

SILVER LAKE IMPROVEMENT ASSOCIATION

*Enhancing the water quality,
recreational use and natural beauty of
Silver Lake*

2019 Presentation to the NSP Historical Society

Agenda

- Introductions
- What is the SLIA?
- SLIA History
- Invasive Plants on Silver Lake
- Treatment of Invasive Plants on Silver Lake
- Who pays for lake treatment costs
- Open Forum & Questions

What is the SLIA?

- The Silver Lake Improvement Association (SLIA) is a nonprofit organization with the purpose of promoting programs that enhance the water quality, recreational use and natural beauty of Silver Lake in North St. Paul, Maplewood, Oakdale, Minnesota
- In 2018 the SLIA became a 501(c)(3) charitable organization. Donations are tax-deductible to the full extent provided by law
- **SLIA Board meetings** are held the first Monday of every other month. A meeting of the full membership is held during the first quarter each year
- The association is governed by its members represented by 7 board members.

History of the SLIA

- The association was formed early 2000
- Primary purpose to organize lake management by shoreline owners due to heavy amounts of invasive plants
- First sign of invasive plants was 1992
- Herbicide treatments in 2007-2008 were extreme and eliminated most native plants, invasive and non-invasive
- No additional treatments were performed until 2012 when evidence of native plant growth was discovered

SLIA Board Members & Liaisons

2019 Board Members

- President: Rick Gelbmann
- Vice Pres: Paul Nichol
- Secretary: Kristen Rieser
- Treasurer: Joyce Germscheid
- Member: Missy Lillie
- Member: John Muller
- Member: Cheryl Ettlinger

2019 Liaisons

- North St. Paul: Joyce Germscheid
- Maplewood: Paul Nichol
- VBWD: John Muller
- MN DNR: Joyce Germscheid
- Ramsey Co: Rick Gelbmann
- Treatment: Joyce Germscheid
- Newsletter: Joyce Germscheid
- Cleanup: Mark and Shari Long
- Website: Jason Lehmer
- Water Data: Mark Kotz

SLIA Membership

- 2018 Membership
 - ▣ 26 Lakeshore homeowner members, out of 36 total lakeshore owners – 72%
 - ▣ 15 Non-lakeshore members
 - ▣ Dues \$25/year, and are tax deductible
- Membership is yearly, voluntary and anyone may join

2019 Goals – Partnerships

- Continue to develop city partnerships for lake treatment and technical support
 - ▣ North St. Paul, Oakdale and Maplewood
- Work with Valley Branch Watershed District to develop lake plan with city of North St Paul
- Ramsey County Aquatic Invasive Species group
- Other local lake association partnerships
- Possible Business Membership in the SLIA

2019 Goals – Lake Management

- Improve the health of the lake
 - ▣ Increase native plants & decrease invasive plants
 - ▣ Improve water quality (more clarity, less nutrients)
- Treatment
 - ▣ Off-shore treatment, as needed
 - ▣ Perennial problem areas
 - ▣ Dependent on funding
- Lake Levels
 - ▣ Monitor lake levels
 - ▣ Work with governing agencies, Valley Branch, DNR

Invasive Plants in Silver Lake

Invasive species are species that are not native to Minnesota *and* cause economic or environmental harm or harm to human health.

- **Eurasian Watermilfoil (EWM)** is a rooted, submerged aquatic plant. The leaves appear green while the stems are white to reddish. The species was likely introduced and spread through the movement of watercraft and water-related equipment. Plant fragments can get tangled on boats, trailers, motors, anchors and other water-related equipment. All it takes is a single plant fragment to start a new population.
- Eurasian watermilfoil impacts:
 - Dense mats at the water's surface inhibit water recreationists.
 - Overtakes habitat and outcompetes native aquatic plants, potentially lowering diversity.
 - Provides unsuitable shelter, food, and nesting habitat for native animals.

Eurasian Watermilfoil



Invasive Plants on Silver Lake - cont

- **Curly-leaf Pondweed** is a rooted, submersed aquatic plant. Its coloration varies from olive-green to reddish-brown.
- The flower stalk grows up above the water surface, typically in June. It grows to about one inch tall and appears reddish-brown in the water, but is actually green when examined closely.
- Curly-leaf pondweed is native to Eurasia, Africa, and Australia. It was likely introduced when common carp were intentionally introduced into Midwest waters as a game fish in the 1880s. The species was likely spread through the movement of watercraft and water-related equipment. It was first noted in Minnesota around 1910.

Curly-leaf Pondweed



SLIA Treatment Preparation

- SLIA works with Lake Improvement Consulting (LIC) team to submit yearly treatment permits to DNR for both offshore and shoreline treatment of invasive plants
- Lake is inspected after ice out to identify existence of invasive plants (SLIA + LIC) – late May early June.
- Submit area proposal to DNR with maps
- DNR will conduct inspection of proposed area and approve or decline permit application
 - ▣ Off-shore treatment as needed/approved by the DNR. Coordinated by the SLIA and paid by the SLIA, subject to the availability of funds.
 - ▣ Shoreline treatment as requested by owners/approved by DNR. Coordinated by the SLIA and paid by the individual owners
 - ▣ Perennial problem areas

Silver Lake Treatment

- The timing for treatment is tied to water temperature
- The DNR allows up to 15% of the lake to be treated, or approximately 10.65 acres of Silver Lake. On average, when combining both off-shore and shoreline areas, Silver Lake has treated only about 10-25% of its allowable treatment area, depending on the year.
- Offshore treatment is the treatment of Eurasian Watermilfoil (EWM) and/or curly leaf pondweed (CLP) more than 150' from the shoreline, more commonly referred to as center lake treatment.

Offshore vs Shoreline Treatment Areas

- ❑ **Offshore treatment** is paid using SLIA yearly membership fees, fundraising proceeds and donations.
- ❑ **Shoreline treatment** is paid for by individual home owners requesting the treatment.

Treatment Options: What is the difference between shoreline treatments and offshore treatment?



This is an example that shows the difference between:
Shoreline treatments
and Offshore treatment

The shoreline treatment area is outlined in **RED** and extends 100 feet from the shoreline. The treatment is focused around your dock.

The offshore treatment area is highlighted **BLUE**. It begins 150 feet from the shoreline and extends outward toward the middle of the lake.

SLIA Fundraising

- Grant funding from DNR/Ramsey County was discontinued 3 years ago, need for additional funds include:
 - ▣ Membership dues & donations – 501(c)(3)
 - ▣ Wine Tasting fundraiser (September)
 - ▣ Contributions by the cities of NSP, Maplewood, Oakdale who have property on Silver Lake. These cities combined account for 51% of Silver Lake lakeshore

Other Aquatic Invasive Plants not found in Silver Lake at this time.

- Zebra Mussels are small animals with a striped, D-shaped shell composed of two hinged valves joined by a ligament. The shells are typically one-quarter inch to one and one-half inches long
- Mussels attach to boats, docks, swim rafts and boat lifts. They can also attach to aquatic plants.
- The zebra mussel is native to Eastern Europe and Western Russia. The species was unintentionally introduced into the United States' Great Lakes through the discharge of contaminated cargo ship ballast water. They were first discovered in the Great Lakes in 1988 and were first confirmed in the Duluth/Superior Harbor in 1989.

Zebra Mussels



Other Aquatic Invasive Plants not found in Silver Lake at this time

- Starry stonewort is a bushy, bright green macro-algae. It produces a characteristic star-shaped bulbil.
- Starry stonewort may form a dense carpet of material in shallow areas.
- Starry stonewort is native to Eurasia, from the west coast of Europe to Japan. The species was unintentionally introduced into the United States' Great Lakes through the discharge of contaminated cargo ship ballast water. The first occurrence in the United States was in 1978 along the St. Lawrence River. It was first confirmed in Minnesota in August 2015, in Lake Koronis and connected Mud Lake (Stearns County). Only 13 lakes in Minnesota are listed as infested with starry stonewort.

Starry Stonewort



We Silver Lake!!

Thank you for
having us!

