



Silver Lake Improvement Association

2022 ANNUAL MEMBERSHIP MEETING
FEBRUARY 7, 2022

Agenda

- ▶ Welcome and Introduction
- ▶ Approve Agenda
- ▶ Election of Board Members
- ▶ Financial and Membership Report
- ▶ 2021 Activities
- ▶ Lake Treatment 2021
- ▶ 2022 Goals
- ▶ Strategy to reduce weed density seen in 2021
- ▶ Open Forum
- ▶ Adjourn

Welcome & Introductions

2021 Board Members

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

2021 Liaisons

- ▶ North St. Paul: Joyce G/Rick G
- ▶ Maplewood: Paul Nichol
- ▶ VBWD: John M/Rick G
- ▶ MN DNR: Joyce Germscheid
- ▶ Ramsey Co/AIS: Rick Gelbmann
- ▶ Treatment: Joyce Germscheid
- ▶ Cleanup: Sherry & Mark Long
- ▶ Website: Jason Lehmer
- ▶ Water Data: Mark Kotz
- ▶ City of NSP: Tim Cole

Election of Board Members

- ▶ How do elections work? - Bylaws – quick review
- ▶ President: Paul Nichol (ends Feb 2024)
- ▶ Vice Pres: Joyce Germscheid (ends Feb 2022)
- ▶ Secretary: Kristen Rieser (ends Feb 2022)
- ▶ Treasurer: Cheryl Ettlinger (ends Feb 2023)
- ▶ Member: John Muller (ends Feb 2024)
- ▶ Member: Rick Gelbmann (ends Feb 2022)
- ▶ Member: Open

Ballot

- ▶ ___ Joyce Germscheid
- ▶ ___ Kristen Rieser
- ▶ ___ ~~Rick Gelbmann~~
- ▶ ___ ?
- ▶ ___ ?
- ▶ ___ ?

*Vote for 4 Positions

2021 Financial Statement

Description	2019	2020	2021
Starting Balance	\$3,227.06	\$4,702.03	\$6,041.48
Member Contributions	\$1,629.15	\$2,076.15	\$2,086.62
Fundraising	\$664.82	\$208.30	0
DNR Treatment Grants	0	\$1,200.00	0
Treatment Contractor Fee	(\$1,395.00)	(\$2,145.00)	(\$3,465.00)
Expenses: 501(c)(3), Misc	(\$164.00)	0	
Ending Balance	\$4,702.03	\$6,041.48	\$4,663.10

2021 Membership


- ▶ 25 out of 37 Lakeshore owners are members
- ▶ 9 Non-lakeshore members
- ▶ 34 Total members in 2021 (35 in 2020)

2022 Membership

- ▶ Please Join or Renew!
 - ▶ Online payments accepted via website
 - ▶ \$25 Annual Dues (minimum)
 - ▶ Donations are also appreciated
 - ▶ We are a 501c3 non-profit
 - ▶ Tax documentation forms become available on website.



2021: Accomplishments and Activities



Thank you everyone for all of your efforts in 2021. The SLIA Board continues to strive for our vision: Enhancing the water quality, recreational use and natural beauty of Silver Lake.

2021 Accomplishments

- ▶ Silver Lake Cleanup x 2
- ▶ Parade Float
- ▶ Purple Loosestrife remediation
- ▶ Progress on key initiatives: Sediment in bays and aerator ownership



2021 Activities - Support

- ▶ Fundraising & Outreach
 - ▶ Online membership & donations
 - ▶ Self directed charitable contributions
- ▶ Funding Partnerships
 - ▶ North St Paul – paid for a significant portion of off shore treatment

2021 Activities - Support

- ▶ Technical Partnership Outreach -1
 - ▶ Valley Branch Watershed District
 - ▶ AIS boat inspections continued
 - ▶ Sediment in bays and aerator discussions
 - ▶ City of North St Paul
 - ▶ Road & Storm Sewer Improvements and Street Sweeping providing ongoing benefits
 - ▶ City of Maplewood
 - ▶ Lake Access maintenance

2021 Activities - Support

- ▶ Technical Partnership Outreach - 2
 - ▶ Ramsey/Washington County AIS
 - ▶ Additional AIS boat inspections
 - ▶ Washington Co.
 - ▶ Lake Assoc. Meeting

Lake Treatment 2021



Northern Watermilfoil

2021 Lake Treatment

Goal: Increase native plants & reduce invasive species

- ▶ Two plant surveys completed VBWD/Ramsey Co and DNR
- ▶ Zero EWM invasive plants found early April
- ▶ Second survey mid-May showed EWM growth
- ▶ Off-shore EWM and CLP treatments completed May 21st, totaling 4 acres
- ▶ On-shore treatment for lakeshore for participating homeowners May and June (15 total shorelines)
- ▶ Fall: Treated for Purple Loosestrife (AIS); discovered possible 'hybrid' milfoil invasive

Aquatic Invasive Species Survey - EWM

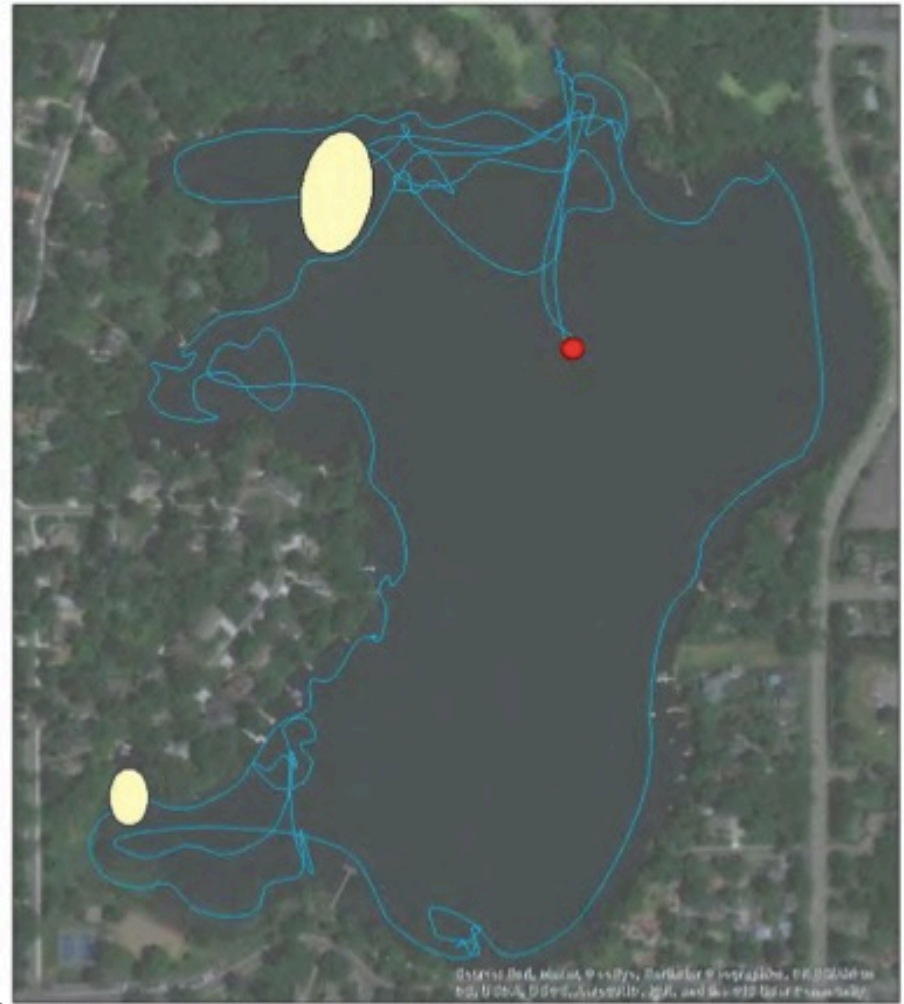


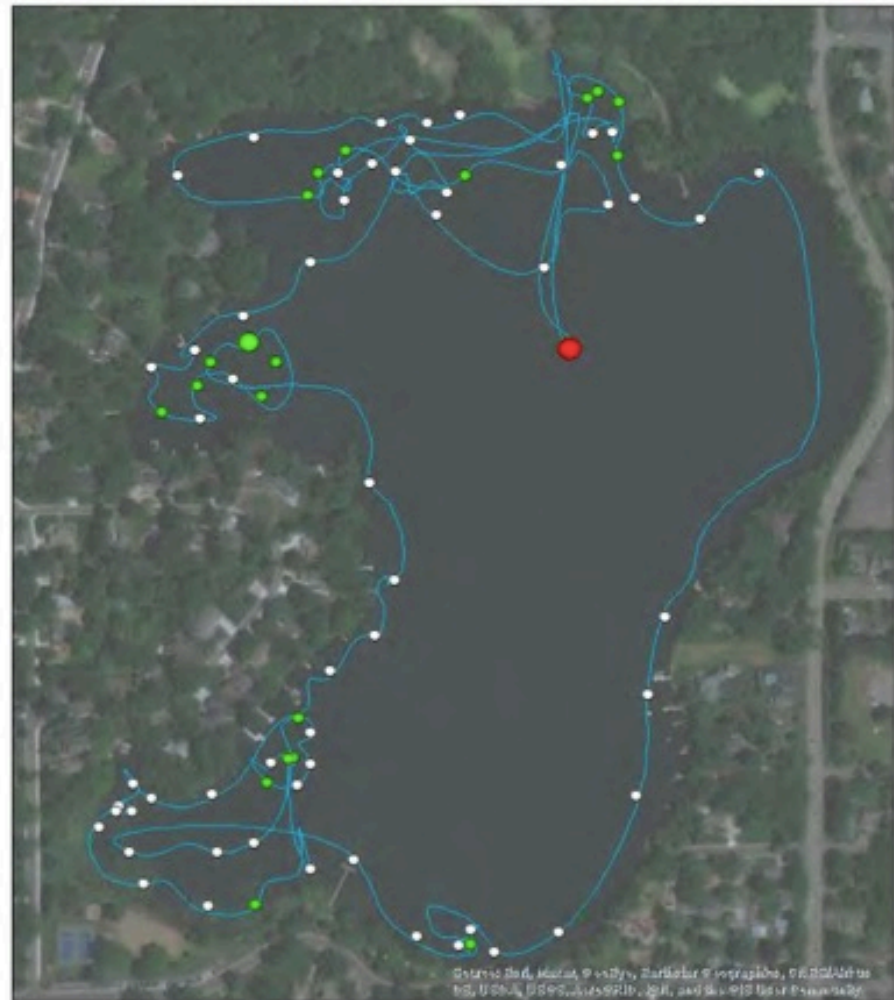
Table 24 Silver Lake acres of EWM, acres of plant growth, and percentage of plant-growth area with EWM

Sample Date	EWM Extent: Acres of EWM	Acres of Plant Growth	Percentage of Plant-Growth Area with EWM
6/25/2017	30.43	69.78	43.61
7/29/2018	0.32	68.99	0.46
4/29/2019	0.30	--	--
6/24/2019	0.31	69.03	0.45
6/24/2020	0.78	67.34	1.16
6/22/2021	16.04	70.09	22.89



Silver Lake AIS inspection. Shaded areas in the northwest and southwest indicate where the sampling rake was thrown multiple times. No CLP or EWM was observed.

Aquatic Invasive Species Survey - CLP



Curly-leaf Pondweed

- 0 - Not found
- 1 - Sparse/Scattered
- 2 - Common

● Secchi: 10 ft

— Boat Tracks

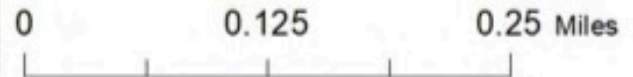


Figure 2. Curly-leaf Pondweed density at sampling points (n=76) at Silver Lake. CLP was observed at 20 of 76 points.

2021 EWM & CLP DNR Approved Treatment Areas

Silver CLP&EWM Treatment Areas 4/20/2020



Permit Status



Approved CLP & EWM Treatment Areas= 6.5 acres

Zoomed to Lake Boundary
Volume Source: DNR Bathymetry

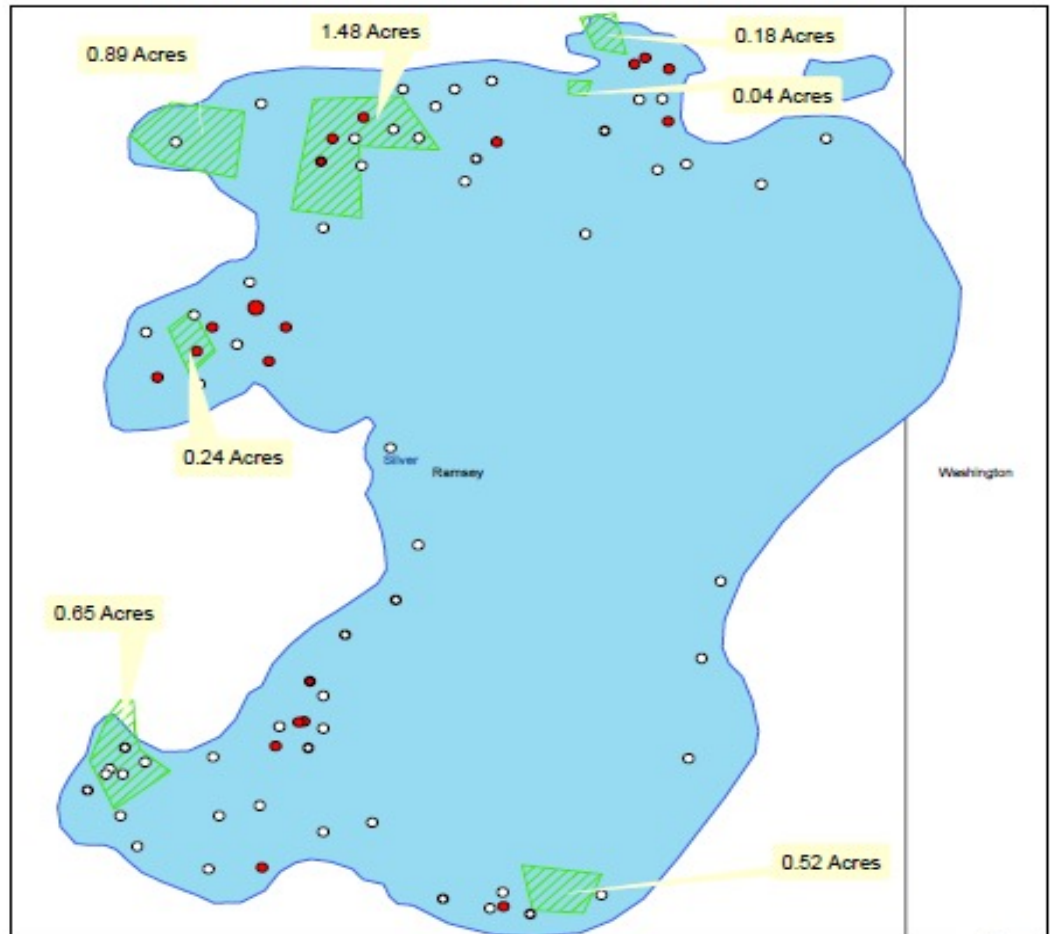


Figure 14
2020 Silver Lake Herbicide Treatment Areas



2021 EWM & CLP DNR Approved Treatment Areas

Silver Lake, Ramsey County 2021 CLP Approved Diquat Areas



Legend

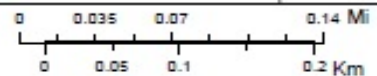
- 0 - Not Found
- 1 - Sparse/Scattered
- 2 - Common

Treatment Areas (CHECKED_OUT)

▨ <all other values>

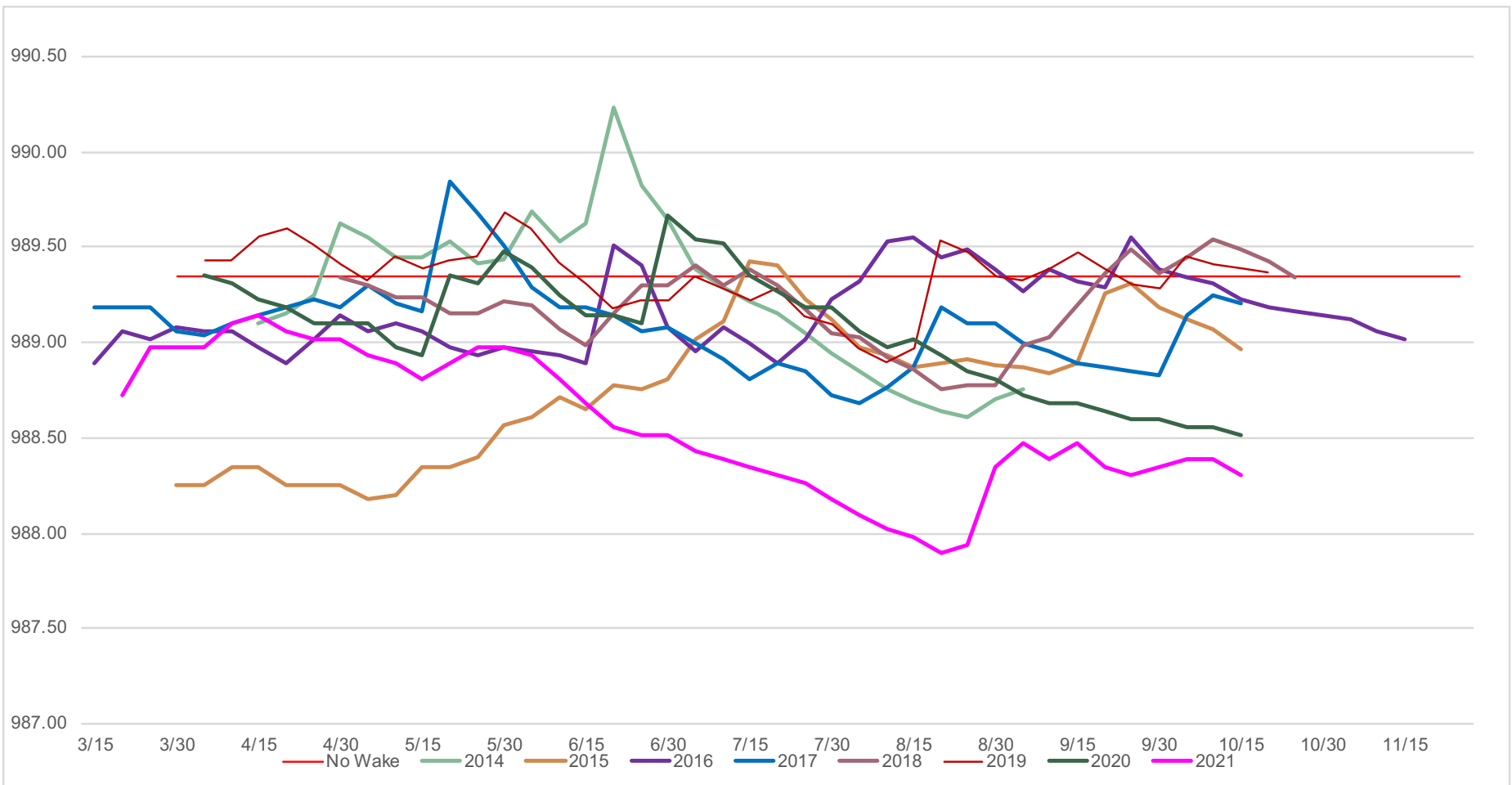
Permit Status

- ▨ Approved (4 Acres)
- ▨ Proposed



Survey Date: April 5, 2021
 Surveyor: Ramsey County (Justin Townsend)
 Zoomed to Data Extent Volume Source: N/A

Silver Lake Water Level



Silver Lake Water Temperature



2021 Point-Intercept Plant Surveys

***At Long Lake, Long Lake-Katherine Abbott Pond,
Lake DeMontreville, Lake Olson, Lake Jane, Lake Elmo,
and Silver Lake***

Prepared for
Valley Branch Watershed District



December 2021



Highlights from Executive Summary

Silver Lake—Plant diversity in Silver Lake has varied widely during the 2006 through 2021 monitoring period. Causes of the fluctuations include damage to the plant community from the 2007 and 2008 herbicide treatments and subsequent water-quality degradation, as well as positive impacts from recent improvements to the lake's water quality. Plant diversity remained relatively stable in 2021 compared to 2020. The only plant to significantly change in frequency in Silver Lake was EWM.

Silver Lake— EWM was not observed during a plant survey by Ramsey County on April 5, but CLP was observed at multiple locations (Figure 13). The SLIA treated a total of 4 acres with diquat in the spring of 2021 (Figure 15). By June 22, the treatment had reduced CLP to only a few plants near the boat landing. However, EWM extent increased to 16 acres by June 22 (Table 24 and Figure 14).

Reed canary grass (*Phalaris arundinaceae*) was not observed in Lake Elmo but was present at three locations in Lake Olson and one location in Long Lake, Lake DeMontreville, Lake Jane, and Silver Lake.

Purple loosestrife (*Lythrum salicaria*) was present at a single location in Lake Jane and Silver Lake and not observed in the other four lakes.

Narrow-leaved cattail (*Typha angustifolia*) was present at one location in Long Lake, Lake DeMontreville, Lake Olson, Lake Jane, and Silver Lake. It was also found along the western and southern shores of Lake Elmo.

3.6 Silver Lake

3.6.1 EWM Treatment History and Changes in Post-Treatment EWM Extent

EWM has been present in Silver Lake since 1992. The Silver Lake Improvement Association (SLIA) has conducted herbicide treatments to control EWM nearly annually since 1995. Most have been small-scale treatments to attain seasonal relief. However, large-scale treatments to attain long-term reduction occurred in 2007 and 2008, and subsequent efforts can be summarized as follows:

- Small-scale treatments to attain seasonal relief occurred from 2012 through 2015 and in 2017.
- Despite no EWM treatment or removal in 2018, EWM extent declined by an order of magnitude—from 30 acres in 2017 to 0.3 acres in 2018. The cause of the decline is unknown.
- Because EWM extent increased from June 2018 to spring 2019, nearly 4 acres of EWM in the south and southwest areas of the lake were treated with diquat in May 2019. Due to the successful treatment, EWM was not found in the treated areas in June but was found in the lake's northwest corner (0.3 acres).
- A delineation plant survey by Ramsey County staff in April 2020 found EWM in approximately the same northwest corner. A total of 6.5 acres were treated with diquat in the spring of 2020 to control both EWM and CLP. Because EWM was only found at the northwest location, most of the treatment targeted CLP. Due to the successful treatment, EWM was not found at the northwest location in June 2020 but was found at the northeast corner and midway on the east side of the lake (0.8 acres).
- A delineation plant survey by Ramsey County staff in April 2021 found no EWM in the lake (Figure 13); however, EWM extent increased to 16 acres by June (Table 24 and Figure 14). According to VBWD's subcontractor, all EWM observed in June appeared to be aggressive hybrid milfoil (Section 3.5.2). Some EWM was slightly burned, but most was actively growing. Hybrid generally reproduces by both fragments and seeds, and its seeds are generally viable. The rapid increase in EWM extent between April and June is likely due to growth from seeds.



In 2021, Silver Lake EWM, pictured above, appeared to be hybrid. Some EWM was slightly burned, but most EWM was actively growing.

Appendix: photos of aquatic plant samples at Silver Lake on 4/5/21.

Plants
4/5/21



Muskgrass



CLP



Muskgrass, CLP



CLP, Coontail, Muskgrass, Filamentous Algae



CLP



Coontail

2022 Goals



2022 Goals – Partnerships

- ▶ Continue to develop city partnerships for lake treatment and technical support
- ▶ Apply for DNR AIS Grant: January, completed – awaiting results
- ▶ Explore lake association partnerships
- ▶ Possible Business Membership
- ▶ Address Lake Sediment Issues
- ▶ Aerator – track responsibilities, change of ownership

2022 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
 - ▶ Potential strategy change
- ▶ Lake Levels
 - ▶ Monitor lake levels
 - ▶ Work with governing agencies

2022: Adjust strategy to minimize weeds

- ▶ Significant Water Milfoil in Summer/Fall of 2021
- ▶ SLIA wants to adjust treatment plans for better efficacy in 2022
- ▶ Currently analyzing milfoil sampled in the fall
- ▶ EWM and CLP: Optimal to treat at different times
- ▶ If Milfoil found in the fall is considered AIS, we can target it in 2022
- ▶ If Milfoil found in the fall is native, our options to treat are limited

2022 Homeowner Actions

- ▶ Complete individual permit by May
- ▶ If you treated in 2021
 - ▶ Tell Joyce your plans for 2022
- ▶ If you did not treat in 2021
 - ▶ Ask Joyce for a permit application

2021 Homeowner Actions

- ▶ Watch for and stop invasive species especially:
 - ▶ Starry Stonewort and Zebra Mussels



Open Forum

- Questions
- Comments
- Adjourn