# LOON LAKE MANAGEMENT ASSOCIATION November 21, 2023 Antioch Township & ZOOM Meeting

1. Call to Order Tom Keefe

The November 21, 2023 meeting of the Loon Lake Management Association was called to order at 7:00 p.m. at the Antioch Township Hall.

## 2. Pledge of Allegiance

3. Roll Call Karen Tatak

The following board members were present: Dave Tatak, Tom Keefe, Karen Tatak, Gail Keefe, Jim Dvorak, Ken Jensen, Barry Zeman, Linda Musial, Chuck Simpson, Luis Vasquez, Roger Doss, Matt Ashbacher, Joan Lahey, Maureen Lahey, and Gerry Urbanozo. ZOOM: iphone 563, Joan, Samsung SM S901U. VISITORS: Iris Doss of North Shore, Gene Charniak of Del Monte Gardens, Howard and Cindy Wurston of Villa Rica, Mary Corley Egger of Lake County Lake Lovers, Bill Lomas of Villa Rica, Dennis Musial of Villa Rica, Fred and Lucy Piskator of Beach View, Irena Marcinich of Villa Rica, Deb Sullivan of Villa Rica, and Alan Werner of Vila Rica.

### 4. Minutes

The minutes of the October meeting were read and a motion to approve made by Jim Dvorak; seconded by Gail Keefe.

### 5. Treasurer's Reports

**Dave Tatak** 

## **5.1** October 2023:

The October Treasurer's Reports were presented and approved. A motion to approve the October Treasurer's Reports was made by Maureen Lahey and seconded by Roger Doss. A roll call vote to accept the October 2023 Treasurer's reports was taken and reports were accepted:

Gail Keefe	Yes
Barry Zeman	Yes
Jim Dvorak	Yes
Chuck Simpson	Yes
Linda Musial	Yes
Matt Ashbacher	Yes
Roger Doss	Yes
Ken Jensen	Yes
Luis Vazquez	Yes
Maureen Lahey	Yes

# 6. Correspondence

Tom Keefe

- Mary Egger from Lake County Lake Lover's attended our meeting.
- ILMA is looking for directors and presenters at their Annual Meeting in Champaign.
- Watershed Commission is having a status report meeting on Jan 6th.

## 7. Reports:

# 7.1 President's Report:

Tom Keefe

No Report.

7.2 Plant Control/Health Dept. Report – ProcellaCOR Application:
Gerry Urbanozo was the speaker at the November meeting and presented a powerpoint presentation on the final results of the ProcellaCOR treatment. The presentation is attached to the minutes.

Tom Keefe Dave Tatak

## **7.2.1** Harvesting:

Harvester is stored for the winter.

# 7.3 Finance Committee:

**Chuck Simpson** 

A budget meeting for the 2025 Budget was held on November 4, 2023 at Chuck Simpson's house. The committee Jim Hammerlund, Jim Dvorak, Chuck Simpson, Tom Keefe, Dave Tatak, Joan and Maureen Lahey. Budget attached to these minutes.

A motion was made to approve the 2025 Budget was made by Roger Doss and seconded by Jim Dvorak.

A motion was made by Roger Doss and seconded by to take the residual SSA8 money at the end of 2023 and apply it to the loan for the harvester. A roll call vote was taken:

Gail Keefe	Yes
Barry Zeman	Yes
Jim Dvorak	Yes
Chuck Simpson	Yes
Linda Musial	Yes
Matt Ashbacher	Yes
Roger Doss	Yes
Ken Jensen	Yes
Luis Vazquez	Yes
Maureen Lahey	Yes

# 7.5 Water Clarity/Lake Monitoring Report:

**Roger Doss** 

No report.

## **7.6** Water Level Structure Committee Report:

**Matt Ashbacher** 

On Nov. 6 the committee spoke before the Forest Preserve planning committee. John Nelson, chief operations officer for the Lake County Forest Preserve opened the discussion of the weir dam structure. John sent an email to Matt suggesting that we get permits and approvals from the IDNR and US Fishing Services. The next step would be to send out RFP's to engineers for studies to stabilize the lakes. NICC will vote on the possibility of installing a spillway on their property.

# **7.7** Education/Facebook/Website Reports:

Karen Tatak & Barry Zeman

No Report for Facebook. Barry will be updating the website.

## **7.8** Fundraising and Collections Committee Report:

Gail Keefe

Selling sweatshirts and working on t-shirts for next year. Looking towards the Ice Fishing Derby.

# 7.9 Picnic/Election Committee Report:

Roger Doss

Picnic date set for Saturday in July 20, 2024.

#### 8. Old Business

- Purchased new video conference equipment.
- A proposal for the purchase of a depth finder on the Harvester was presented and shelved until more information is obtained. On hold until next spring.
- A proposal for the purchase of a new shade canopy on the Harvester. Dave will have it repaired during the winter.
- 9. New Business
- 10. Public Comments
- 11. Notice of Next Meeting
- **12. Adjournment -** Meeting was adjourned at 9:20 p.m. A motion to adjourn was made by Joan Lahey seconded by Luis Vazquez.
- **13. Meeting of the Whole** -The Agenda for the January 16, 2024 meeting was set.



Health Department and Community Health Center

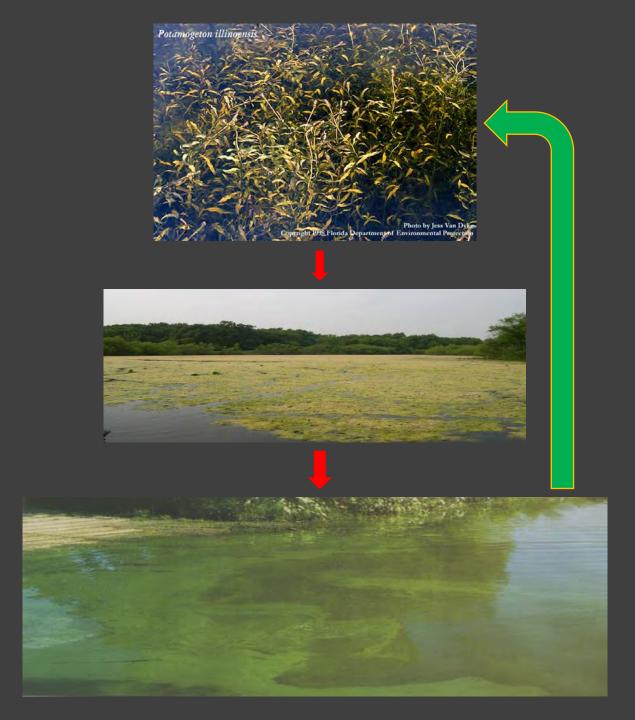
**Aquatic Plants** 

Loon Lakes





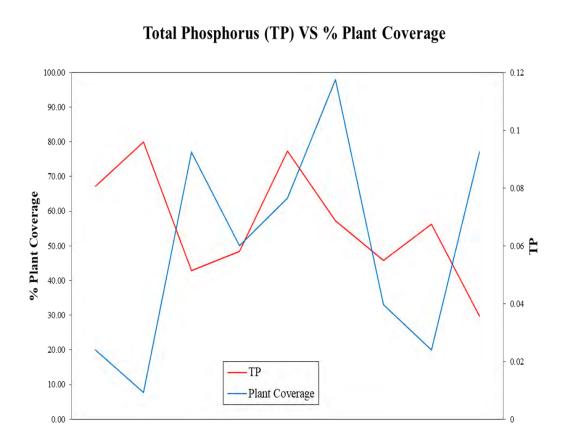
# Aquatic Plant Management



# Why Manage Invasive Aquatic Plants?

- Native Aquatic Plants = Healthy Lake
- Invasive plants can take over a lake
- Excessive herbicide application can lead to a lake with no plants and severe algae bloom
- It can be challenging to reverse a lake from algae dominated to plant dominated system.

# Aquatic Plants and Total Phosphorus









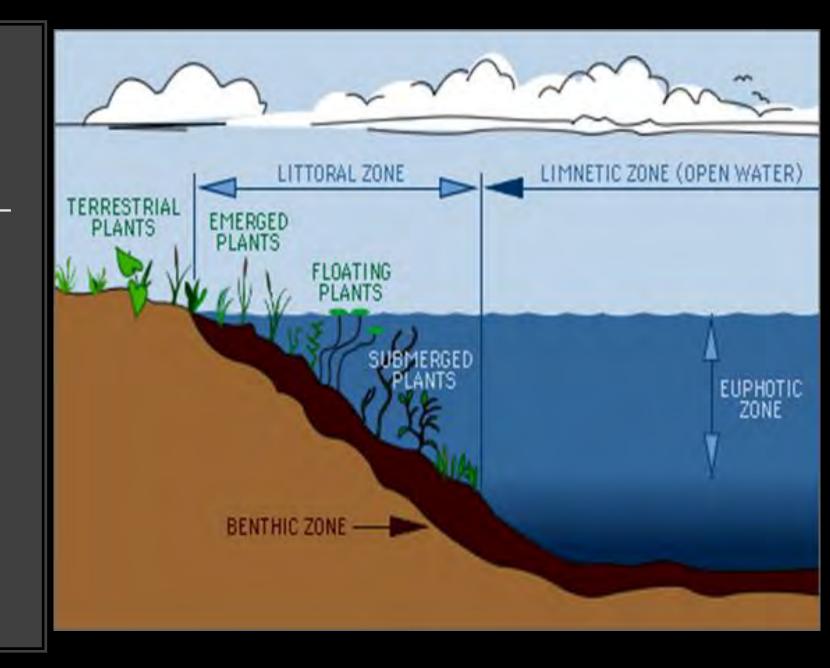


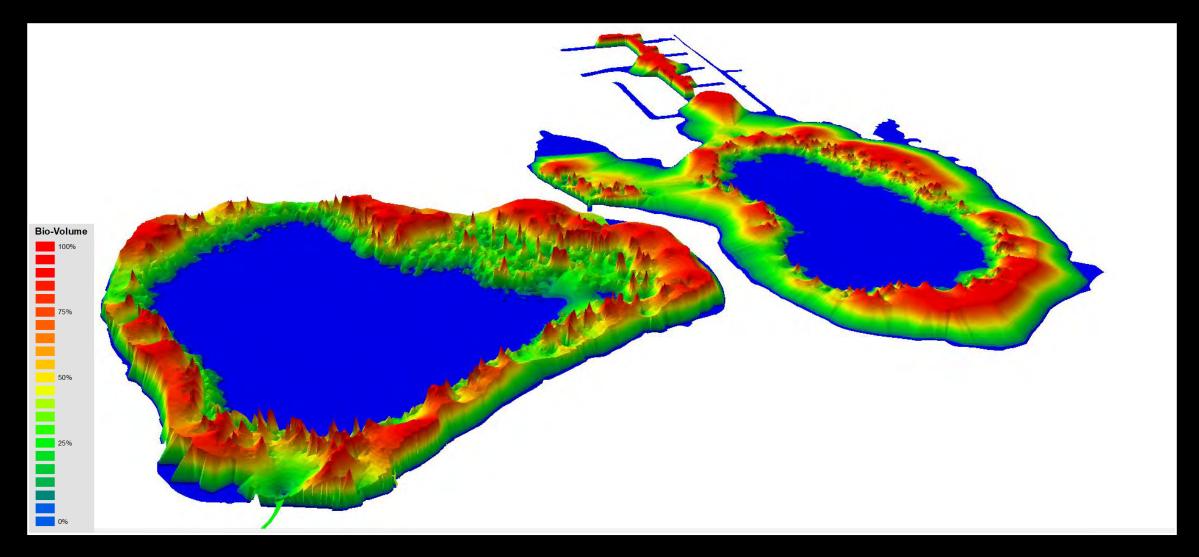




# Littoral Zone

- Emergent
  - Filter runoff
  - Reduce Erosion
  - Spawning areas
- Floating-Leaved
  - Shade and refuge
- Submersed
  - Create oxygen
  - Compete with algae
  - Reduce turbidity





Littoral Zone

# Invasive / Non-Native Aquatic Plant

- Eurasian Watermilfoil
- Curlyleaf Pondweec
- Hydrilla
- Brazilian Elodea
- Starry Stonewort



#### KEY FEATURES:

**LEAF:** WHORLED ALONG STEM 14-20 PAIRS OF THREADLIKE LEAFLETS, ALL APPROXIMATELY SAME LENGTH

**STEM:** LONG, WEAK, MORE THAN 7' LONG, BRANCHING AT WATER SURFACE

FLOWER: 4 PARTED SPIKE , NO WINTER BUDS PRESENT



#### KEY FEATURES:

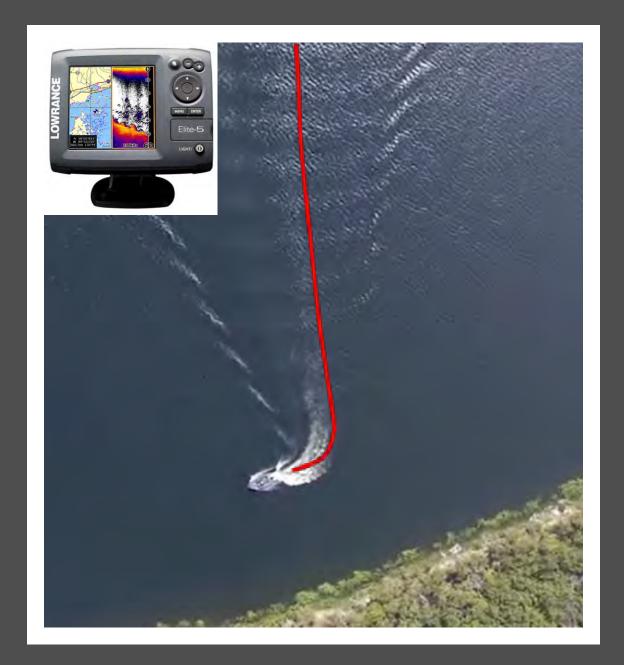
LEAF: ALTERNATE, ENTIRE WITH PROMINENT MIDVIEN, STALKLESS, CURLY TOOTHED EDGE, OBLONG, NO FLOATING LEAVES, STIPULES FUSED AT BASE

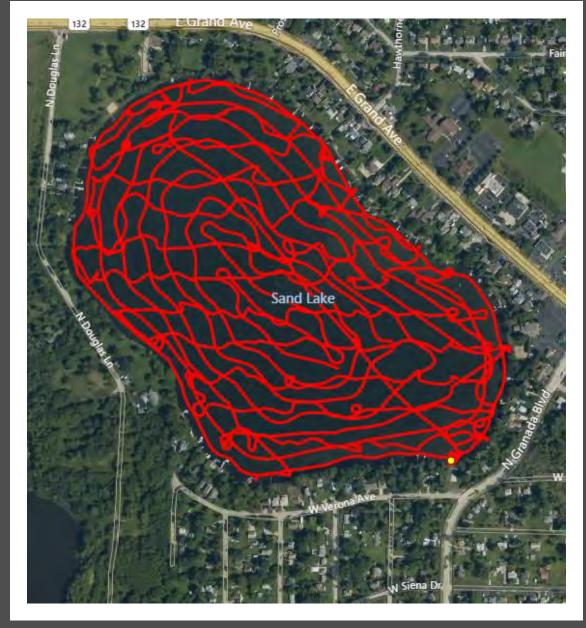
PLANT: CAPABLE OF GROWING OVER WINTER EMERGING EARLY SPRING BEFORE MOST SPECIES, COMPLETES CYCLE BEFORE MID-JULY, STEMS SLIGHTLY FLAT, SLENDER RHIZOMES FLOWER: SMALL GREEN BROWN FLOWERS ON CURVED SPIKE ABOVE WATER:

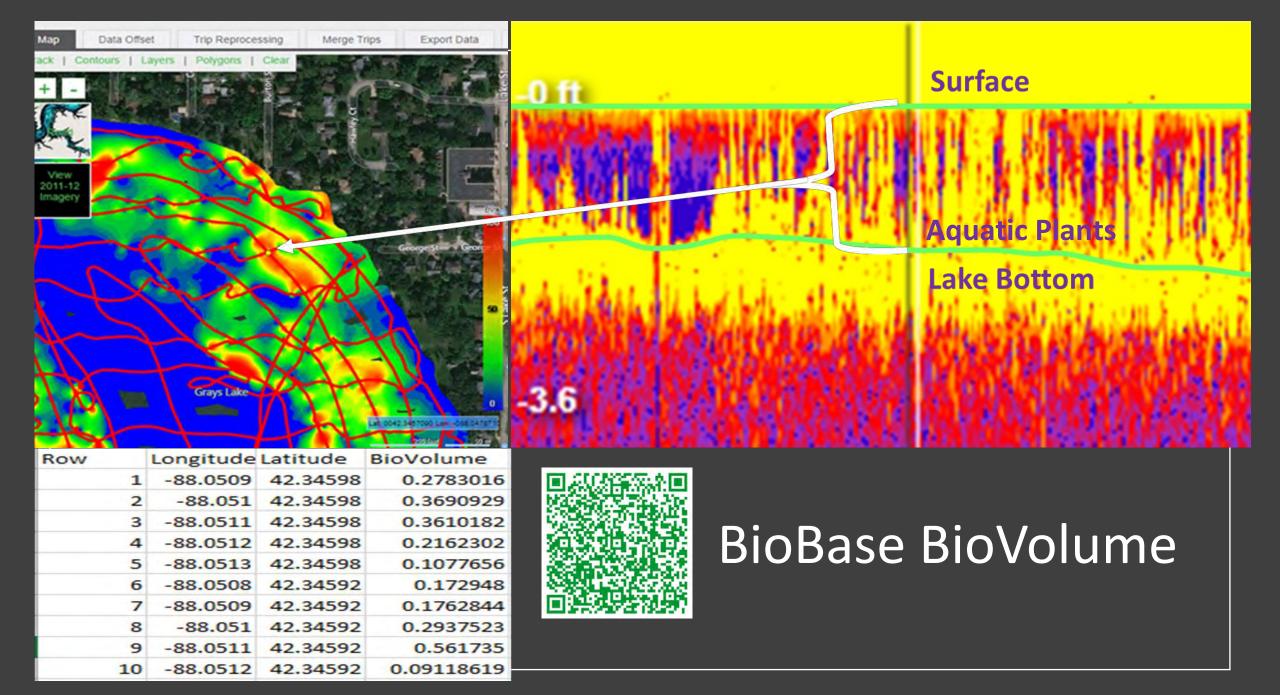


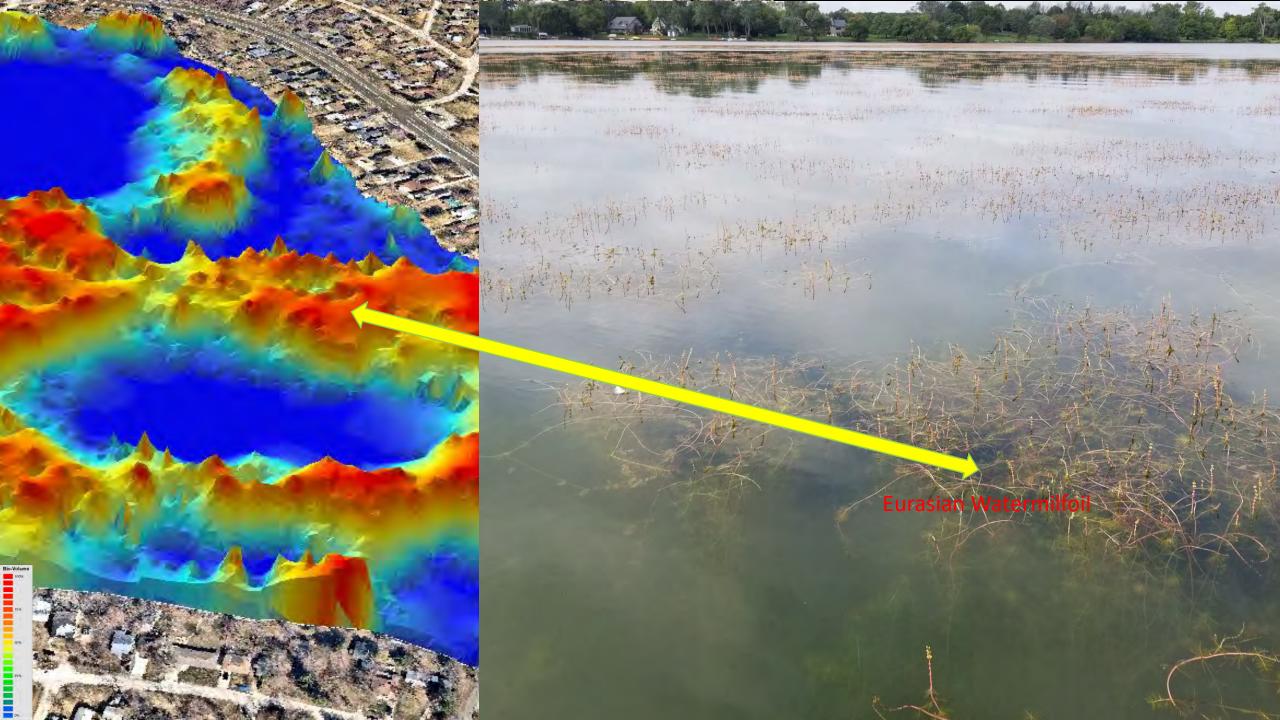




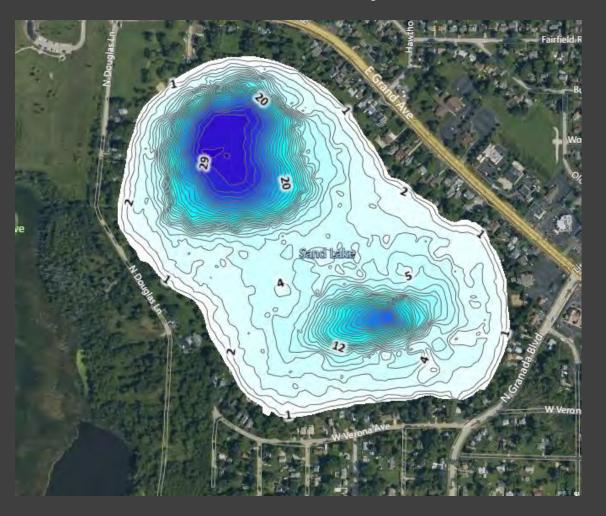


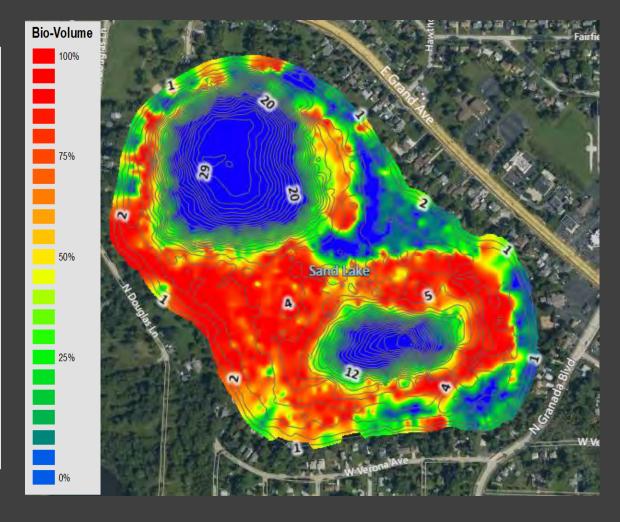






# Upload the file to BioBase





# Aquatic Plant Survey -Plant Grid



60m Grid transferred to a GPS-Sonar



Figure 1. Abundance Ratings

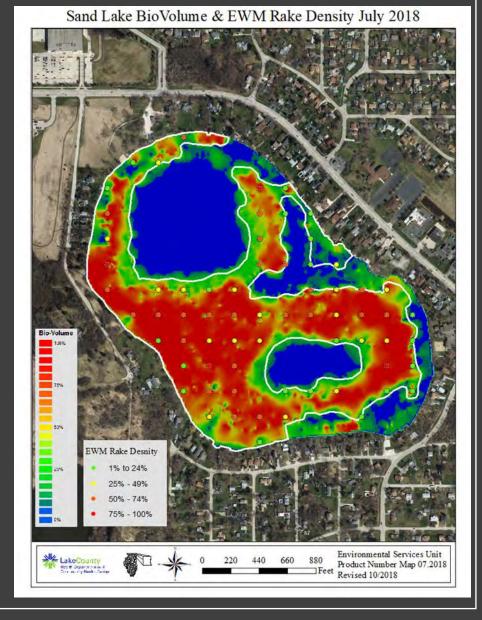
Abundance ratings are given from 0-5. Conditions of the ratings are described below:

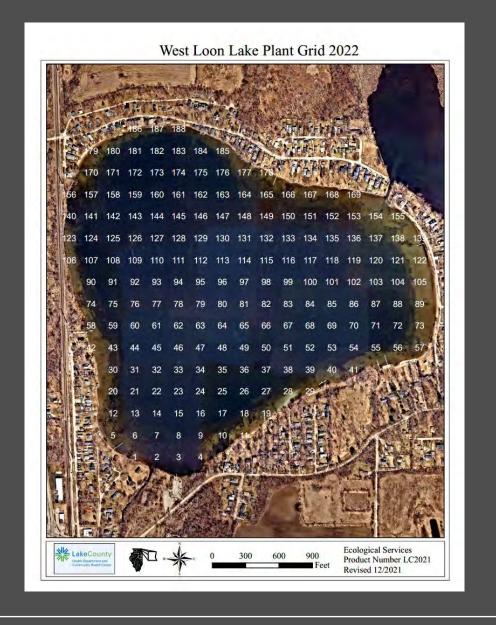
Rating	Coverage	Description
0	minimi	> No plants on rake head
1	Within	> A few plants on rake head
2	MAN THE STATE OF T	<ul> <li>Obviously less than ½</li> <li>Uniform cover toward base</li> </ul>
3	MANAGEMENT	<ul> <li>Rake head is about ½ full</li> <li>Can easily see top of rake head</li> </ul>
4	MAY MA	<ul> <li>Obviously more than ½ full</li> <li>Not overflowing</li> <li>Can barely see top of rake head</li> </ul>
5	MANA.	<ul> <li>Overflowing</li> <li>Cannot see top of rake head</li> </ul>

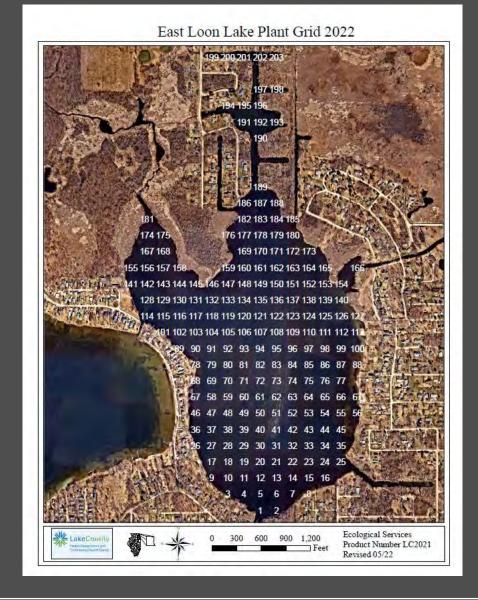
0=no plants, 1 = >0 - 10%, 2 = >10 - 40%, 3 = >40 - 60%, 4 = >60 - 90%, 5 = >90%.

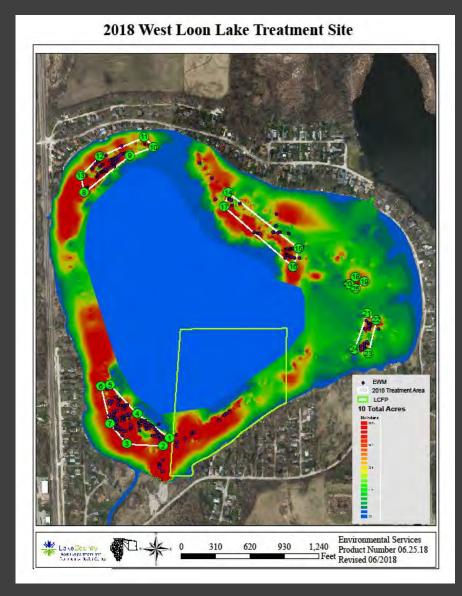


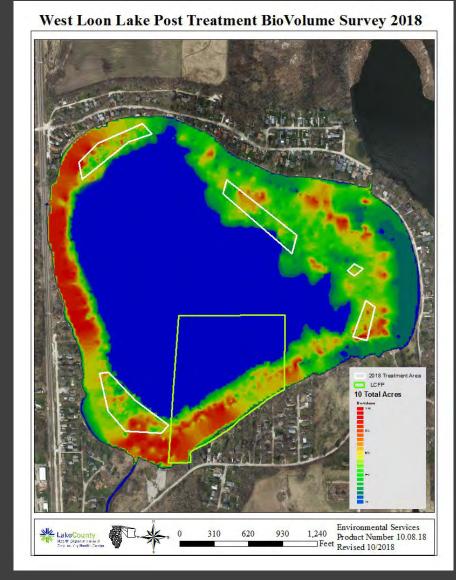
"aquatic plant sampling method collects data on the occurrence of aquatic plant species in lakes, but does not collect information on plant biomass"





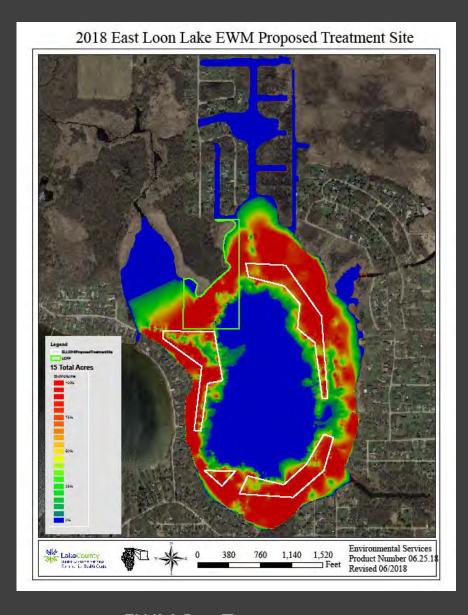


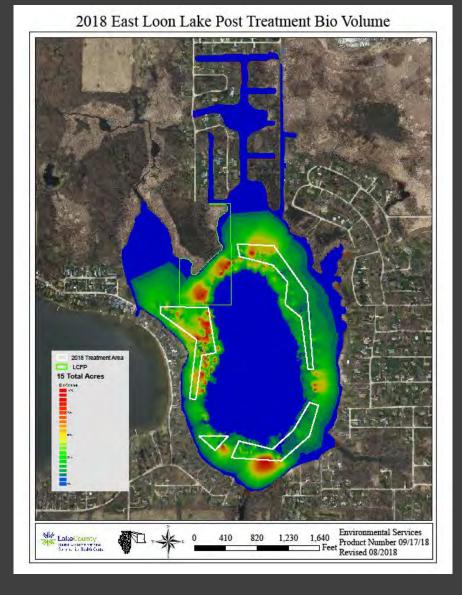




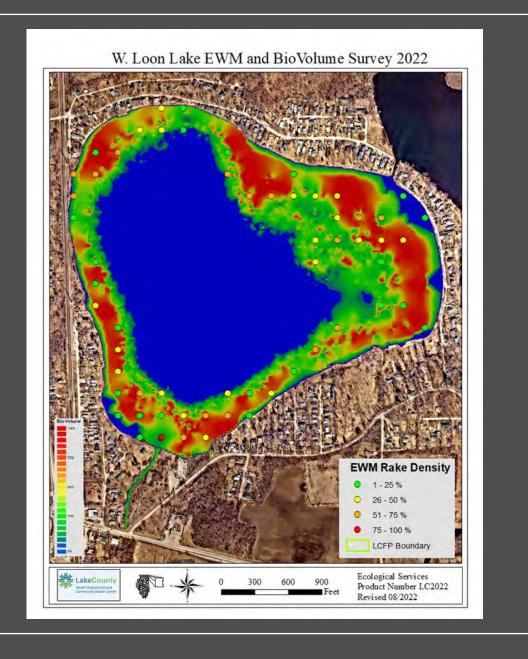
EWM Pre-Treatment

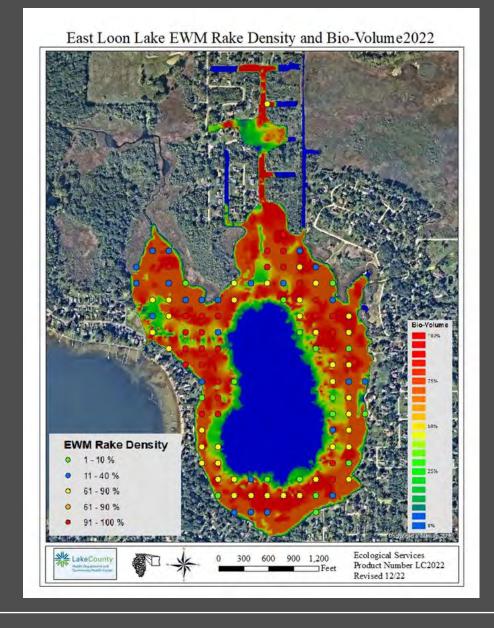
EWM Post-Treatment





**EWM Pre-Treatment** 





# WEST LOON LAKE AQUATIC PLANT TABLE 2022

# AQUATIC VEGETATION SPECIES FOUND AT THE 188 SAMPLING SITES ON WEST LOON LAKE, AUGUST 2022

Plant Density	American Pondweed	Chara	Coontail	Curlyleaf Pondweed	Elodes	Eurasian Wa- termilfoil	latstem ondweed	Illinois Pondweed	Sago Pondweed
Absent	172	140	149	186	184	128	176	168	186
Present	7	20	16	1	1	23	7	15	2
Common	5	17	20	0	3	20	5	2	0
Abundant	4	11	3	0	0	16	0	3	0
Dominant	0	0	0	1	0	1	0	0	0
% Plant Occurrence	8.5	25.5	20.7	1.1	2.1	31.9	6.4	10.6	1.1

Plant Density Absent	Slender Naiad 181	Southern Naiad 186	Star Duckweed 182		Whitestem Pondweed 187		Water Stargrass 158	White Water Lily 176
Present	7	2	2	19	1	3	10	8
Common	0	0	4	21	0	0	15	2
Abundant	0	0	0	1	0	1	5	1
Dominant	0	0	0	0	0	0	0	1
% Plant Occurrence	3.7	11	3.2	21.8	0.5	2.1	160	6.4

#### DISTRIBUTION OF RAKE DENSITY ACROSS ALL SAMPLING SITES

Rake Density (coverage)	# of Sites	% of Sites
No Plants	45	24
>0-10%	23	12
10-40%	26	14
40-60%	44	23
60-90%	3	2
>90%	0	0
Total Sites with Plants	96	51
Total # of Sites	188	100

## EAST LOON LAKES AQUATIC PLANT TABLE 2022

# AQUATIC VEGETATION SPECIES FOUND AT THE 203 SAMPLING SITES ON EAST LOON LAKE, AUGUST 2022

Plant Density	American Pondweed	Bladderwort	Chara	Coontail	Duckweed	Elodea	Eurasian Watermilfoil	Largeleaf Pondweed
Absent	201	196	200	93	195	190	96	202
Present	0	1	1	29	3	8	17	0
Common	1	6	1	55	4	5	24	1
Abundant	1	0	1	21	1	0	38	0
Dominant	0	0	0	5	0	0	28	0
% Plant Occurrence	1.0	3.4	1.5	54.2	3.9	6.4	52.7	0.5

Plant Density	American Lotus	Southern Naiad	Star Duckweed	Vallisneria	Whitestem Pondweed	Watermeal	Water Stargrass	White Water Lilv
Absent	201	200	152	193	200	127	167	149
Present	0	2	- 11	5	2	10	15	8
Common	1	1	27	5	1	26	16	15
Ahundant	1	0	6	0	0	23	4	25
Dominant	0	0	7	0	0	17	1	6
% Plant Occurrence	1.0	15	251	49	15	37.4	17.7	26.6

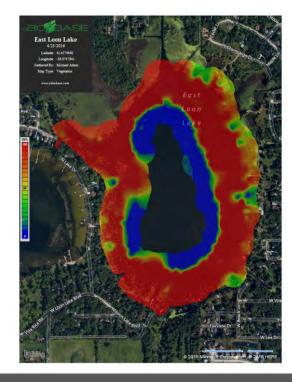
# AQUATIC VEGETATION SPECIES FOUND AT THE 203 SAMPLING SITES ON EAST LOON LAKE, AUGUST 2022

Rake Density (coverage)	# of Sites	% of Sites
No Plants	45	2.2
>0-10%	8	4
10-40%	14	7
40-60%	51	25
60-90%	53	26
>90%	17	8
Total Sites with Plants	143	70
Total # of Sites	203	100

Sample Lake		Lake Lat.	Lake Long	Location v	Site Lat.	Site Long. Sta	te County	Date Collected	Collector/Report to?	Microsatellite strain
MYR-1218 East Loc	on Lake	42.45339	-88.071	11		-88.0747 IL	Lake		Gerard Urbanzo	E-MISGP-1863
MYR-1218 East Loc	on Lake	42.45339	-88.071	16	42.45015	-88.0711 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1218 East Loc	on Lake	42.45339	-88.071	22	42.45069	-88.0725 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1218 East Loc	on Lake	42.45339	-88.071	27	42.45124	-88.0762 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1218 East Loc	on Lake	42.45339	-88.071	45	42.45177	-88.0703 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1218 East Loc	on Lake	42.45339	-88.071	46	42.45232	-88.0769 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1218 East Loc	on Lake	42.45339	-88.071	69	42.4534	-88.0761 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1218 East Loc	on Lake	42.45339	-88.071	76	42.45339	-88.071 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1219 East Loc	on Lake	42.45339	-88.071	91	42.45448	-88.0761 IL	Lake	5/16/2022	Gerard Urbanzo	H-MYR-12182
MYR-1219 East Loc	on Lake	42.45339	-88.071	114	42.45557	-88.0791 IL	Lake	5/16/2022	Gerard Urbanzo	H-MYR-12191
MYR-1219 East Loc	on Lake	42.45339	-88.071	125	42.45555	-88.071 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1219 East Loc	on Lake	42.45339	-88.071	131	42.4561	-88.0769 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1219 East Loc	on Lake	42.45339	-88.071	142	42.45665	-88.0791 IL	Lake	5/16/2022	Gerard Urbanzo	H-MYR-12194
MYR-1219 East Loc	on Lake	42.45339	-88.071	147	42.45664	-88.0754 IL	Lake	5/16/2022	Gerard Urbanzo	H-MYR-12182
MYR-1219 East Loc	on Lake	42.45339	-88.071	163	42.45717	-88.0725 IL	Lake	5/16/2022	Gerard Urbanzo	H-MYR-12182
MYR-1219 East Loc	on Lake	42.45339	-88.071	170	42.45772	-88.0739 IL	Lake	5/16/2022	Gerard Urbanzo	H-MYR-12182
MYR-1219 East Loc	on Lake	42.45339	-88.071	182	42.4588	-88.0747 IL	Lake	5/16/2022	Gerard Urbanzo	H-MYR-12182
MYR-1219 East Loc	on Lake	42.45339	-88.071	185	42.45879	-88.0725 IL	Lake	5/16/2022	Gerard Urbanzo	H-MYR-12182
MYR-1220 East Loc	on Lake	42.45339	-88.071	188	42.45933	-88.0732 IL	Lake	5/16/2022	Gerard Urbanzo	H-MYR-12182
MYR-1220 East Loc	on Lake	42.45339	-88.071	202	42.4642	-88.0739 IL	Lake	5/16/2022	Gerard Urbanzo	E-MISGP-1863
MYR-1277 West Lo	oon Lake			3	42.44856	-88.0864 IL	Lake	8/15/2022	Gerard Urbanozo	H-MYR-12191
MYR-1277 West Lo				2	42.44856	-88.0871 IL	Lake	· · · · · · · · · · · · · · · · · · ·	Gerard Urbanozo	E-MISGP-1863
MYR-1277 West Lo				10	42.4491	-88.0849 IL	Lake	8/15/2022	Gerard Urbanozo	E-MISGP-1863
MYR-1277 West Lo	oon Lake			12	42.44965	-88.0886 IL	Lake	8/15/2022	Gerard Urbanozo	H-MYR-12191
MYR-1277 West Lo	oon Lake			28	42.45017	-88.0827 IL	Lake	8/15/2022	Gerard Urbanozo	H-MYR-12191
MYR-1277 West Lo				54		-88.0805 IL	Lake	· · · · ·	Gerard Urbanozo	H-MYR-12191
MYR-1277 West Lo	oon Lake			57	42.45124	-88.0783 IL	Lake	8/15/2022	Gerard Urbanozo	H-MYR-12191
MYR-1277 West Lo				72	42.45179	-88.0791 IL	Lake	· · · · ·	Gerard Urbanozo	FAIL
MYR-1278 West Lo				74		-88.0893 IL	Lake	· · ·	Gerard Urbanozo	H-MYR-12191
MYR-1278 West Lo				86		-88.0805 IL	Lake	-, -, -	Gerard Urbanozo	H-MYR-12191
MYR-1278 West Lo				90		-88.0893 IL	Lake	· · ·	Gerard Urbanozo	H-MYR-12191
MYR-1278 West Lo				106	42.45343	-88.09 IL	Lake	-, -, -	Gerard Urbanozo	H-MYR-12191
MYR-1278 West Lo				119	42.45341	-88.0805 IL	Lake	1	Gerard Urbanozo	E-MISGP-1863
MYR-1278 West Lo				121	42.45341	-88.0791 IL	Lake	<del>  '. '.</del>	Gerard Urbanozo	H-MYR-12191
MYR-1278 West Lo				148	42.4545	-88.0842 IL	Lake	1	Gerard Urbanozo	H-MYR-12191
MYR-1278 West Lo				150		-88.0827 IL	Lake	· · · · ·	Gerard Urbanozo	H-MYR-12191
MYR-1278 West Lo				171	42.45559	-88.0885 IL	Lake	· · ·	Gerard Urbanozo	H-MYR-12191
MYR-1278 West Lo				182	42.45612	-88.0871 IL	Lake	· · · · · · · · · · · · · · · · · · ·	Gerard Urbanozo	H-MYR-12191
MYR-1279 West Lo				183	42.45612	-88.0863 IL	Lake	· · ·	Gerard Urbanozo	H-MYR-12191
MYR-1279 West Lo	oon Lake			185	42.45612	-88.0849 IL	Lake	8/15/2022	Gerard Urbanozo	FAIL

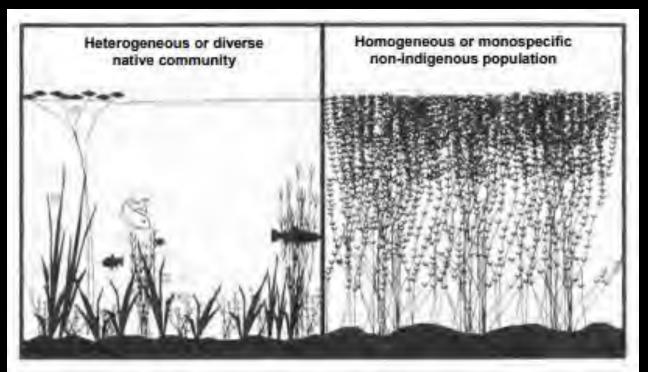
# Hybrid Eurasian Watermilfoil

- The prefixes "E" and "H" stand for Eurasian and hybrid, respectively.
- E-MISGP-1863 is also a widespread Eurasian strain that we have found in many locations in several states (IL, IN, MI, NY, OH, WI).



# Native vs Non-Native Invasive Aquatic Plant

- Abundance of some fish declines with increased plant densities.
- Excessive growth of Aquatic Plants promotes high population of small fish – Stunted.
- Aquatic plants serve as habitats that support prey (insects and crustaceans) for YOY fish.
- The abundance and diversity of aquatic fauna eaten by small fish are higher in a native plant community.
- Rapid removal affects food sources.
- Habitats with moderate amounts of aquatic vegetation provide the optimal environment for many fish.
- Increase extinction rate of rare and threatened species.
- Interfere with boating and fishing activity.











# **Aquatic Food Web**

The Detroit River and Lake Saint Clair are part of the Great Lakes basin that provides an important food source for the region and the country. Below are sample species in the Great Lakes Aquatic Food Web.



Esox masquinongy (Muskie)

Ardea herodias (Great Blue Heron)



Micropterus dolomieu (Smallmouth Bass)

#### **Secondary Consumers**

Smaller fish and other species. Some species may be both predators and prey.



Perca flavescens (Yellow Perch)

Homo sapiens

(Human)





Neogobius melanostomus (Round Goby)

#### **Primary Consumers**

Smaller fish and other species. Some species may be both predators and prey.



Physidae (Pouch Snail) Dreissena polymorpha (Zebra Mussel)

Decapod crustocean (Crayfish)

Aythya valisineria (Canvasback)

(Walleye)

Chironomidae

Ephemeroptera (Midge Larvae) (Mayfly Nymph)

Osmerus mordax (Rainbow Smelt)

# **Producers, Decomposers & Nutrients**

Macrophytes, phytoplankton and zooplankton (microscopic plants and animals) and detritus.



Valisneria americana (Wild Celery)



Macrophyte (Aquatic Plant) Bacteria, Fungi and Detritus



Adapted from the Life of the Lakes

MICHU 09-400 Michigan Sea Grant, www.miseagrant.umich.edu



			Life Sta	Re	elationship		
Fish	Plant Affinity	Larvae	Juvenile	Adult	Spawn	Forage	Predator avoidance
Bluegill sunfish	High	Х	X	Х	Х	Χ	X
Common carp	High	Х	X	Х	Х	Χ	X
Largemouth bass	High	Х	Х	Х	Х	Χ	X
Musky	High	Х	X	Х	Х	Χ	Χ
Northern Pike	High	Х	Х	Х	Х	Χ	X
Black crappie	Moderate		Х	Х	Х	Χ	X
Smallmouth bass	Moderate		х	Х		Х	Х
Yellow perch	Moderate	Х	Х			Х	X
White crappie	Low		Х			Х	Х
Salmon, trout	Low	·	Х				X
Shad	Low	Х					Х
Walleye	Low		Х	Х		Χ	Х

# How do plants impact fish?

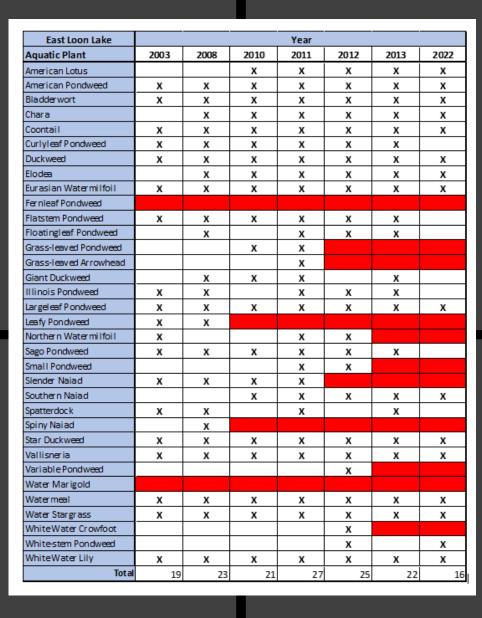
- Plants provide critical structure to aquatic habitats.
- Plants influence growth of fish by enhancing fish diversity, feeding, growth, and reproduction.
- Plants influence spawning. The structure provided by plant beds are important to fish reproduction.
- Plants influence the physical environment. Aquatic plants can change water temperatures and available oxygen in habitats.



Fernleaf Pondweed



White Water Crowfoot





**Leafy Pondweed** 



Water Marigold



**Small Pondweed** 



White Water Crowfoot





**Leafy Pondweed** 



Bladderwort

# E. Loon Lake Eurasian Watermilfoil Proposed



# REQUEST FOR PROPOSALS (RFP)

# HERBICIDE APPLICATION FOR THE CONTROL OF EURASIAN WATERMILFOIL IN EAST AND WEST LOON LAKES

# LAKE COUNTY, ILLINOIS

#### 1. GENERAL DESCRIPTION OF WORK

The work described herein involves application of herbicide products in East and West Loon Lakes where the invasive aquatic plant species, Eurasian Watermilfoil (EWM) has reached nuisance levels and is causing negative consequences to the lakes' native plant communities.

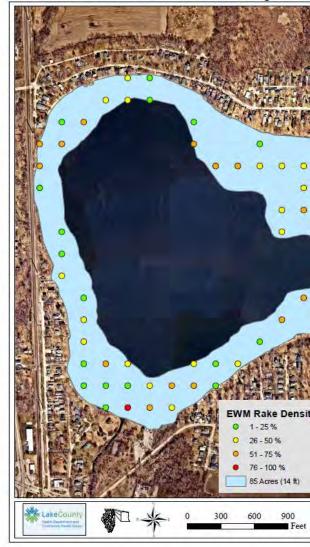
A 2022 survey found EWM growing in East Loon and West Loon Lakes at approximately 128 acres and 85 acres respectively. The Loon Lakes Management Association (LLMA) seeks proposals to chemically control the EWM for the 2023 season.

### 2. DETAILED DESCRIPTION OF WORK

The successful contractor shall complete the following tasks:

A. Perform a whole lake herbicide treatment in the affected areas (see attached maps) using Florpyrauxifen-Fenzl ProcellaCor. Indicate cost and how much product will be used per surface acre or on a volumetric rate, on proposal form. Price will include follow up assessments using HPLC / FasTEST. Price will

## W. Loon Lake Eurasian Watermilfoil Proposed



# **ProcellaCOR**

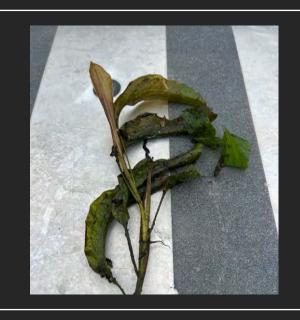
- November 22, 2021 Whole Lake treatment plan started.
- February 7, 2022 LLMA requests IDNR approval to use an alternative herbicide to treat EWM
- September 23, 2022- LCFP Support Letter for the whole lake treatment.
- November 2022 Request for Proposal Finalized and sent out to LCFP and IDNR for approval.
- November 2022 14 RFP's sent out and 5 responded with proposals.
- January 2023 2 LC SMC Grants awarded to LLMA!
- January 2023 Clarke Aquatics / Solitude was selected by LLMA to apply ProcellaCOR.
- March 1, 2023 Contract signed with Clarke Aquatics / Solitude.
- May 12, 2023 Solitude Lake Management EWM growth survey.
- May 15, 2023 ProcellaCOR applied to East and West Loon Lakes.
- May 31, 2023 / September 8, 2023 Post-treatment Survey



















# LOON LAKES MANAGEMENT ASSOCIATION Proposed Budget for FY 2025

INCOME:	\$50,000
FIXED EXPENSES:	
Insurance* Bank fees (P & I) Office Supplies** Communications/Education***	\$6,000 \$10,000 \$300 \$1,000
Total Fixed Expenses:	\$17,300
VARIABLE EXPENSES:	
Equipment repair	\$3,000
Storage fee  Cas and oil (including bydraulic oil)	\$500 \$1,800
Gas and oil (including hydraulic oil) Wages and taxes	\$15,000
Annual Meeting	\$1,000
Fish Stock	\$2,500
T and E Fish Study	\$0
Dumping Fee	\$1,500
Water level management	\$7,400
Total Variable Expenses:	\$32,700
TOTAL FIXED & VARIABLE EXPENSES:	\$50,000

# **NOTES:**

<sup>\*</sup> Insurance - D & O, truck and harvester, Workmans Comp

<sup>\*\*</sup> Paper, envelopes and ink

<sup>\*\*\*</sup> Mailings, email, web site, PO Box, ILMA Conference