Agenda - 2025 RLAA Annual Meeting

May 6, 2025

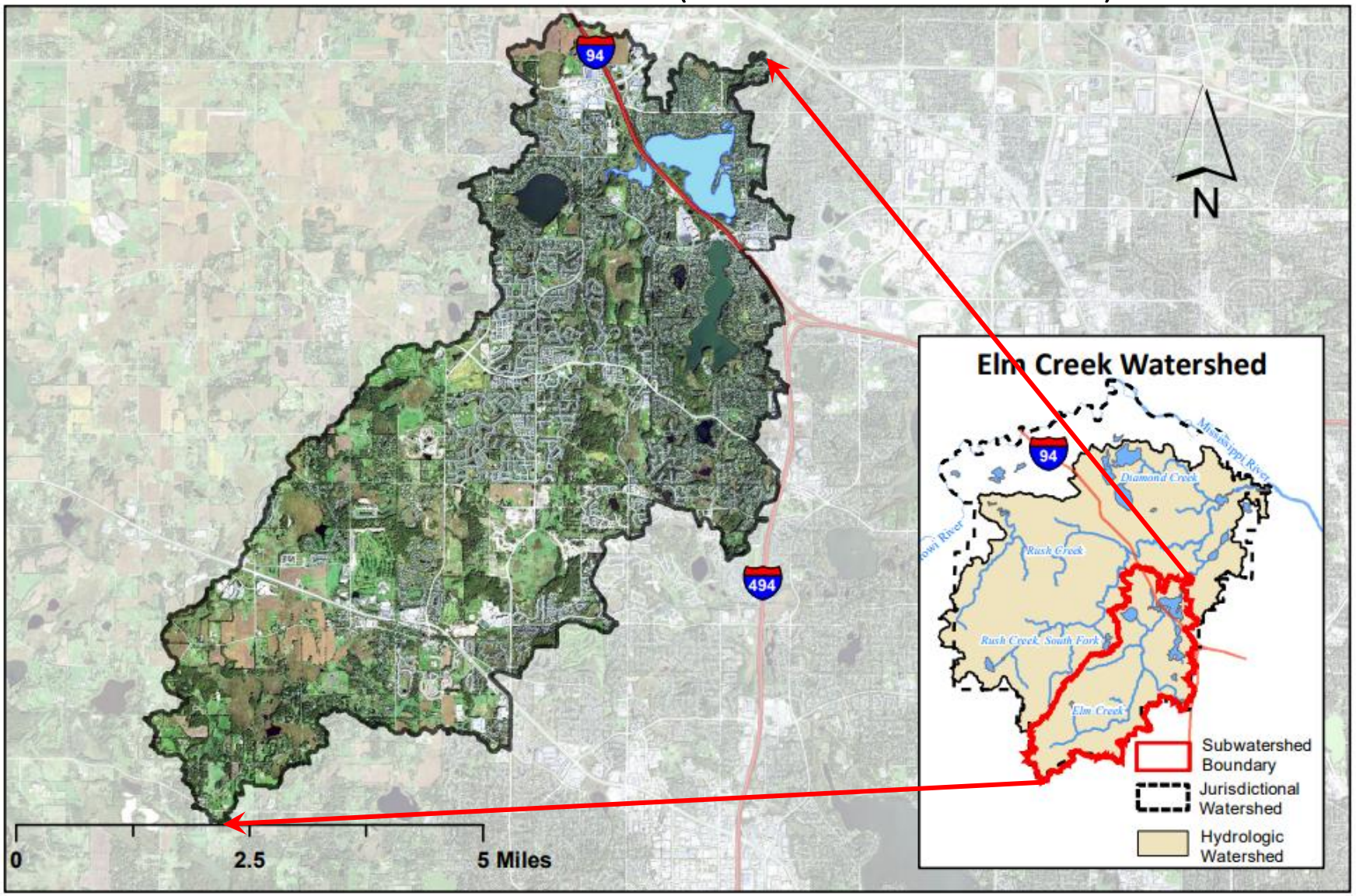
- **RLAA Introductions and call to order**
- **Elm Creek Watershed**
- **Updates**
- **Initiatives**
- **Financials**
- **Open forum and adjournment**

Rice Lake Area Association

email: ricelakeassoc@comcast.net

- RLAA is one of Minnesota's many volunteer, non-profit, lake associations
- Lake associations work with citizens, other lake associations, researchers, city, county, state, and federal agencies and programs
- RLAA encourages stewardship of water, soil, and vegetation for recreation and wildlife habitat
- RLAA *Volunteer* Board Members:
  - Hente Braam, President
  - Jeremy Coenen, Vice President
  - Zachary Frey, Director
  - Nick Mannel, Director
  - Curt Putland, Director
  - Scott Roeglin, Director
  - George Schneider, Secretary
  - Gary Shubinsky, Director
  - Rick Stulac, Director
  - Michael Thiede, Treasurer

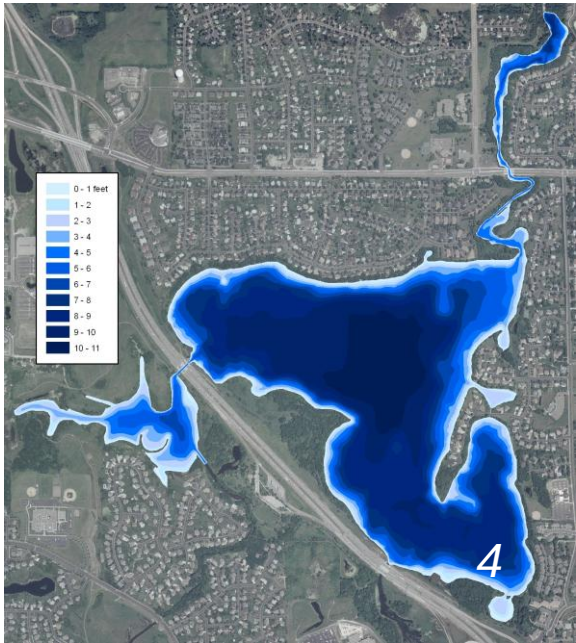
Elm Creek Watershed (and Rice Lake Subwatershed)



Rice Lake

Sources: MPCA, 2016
Elmcreekwatershed.org

- 307 acre, 7ft avg, 10ft max depth reservoir created by Elm Creek dam, 52:1 upstream watershed
- 16,092 acre Rice Lake sub-watershed within the 66,400 acre Elm Creek watershed
- Public carry-in boat launch (for kayaks, canoes, and paddleboards)
- No public access for trailered boats – only shoreline property owners
- Wildlife habitat (northern pike, bass, sunfish, perch, crappie, carp, bullhead, painted turtles, snapping turtles, frogs, toads, snakes, muskrat, squirrels, mink, beaver, fox, coyotes, racoons, deer, rabbits, bats, cormorants, hawks, eagles, loons, turkeys, ducks, geese, osprey, gulls, heron, swans, egrets, turkey vultures, pelicans, cranes, kingfishers, coots, . . .)
- Rice Lake is significantly impaired (eutrophic) with excess phosphorous and nitrogen from chemical fertilizers and decaying organic matter
  - 32.5% Maple Grove storm drains
  - 22.6% Plymouth, Medina, Corcoran storm drains
  - 2.0% County and State highway storm drains
  - 26.6% internal load (produced within the lake) and atmosphere
  - 16.3% shore and upstream drainage (not via storm drains)



www.ricelakemn.com

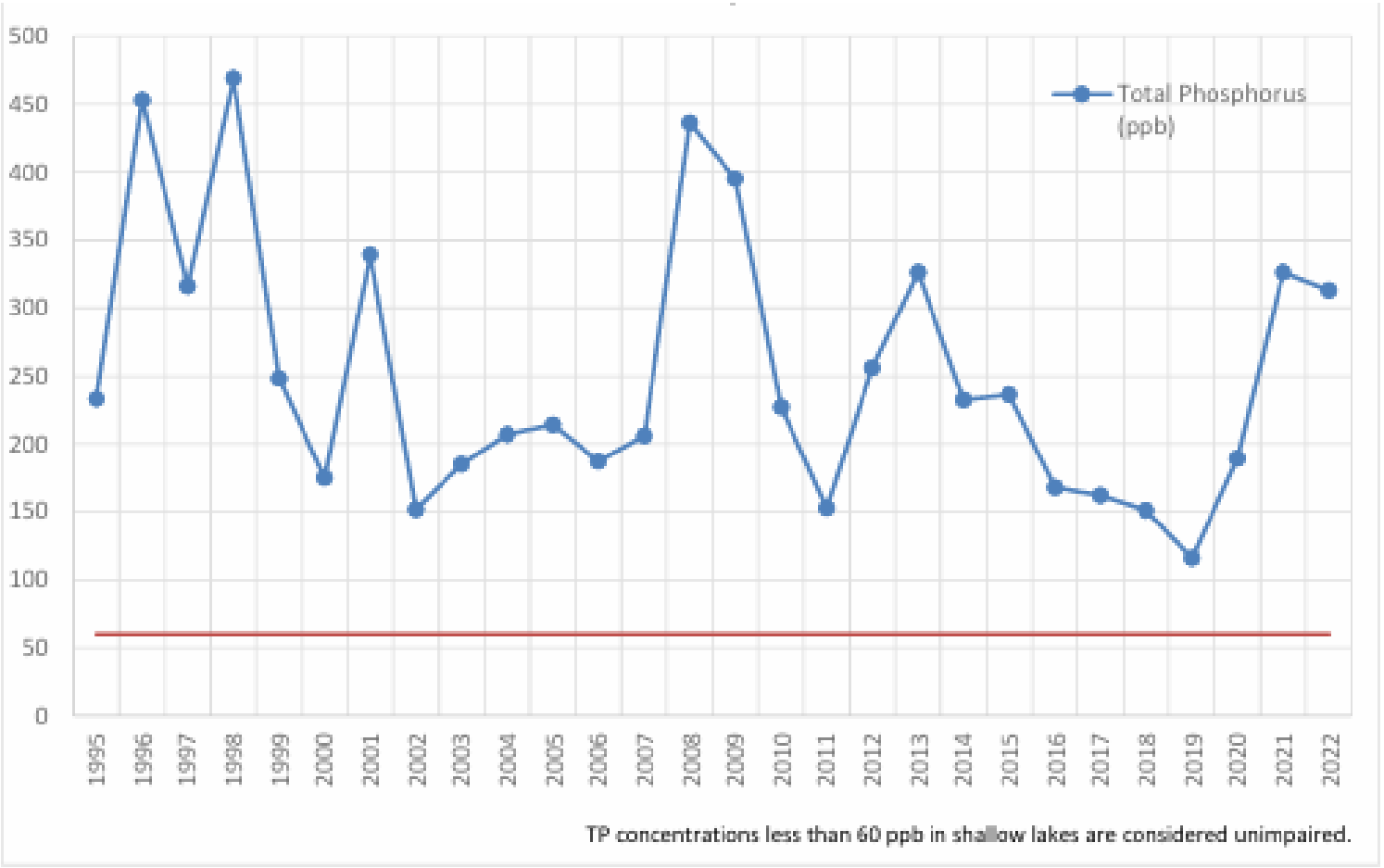
Dam and Spillway

- Elm Creek is an MPCA impaired waterway
- Drought and evaporation are the primary drivers of low lake levels
- Lake level is *not* very sensitive to spillway discharge:

  With no water flowing in and 1 ft^3/second draining out, the lake level would drop just 2.3 inches per month

- The spillway controls were vandalized in 2022, so the City is using sandbags to restrict spillway discharge to the minimum DNR required 1 ft3/second
- The City plans to make repairs in conjunction with a 2029/2030 drawdown
- More questions? publicworks@maplegrovemn.gov

Rice Lake Phosphorous



RICE LAKE SUBWATERSHED ASSESSMENT
CITY OF MAPLE GROVE
WSB PROJECT NO. 020202-000

Best Management Practices (BMP's)

Table 3: Potential BMP Cost Benefit Analysis Table

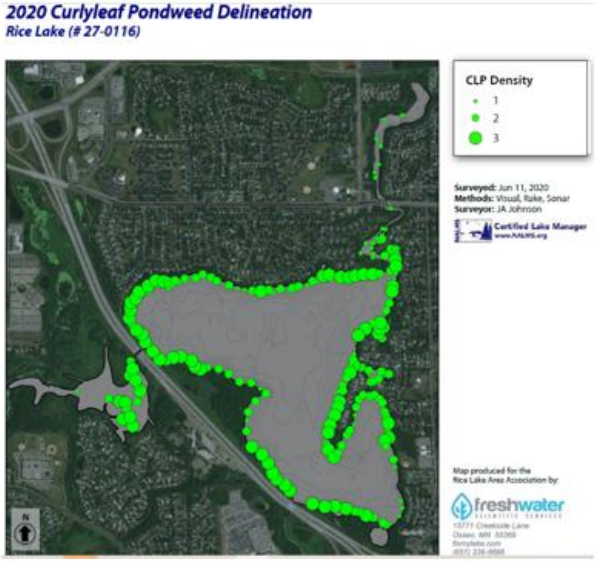
BMP	Estimated Construction Costs	Estimated Annual Maintenance Costs	TP Removals (lb TP/yr)	25-Year Cost Benefit ($/lb TP Removed)
RL Elementary North Filtration Basin	$ 260,000.00	$ 2,000.00	6.2	$ 2,000.00
RL Bible Chapel Filtration Basin	$ 270,000.00	$ 2,500.00	9.2	$ 1,445.65
Weaver Fields Filtration Basin	$ 220,000.00	$ 2,000.00	3.5	$ 3,085.71
Trail Lot Underground Filtration Gallery	$ 410,000.00	$ 2,000.00	4.0	$ 4,600.00
Maple Knoll Rain Garden	$ 110,000.00	$ 1,500.00	0.7	$ 8,428.57
91st Avenue Underground Filtration Gallery	$ 450,000.00	$ 2,000.00	4.9	$ 4,081.63
Dallas Lane Pond Retrofit	$ 250,000.00	$ 2,000.00	0.5	$ 24,000.00
80th Circle Structure	$ 130,000.00	$ 2,500.00	6.1	$ 1,268.12
88th Place Structure	$ 100,000.00	$ 1,500.00	2.4	$ 2,308.98
89th Place Structure	$ 100,000.00	$ 1,500.00	0.3	$ 16,782.54
90th Ave Structure	$ 100,000.00	$ 1,500.00	0.1	$ 39,407.27
91st Ave & 91st Place Structure	$ 130,000.00	$ 2,500.00	5.3	$ 1,442.76
91st Ave & Quantico Lane Structure	$ 130,000.00	$ 2,500.00	8.7	$ 889.97
Archer Lane Structure	$ 100,000.00	$ 1,500.00	0.9	$ 6,355.13
Blackoaks Lane Structure	$ 130,000.00	$ 2,500.00	4.3	$ 1,770.90
Chesshire Lane Structure	$ 130,000.00	$ 2,500.00	5.3	$ 1,446.01
Dallas Lane Structure	$ 100,000.00	$ 1,500.00	1.2	$ 4,417.67
Jewel Lane Structure	$ 100,000.00	$ 1,500.00	0.2	$ 24,859.25
Maple Grove Parkway Structure	$ 110,000.00	$ 1,500.00	3.4	$ 1,743.89
Rice Lake Road Structure	$ 110,000.00	$ 1,500.00	2.6	$ 2,236.12
Upland Lane Structure	$ 80,000.00	$ 1,000.00	1.5	$ 2,876.16

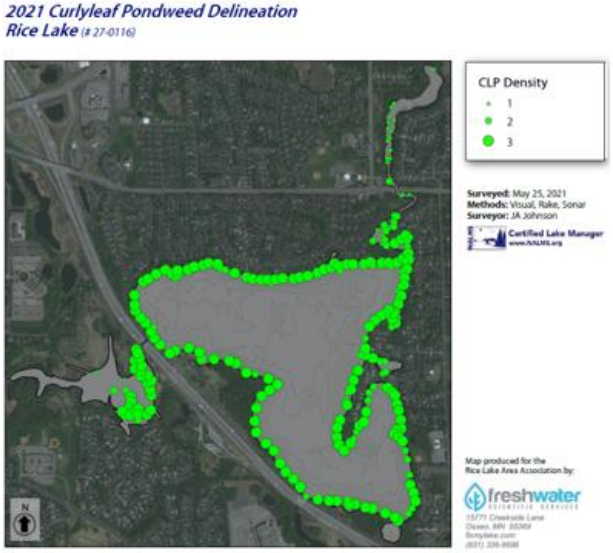
Source: Rice Lake Subwatershed Assessment, City of Maple Grove, May 2023

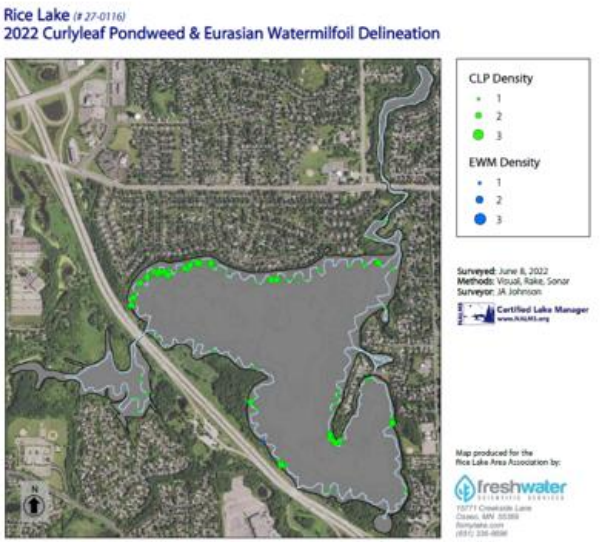
Harsh Reality:

- Alum treatment cost for the whole lake would exceed $800K
- 1,624 lbs annual phosphorous inflow. 788 lbs removed. 836 lbs left to remove.
- The 10 best Maple Grove BMP's would cost $1.5M and mitigate just 54 lbs/yr (6.5% of the remaining problem)

Invasive Plant Surveys







2025/2026 drawdown will likely be needed

Invasive Zebra Mussels

- Zebra mussels were found in Rice lake in 2024
- *Properly cleaning and drying boats, lifts, and docks from other waters remains important to prevent starry stonewort and other invasive species*
- Zebra mussels outcompete native species for microscopic food particles, resulting in clearer water and less food for native species
- Plants thrive in clearer water with more sunshine available
- Zebra mussels significantly change the ecological balance, but the long term effects in other lakes have not proven as dire as feared
- Zebra mussel shells are razor sharp, so be careful
- Zebra mussels don’t eat cyanobacteria*

*Blue/green algae isn’t algae – it is a cyanobacteria

2024 Fish Survey

- Healthy crappie, perch, pike, sunfish, sucker, and turtle populations
- Plenty of predators for bullhead, small carp, carp eggs; but corn-baited box nets will be needed to control destructive adult carp
- “Because of the possible recruitment of *bullheads* and *carp* from Elm Creek, the chances of a long-term balanced fish community remain a challenge.”

Crappies

Northern pike

Bluegills

Largemouth bass

Dogfish

Carp

2024 Fish Survey

Table 1. Rice Lake trapnet results for fish surveys conducted in 2008, 2014, 2022 through 2024 by Blue Water Science and in 1979, 1985, 1994 by the MnDNR. Fish data are shown as fish/trapnet. YOY = young of the year.

	1979 July 12 (5 nets) (MnDNR)	1985 July 9 (8 nets) (MnDNR)	1994 July 11 (9 nets) (MnDNR)	2008 Aug 19-21 (12 nets) (BWS)	2014 July 17-18 (12 nets) (BWS)	2022 Sept 7-8 (12 nets) (BWS)	2023 Sept 19 (6 nets) (BWS)	2024 Oct 19 (6 nets) (BWS)	DNR Range
Bullhead - Black	99	116	1.7	177	7.6	49	79	**225**	0.7 - 26
Bullhead - Brown			0.1						1.4 - 6.6
Bullhead - Yellow	0.4	2.8	0.4	0.9	1.0	5.3	4.8	**4.3**	0.8 - 6.2
Carp		2.1	0.3	3.8	0.3	125	12	**7.5**	1.0 - 3.6
Crappie - Black	1.4	17	35	46	2.8	58	522	**5.5**	1.8 - 21
Crappie - White			0.4						2.5 - 11.6
Dogfish (Bowfin)		0.3	1.1	0.2			0.8	**0.2**	0.5 - 1.7
Golden Shiner				1.8	16	0.1	0.2		NA
Largemouth Bass		0.1	0.4	1.8	0.5	3.8	0.2	**0.7**	0.3 - 1.2
Northern Pike	0.4	3.1	0.3	0.1	1.3	0.5	1.3	**0.8**	NA
Sunfish - Bluegill	2.6	42	40	37	62	7.8	13	**18**	7.5 - 63
Sunfish - Green		0.4	0.6		0.1			**0.2**	0.2 - 2.0
Sunfish - Hybrid		9.3	1.9			0.5			NA
Sunfish - Orangespot			0.1						NA
Sunfish - Pumpkinseed		2.1	10	1.0	0.1	0.1	0.5		0.8 - 8.4
Tadpole madtom (small bullhead)	0.2								NA
Walleye						0.1			NA
White Sucker		2	0.2	6.5	0.1	0.2	2.5	**2.3**	0.3 - 2.2
Yellow Perch	3.6	21	8.9	4.2	0.7	8.1	9.5	**0.8**	0.5 - 3.4
Bullhead - Black YOY				16	654	94			NA
Carp YOY					405	4.2			NA
Crappie - Black YOY					1.3	206	1.7		NA
Largemouth bass YOY						0.6			NA
Sunfish - Bluegill YOY					2.7		1.0	**1.0**	NA
Yellow perch YOY						0.4			NA

Water Quality - Carp Biomass Reduction History

Background

- Carp ecologically damaging when biomass exceeds 90 lbs/acre
- 2018 population assessments 287 lbs/acre and 140 lbs/acres (2021) on Fish, 225 lbs/acre Rice
- 2018 estimate ~14,000 carp per lake
- Feeding habits destructive – dig lake bottom releasing nutrients
- Potential to reduce longevity of alum treatment
- Project started in 2018 in partnership with City of Maple Grove, Elm Creek Watershed, Three Rivers, Rice Lake Area Association
- Population assessment, radio telemetry tracking, removal
- Also tracked northern pike spawning migrations
- Under-ice netting had limited success

Water Quality - Carp Biomass Reduction 2024
Box Netting Results

- Two baited box nets were installed summer 2024
- Kept baited with corn by FLARA volunteers
- Four seine events conducted by WSB and many volunteers from FLARA and RLAA
- Sides of net quickly hoisted while carp are feeding on bait
- Excellent results!!!
- 1940 carp removed (6081 lbs.)
- THANK YOU TO THE 25+ VOLUNTEERS!!

Lake	Date (2024)	# Carp Captured/Removed	Pounds Carp Removed	Pounds per Littoral Acre Removed
Fish Lake	June 14	Nets Installed	-	-
	June 19	485	1560	14.5
	June 27	677	2160	20.1
	July 16	487	1521	14.2
	July 29	291	840	7.8
Total		**1,940**	**6,081**	**56.6**

Water Quality - Carp Biomass Reduction 2024 Work - Photos

Water Quality - Carp Management 2025 Project Plans

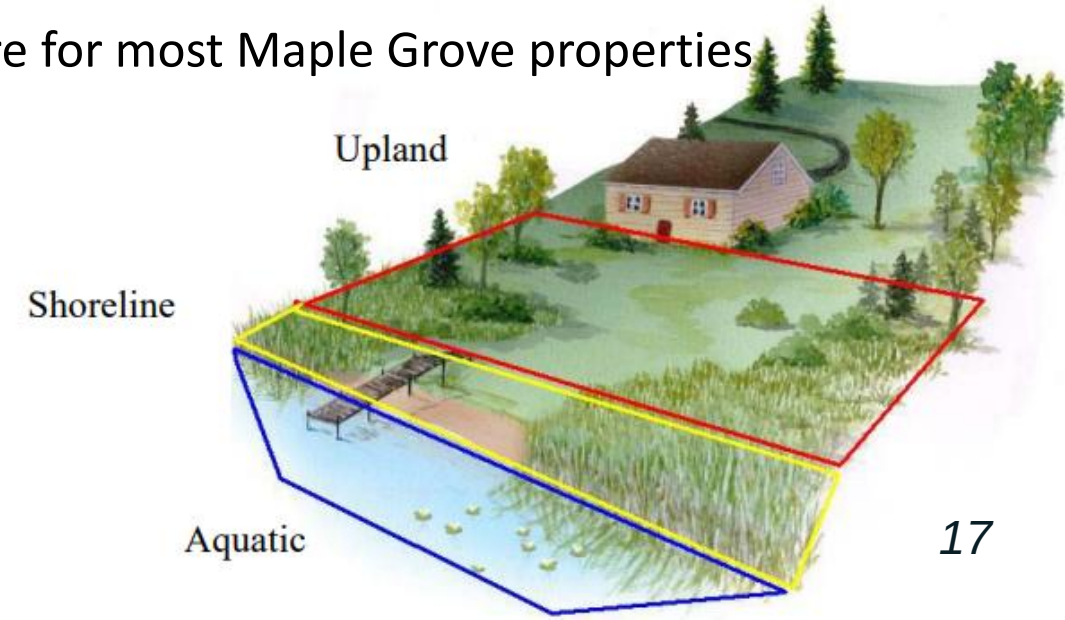
- BWSR Grant received by city/watershed to fund additional work
  - Focus will be development of management plan
  - No removal planned
- Focus on additional data gathering and management plan development
  - Revised population estimates in both lakes - electrofishing CPUE and mark/recapture
  - Movement study of carp and northern pike - PIT tags and radio tags, PIT receivers placed at strategic points
  - Aging study to understand year-class makeup of population
  - Temporary barrier/trap design in connecting channel between Fish/Rice

Fun story - Pike #514

- Pike caught electrofishing and radio tagged in 2019 as part of carp study
  - Provided valuable data – migrated through fish lake and up Elm Creek to spawn
  - Caught and released ice fishing in 2021,2024,2025 - very old fish!

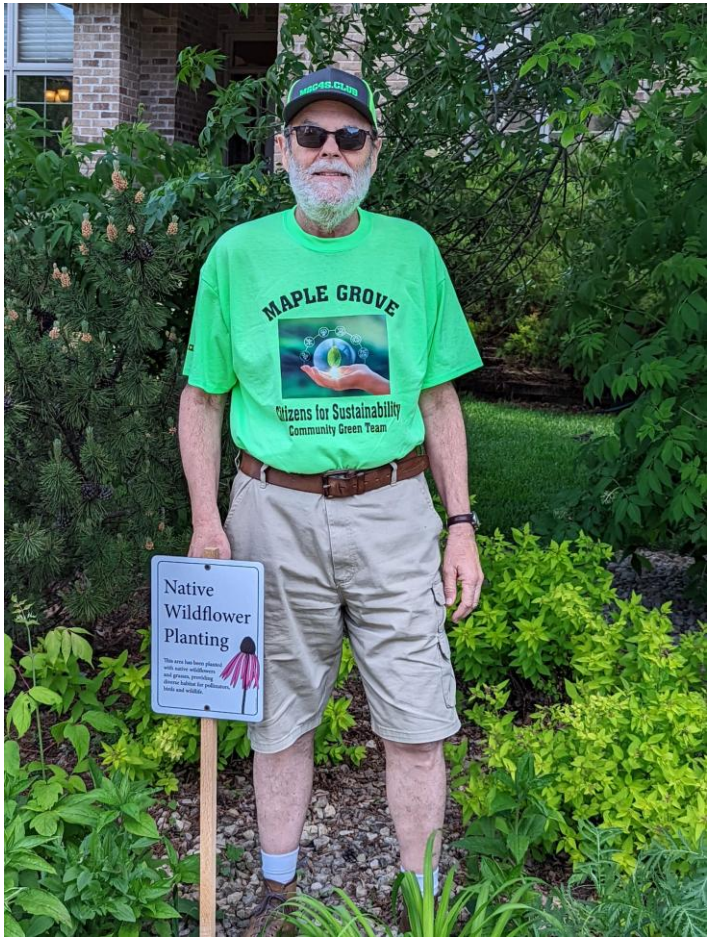
Lake Stewards Program

- Available to RLAA members via the statewide Minnesota Lakes and Rivers Advocacy mnlakesandrivers.org
- "Shoreland Guide to Lake Stewardship" booklet available from Amazon ($10)
- Provides educational resources and statewide representation
- Storm sewers are expressways from yards and pavement to lakes
- The curb is essentially lakeshore for most Maple Grove properties



Maple Grove Citizens for Sustainability

- mgc4s.club
- Community green team
- U of M student project sponsor
- Community gardens
- Rain gardens
- Lawn reduction and aeration
- Storm drain medallions
- Keeping fertilizer and yard waste out of storm drains



RLAA Initiatives

- Partner with FLARA in reducing carp population (carp stir settled phosphorous back into the water column)
- Install longer aerator lines for drawdowns (when aeration is most important)
- Deploy no-wake buoys to reduce erosion and encourage boating safety
- Coordinate fish, vegetation, and water quality surveys and remediations
- Coordinate drawdowns (when recommended) to disrupt invasive vegetation
- Maintain and operate winter aerator to reduce fish kill
- Coordinate grants and cost shares
- Coordinate boat ramp access
- Coordinate with other groups to implement best practices for a healthy lake

Rice Lake Access

- There is public access for carry-in watercraft (kayaks, canoes, SUP's, etc.)
- Only RLAA Dues Paying Members who are shoreline owners have access for trailered watercraft
- A generous resident continues to grant RLAA shoreline owners gated access to their boat ramp at 14212 87th Ave N (intended for spring launch and fall retrieval)
- RLAA boaters are issued stickers and unique gate access codes each year (please lock the cable again when you finish)

Boating Reminders

- Be considerate (speed, noise, wildlife, etc.)
- Open water speed limit: 40mph day, 15mph night
- No wake speed limit: 5mph
  - All channels and within 100ft of shore, anchored or non-motorized watercraft, or swimmers
- Life jackets available for everyone. Kids <10 must wear them.

Extra Rules for Jet Skis

- Life jackets must be worn
- 9:30 am until one hour before sunset
- 5 mph no wake speed in channels and within *150 ft* of shore, anchored watercraft, non-motorized watercraft, or swimmers
- Wake jumping, weaving through traffic, chasing wildlife, and destroying vegetation are prohibited
- 14-17 year olds must have a permit or someone at least 21 on board
- 13 year olds must have a permit and be continually watched by someone at least 21 or have someone at least 21 on board
- Children under 13 are prohibited from operating personal watercraft

Income Statement

1/1/2024 to 1/1/2025		
Revenue		
Membership Dues & Interest Income	$ 7,132.14	
Fish Stocking Reimbursement	$ 2,510.00	
Fish Survey Reimbursement	$ 1,650.00	
Plant Survey Reimbursement	$ 875.00	
Buoy Reimbursement	$ 991.00	
Total Income		$ 13,158.14
Expenses		
Buoys	$ 447.75	
Fish Survey (2 years, '23 and '24)	$ 5,600.00	
Plant Survey	$ 1,320.00	
Bouy Insurance	$ 190.36	
MN Lakes & Rivers membership	$ 100.00	
Aerator Expenses	$ 274.01	
D&O Insurance	$ 698.00	
Administration expenses	$ 340.64	
Total Expenses		$ 8,970.76
Total Income/Loss		$ 4,187.38

***Note, calculated on a cash basis

Balance Sheet

	1/1/24	1/1/25
Assets		
RLAA Bank Accounts		
Checking	$ 14,017.31	$ 18,204.39
Savings	$ 3,063.10	$ 3,063.40
Total assets	$ 17,080.41	$ 21,267.79
***Note, calculated on a cash basis		
Liabilities		
Fish Survey	$ 1,125.00	
AIS Plant Survey	$ 1,250.00	
Aeration	$ 627.27	$ 430.00
Fish Stocking	$ 3,293.50	
Insurance		$1,061.00
New buoys	$ 2,243.88	
Membership	$ 150.00	$ 100.00
Admin expense	$ 442.00	$ 500.00
Total Liabilities	$ 9,131.65	$ 2,091.00
Overall Total Assets	$ 7,948.76	$ 19,176.79

Anticipated Expenses in 2025	
Administration	$500.00
D&O insurance	$880.00
Xcel energy	$300.00
Bouy insurance	$181.00
MN Lakes & Rivers membership	$100.00
Aeration notification	$130.00
Total	$2,091.00

Anticipated Reimbursements in 2025	
Fish Survey	2510
Plant Survey	375
Total	$2,885.00

Treasurer's Report

- **Membership trends**
  - *The RLAA had 75 dues paying members in 2024, up from 54 in 2023*
  - *As of mid April 2025, there have been 40 members who have paid dues. This is up from 25 at the same point of 2024*
- **Contact Database**
  - *Our database has about 250 street addresses of potential member, almost all of them with email addresses*
- **Potential Expense**
  - *The RLAA board is exploring the enhancement of our aeration system. Total cost is estimated at $14,000, half of which would be reimbursed by the city of MG. So a total expense of about $7,000 to the association*
  - *This item wasn't included on the previous slide as it's still in the exploratory phase*

Open Forum

- Ideas?
- Concerns?
- Comments?
- Want to get more actively involved?

ricelakeassoc@comcast.net

Adjournment

Thanks!

For your ideas, involvement, and dues!

1 ft^3/second discharge from a 307 acre lake for 30 days drops lake level 2.3 inches:

1 ft^3	**3,600 sec**	**24 hr**	**30 days**	**acre**	**12 in**		**2.3 in**
sec	hr	day	month	43560 ft^2	ft	307 acres	