



Agenda

- Welcome
- Introductions of Current MLA Board
- MLA Background Information
- 2021 Year in Review
- Aquatic Plant Management (aka weeds) Discussion
 - With Leslie Stovring City of EP & Terry Jeffery RPBC Watershed
- Photo Contest Results
- Business Meeting
- 2022 Plans



MLA Board Members

Dave Jackett, President *

Paul Yahnke*

Mike Kaselnak, Treasurer*

Cheri Nehl, Secretary

John Tyler*

Travis Yohn

Joel Bredemeier*

Zach Fetzer

Maria Verven

Term ends 2021 – will rerun

Term ends 2021 – will not rerun

Term ends 2022 - resigning

Term ends 2022

Term ends 2021- will rerun

Term ends 2023

Term ends 2021- will not rerun

Term ends 2022

Term ends 2023

^{*} We will be electing board members to fill open positions later this evening. MLA bylaws requireboard members



MLA Background Information

MLA was formed in 2006

First lake association in Eden Prairie



MLA Purpose

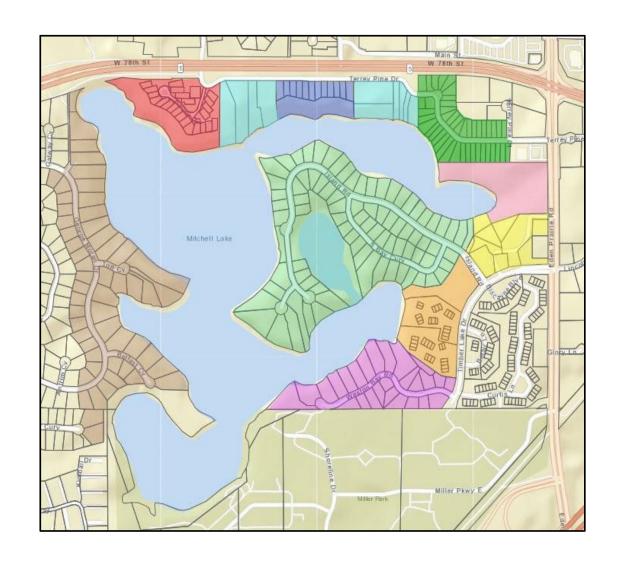
- To maintain, protect, and improve the water quality, aesthetic values, wildlife habitat, and recreational capacity of Mitchell Lake;
- To educate shoreline owners and the public about the condition and protection of Mitchell Lake; and
- To provide a framework for representation for work with federal, state, and local agencies for improving quality of Mitchell Lake



Mitchell Lake Neighborhoods

MLA reaches out to:

- 326 residents/property owners surrounding lake
- 266 households, including townhomes, with lake access
- 131 single family households directly on the lake
- 6 homeowners associations





MLA Partnerships

 To accomplish objectives, MLA has formed partnerships with:



- HOAs surrounding Mitchell Lake
- City of Eden Prairie
- Riley Purgatory Bluff Creek Watershed District
- Department of Natural Resources
- Other local lake associations (Riley, Lotus etc.)





Riley Purgatory Bluff Creek Watershed District



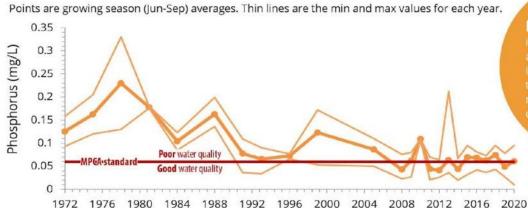


Water Quality

- Water Quality
 Metrics including:
 - Phosphorus
 - Chlorophyll
 - Water Clarity

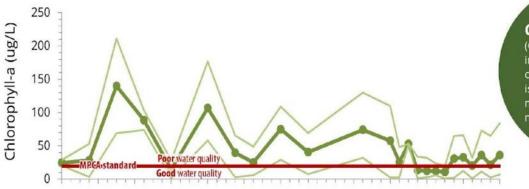
have improved over the years

Water quality graphs 1972 - 2020



Phosphorus

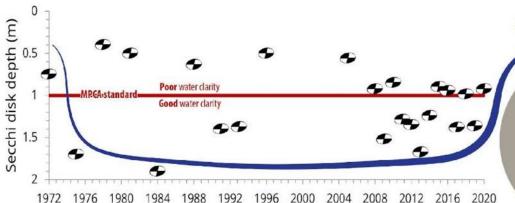
is a nutrient that plants and algae need for growth It is often measured as total phosphorus (TP). Too much phosphorous can cause algae blooms.



Chlorophyll a

(Chl-a) is the main pigment in algae> Measuring chl-a can tell us how much algae is present. Too much chl-a means there are too many nutrients in the water.

1972 1976 1980 1984 1988 1992 1996 2000 2004 2008 2012 2016 2020



Water clarity

is measured using a

Secchi Disk, a black and
white disk the size of a
dinner plate. It is lowered
into the water, and the
depth at which it is no
longer visible is recorded.



Over the Years...

- Water quality improved; removed from impaired waters list
- 15 lakeshore cleanup events
- \$33,000 DNR lakeshore restoration grant
 - >1,000 ft of lakeshore restored
- Planted >100 trees along Hwy 5
- Built community through fun events (BBQs, picnics)
- Hosted water stewardship training events
- Monitored lake water and invasive species
- Stocked lake with over 2000 fish











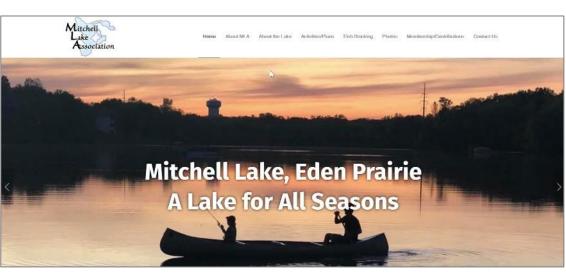




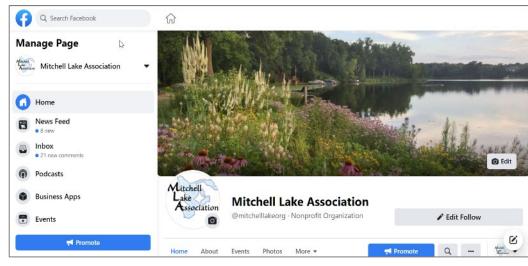
MLA Communication

Lake info, activity updates and plans shared via:

- Website <u>www.mitchelllake.org</u> Updated 2021
- Annual newsletters
- Email updates
- Facebook (Mitchell Lake Association)
- Survey
- Nextdoor











2021 Objectives

Address the Weeds

Through harvesting rebates and city/watershed partnerships

Stop Invasive Species

Zebra mussels in particular

Improve the Shoreline

Through clean-up, education and restoration projects

Stock the lake

Member funding makes fish stocking possible

Keep the Geese away

In partnership with the City of Eden Prairie

Grow Membership

Last but not least



Addressing the Weeds 2021

A Challenging Year for Weeds

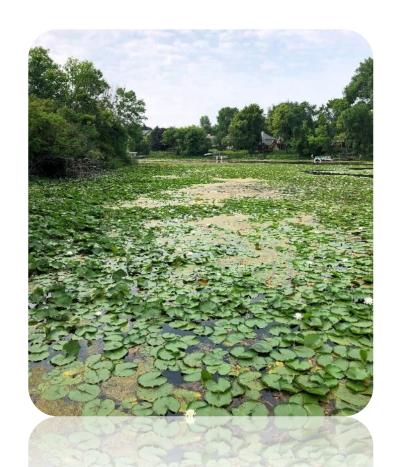
 Severe drought conditions + delayed weed harvesting = a very difficult year, especially in the North bay

Mechanical Harvesting

- Weed harvester targeted 12 acres/navigation routes
- Five residents received \$100 MLA rebates for harvesting

Herbicide Application

 Herbicide was applied to 13 acres, targeting the invasive curly-leaf pondweed



Aquatic Plant Management discussion later in meeting



Stopping Spread of Invasive Species 2021

Zebra Mussel Monitoring

- Three residents participated in the Adopt-a-Dock program sponsored by RPBCWD
- No zebra mussels were detected in 2021

Boat Inspection and Cleaning

- New CD3 Outpost Cleaning Station installed at the public boat landing
- CD3 has tools for inspecting and cleaning boats leaving the lake
- Data is automatically collected











Improving the Shoreline May 2021

15 Years of Cleaning our Lake

- No picnic once again this year due to COVID
- Great turnout in spite of the weather!









Stocking the Lake 2021

MLA fish stocking program kicked off in 2019

- Over 2000 fish released in Mitchell Lake over past 3 years
- Program sustained by voluntary contributions (after initial \$1000 from MLA)

 Current fish fund down to \$86 – Need more contributions for continued stocking.



	Date	Species	Size	Number	Cost
	Spring 2019	Black Crappies	Adults 6" to 11"	350	\$1921
		Largemouth Bass	Adults up to 16"	20 (10 pairs)	
	Fall 2019	Walleye	Fingerlings 4"-6"	1050	
	Spring 2020	Black Crappies	Adults 6" to 11"	250	\$1750
		Largemouth Bass	Adults	20	
	Fall 2020	Black Crappies	Adults	200	
		Largemouth Bass	Adults	10-15	
	Spring 2021	Black Crappies	Adults 3" to 11"	150	\$1100
		Largemouth Bass	Adults up to 16"	20	
	Total			2075	\$4771









Stocking the Lake 2021













Keeping the Geese away 2021

Canada Goose Management (CGM)

 Removed geese in partnership with the City of Eden Prairie

Ways residents can manage geese:

- Minimize use of Kentucky bluegrass
- Convert shoreline areas to tall, native grasses or plants with a minimum width of 20 feet
- Plant groupings of trees and shrubs within grazing area
- Erect scare tape or goose fences at the edges of shoreline







Growing Membership 2021

Membership Funds Activities

- Paid membership dropped in 2021
- Need paid members to continue funding activities and rebates
- Please encourage friends and neighbors to join





Mitchell Lake Community Events 2021

MLA Hosted Summer Get-together on July 15, 2021

- Held at Timber Lakes Commons (Thank you Timber Lakes HOA!)
- Food truck and live music (and road construction)
- Over 75 in attendance













Welcome to our annual meeting:

Leslie Stovring

City of Eden Prairie



Terry Jeffery

Watershed District







Weeds continue to be the MLA #1 concern

 Over-abundant vegetation impacting navigation, swimming, and aesthetics

Meeting held to discuss aquatic vegetation concerns

Cheri, Dave, Zach
MLA Board

Patrick Sejkora City Engineer

Leslie Stovring
City Water Resources Coordinator

Liz Forbes
Watershed Outreach

Joe Bischoff Barr Engineering (supports Watershed)

Key Takeaways

- Not all aquatic plants (aka weeds) are bad
- Managing aquatic vegetation involves water quality/ecosystem tradeoffs
- Aquatic plant management control actions require resident, city, watershed and DNR coordination. MLA must stay actively involved.



What is Growing in our Lake?

Good weed or bad weed?





Good Weed or Bad Weed? Can you name it?





Good Weed or Bad Weed? Can you name it?



Good → **Coontail**Native submerged aquatic plant

It's important because:

- many waterfowl species eat the shoots;
- it provides cover for young bluegills, perch, largemouth bass, and northern pike;
- and supports insects that fish and ducklings eat.



Good Weed or Bad Weed? Can you name it?





Good Weed or Bad Weed? Can you name it?



Bad → **Curly-leaf pondweed** Invasive Submerged aquatic plant

Negative impact:

- 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.
- Midsummer die-offs can litter the shoreline with dead plants.



Good Weed or Bad Weed? Can you name it?





Good Weed or Bad Weed? Can you name it?



Good → **Water Lily**Native Floating-leaf aquatic plant

It's important because:

 It's important because it provides excellent habitat for largemouth bass and sunfish and its seeds are eaten by waterfowl.



Good Weed or Bad Weed? Can you name it?





Good Weed or Bad Weed? Can you name it?



Bad → **Eurasian watermilfoil Native Floating-leaf aquatic plant**

Negative impact:

- 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.

Note: Our lake also has **native** Northern Water Milfoil (looks similar)



Good Weed or Bad Weed? Can you name it?





Good Weed or Bad Weed? Can you name it?



Good/Bad → Filamentous algae Native aquatic plant

It's important because:

 Provides cover for small animals such as aquatic insects, snails, and scuds, which are valuable fish food.

Excessive growth can be a nuisance

 Limiting the flow of nutrients into the lake may help reduce the severity of nuisance conditions.



Aquatic Plant Management

Our Lake's Ecosystem

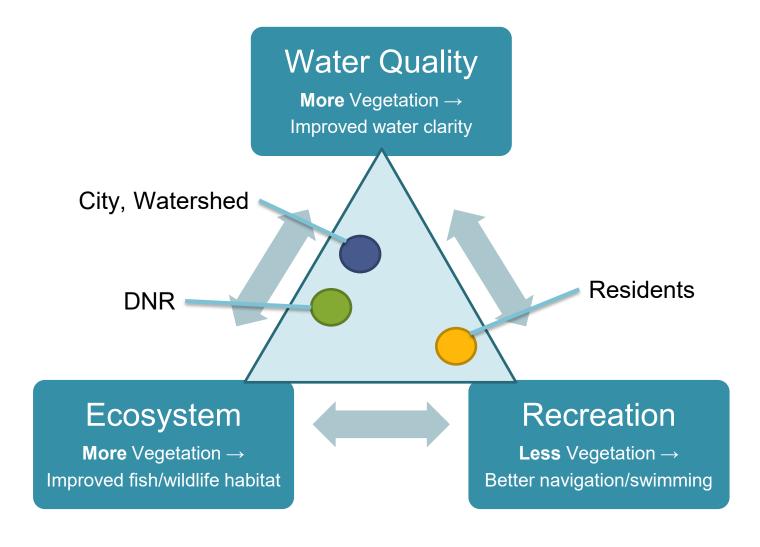
- Mitchell Lake is home to over 15 species of aquatic plants, most of which are native species.
- Native species are an essential part of our lake's ecosystem.
 - They provide habitat for fish and wildlife and help improve water clarity
- Invasive species are not native and can cause problems.
 - They can spread rapidly, can cause environmental harm, impact wildlife and interfere with boating or swimming.



Examples of invasive species found in Mitchell Lake include; Curly-leaf pondweed (pictured) and Eurasian watermilfoil



Balancing Aquatic Vegetation and Recreation





What Can YOU Do?

- Check your boat and dock for invasive species
- Minimize/eliminate fertilizer on your lawn
- Sweep up the leaves, grass clippings, and fertilizer from your driveway and street
- Keep your storm drains clear
- Avoid installing hard surfaces near the lake
- Clean up after your pet
- Maintain a vegetative buffer along your shore to capture nutrients and reduce erosion
- Start a rain garden project
- Water quality rebates are available through the <u>City of EP</u>, <u>RPBCWD</u>, and <u>MLA</u>



Landscape for Water Quality

- Capture pollutants
- Mitigate erosion
- Provide better wildlife habitat



Aquatic Plant Control

- Two primary methods control aquatic plants:
 - Mechanical control (aka. weed harvesting)
 - Herbicide control
- Regulated by Minnesota Statute and enforced by the Minnesota Department of Natural Resources (DNR)
- Aquatic plant management activities may or may not require an Aquatic Plant Management (APM) permit









Harvesting Diagram - 2019

Mitchell Lake



Mechanical Control

- The City of EP has contracted with harvesters to harvest curly-leaf pond weed and create paths
- Property owners can also contract to clear a path from their shorelines (within 150 ft. of shore and up to 2,500 sq ft.)
- Aquatic plant harvesting is like mowing the lawn: the plants are only cut back
- The North bay is the healthiest part of the lake; much of the vegetation is non-invasive. The goal is navigation vs. removal.







Green dotsepresent locations sampled for curlyleaf pondweed
Yellow linesepresent treatment areas

Herbicide Control

- The RPBCWD has worked with contractors to apply herbicide to 13 acres of the lake
- They target curly-leaf pondweed
- Herbicide treatment for submerged plants is restricted since Mitchell Lake is classified as a Natural Environment Lake
- DNR approved homeowner herbicide permits for algae and swimmer's itch but not submersed plants
- MLA did significant research on lake reclassification opportunities







MLA Formed 2006

	Year	Party	Project International Project
	2005	RPBCWD	Use Attainability Completed
	2006	City	Petitioned RPBCWD for UAA work
	2008 - 2009	RPBCWD	Pilot aeration system (sediment oxidation) installed in a central part of the lake (discontinued due to ineffectiveness)
	2008 - 2009	RPBCWD	Aeration system (Solar Bees) installed in south bay (discontinued due to ineffectiveness)
	2008	RPBCWD	Curly-leaf pondweed harvesting - 20 acres (272 tons)
	2008 - 2011	City	DNR Shoreland grant for homeowners
	2010	RPBCWD	Harvested in June and July (CH2M Hill) for a total of 463 tons
	2012	City/RPBCWD	Curly-leaf pondweed harvesting (247.5 tons)
	2013	City/RPBCWD	Curly-leaf pondweed harvesting (63.65 tons)
	2013	City	Lake Sediment Fertility Assessment for Mitchell Lake
	2013	City	Aquatic Invasive Species Suitability Analysis for Mitchell Lake
	2014	City/RPBCWD	Curly-leaf pondweed harvesting
	2014 - 2015	City	Mitchell Lake Watershed Basin Inventory & Maintenance Assessment to start in 2014 / report in 2015
	2015	RPBCWD	Herbicide treatment (Endothall) to control Curly-leaf Pondweed (13 acres)
	2015	City	Harvesting (J & N Harvesting) in summer
	2016	RPBCWD	Herbicide treatment (Endothall) to control Curly-leaf Pondweed (13 acres)
	2016	City	Harvesting (Waterfront Restoration) in spring and summer
	2017	RPBCWD	Herbicide treatment (Endothall) to control Curly-leaf Pondweed (13 acres)
	2017	City	Harvesting (Lakes Aquatic Weed Removal) in June (15 acres)
	2018	RPBCWD	Herbicide treatment (Diquat) to control Curly-leaf Pondweed (13 acres)
	2018	City	Harvesting (Premier Lake Harvesting) in spring (15 acres) and summer (10 acres)
	2019	RPBCWD	Herbicide treatment (Diquat) to control Curly-leaf Pondweed (13 acres)
	2019	City	Harvesting (J & N Harvesting) in spring (16 acres) and summer (12 acres)
	2020	RPBCWD	Herbicide treatment (Diquat) to control Curly-leaf Pondweed (13 acres)
	2020	City	Harvesting in June (8 acres)
	2021	RPBCWD	Herbicide treatment (Diquat) to control Curly-leaf Pondweed (13 acres)
	2021	City	Harvesting (Premier Lake Harvesting) in August (12 Acres)



City of EP/Watershed District Next Steps

- Review and update the Mitchell Lake Aquatic Plant Management 5 Year Plan and release for public comment
- Evaluate changing herbicide from Diquat to Fluoridone and extend coverage ("whole lake" would require a variance)
- Explore option of applying herbicide under the ice when only curly leaf pond weed is growing
- Assess use of Alum to trap phosphorus (targeted treatment)
- Improvements to ponds/retention ponds feeding Mitchell Lake



MLA Next Steps

- Engage in the public comment on the 5yr Mitchell Lake Aquatic Plant Management Plan update
- Initiate regular connections with the city, watershed and DNR to address lake concerns and discuss joint goals
- Educate homeowners on what they can do, what the city/watershed are doing and why
- Document Mitchell Lake aquatic plant management guidelines on MLA website
- Encourage harvesting, support thru rebates
- Encourage shoreline restoration, rain gardens, limited use of fertilizers etc., support thru rebates
- Encourage permits for algae treatment
- Explore options for a variance to expand herbicide treatment to homeowner's shoreline



Aquatic Plant QUESTIONS?



Thank You Leslie!!

For your many years supporting Mitchell Lake, our association and the City of Eden Prairie.

We will miss you!

You are always welcome at our annual meetings and events ©











- Members asked to submit photos portraying Mitchell Lake scenery, wildlife or lake life activities
- 43 submissions received
- Prizes for 1st and 2nd place
- All photos will be posted on website



2020 - 1st Place Submitted by Deb Lind



2020 - 2nd Place Submitted by Zach Fetzer

























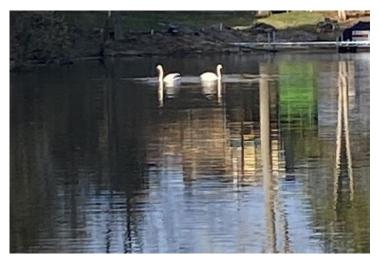








































































Honorable Mention

Submitted by Joel Bredemeier





Honorable Mention

Submitted by Dave Jackett





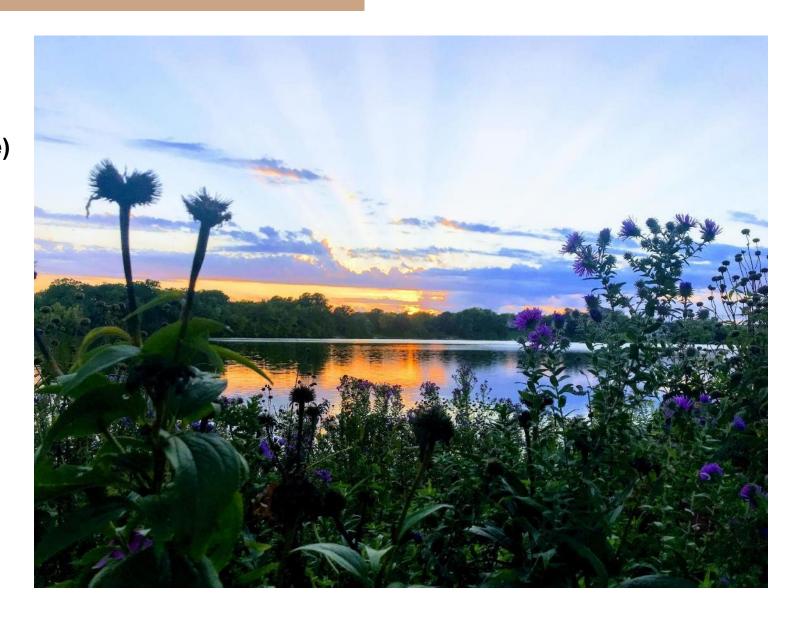
2nd Place
Submitted by
Travis Yohn
(\$25 gift certificate)





1st Place

Submitted by Jon Hanke (\$50 gift certificate)







Business Meeting

- 2020 Annual Meeting Minutes
- Treasurer's Report Mike Kaselnak
- Elections 5 open board seats



2020 Annual Meeting Agenda

- December 3, 2020
- Zoom Meeting called to order at 7pm
- Agenda Included:
 - Introductions of Current MLA Board
 - MLA Background Information
 - 2020 Year in Review
 - No guest speakers due to Covid
 - Photo Contest Results
 - Business Meeting
 - Financial Report
 - Election of New Board Members
 - 2021 Plans

Minutes
posted on
mitchelllake.org



MLA 2021 Financial Statement

	Jaı	n - Dec 2020		Υ	TD 2021
Annual Membership Dues		35.00	9	\$	35.00
Revenue					
Membership Dues	\$	3,737.68	9	\$	1,577.94
Fish	\$	2,011.85	\$	\$	925.05
Weeds	\$	150.00	\$	\$	278.97
Cleanup	\$	200.00	\$	\$	-
Total Revenue	\$	6,099.53	\$	\$	2,781.96
Expense					
Association Expenditures					
Annual Spring Lake Cleanup/Picnic(s)	\$	-	9	\$	535.78
Annual Fall Meeting	\$	75.00	\$	\$	-
Newsletter Printing	\$	-	\$	\$	852.28
Shoreline Restoration Rebates (\$250/project) Lake Harvesting Weed Control Rebates	\$	-	9	\$	500.00
(\$100/member)	\$	1,140.00	\$	\$	500.00
Fish Stocking	\$	1,750.00	\$	\$	1,100.00
Website Expenses	\$	873.64	\$	\$	747.99
Bank Charges	\$	35.00	\$	\$	-
Non-Profit filing expenses, etc.	\$	600.00	\$	\$	-
Postage- fundraising	\$	-	9	\$	-
Total · Association Expenditures	\$	4,473.64	4	\$	4,236.05
Net Revenue	\$	1,625.89		\$	(1,454.09)
Balance in Checking/Paypal		11,820.36	9	\$	10,374.03

Membership dues
have not increased
since MLA was
formed in 2006



MLA Board Opportunities

- 5 Open Board Member Positions
- Board member roles
 - 3-year term with 6-8 meetings/year
 - Support MLA activities
 - Interface with partners (EP/WD District)
 - Good opportunity to get involved



Elections

- New Candidate Introductions
 - Michelle Rothwell
 - Erik Hansen
 - Other?
- Vote for 5 ____

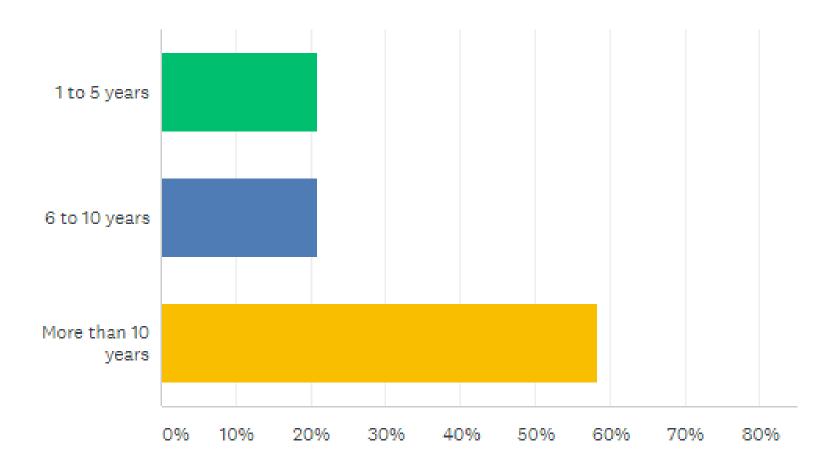
Candidate	Status
Dave Jackett	Incumbent
John Tyler	Incumbent
Michelle Rothwell	New
Erik Hansen	New





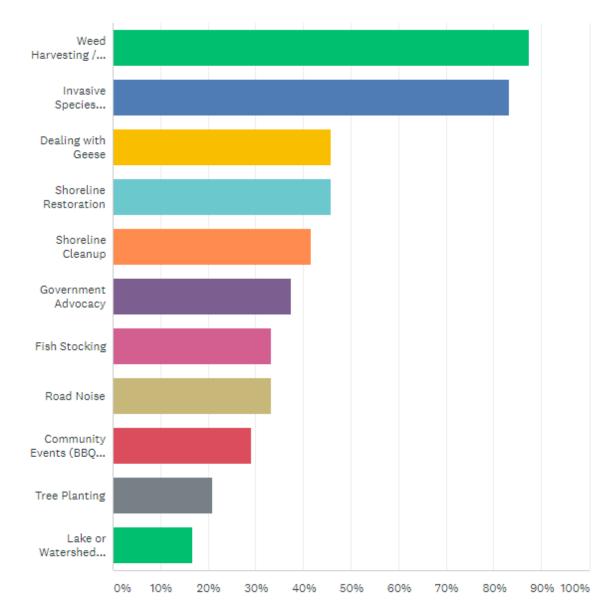
MLA 2021 Survey Results

How long have you lived on or near Mitchell Lake?





What should we focus on in 2022?

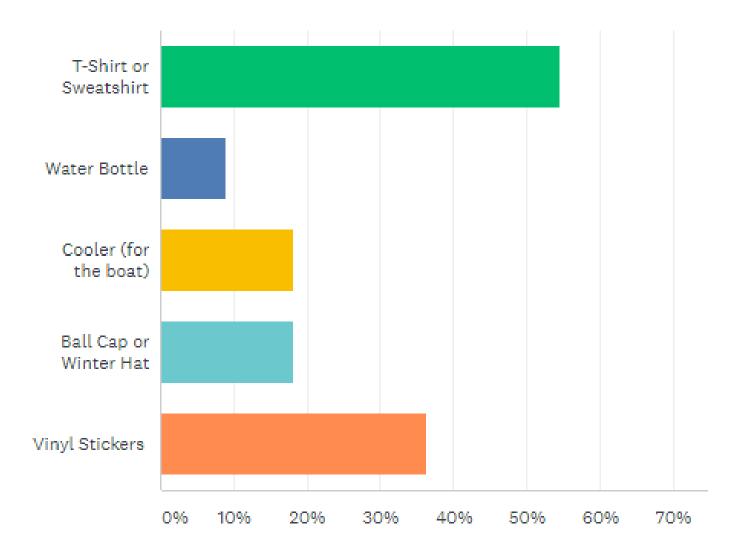


Insights

- Weed management has been the #1 issue for 5+ years on the lake.
- Dealing with Geese and Invasive species management moved up



We are thinking about creating Mitchell Lake items for purchase, which would you be interested in?





MLA 2021 Survey Comments

- "I like the community events to get to know others on the lake"
- "...be great to get another 2 to 3 shoreline restorations on board!"
- "why can't we count on weed harvesting 2x/summer?"
- "stop ignoring the weed plight of the NE arm of the lake"
- "take over treating the pond, all boats on the lake use it..."
- "I preferred prior surveys where all areas of interest were ordered in priority"



QUESTIONS?



Thank You!!!

- Our MLA Board members
- Departing MLA Board members
 - Paul Yahnke
 - Joel Bredemeier
 - Mike Kaselnak
- Members...for your contributions & support