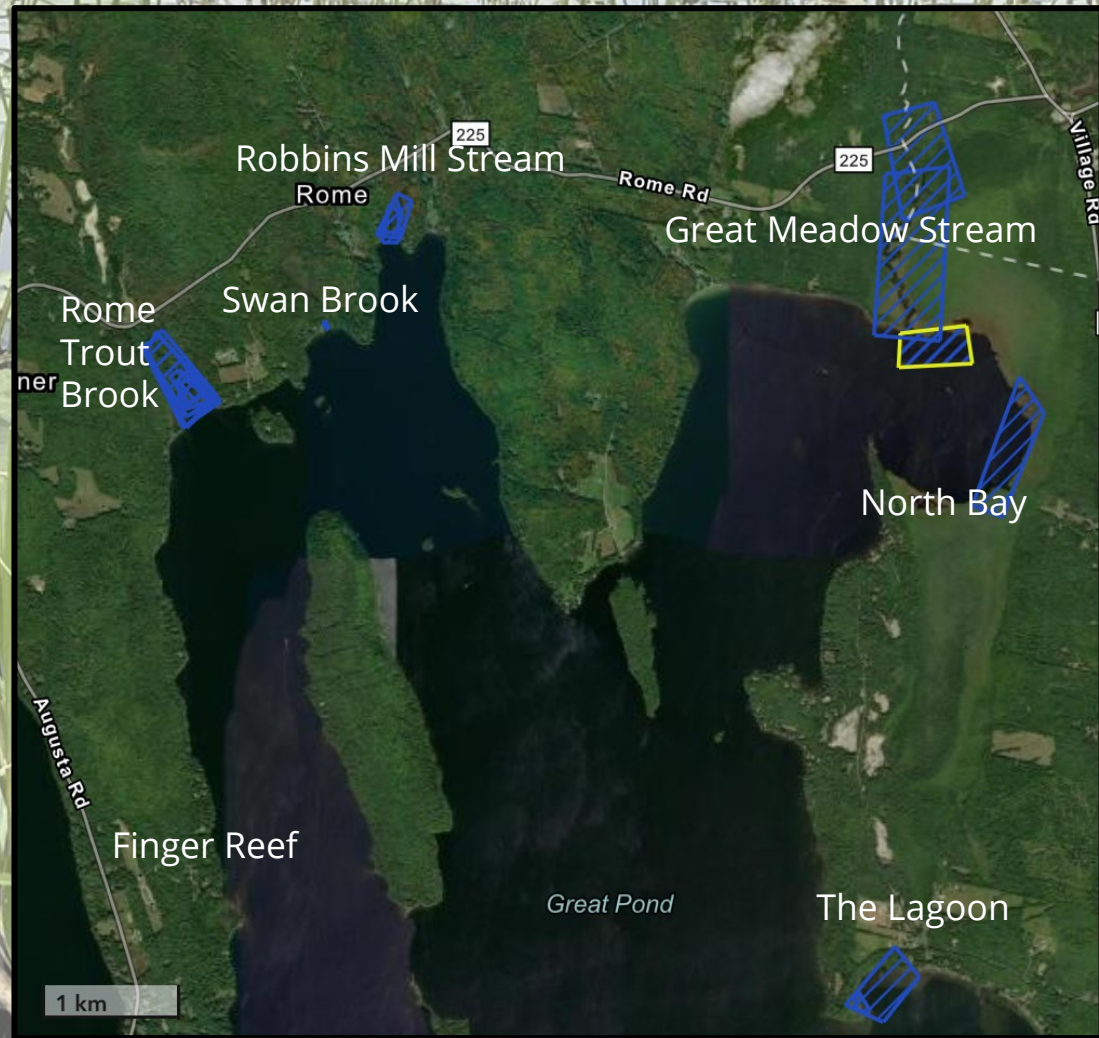
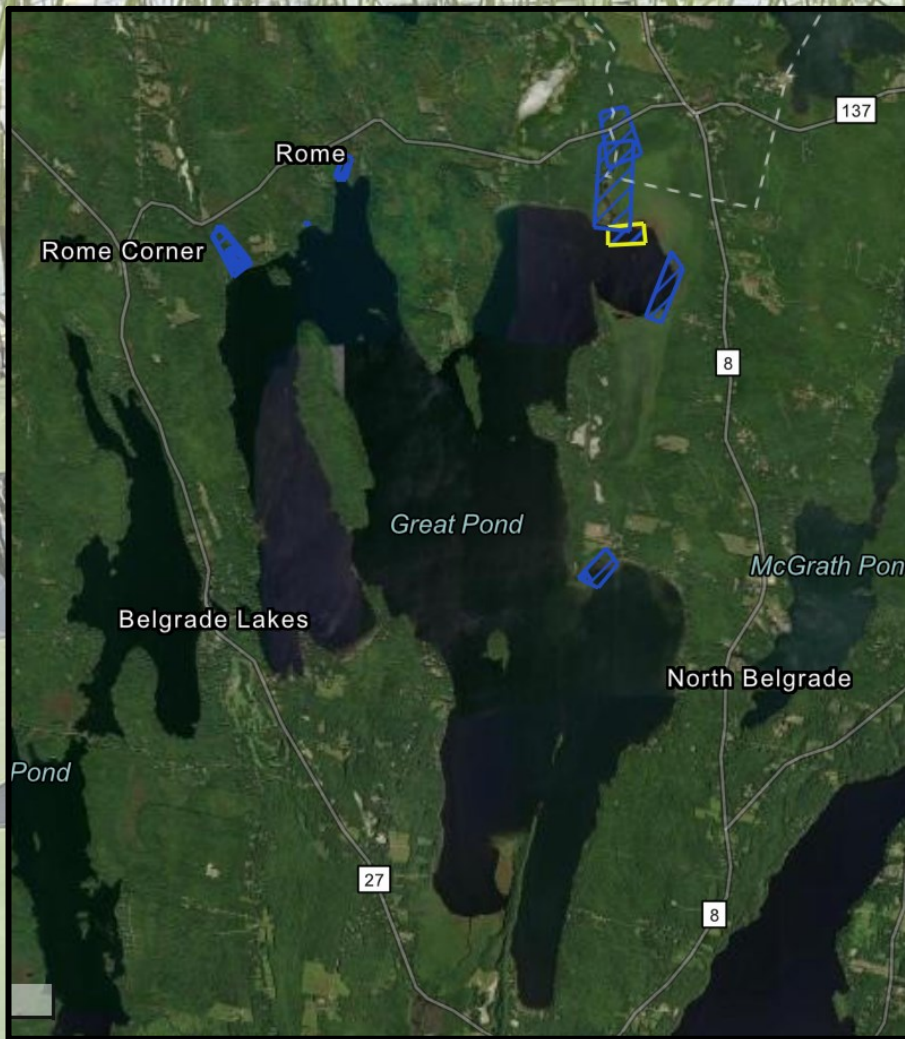
Funding Sources

- \$30,000 pledge from BLA
- \$45,000 in grant awards
- **\$75,000 EST costs in 2026**



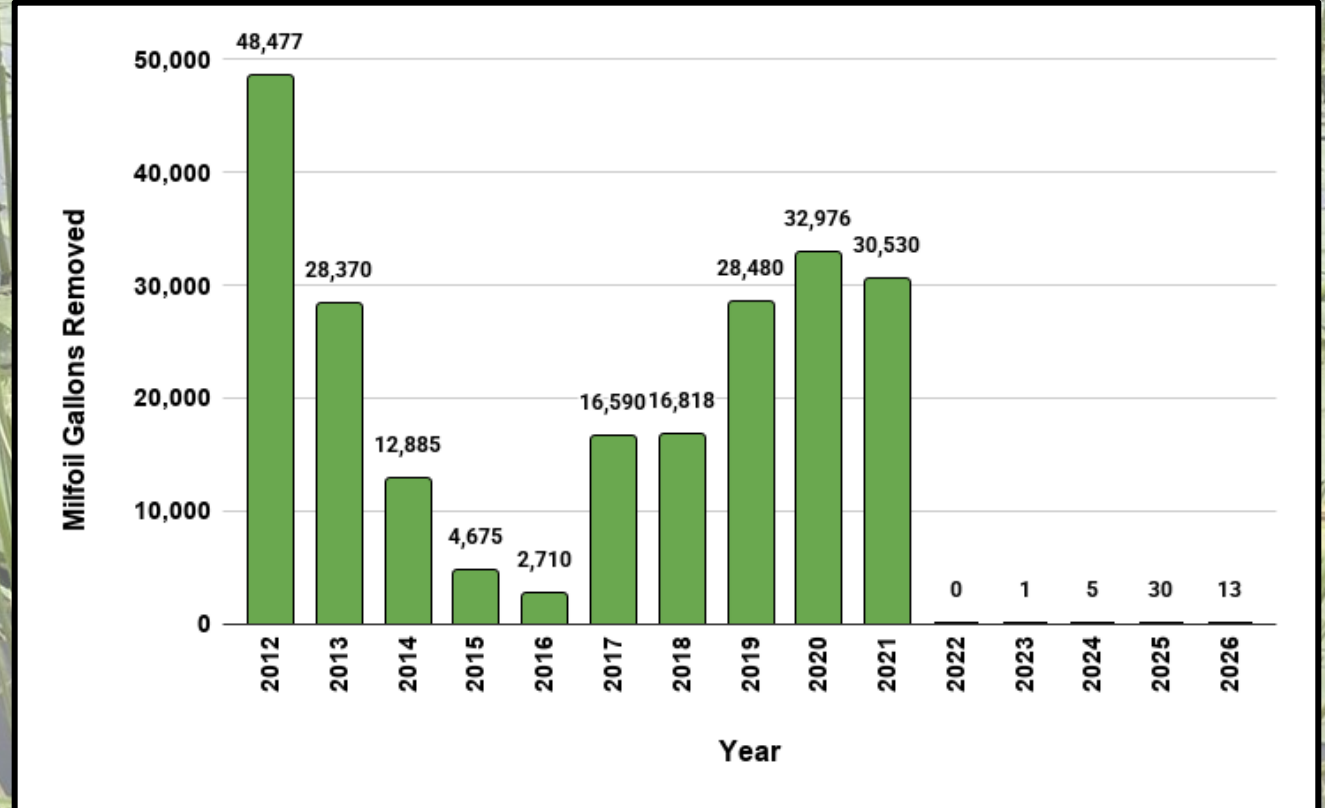


Variable-Leaf Milfoil Sites in Great Pond





Milfoil Over the Years (pre/post herbicide)





Prevention- Courtesy Boat Inspections

Thus Far in 2026

- 7 AM - 7 PM coverage
- 2 confirmed saves
- 1 citation from Wardens

Funding Sources

- \$58,000 pledge from BLA
- \$11,000 in grant awards
- \$3,150 Belgrade (direct)
- **\$72,150 EST costs in 2026**





Threats All Around- CLPW in North Pond

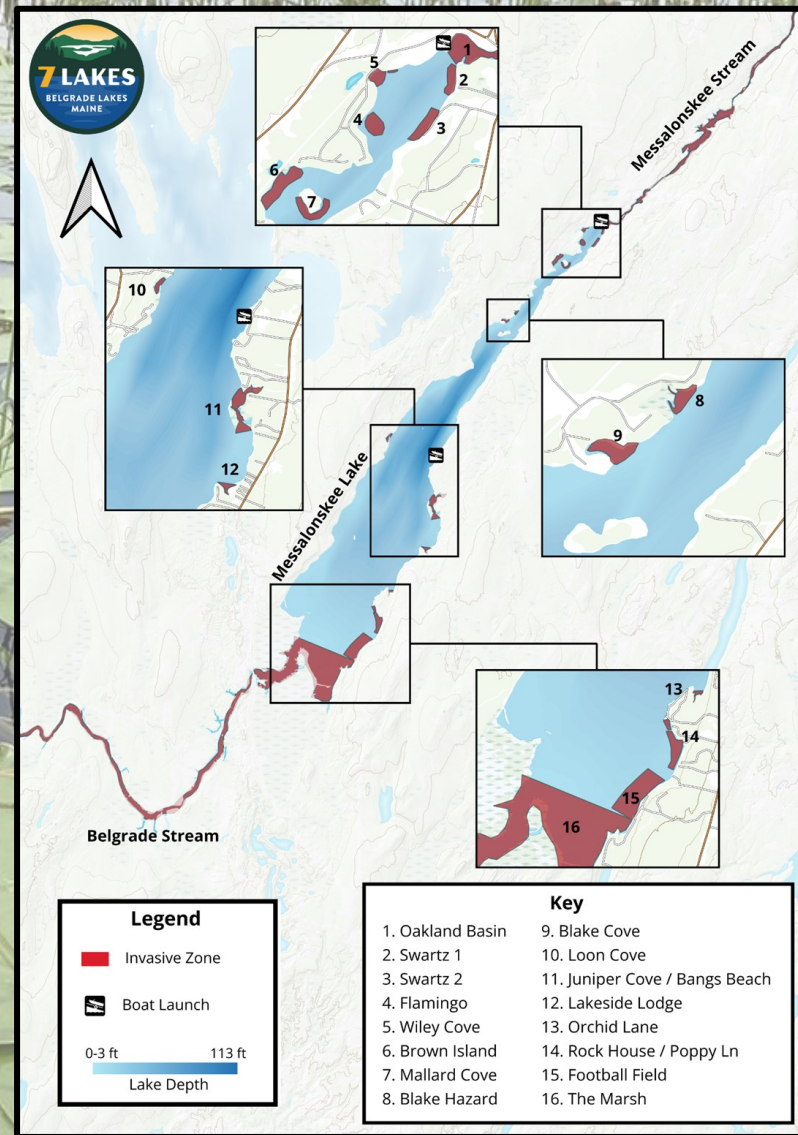
- More CLPW in deep, open areas. Old turions suggest plants may have been there waiting.
- A few CLPW found in Great Meadow Stream (GMS) above the dam.
- Areas worked hard in 2024 & 2025 are much improved (e.g. East of Pomleau Island).
- No CLPW found in Little or below dam.





Threats All Around- VLM in Messo & Belgrade Stream

- Herbicide treatment in 4 Areas of Messalonskee Lake.
- Long term- treat Belgrade Stream & Messalonskee Marsh.
- ~1,000 infested acres. BIG project.
- VLM thick below Wings Mills Dam.
- Will require support from ALL lake associations and municipalities.

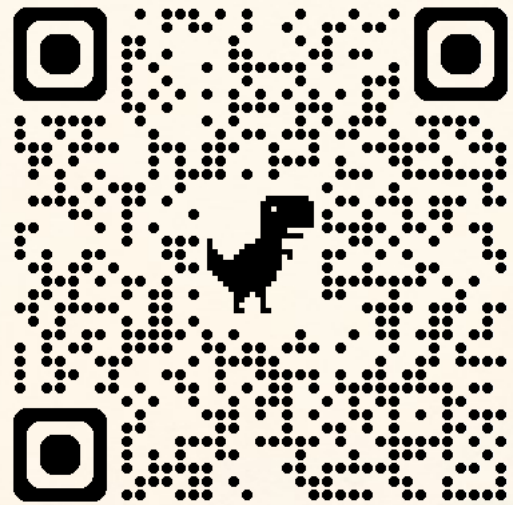


A photograph of a field of purple flowers, likely Iris versicolor, with large green leaves. The flowers are in various stages of bloom, with some showing the characteristic three-lobed petals. The background is a dense forest of evergreen trees. A semi-transparent grey rectangular box is centered over the image, containing the text "THANK YOU Belgrade Lakes Association!" in a bold, black, sans-serif font.

THANK YOU
Belgrade Lakes
Association!



Support the Camp Bombazeen Conservation Project





Thank you

***Your generosity, dedication, and love
for our lakes make a lasting difference.
Together, we are protecting Long Pond
and Great Pond today and preserving
them for future generations.***