

LLIA 2019 Annual Meeting Minutes

April 24, 2019

1. **Justin Townsend - Ramsey County Aquatic Invasive Species Coordinator**
 - a. Zebra mussels in Lake Johnanna. From the size they can tell they've been there more than 1 year. Also in Bald Eagle Lake infected by homeowner bringing in in their boat from another lake. It's cheaper to slow spread up front and may be possible to even stop the spread. They are using genetics to detect zebra mussel DNA early in water (in conjunction with U of M).
 - b. Ramsey County AIS 5 Year Strategic Plan is the framework for early detection, prevention and response. Fast moving plan lays out tasks for each year.
 - i. Justin wants Long Lake (LL) plan to have new infestation response plan. Their website has a general Response Plan flowchart to facilitate quick action. Rely on volunteers for early detection.
 - ii. Inspection program is key. Behavior changes, self-inspection also important. Can stop launchers legally. Inspection increasing. Long Lake had 251 in 2018.
 - iii. Funding available approx. \$10,000/year. Did a soft launch of grant program in March. May run it again. Want innovative ideas for prevention.
 - c. **Soil & Water Conservation wants to know if you see something new.** Call Justin first **anytime** so he can jump on it as quickly as possible. Rich Kusick is the AIS contact person for LL – working with Justin at meetings with several other lake groups. Anyone is welcome to attend.
 - d. Questions:
 - What is the first response for zebra mussels? Are there chemicals? *A:-see Response Flowchart on website. In the past, copper products (kill all) and other chemicals to target just zebra mussels. These are temperature dependent to work. Funds available is \$50,000 for all lakes. There is a partnership set up with the Response Plan. Average cost is \$10-20,000 to treat zebra mussels.*
 - Will blue-green algae in LL limit zebra mussels? *A: Not completely proven to eliminate but could maybe prevent an explosion.*
 - Can we protect proactively? *A: Not really – boats transfers are key, more so than spread flowing downstream. Sometimes we can treat just targeted areas in a lake before it spreads throughout if it's detected early.*
 - Is automation to prevent launch until inspection possible for LL? *A: On some lakes you get an inspection before going to the launch, receive a code and then enter the code at launch to be allowed entry. In Ramsey County there's not as much focus on that. Other types of automation may be more feasible here. In Utah, there's self-inspect; you must check in and pay at launch. If not, you get tagged.*

- Where do zebra mussels come from? Are there natural predators? *A: No natural predators but they are limited by food – they can actually choke themselves out. They build up layers so thick that those underneath die. They eat themselves out, then plateau. They came to Minnesota from eastern Europe on oceangoing ships in releasing ballast water in Duluth.*

2. **Matt Kocian – Rice Creek Watershed District**

- a. Rice Creek Watershed (RCW) is a big area with 55+ lakes. Water quality is primarily defined by algae, chlorophyll and clarity. Long Lake has been monitored by Ramsey County and RCW for a long time now. A graph was shared that shows the levels back to 1984. The north basin of LL has higher levels of algae and has a ‘D’ grade (poor). The south basin is a bit better with a ‘C’ grade (fair).
- b. Long Lake Targeted Watershed Project received the biggest grant - \$3 million grant from the state and \$4 million from RCW. This was a multipart 4 year project:
 - i. Middle Rice Creek Restoration – Done. The meander has been restored to slow erosion and the spread of nutrients downstream into LL. Monitoring will continue.
 - ii. Carp Management - - Ongoing. LL has 6-7 times the desired target threshold target of carp. Threshold amount of carp is set to balance water quality with the negative impact carp have as they root up the bottom sending excess nutrients into water. Radio tagging has shown that the carp winter in LL and go upstream to in spring to spawn in the Rice Creek Chain of Lakes. Focus has been to trap and remove adults in the spring as they leave LL to go upstream to spawn. Box netting was tried and still viable but low voltage electric barrier is working better. This barrier is in Rice Creek (near the railroad bridge). When fish get near the barrier they feel the electricity (low level safe amount) and they swim along it into the trap. So far this year 2000 fish removed. System will remain in place. It operates in the spring.
 - iii. Hanson Park. The pond here flows into area lakes and was undersized to do filtering with a 1’ depth. This project dredged and enlarged the pond to increase capacity for a new iron sand water filtering system - the first of its kind in Minnesota. Since phosphorus binds to iron, the system uses multiple stage iron sand filters to remove the phosphorus from water before it flows into lakes. Our lakes have been nutrient loading and declining for so many years – we will watch this trend down over the next several years.

3. **Mike Honkanen - New Brighton Public Safety Water Patrol**

- a. Patrol will start Memorial Day weekend. Same 3 officers – will be adding training of Explorers coming into reserves.
- b. Little different in 2019 – 80-90% of time at launch. Explorers will patrol parks – helps keep water patrol at launch. Will still patrol water but education at launch will be important.

- c. High water now (as marked on Long Lake Road bridge over creek). Have had some calls of boats making wakes. Water patrol goes to launch with Ramsey County when calls come in.
- d. Questions:
 - i. Are there sworn officers on patrol boat? *A: no sworn officers. One water patrol and two reserves.*
 - ii. Are inflatables allowed at the point (near the channel): *A: No – you can't launch inflatables from shore or park boat at shore. But we can't stop people who anchor boat and swim with inflatables from there.*
- e. Sound from picnic areas may be more noticeable due to loss of buffer trees from trimming. Call Ramsey County if it gets too loud.

4. John-Broghammer – Invasive Weed Management Update

- a. Treating the lake costs about \$4000 using 24-D. City has contributed 2/3 of the cost with LLIA paying the rest.
- b. John showed a chart of LLIA vs. owner treatment plan. DNR allows a total of 15% of a lakes acreage to be treated. LLIA treats 10-12% leaving a margin so that owners can treat their dock/swimming area if they wish.
- c. Weeds around your dock are your responsibility. It's an easy DIY – ask John if you have questions. For example, John used about 10 lbs of Aquacide and got his own permit from DNR for around \$35. John is happy to answer questions on this. If you want help you can contact Lake Restoration.
- d. Questions:
 - i. Is AIS treatment at odds with water quality? *A: it's ok if we keep within the DNR rule of 15% of acreage.*
 - ii. When is mapping done? *A: Milfoil will be mapped early summer but curly leaf pondweed has not been a big issue so it won't be mapped. Milfoil mapping information is available on the website as it's known.*

5. John Broghammer – LLIA Financial Review

- a. John shared slide showing LLIA income and expenses. Total income is around \$9000 which for now covers expenses for weeds, web management, boat monitoring and supplies.
- b. Talk to neighbors – need contributions to LLIA for income.
- c. About 50% of homeowners contribute/participate. Recommended amount is \$100/year. Pay online so that LLIA doesn't need to manage email addresses.

6. John Brogrammer - Review LLIA Organization

- a. Task and Duties to run LLIA.
 - i. Membership - marketing, events, emails, website management, dues collection, membership. Most time-consuming.

- ii. Water Quality – representing LLIA to organizations that partner in water quality. For example, recently John testified on behalf of all lakes to the Minnesota House and Senate.
 - iii. Public Safety – coordinating with the city and county resources that partner with us.
 - b. Organization and Commitment.
 - i. Much has been accomplished to set up the duties so that they are transferable and could transition easily to another person without having to reinvent the wheel.
 - ii. We have missed opportunities on all fronts due to time constraints. More could be tackled if we split up this work up. John shared a slide that laid out a proposal for setting up a board of Directors.
- 7. **Election of Board of Directors.** John took names of several volunteers that are interested in meeting to establish a board. He will convene a separate meeting to go forward. Contact John if interested.



LLIA 2019 Annual Meeting

April 24, 2019



Agenda

Partner Updates:

- **Ramsey County AIS 5 Year Strategic Plan** - Justin Townsend
- **Long Lake Targeted Watershed Project Update** - Matt Kocian
- **Public Safety Update** - Mike Honkanen

LLIA Business:

- **Invasive Weed Management Update** - John Broghammer
- **Zebra Mussel Threat** - John Broghammer
- **Financial Review** - Overview of income & expenses
- **Review LLIA Organization** - John Broghammer
- **Election of Board of Directors** - John Broghammer



Invasive Weed Management Plan

LLIA Treatment Plan

- Goal is to treat common or heavy weed areas so that all can enjoy the lake safely.
- May - RCWD Delineation Map
- June/July – LLIA funds treatment of 10-12 acres. We can only treat 15% of the littoral surface area. That's about 15 acres total due to DNR regulations.
- 2, 4d herbicide treatment - \$4,000
- Fall - City of New Brighton Council funding request. They've been funding 2/3 of the total cost.
- Hopefully more grant opportunities moving forward, but I don't think we'll get away from LLIA partially funding.

Owner Treatment Plan

- Treatment around your dock is not the scope of LLIA's treatment. Lake Owners need to do that for themselves.
- Contact Lake Restoration and they'll treat in conjunction with the LLIA treatment plan.
- DIY
 - Get a permit through the DNR. \$35
 - Purchase and spread pellet herbicide per the directions ~ about 10 pounds is needed to treat a property.

A New Concern

Is there something we should be doing to mitigate this?

 RAMSEY COUNTY

Menu

What are you looking for?

Search

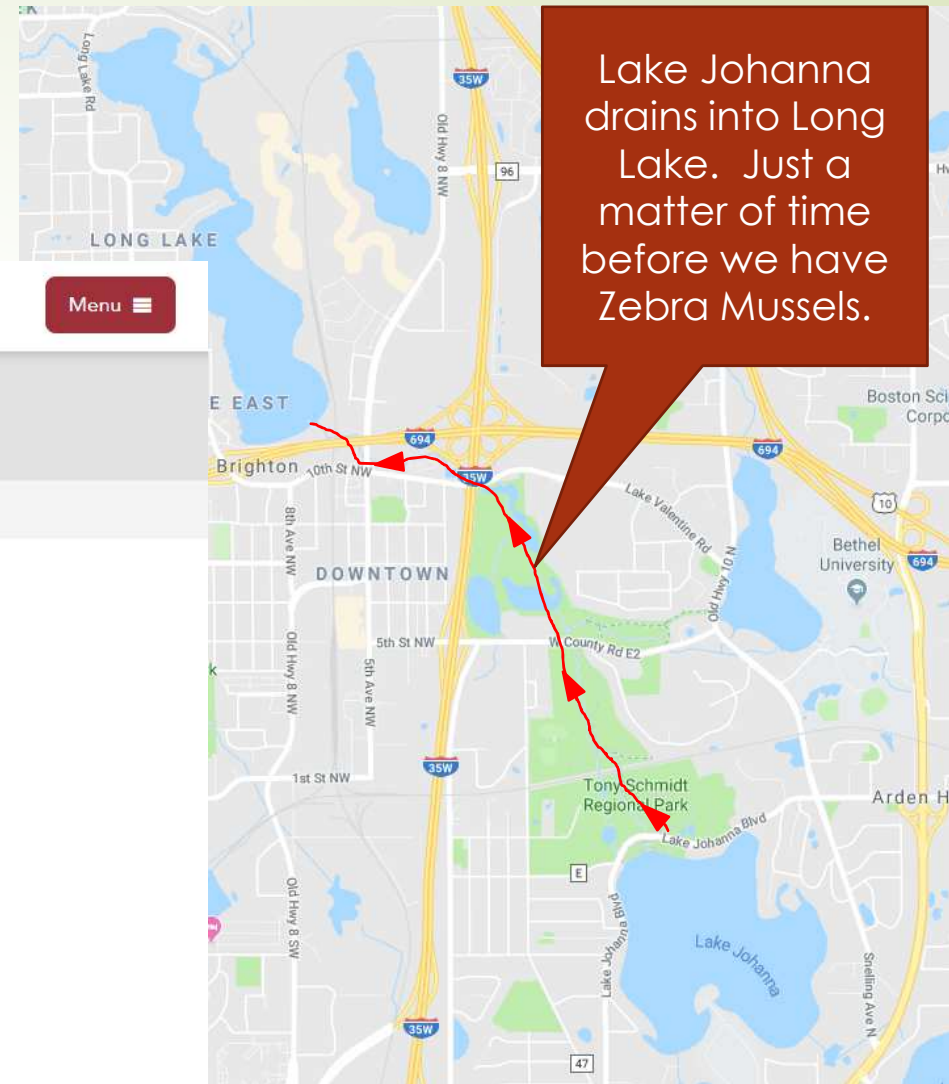
[Home](#) / [News & Updates](#)

[Back to List](#)

Zebra mussels confirmed in two Ramsey County lakes

The Minnesota Department of Natural Resources (DNR) has confirmed reports of zebra mussels in Bald Eagle Lake and **Lake Johanna** in Ramsey County.

The DNR is conducting follow-up surveys of the lakes to determine whether zebra mussels are distributed more broadly and assess whether there are treatment options. Early detection increased the potential for treatment and will help prevent the spread to other lakes.





Budget

Current Balance: \$11,690

Income:

- 2018
 - Contributions: \$6,265
 - City of New Brighton: \$2,717
 - \$8,982

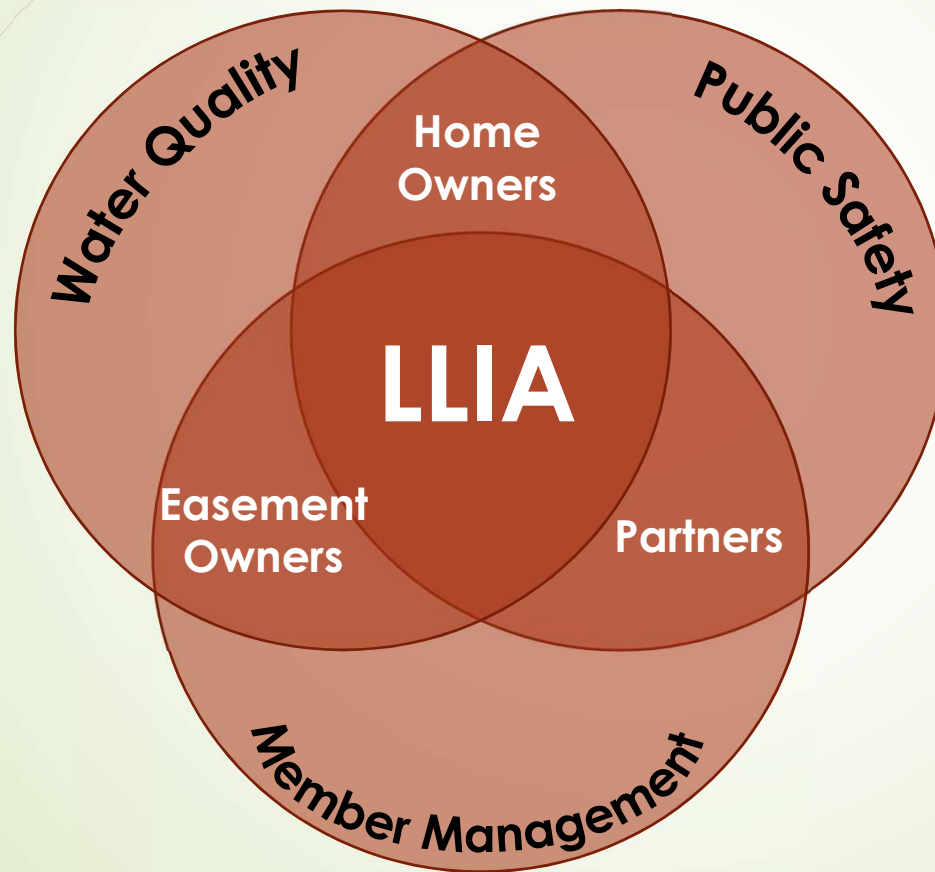
- 2019
 - Contributions: \$2,055
 - City of New Brighton: \$ 0
 - \$2,055

Annual Expenses

- Boat Monitor: \$4,000
- Weed Treatment: \$4,085
- Website: \$ 540
- Supplies: \$ 200
- \$8,825

Please help get the word out. Talk to your neighbors on why they should support LLIA!

LLIA Organization



LLIA is simply a collection of invested neighbors trying to keep the lake clean and safe.



Tasks and Duties

Member Management

- Membership drives via mailings and door knocking
- Dues Collection via check and online
- Website Updates
- Email Blasts
- Mailing Post Cards regarding events and lapsed membership
- Event Orchestration and Execution
 - Annual Meeting
 - Board Meetings
 - Clean Up Day
 - Luminary Walk
 - Summer Solstice Flotilla



Tasks and Duties

Water Quality

- ▶ AIS Treatment Plan & Execution
- ▶ Participate in Ramsey County AIS Planning
- ▶ What else could we be doing?
 - ▶ Grant applications & funding
 - ▶ Carp and Geese Mitigation
 - ▶ Salt and Runoff Mitigation
 - ▶ Zebra Mussel protection
 - ▶ Water Levels and Dam Control
 - ▶ Shoreline Restoration Support
 - ▶ Should we sponsor water quality organizations, such as Minnesota Lakes and Rivers

Public Safety

- ▶ Maintaining the partnership with City of New Brighton PD
- ▶ What else could we be doing?
 - ▶ Email Blast reminders regarding safety on holidays
 - ▶ Close the launch when at full capacity
 - ▶ Get Ramsey County Sheriff support on hot weekends
 - ▶ Make sure everyone knows the rules who are launching. Make a postcard with the rules
 - ▶ Communicate with PD on high water/no wake. Send email blasts.
 - ▶ Review and enforcement of the Park Master Plan, which called for the county providing boat launch supervision.
 - ▶ Updates to lake ordinances through City and County



In other words....

PLEASE HELP!

It takes more than 1 or 2
people to do this effectively





Transferability and transition

We're getting to a spot where responsibility can be more easily transitioned.

- A website that's easy to administer
 - We can open up further areas of the site based on roles for BOD, Officers, or Committees
- Member Management software that's automated for dues collection and contact database that provides self service updating for email blasts
- A common LLIA email address rather than individual personal email accounts
- A new non-profit bank account



Organization and Commitment

Board of Directors
3 Meetings per Year

4-15 members “elected”
at the annual meeting.

Officers
Attend all meetings

The BOD elects officers at
their first meeting.

**Public Safety
Committee**
3 Meetings
per Year

**Water Quality
Committee**
3 Meetings per
Year

**Member
Committee**
3 Meetings per
Year

Creation of Executive
Committees to perform
the actual work of LLIA.

One formal meeting per month plus + homework



Election of the Board of Directors

- ▶ Name
- ▶ Where do you live on the lake?
- ▶ How do you want to be involved

What's next? The Board of Directors will meet in May to:

- Elect the LLIA Officers
- Identify the Committee Chairs
- Review how these will be organized and managed moving forward.

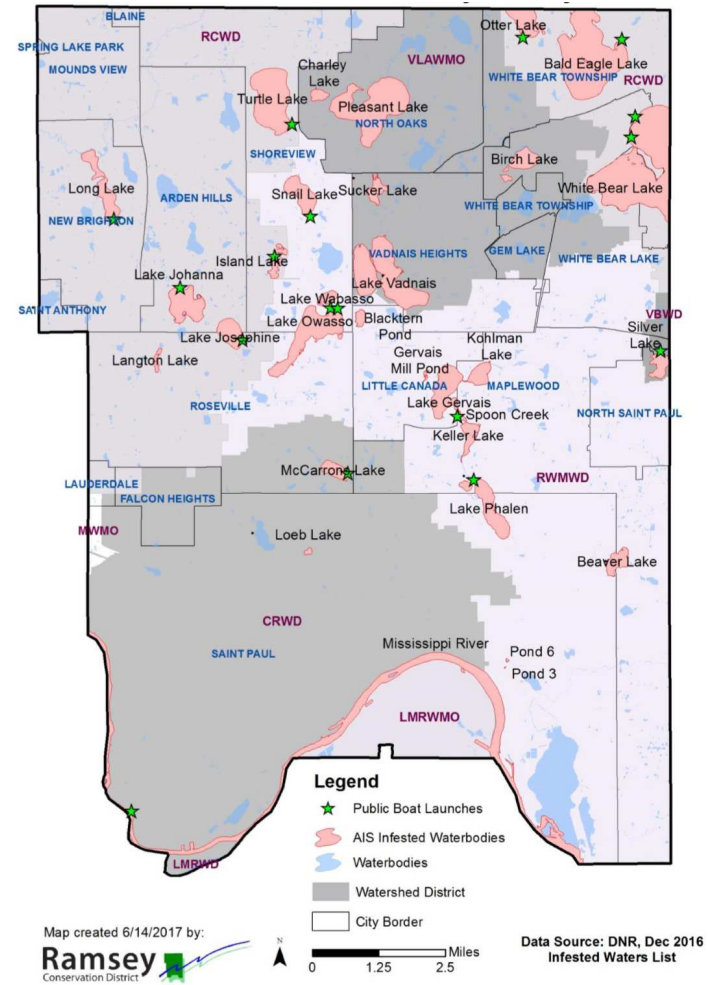
Ramsey County Aquatic Invasive Species Program

A Plan to Prevent, Respond to, and Manage AIS

Ramsey County Lakes

115 Waterbodies with an ID

17 trailer launch sites



Here is What We Are Trying to Prevent



Photos 1 & 2: Sole juvenile zebra mussel found on a settlement plate by a lake resident on August 18, 2018 in Bald Eagle Lake, Ramsey County.



Photos 1 & 2. One adult zebra mussel found by Matt Berg (Endangered Resource Services LLC) at initial survey of Lake Johanna on 18 August 2018.



Photos 3-5. Five additional adult zebra mussels found near the public access on Lake Johanna on 21 August 2018. Size of mussels ranged from approximately 2 to 3.4 cm in length.



AIS Funding

2014 MN Bill provides counties with AIS prevention funds directly from the Department of Revenue:
“...solely to prevent the introduction or limit the spread of...” AIS

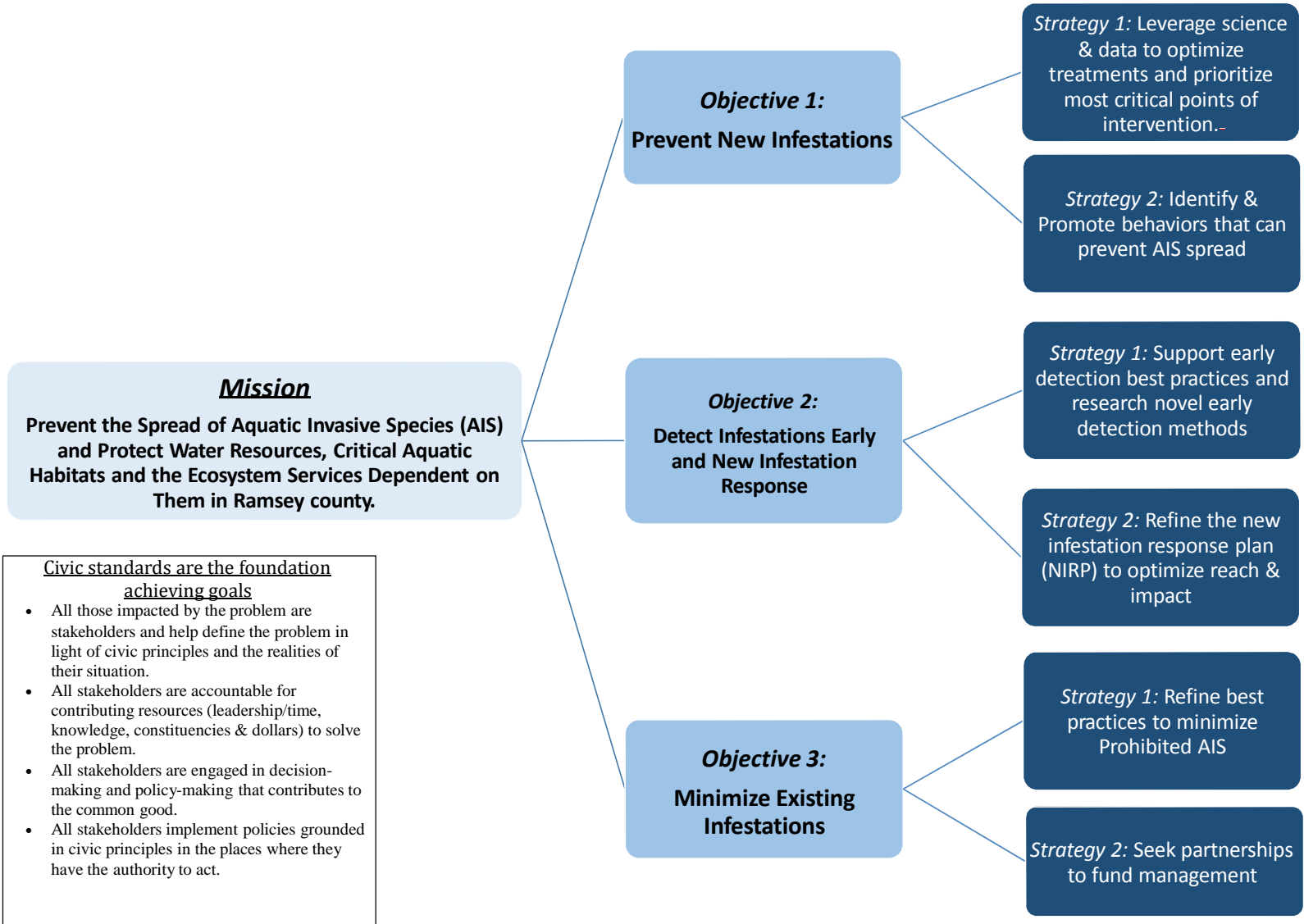
Funding allocation based on:

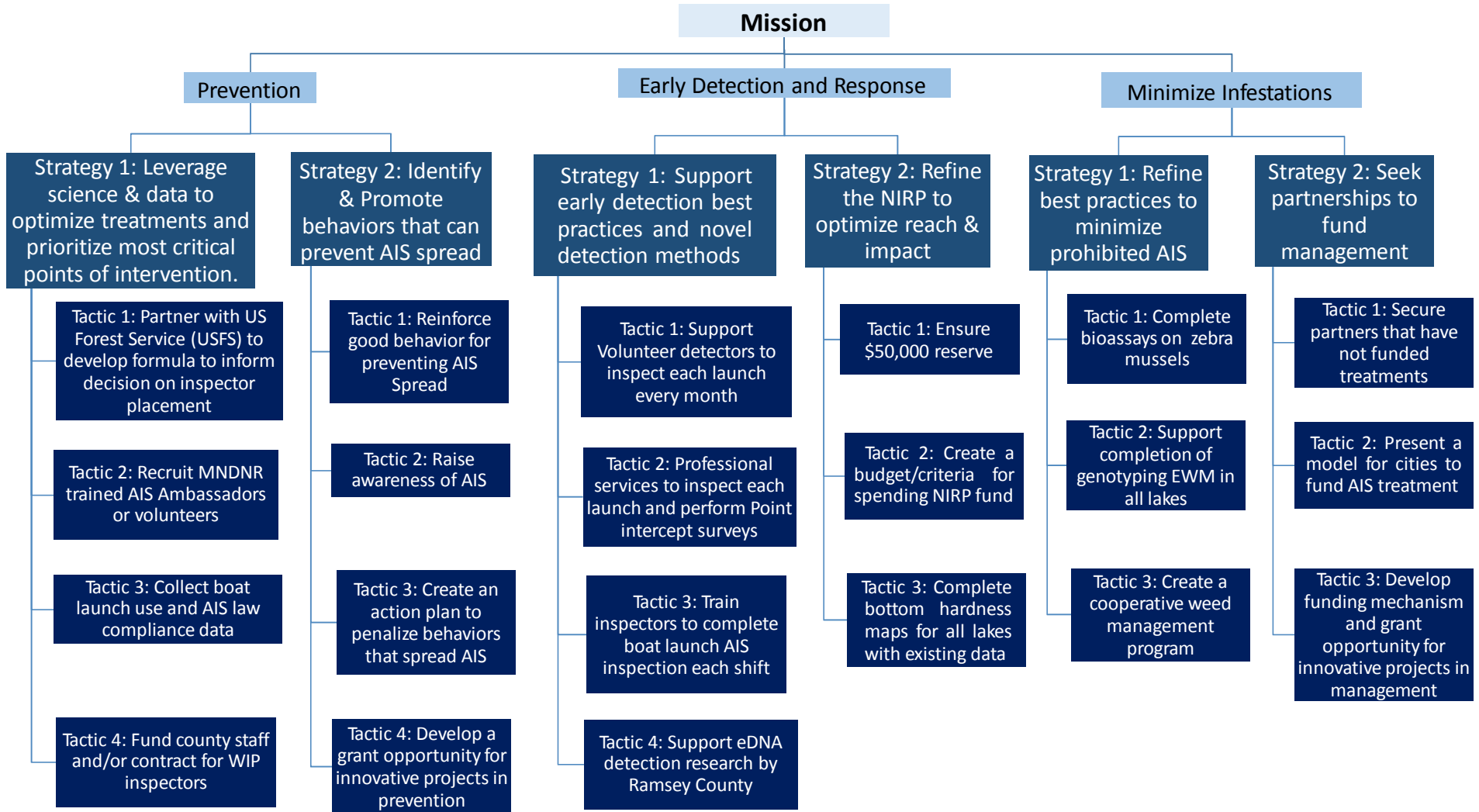
- # of boat launches (50%)
- # of watercraft trailer parking spaces (50%)

▪Ramsey County has received:

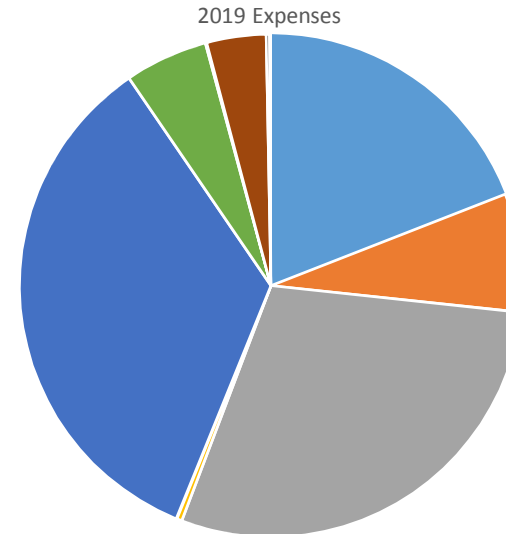
2014-5	\$ 46,772
2016	\$ 103,937
2017	\$ 98,472
2018	\$ 97,537
2019	\$ 97,641

Ramsey County does not budget any money from tax dollars to AIS. Although in-kind donation of time and resources is increasing.





<u>2019 AIS Initiatives</u>	<u>Budgeted</u>	<u>Source</u>
Watercraft Inspection Contract	\$ 25,000	CTY prev Aid
Watercraft inspection supervisor	\$ 10,000	CTY prev Aid
Innovative Prevention/Minimization Grant	\$ 41,149	CTY prev Aid
AIS Volunteer support	\$ 500	CTY prev Aid
AIS Coordinator	\$ 45,000	CTY prev Aid
Early Detection: Zebra Mussel/PI survey	\$ 4,000	CTY prev Aid
Early Detection: ZM Plate Monitoring	\$ 100	CTY prev Aid
launch work flow: Maintenance/improvement	\$ 5,000	CTY prev Aid
Bioassays to refine ZM treatment	\$ 409	CTY prev Aid
EWM genotyping/herbicide link study	\$ -	MAISRC
eDNA or Metagenomic testing support	\$ -	Grant
USFS WIP placement algorithm	\$ -	USFS
Bottom hardness/lake susceptibility for ZM	\$ -	CTY prev Aid
Total	\$131,158	



- Watercraft Inspection Contract
- Innovative Prevention/Minimization Grant
- AIS Coordinator
- Early Detection: ZM Plate Monitoring
- Bioassays to refine ZM treatment
- eDNA or Metagenomic testing support
- Bottom hardness/lake susceptibility for ZM
- Watercraft inspection supervisor
- AIS Volunteer support
- Early Detection: Zebra Mussel/PI survey launch
- work flow: Maintenance/improvement EWM
- genotyping/herbicide link study
- USFS WIP placement algorithm

<u>2019 AIS New Infestation Reserve</u>	<u>Budgeted</u>
NIRP Response	\$ 50,000

<u>2019 AIS Funds</u>	<u>Budgeted</u>
Previous years rollover	\$ 83,621
2018 Prevention Aid	\$ 97,537
Total Budget	\$ 181,158

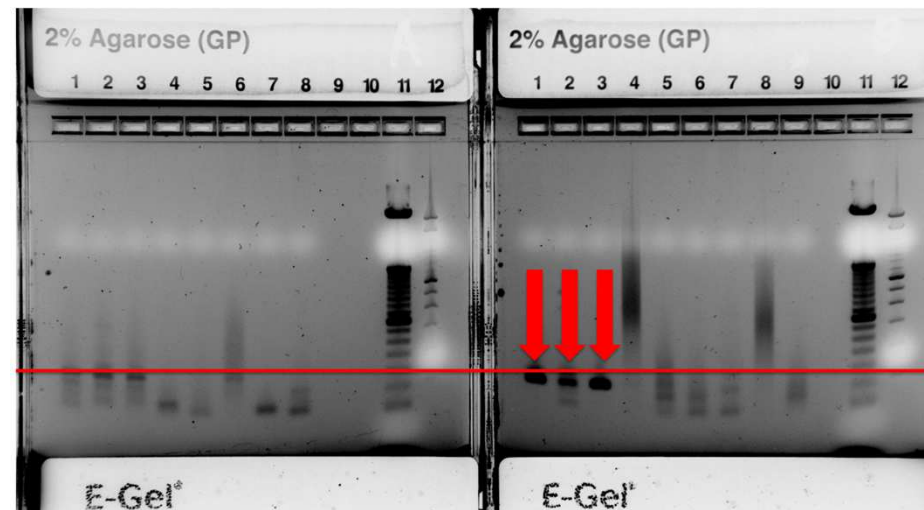
Future Focus:

1. Prevention

- A. Increase inspector proficiency and enforcement
- B. Moving towards 100% inspections or other mechanisms to ensure more boats are clean entering Ramsey County lakes
- C. Give people the tools
- D. Community Based Social Marketing

2. Early Detection

- A. eDNA early detection
- B. SCUBA Diving surveys
- C. A more robust volunteer detection program-
 - A. Starry Trek and detectors

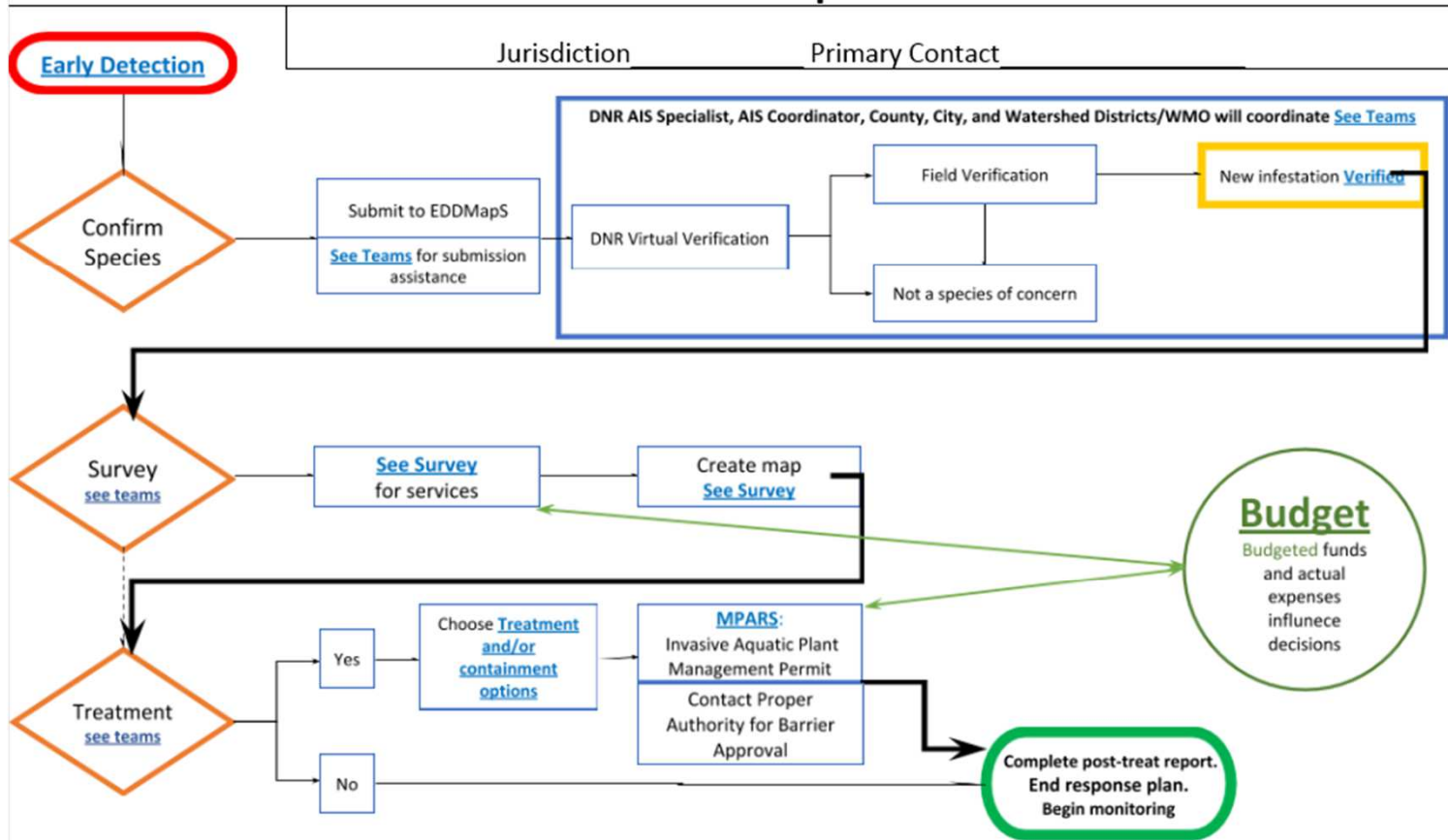


3. Response and Management

- A. Refinement of the New Infestation Response Plan- $\$$ for response
- B. Continued partnerships with U of M-MAISRC, MN Lakes and River Advocates, Watershed Districts, Cities, and you in Civic Governance practices

New Infestation Response Plan

Last Modified 5/17/2018



Last Modified 5/17/2018

Please follow the [Communication Plan](#) throughout this process

Ramsey County Inspections

Year	# Inspections
2016	4,000
2017	9,384
2018	10,274



Long Lake Inspections

2018	251
------	-----

1. Objective: Prevention

1. Strategy: Use existing and collect new data to identify priority prevention measures

Measurement	Rationale	Budget impact
1.1.1 Completion of a formula in which data from 1.1.2 and 1.1.3 will be entered for understanding when/where inspections occur to achieve a desired percentage of boats inspected coming from infested waters	We require science around our scheduling of inspections. This product will be under ongoing refinement. For 2019 success is creating a model whose logic and use is proven. Cleaning the data and getting more statistically significant figures will be the future goal.	\$0. This is a joint project of MAISRC, USFS, and Ramsey County.
1.1.2 Complete 100 hours by MNDNR trained AIS Ambassadors or volunteers	Use of volunteers at boat launches will increase coverage, add knowledge on use, and provide assistance during heavy traffic.	\$0 Costs for coordination absorbed by coordinator
1.1.3 Collect watercraft inspection (WIP) data or traffic counts at all boat launches at least five days a month from May 1 to September 30.	Above formula in 1.1.1 and our understanding of how to achieve 100% AIS free watercraft entering lakes depend on quality data. WIP data allows us to survey for many factors while providing an educational service to lake users. Traffic counts will allow us to refine when to locate inspectors at a launch by understanding traffic throughout the day.	\$0 direct impact. Costs are absorbed in 1.1.3 and Coordinator
1.1.4 Achieve a minimum of 3 inspections/hour on average through the contract length. Reach 6,800 boater (5% growth) with best practices for AIS prevention. Train inspectors for AIS ID and conflict management	WIP inspectors are the most reliable way to educate the public on AIS prevention practices. Plus data for 1.1.1 comes almost entirely from WIP (last lake in, time of inspection, etc.). While other methods are developed we must focus on refining the reach and impact of this program. To that end we will ensure inspectors are achieving a level of efficiency that is acceptable in outreach. Collecting data as we teach and enforce will allow the program to find the gaps in watercraft inspecting and fill them in the future.	\$35,000

1.2. Change behaviors that promote AIS spread

Measurement	Rationale	Budget impact
1.2.1 A plan for each boat launch will be created that includes maintenance needs and best practices	Providing ease of completing best practices is key to reducing hurdles for compliance. This will also allow the addition of tools and other new infrastructure. Understanding workflow can help our inspectors be more efficient. We also need to build in maintenance for regular upkeep of paint, signs, and infrastructure in the future.	\$5,000 will be budgeted initially.
1.2.1 Have one pilot program in place that performs an educational, inspection, or monitoring task 24 hours a day.	Efficiency and broader reach can be achieved with technological innovations. Privacy, placement, maintenance and use must be thoroughly considered before deployment of any new mechanism.	\$TBD. Cost of any proposal may come from 1.2.3. Research costs are covered under by Coordinator, staff, and volunteers
1.2.2 Create a plan for all violations sent to law enforcement have evidence of verbal or written warning or penalization	Level of enforcement should be left to the responding officer. However, any violation referred to law enforcement should have a written record of action taken. As this is a pilot year language remains broad to support refinement	\$0. Agreements should be set so that enforcement agency will enforce statutes in place.
1.2.3 RFP released. Proposals will have measured outcomes related 2019-24 strategic plan	Having competitive funds available will build capacity outside of the AIS coordinator or individual lake association.	Estimated at \$38,000

2. Early Detection and Response

1. Support early detection best practices and novel detection methods

Measurement	Rationale	Budget impact
2.1.1 Volunteers search each boat launch once a month from May 1-September 30	Early detection has proved to be vital in effectively treating populations of new invasive species. Leveraging UM Extension’s Detectors Program, we can provide an unprecedented level of monitoring at the most vulnerable points of entry.	\$500 + \$100 for ZM plates
2.1.2 Professional(s) inspection of all boat launches and PI surveys on a 4 year cycle following the established protocol	Zebra mussels have been found by professional divers in several cases including Lake Johanna in 2018. They are a crucial asset in early detection and supplement the above monitoring. Point intercept (PI) surveys are critical to creating base knowledge of what plants exist in the lakes, extent/biomass of invasives, and tracking changes post infestation. Creating a cycle of surveys will ensure long term monitoring and early detection beyond the boat launch.	\$7000
2.1.3 Each inspector will complete the “How to search for AIS at water accesses: guidance for watercraft inspectors” protocol	Inspectors spend many hours at the boat launches. They are familiar with the layout and should be most perceptive to changes. Adding this training will increase the inspector programs value plus hone their skills in identifying AIS on Watercraft.	\$0 (absorbed in 1.1.3)
2.1.5 Completion of eDNA for ZMs or metagenomic analysis on at least 4 lakes.	eDNA analysis is still early in its development as a management tool in AIS. All indications are that it will become a critical tool in early detection. Being on the forefront will ensure we take advantage of this powerful tool early and understand limitations.	\$0 (funding is from outside sources for materials. Coordinator and RC staff time to carry out. Some may be requested from the innovation fund)

2.2. Develop NIRP to optimize reach/impact

Measurement	Rationale	Budget impact
2.2.1 New infestation response (NIRP) funding is at least \$50,000 on January 30, 2019.	Critical to the next phase of NIRP strategy is funding the steps needed for a response. Since 2014, savings from each year has been put into a fund that supports a response to new infestations. Continued replenishment of this fund is critical.	\$50000 currently in reserve. No replenishment needed to start 2019. TBD in 2020.
2.2.2 A budget including maximum amounts for each category of response, each lake, and each infestation. Duration of support will also be a necessary guideline.	Fiscal responsibility is critical to managing these limited dollars. One new infestation could deplete this fund if priorities and limits are not established. This money should be seen as cost share dollars that can be quickly deployed in concert with many organizations.	\$0 (Coordinator will facilitate)
2.2.3 Completion of bottom hardness (surrogate for zebra mussel habitat) on all lakes with quality data.	Data is available on most RC lakes. These maps are easy to create and will help identify areas to search if a new lake is found to have ZMs or for seeking out the most likely places to find them in the newly infested lakes. This front end work will save time in responding to new infestations and monitoring existing ones.	\$0 (completed by Coordinator)

3. Management

1. Refine best practices for removal of Prohibited AIS

Measurement	Rationale	Budget impact
3.1.1 Completion of bioassays for Johanna and Bald Eagle lakes to determine LD100 for zebra mussels by December 2019.	Water chemistry and other parameters dictate effectiveness of copper based products. Understanding how they best work in RC lakes will save time and money	\$409 (jars and equipment. Coordinator and RC staff will carry out the protocol)
3.1.2 At least 7 RC lakes are genotyped. Correlation to effectiveness of treatment options will likely take place in 2020	This project is dependent on MAISRC funding. Literature suggests that hybrid milfoil may be more herbicide resistant than pure EWM. This work will lead to a more effective treatment approach in the future. We must first understand the population make up, then we can perform quantitative experiments looking for reduction in EWM/hybrid biomass.	\$0 (Coordinator will facilitate with many partners)
3.1.3 Create a cooperative weed management program with MOUs from all Cities, associations, and organizations tied to lakes with launches	Dissemination of information, sharing of knowledge, and leveraging the efforts of many are all hallmarks of land based cooperative weed management areas. We can use this model to create success stories in Ramsey County.	\$0. Coordinator can lead the effort to establish

3.2. Seek Partnerships for funding management

Measurement	Rationale	Budget impact
3.2.1 Completion or agreement to complete one project in cooperation with another institution that progresses knowledge of treatment for AIS by December 31, 2019.	Partnerships are the only route to a successful AIS program. There is simply not enough staff, funds, or knowledge in one organization. Making partnerships a goal will ensure RC prevention aid is leveraged beyond the its' capacity.	\$0 (innovation funds may be requested)
3.2.2 Present a policy that cities can adopt to fund treatment.	Support can take many forms. Cities such as Shoreview and New Brighton currently have cost share programs to offset treatment costs. Ramsey County contracts treatment in certain areas. As stated above, partnerships are the only way in which sustainable progress will be made. This is one tangible step in bringing in all levels of government to share resources against AIS.	\$0 (Coordinator will facilitate)
3.2.3 RFP open by March 1 for grant dollars in an innovative AIS prevention or management project.	In order to be a county of excellence we need to increase the capacity of our organizations and citizens to bring innovative ideas to fruition. One way to do this is by funding those ideas that the AIS budget alone could not support. With this, we can partner to be on the leading edge of AIS prevention and management	\$18,000

Other items to note:

1. The Coordinator position is a large proportion of the AIS budget. The value of this position and necessity behind this level of funding is important to understand. We at the Soil and Water Conservation Division of Ramsey County Parks and Recreation are all self-funded through contracted work with our partners and grants. This AIS funding is only a portion of the position that the Coordinator holds. Grants and contracted fund the rest of what makes this position exist. Know too that this funding is not only for salary/benefits, but covers necessary office items and simply keeping the lights on at the SWCD. This position was created to add value to the AIS prevention Aid. Not only to steward the state supplied Prevention Aid where it is best utilized, but leverage those dollars to find further funding and partnerships. Ramsey County's mission is "A county of excellence working with you to enhance our quality of life". I aim to do this by being on the leading edge of AIS prevention in the most fiscally sound way.
2. The DNR is working on community based social marketing. More details to come.
3. US Geological Survey and MN Aquatic Invasive Species Research Center are both working on new detection and treatment. We will deploy those as they become suitable for use. Please contact Justin if you have any questions on research topics or see their websites. <https://www.maisrc.umn.edu/> and <https://www.usgs.gov/ecosystems/invasive-species-program>.

Questions?

Justin Townsend | Env. Specialist I-Aquatic Invasive Species Coordinator

Ramsey County Parks and Recreation-Soil and Water Division

1425 Paul Kirkwold Drive

Arden Hills, MN 55117

651-266-7277

Justin.Townsend@co.Ramsey.mn.us

Long Lake Association 2019 Annual Meeting



Matt Kocian
Rice Creek Watershed District

Long Lake Association 2019 Annual Meeting

Topics:

- Long Lake Water Quality Update
- **Long Lake Targeted Watershed Project**

Rice Creek
Watershed District
Matt Kocian

Water Quality 101



+

15
P
Phosphorus
30.973761

=



Chlorophyll-a =



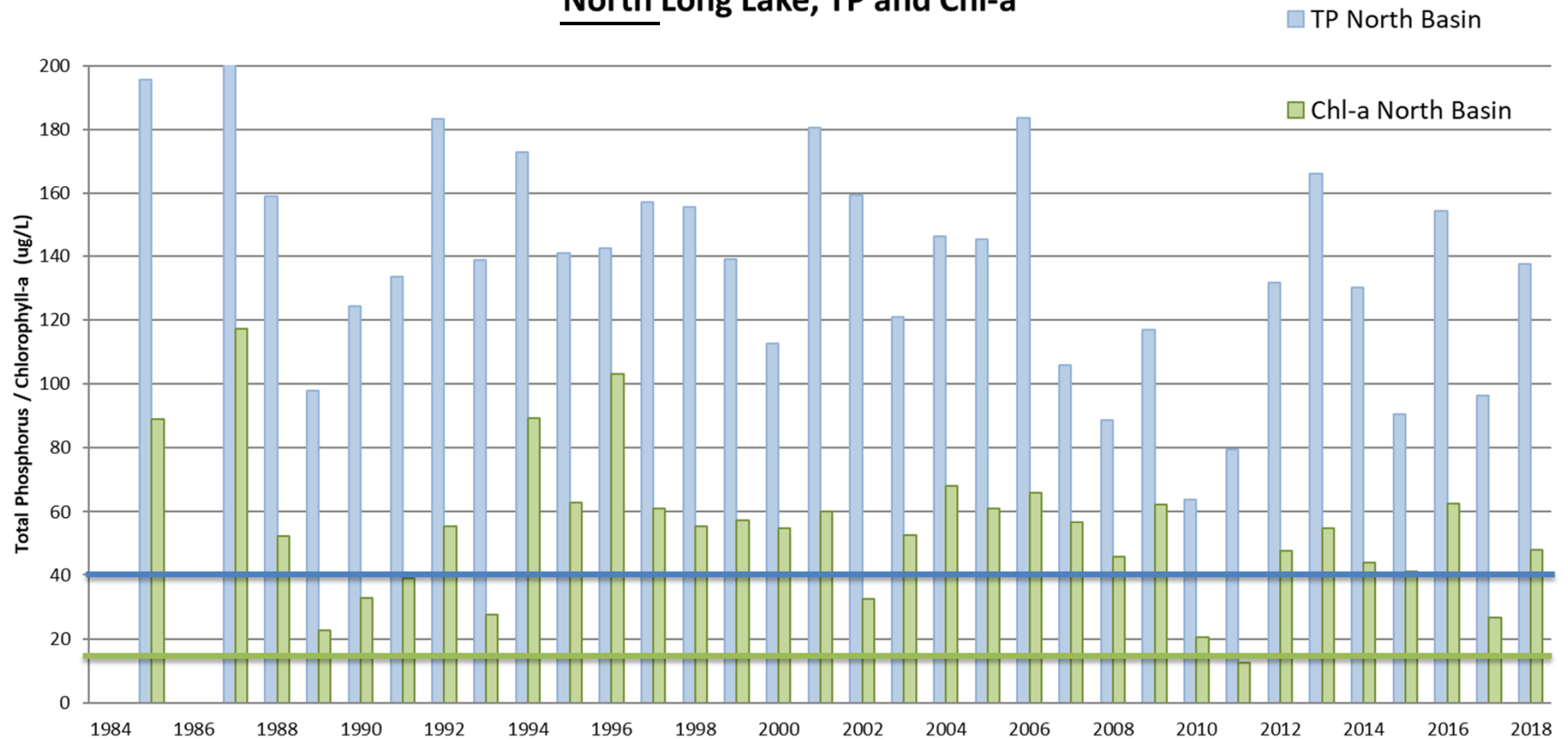
Secchi Disk = Water Clarity →



Long Lake Water Quality Update



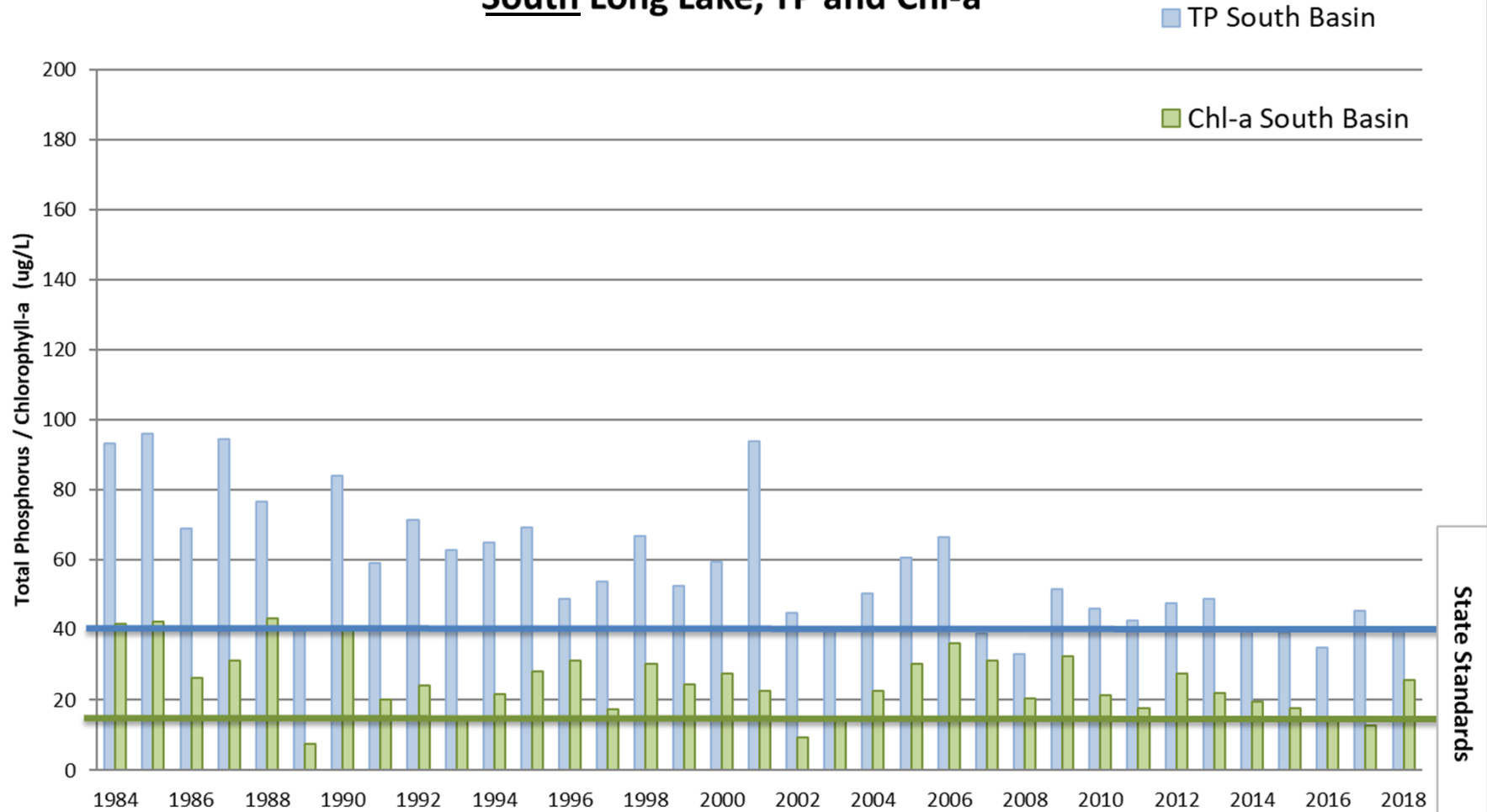
North Long Lake, TP and Chl-a



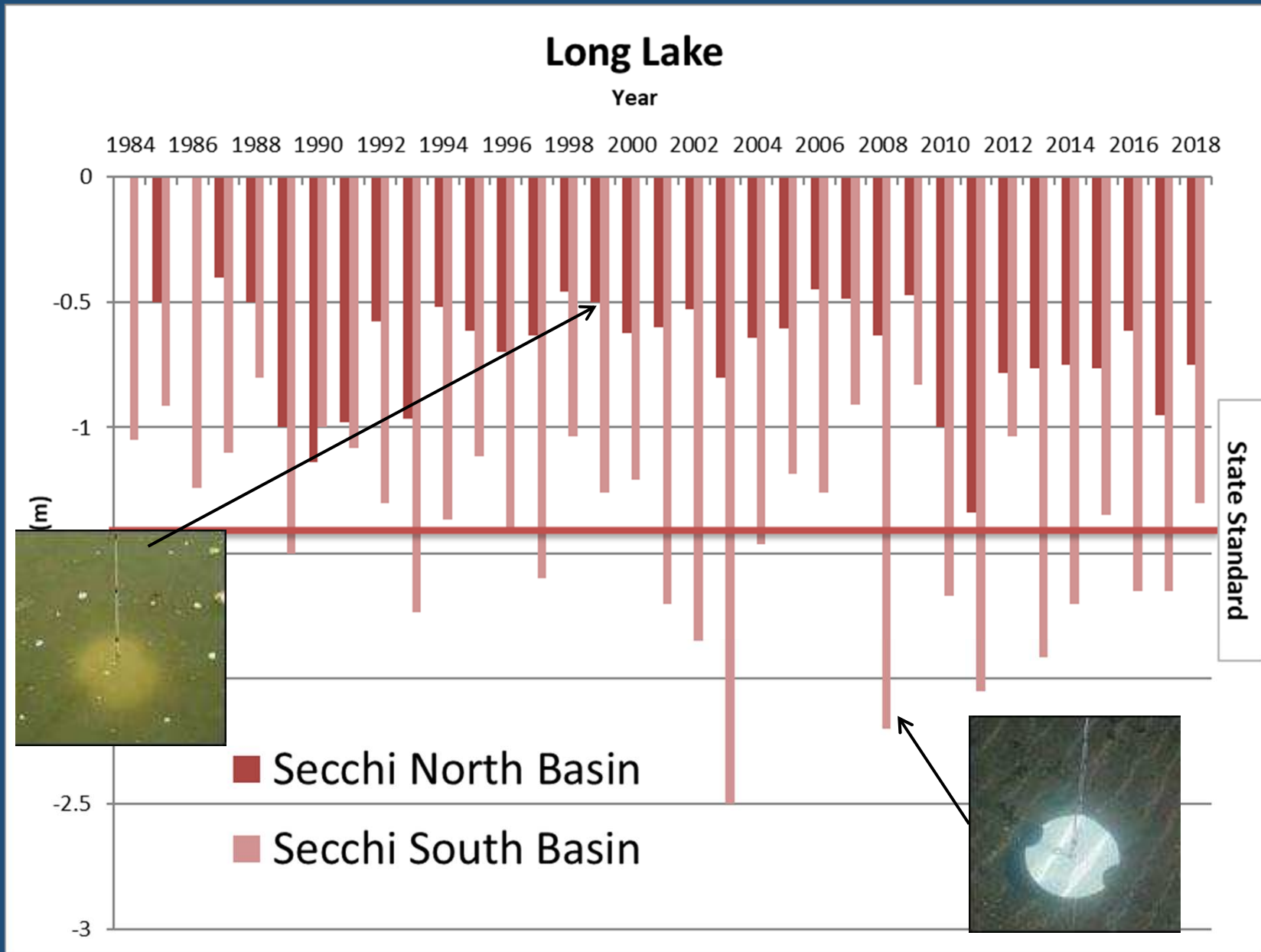
Long Lake Water Quality Update



South Long Lake, TP and Chl-a



Long Lake Water Quality Update



Long Lake Water Quality Summary

North Long Lake: **Poor Water Quality** – “D” grade

South Long Lake: **Fair Water Quality** – “C” grade

RCWD: Let's work on this!

Long Lake Association 2019 Annual Meeting

Topics:

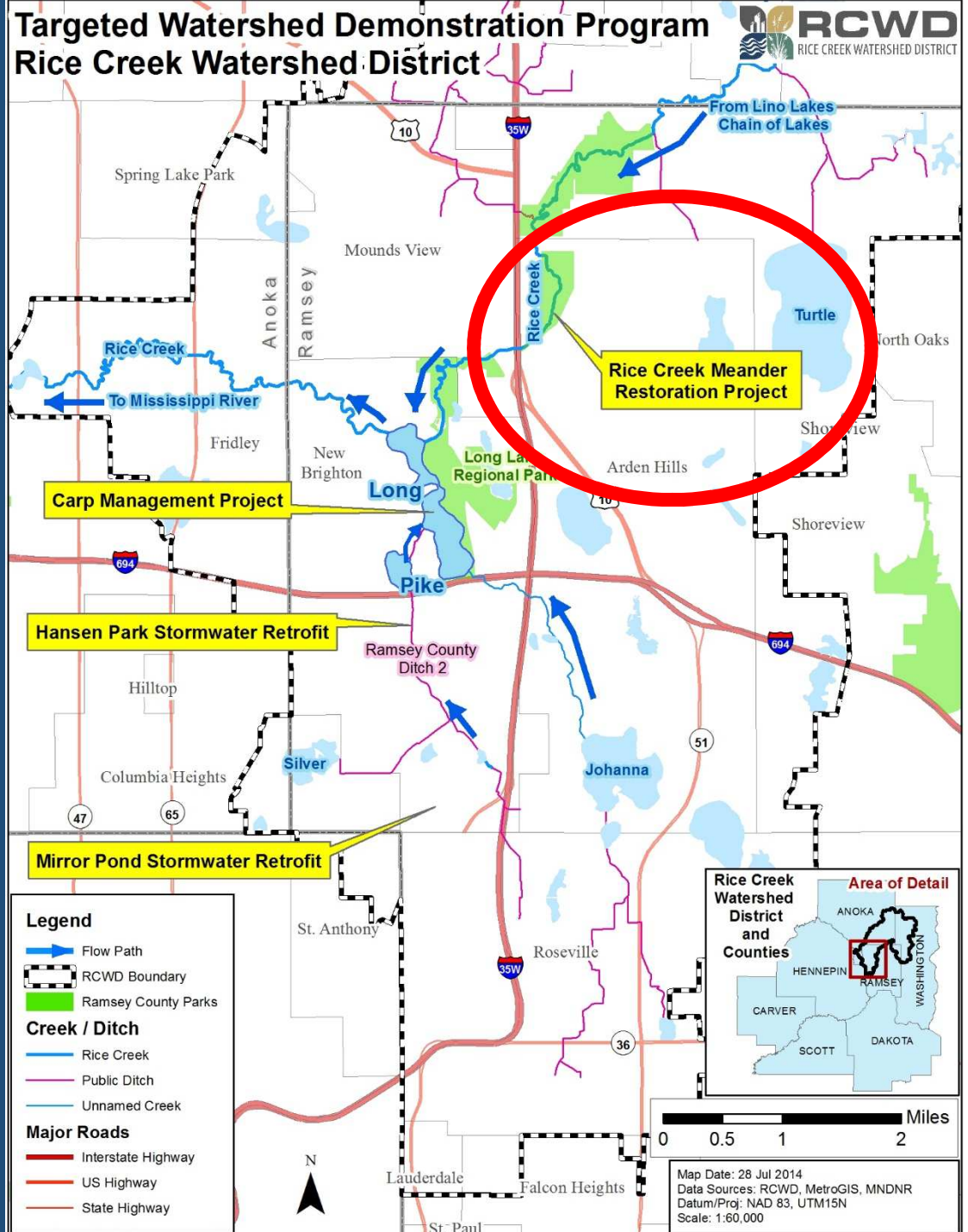
- Long Lake Water Quality Update
- Long Lake Targeted Watershed Project

Rice Creek
Watershed District
Matt Kocian

Long Lake Association 2019 Annual Meeting

Long Lake Targeted Watershed Grant Projects

- \$3 million state grant
- ~\$4 million RCWD match
- 4 major water quality improvement projects

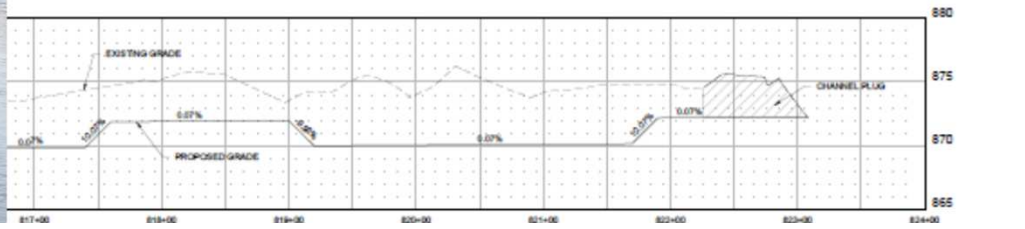
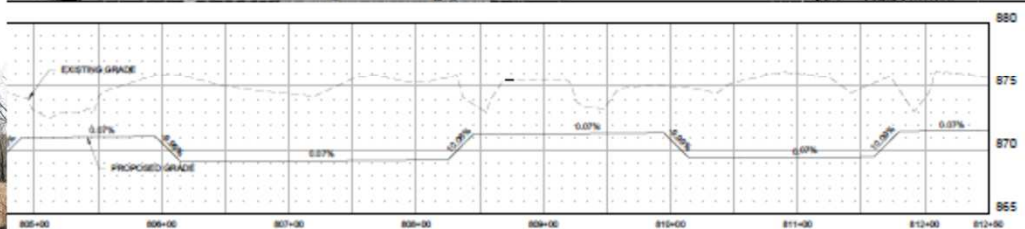
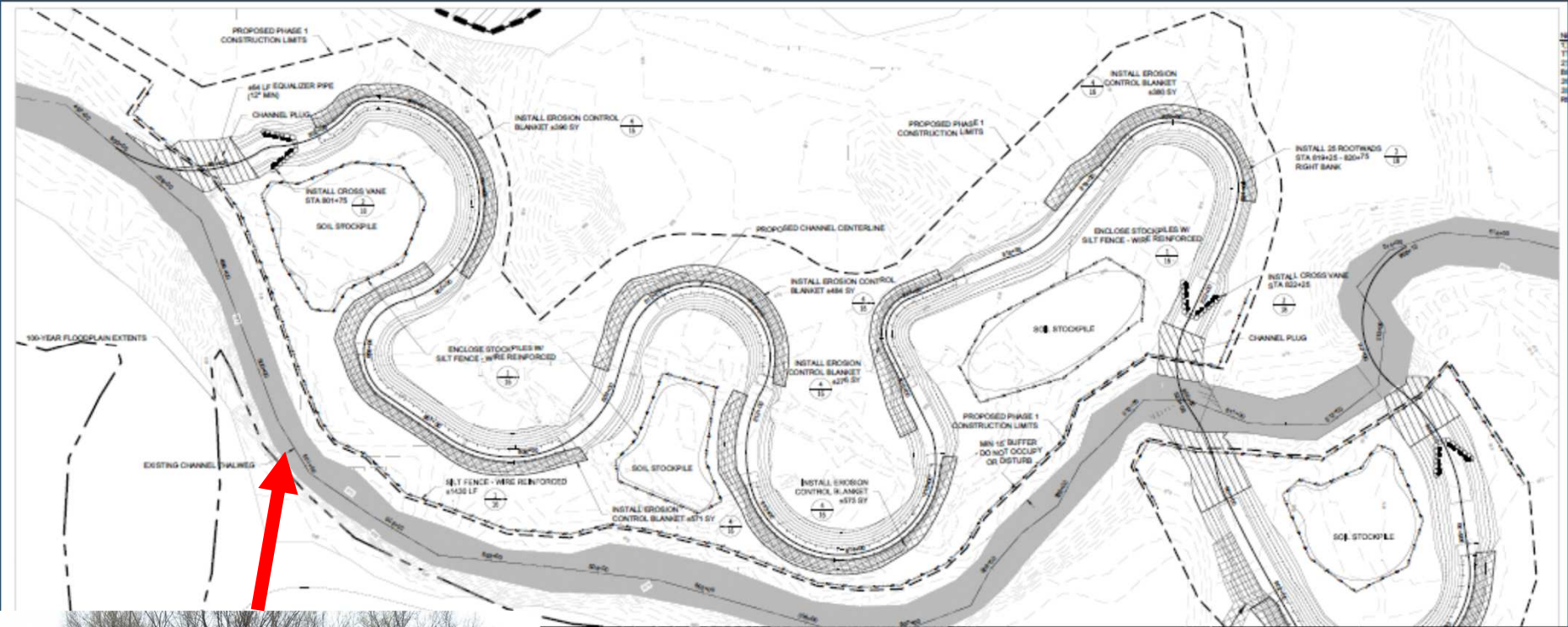


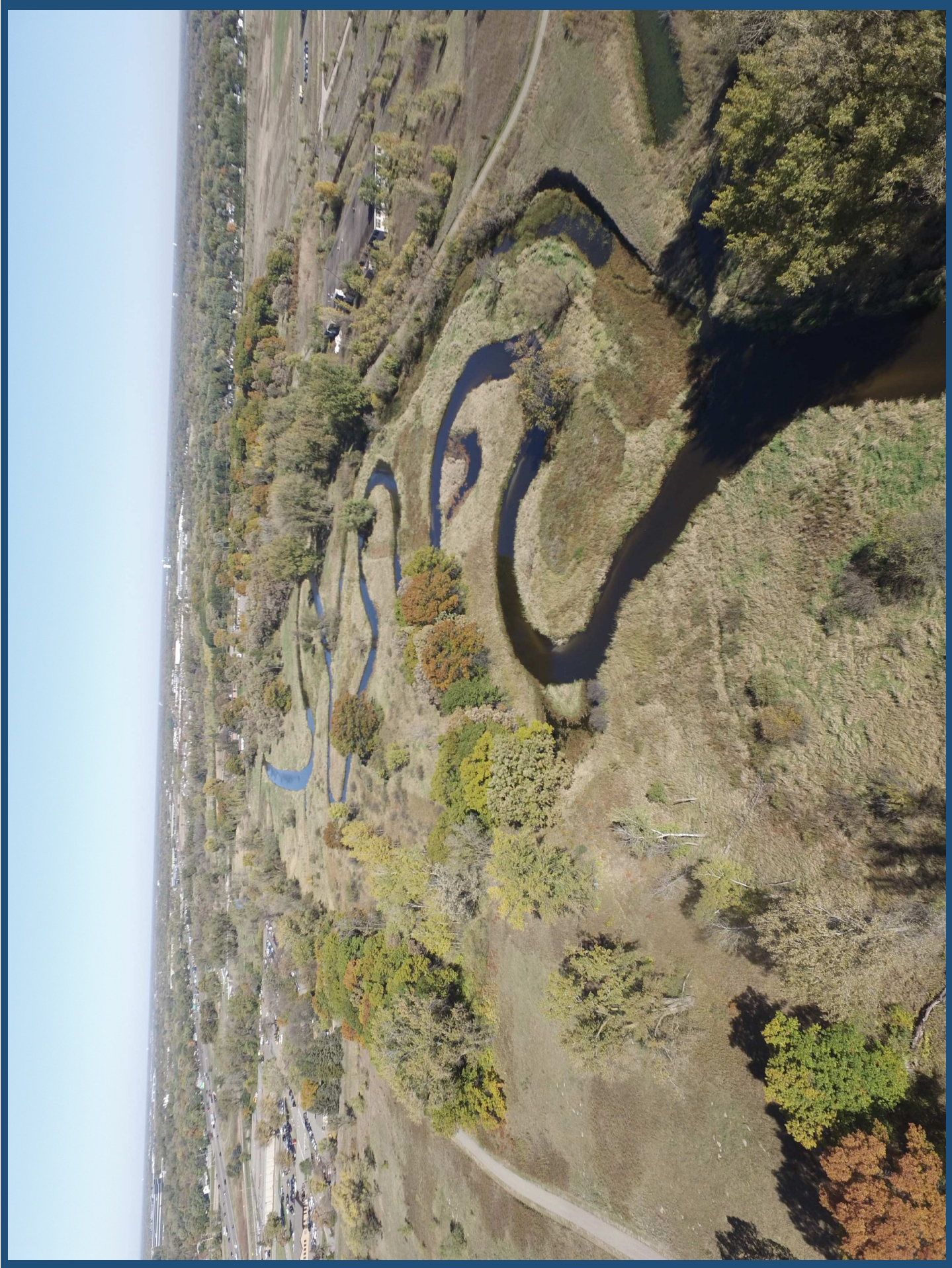
Middle Rice Creek Restoration Project

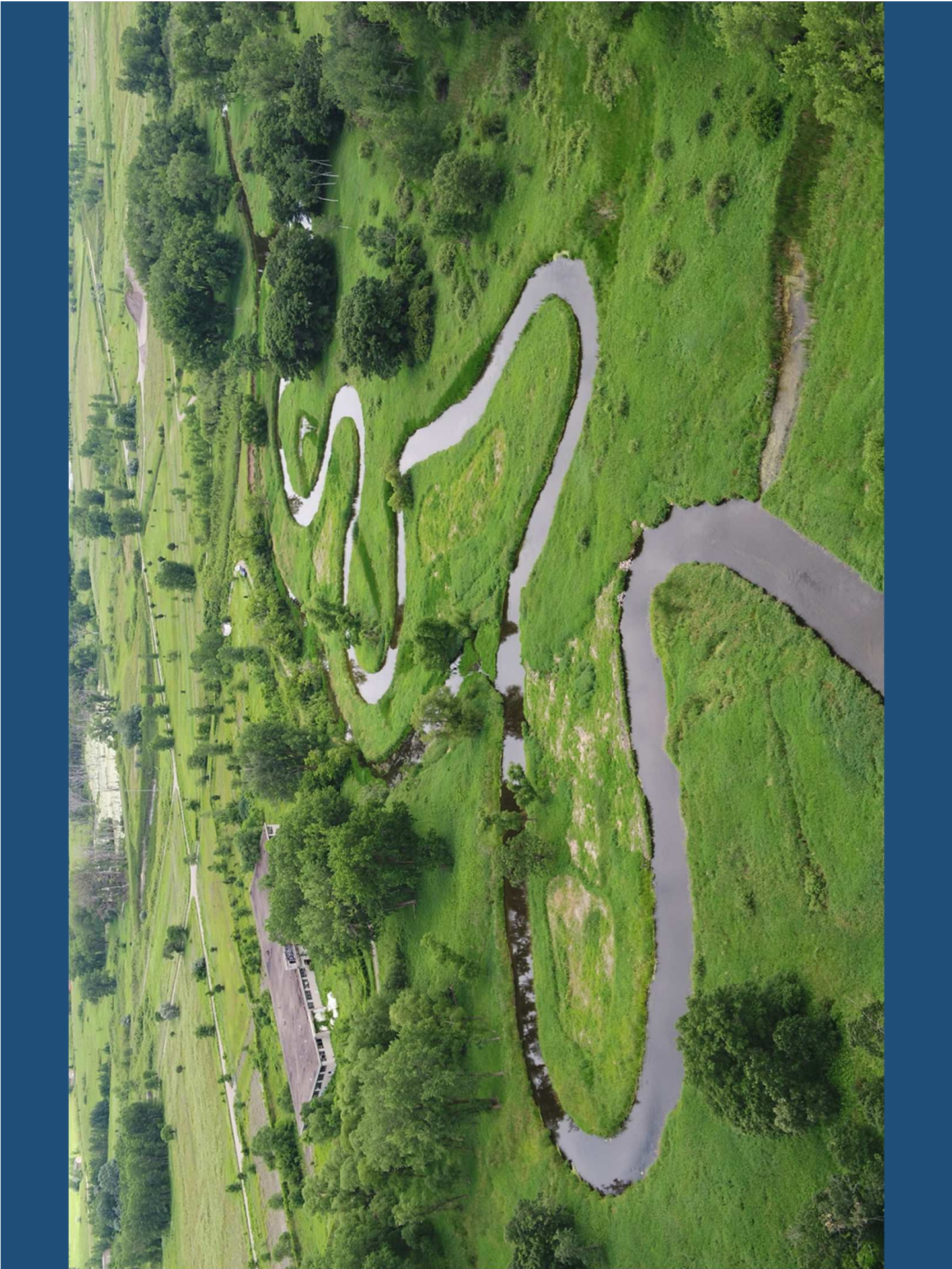
Rice Creek: Then and Now



Plans and Specifications Highlights:



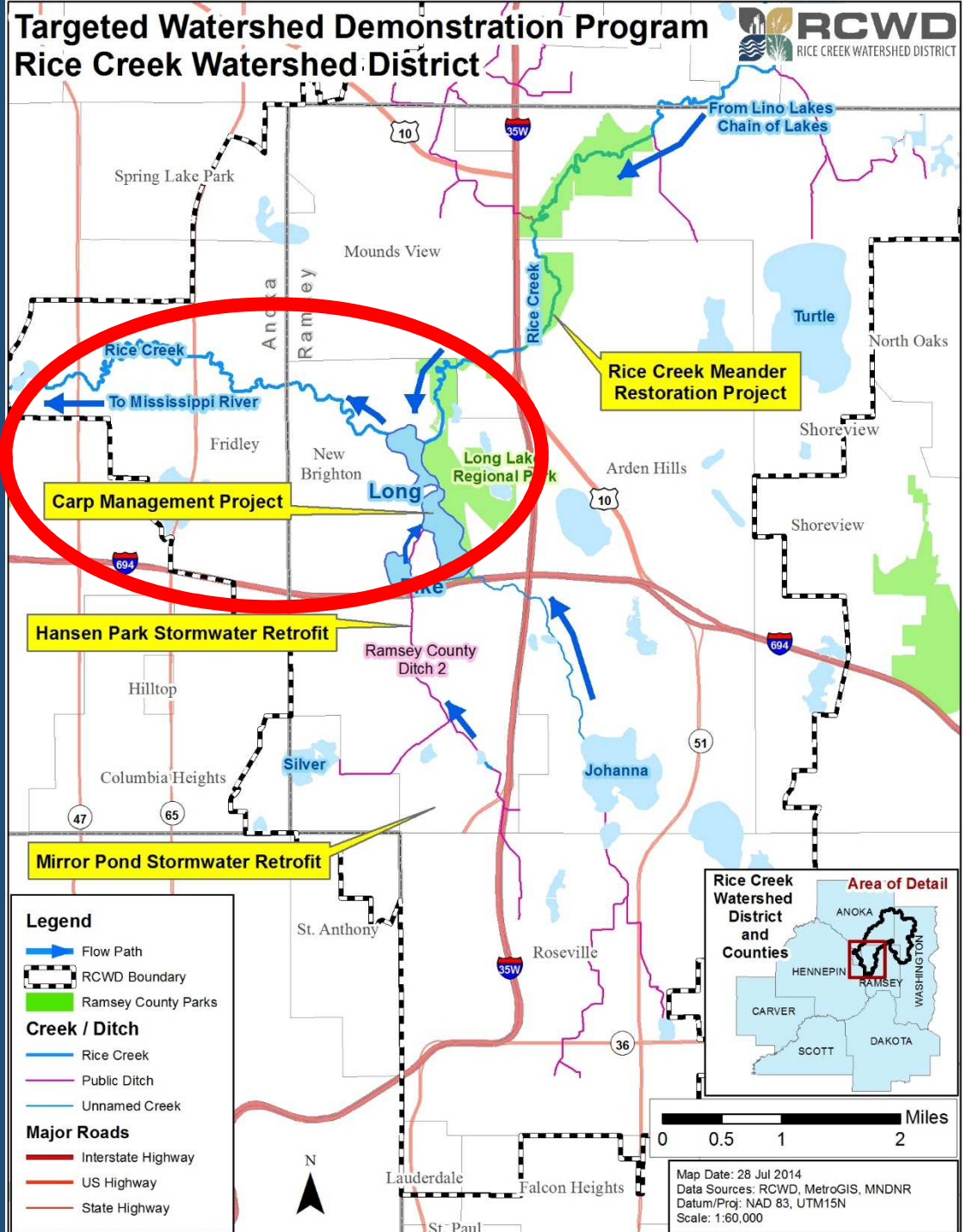




Long Lake Association 2019 Annual Meeting

Long Lake Targeted Watershed Grant Projects

- \$3 million state grant
- ~\$4 million RCWD match
- 4 major water quality improvement projects



Effects of carp on plants and water quality

Feeding in the Bottom (a lot)
Uprooting plants (cover)
Releasing nutrients from sediment

Growing
releasing nutrients

Algae bloom

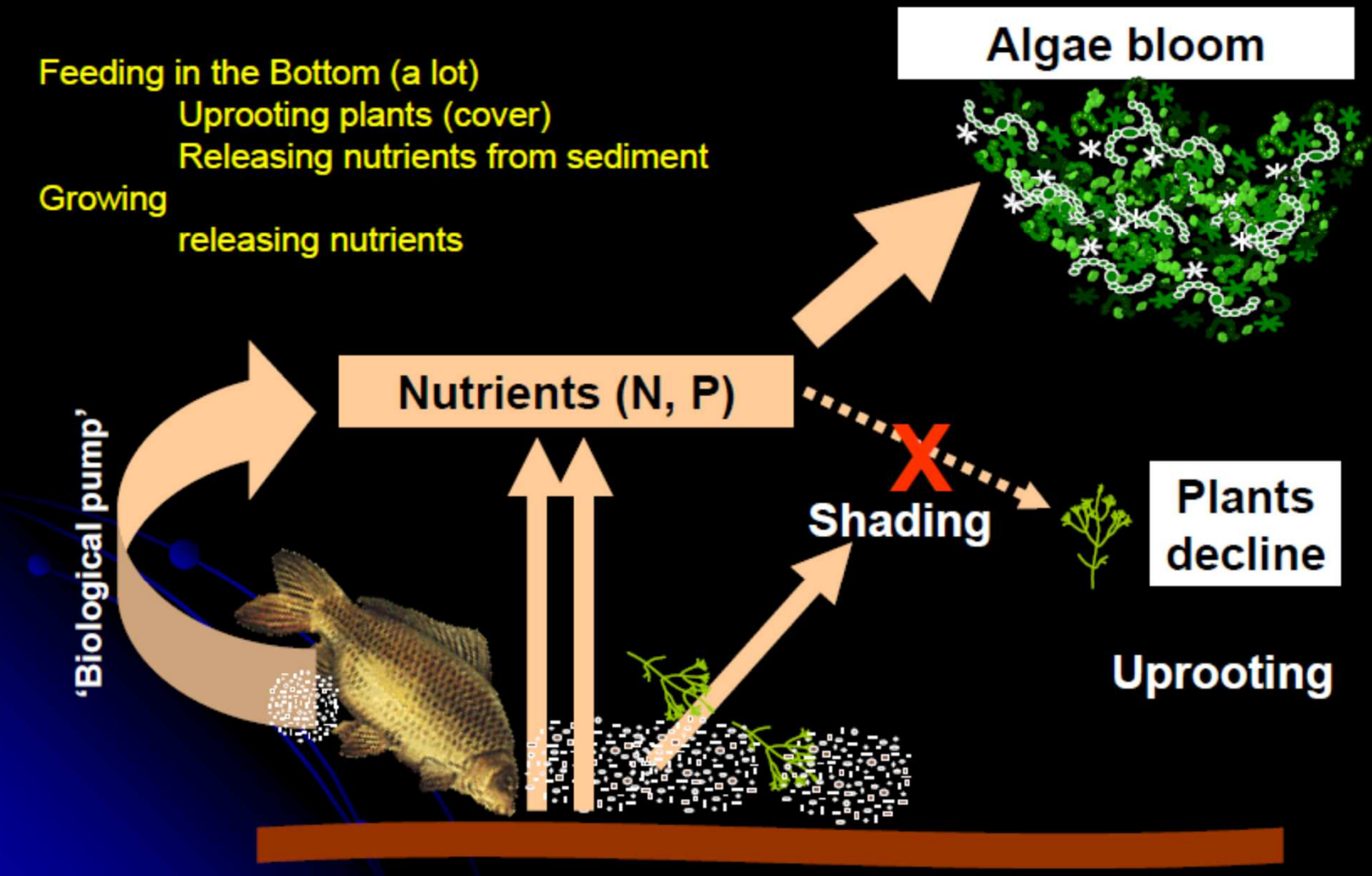
Nutrients (N, P)

Shading

Plants decline

Uprooting

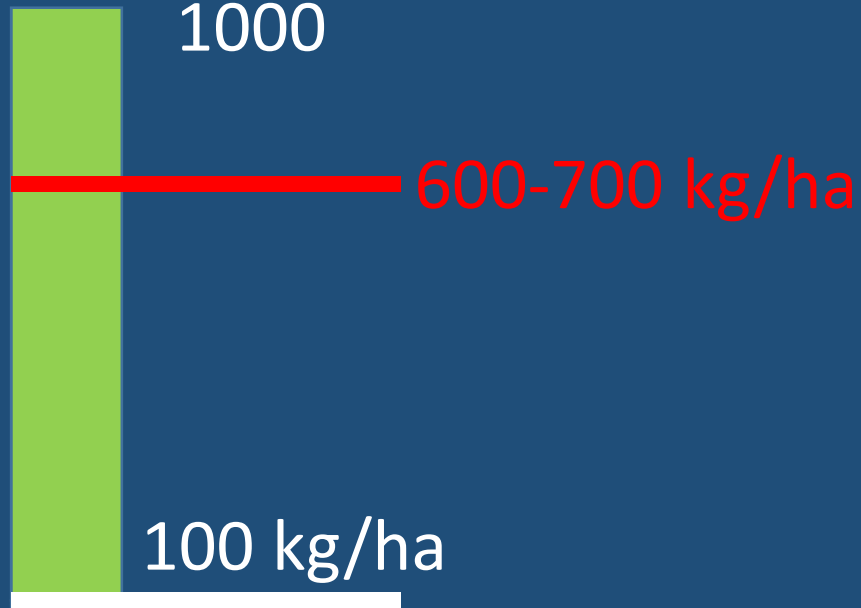
'Biological pump'



ek
ict
ian

Carp Management in the Rice Creek Watershed

Water quality impact based on density threshold



Bajer et al
(2009),
Hydrobiol.

Carp Management in the Rice Creek Watershed

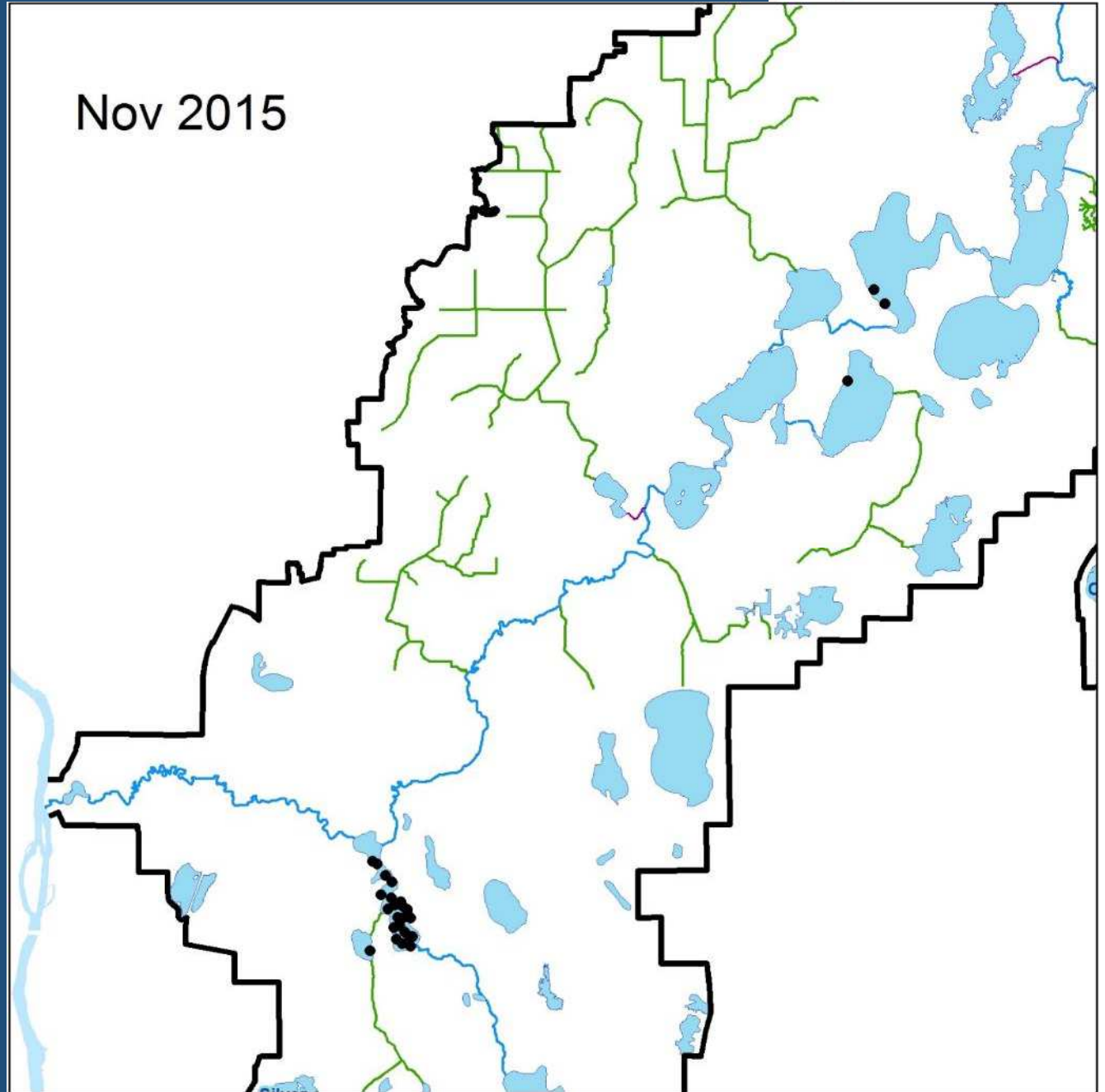


UNIVERSITY OF MINNESOTA

Sorensen and
Banet (Banet
2016)

Tracking
seasonal carp
migrations

Nov 2015



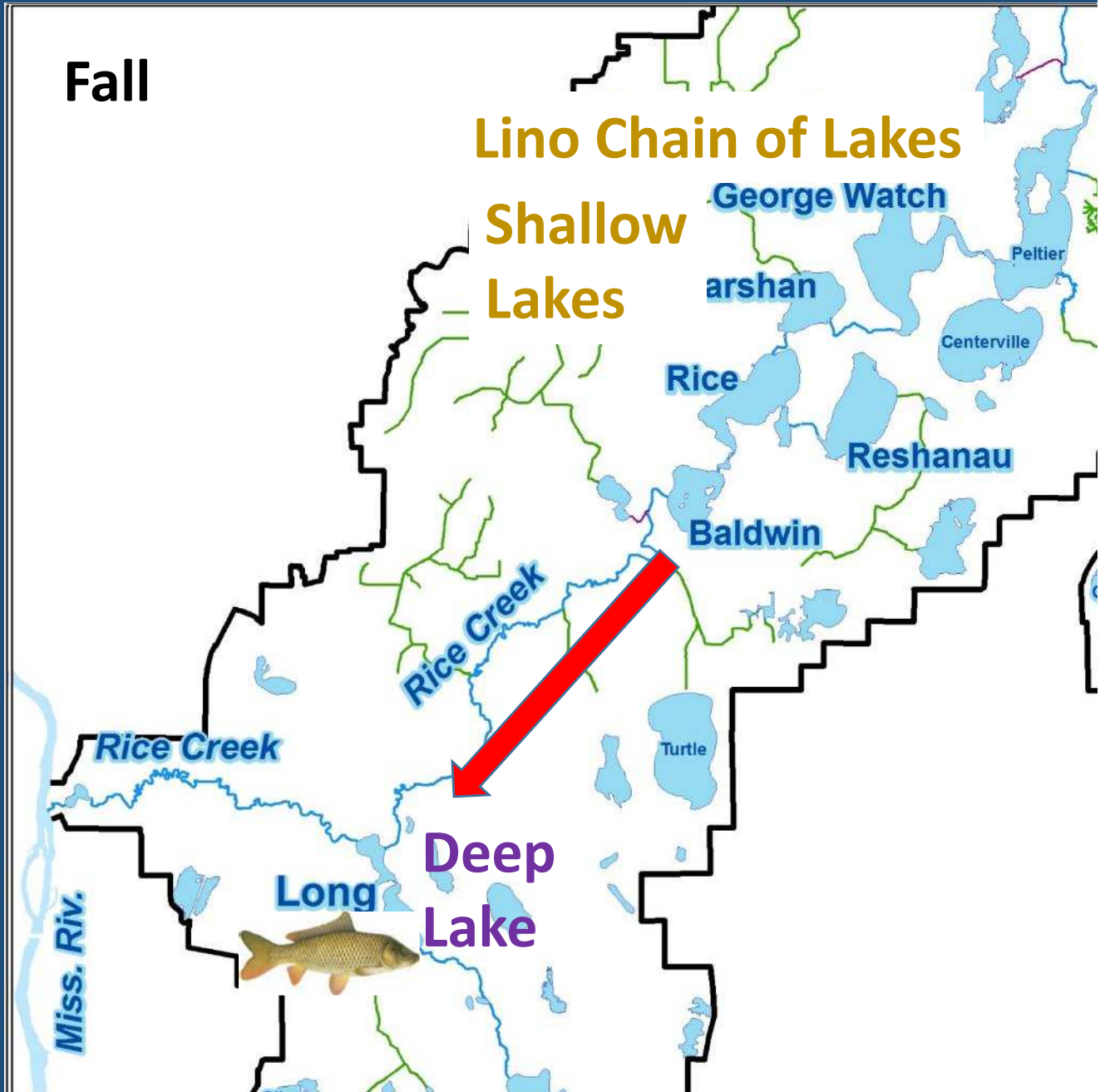
Carp Management in the Rice Creek Watershed



UNIVERSITY OF MINNESOTA

Sorensen and
Banet (Banet
2016)

Tracking
seasonal carp
migrations



Carp Management in the Rice Creek Watershed



Removing carp with an electric guidance

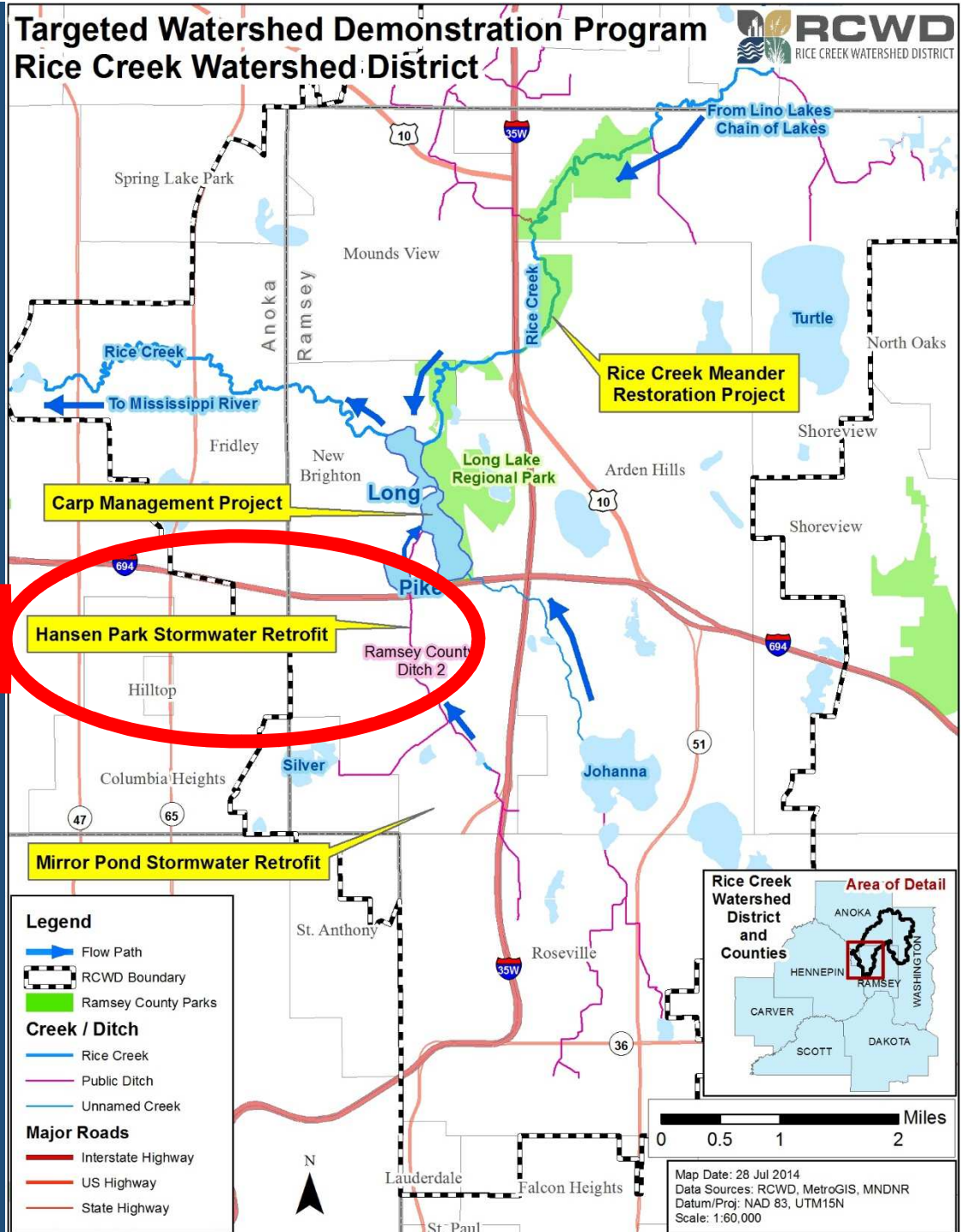
[Video](#)



Long Lake Association 2019 Annual Meeting

Long Lake Targeted Watershed Grant Projects

- \$3 million state grant
- ~\$4 million RCWD match
- 4 major water quality improvement projects



Hansen Park Project



POND DREDGING & EXPANSION

Water Quality



Hansen Park Project



IRON-ENHANCED SAND FILTER (IESF)

Water Quality

- First-of-its-kind in Minnesota (anywhere?)
- Automated, pump-controlled, operates 24/7
- Rotates flow between beds for a “1-day on, 3-days off” cycle
- Remote operation & one-person maintenance



WATER QUALITY IMPROVEMENT SUMMARY

- New dead storage in pond & IESF = TP removal of 150-200 lbs/year
- IESF treats up to 250,000 gallons/day
- Preliminary results from IESF: 60-90% TP removal



Cleaner water delivered to downstream lakes!!!

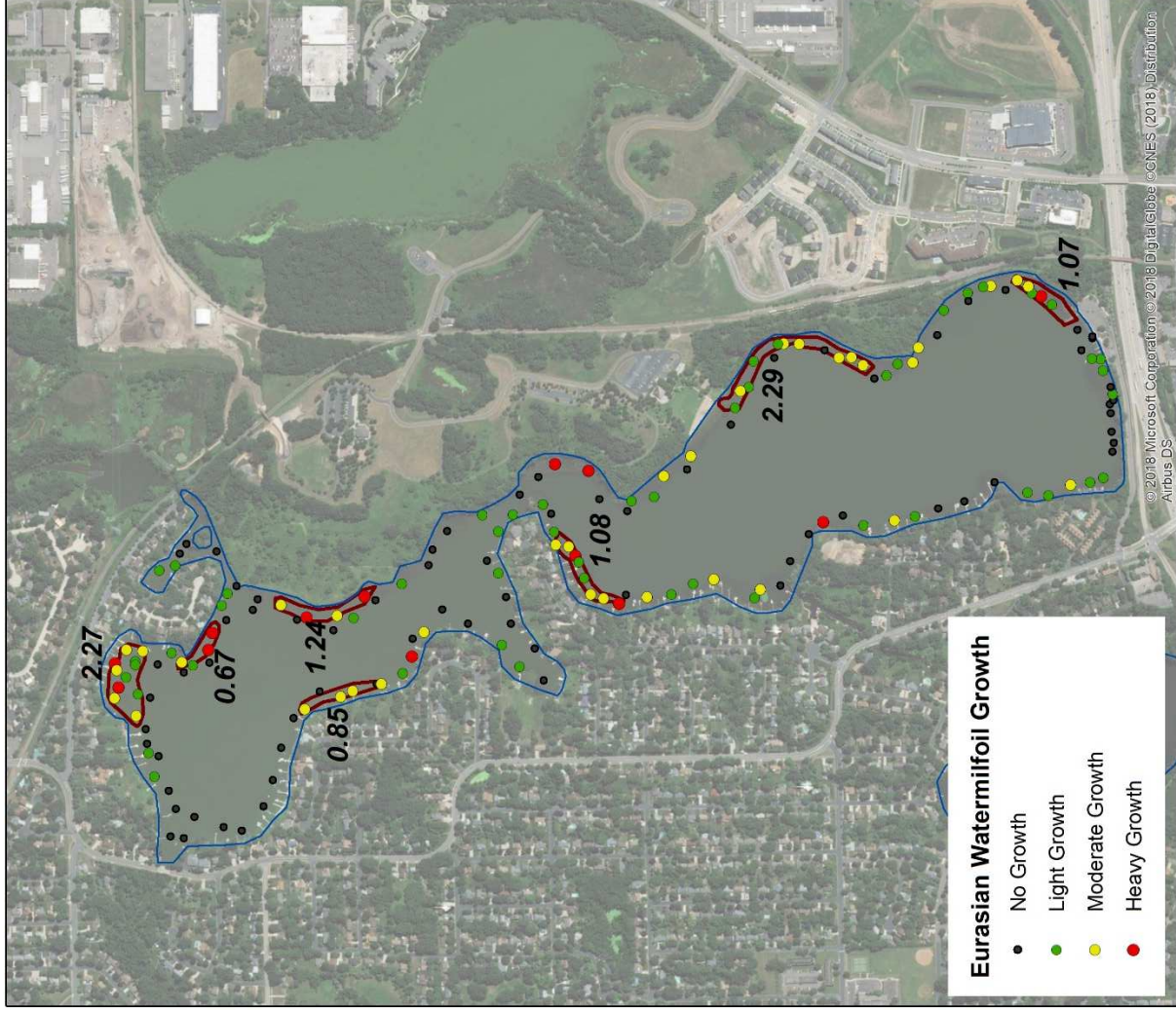
Long Lake Association 2019 Annual Meeting



Questions?

Rice Creek
Watershed District
Matt Kocian

Long Lake Eurasian Watermilfoil June 11, 2018



Blue Water Science
Field Data Collected: June 11, 2018
UTM NAD 1983

Long Lake Water Quality Update

How Does Long Lake Compare to Other Lakes?

