



Presents

# WHAT'S LURKING IN YOUR WATER?

March 15, 2016

9 am-11 am

**Free Public Event!**

RSVP to Andrea Prichard by March 10, 2016  
andrea.prichard@co.ramsey.mn.us or 651-266-7274

## Discussion Topics

### Ramsey County Aquatic Invasive Species Funding

Michael Goodnature: Ramsey County Parks and Recreation

### Water Quality in Ramsey County Lakes

John Manske: Ramsey County Environmental Services

### Terrestrial Weed Management Update

Carole Gernes: RCCWMA

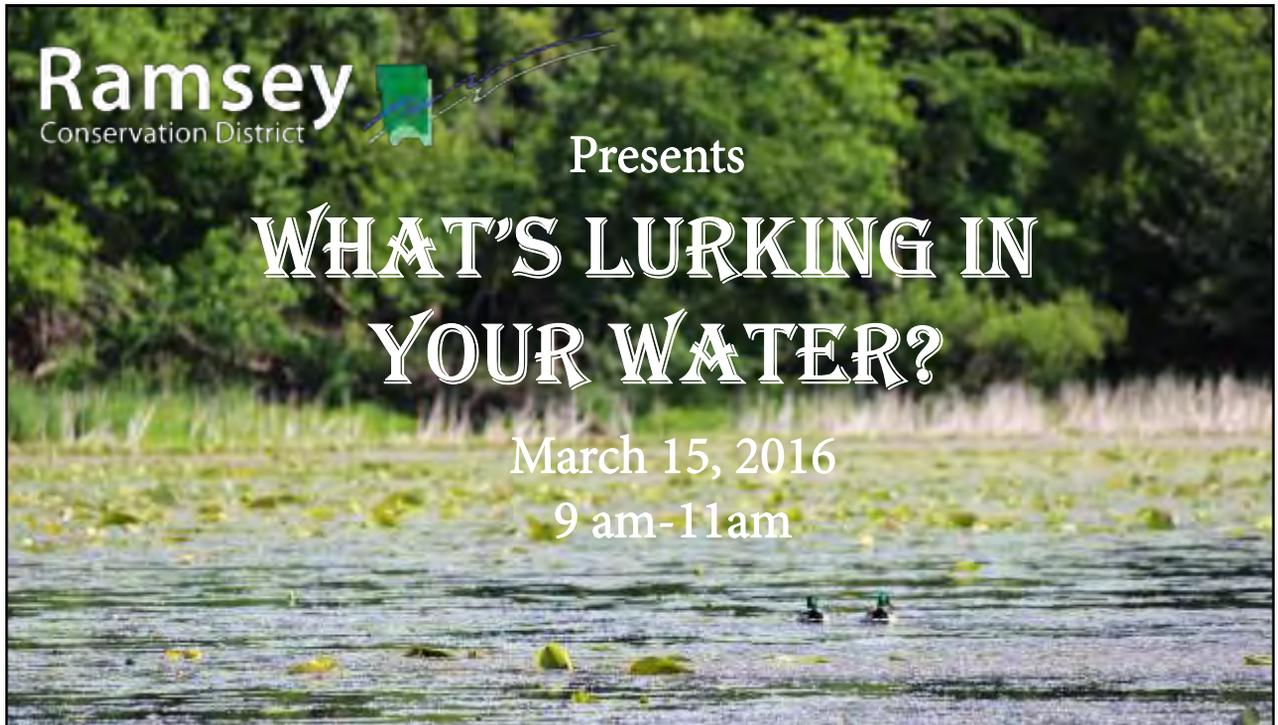
## Location



Marsden Room  
Ramsey County Public Works  
1425 Paul Kirkwold Drive  
Arden Hills, MN 55112

## Lakes to be discussed at the meeting:

Bald Eagle Lake	Lake Josephine	Otter Lake	Silver Lake	Turtle Lake
Island Lake	Long Lake	Lake Owasso	Snail Lake	Lake Wabasso
Lake Johanna	Lake McCarrons	Lake Phalen	Spoon Lake	White Bear Lake



## Who's here?

- ▶ MN DNR
- ▶ Capitol Region Watershed District
- ▶ Rice Creek Watershed District
- ▶ Vadnais Lake Area Water Management Organization
- ▶ Ramsey-Washington Metro Watershed District
- ▶ Ramsey Conservation District Board Members and Staff
- ▶ Ramsey County
- ▶ Ramsey Conservation District Volunteers
- ▶ Lake Association Members

## Agenda

- ▶ Ramsey County Aquatic Invasive Species Funding Update 2016
- ▶ Aquatic Invasive Species in Ramsey County
- ▶ Break
- ▶ Water Quality in Ramsey County Lakes
- ▶ Ramsey Conservation District Invasive Species 2015 Overview and 2016 Work Plan
- ▶ Terrestrial Weed Management Update
- ▶ Ramsey Conservation District Cost Share Opportunities



Zebra Mussels

Photo credit: USGS



Eurasian Watermilfoil

Photo credit: WI DNR



Invasive Phragmites

Photo credit: A Bennet

# Local Aquatic Invasive Species Prevention Aid

## Ramsey County, MN

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## LOCAL AQUATIC INVASIVE SPECIES PREVENTION AID

### RAMSEY COUNTY, MN



## LOCAL AQUATIC INVASIVE SPECIES PREVENTION AID

- BACKGROUND
- ACCESS SITES
- FUNDING
- STAKEHOLDER
- COUNTY PLAN



## BACKGROUND

- 2014: CHAPTER 308, H.F.NO. 3167: OMNIBUS TAX BILL
- 50 % WATERCRAFT TRAILER LAUNCHES & 50 % WATERCRAFT TRAILER PARKING SPACES
- SUBMIT PLAN TO MNDNR (PROVIDES TECHNICAL SUPPORT)
- MAY APPROPRIATE FUNDING TO OTHER ENTITIES



## BACKGROUND

WHAT CAN THE MONEY BE USED FOR?

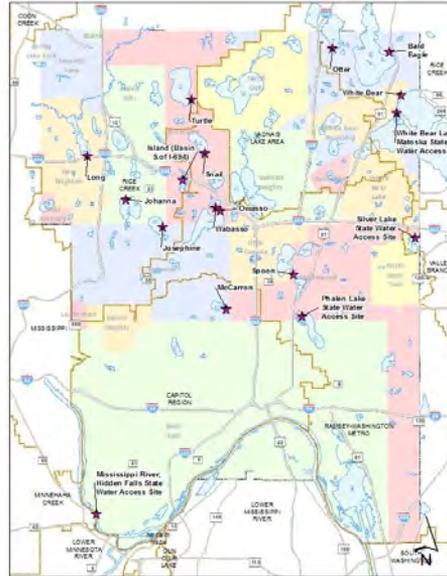
“SOLELY TO PREVENT THE INTRODUCTION OR LIMIT THE SPREAD OF AQUATIC INVASIVE SPECIES AT ALL ACCESS SITES WITHIN THE COUNTY”

- SITE-LEVEL MANAGEMENT
- COUNTYWIDE AWARENESS
- OTHER PROCEDURES THAT THE COUNTY FINDS NECESSARY TO ACHIEVE COMPLIANCE



## ACCESS SITES (BOAT LAUNCHES)

Access Name	Administrator
Silver Lake State Water Access Site	City of Maplewood
Mississippi River, Hidden Falls State Water Access Site	City of St. Paul
Phalen Lake State Water Access Site	City of St. Paul
White Bear Lake, Matoska State Water Access Site	City of White Bear Lake
Bald Eagle Lake State Water Access Site	Ramsey County
Island Lake State Water Access Site	Ramsey County
Johanna Lake State Water Access Site	Ramsey County
Josephine Lake State Water Access Site	Ramsey County
Keller Lake State Water Access Site	Ramsey County
Long Lake State Water Access Site	Ramsey County
McCarrons Lake State Water Access Site	Ramsey County
Otter Lake State Water Access Site	Ramsey County
Owasso Lake State Water Access Site	Ramsey County
Snail Lake State Water Access Site	Ramsey County
Turtle Lake State Water Access Site	Ramsey County
Wabasso Lake State Water Access Site	Ramsey County
White Bear Lake, WBL Park (N) State Water Access Site	Ramsey County



## ACCESS SITES (BOAT LAUNCHES)

Bald Eagle Lake	Eurasian water milfoil, Curly Leaf Pond weed, <b>Flowering Rush</b>
Island Lake	Eurasian water milfoil, Curly Leaf Pond weed,
Johanna Lake	Eurasian water milfoil, Curly Leaf Pond weed,
Josephine Lake	Eurasian water milfoil, Curly Leaf Pond weed,
Keller Lake	Eurasian water milfoil, Curly Leaf Pond weed,
Long Lake State	Curly Leaf Pond weed
McCarrons Lake	Eurasian water milfoil, Curly Leaf Pond weed,
Otter Lake State	Eurasian water milfoil, Curly Leaf Pond weed,
Owasso Lake State	Eurasian water milfoil, Curly Leaf Pond weed,
Phalen Lake	Eurasian water milfoil, Curly Leaf Pond weed
Silver Lake (east)	Eurasian water milfoil, Curly Leaf Pond weed
Snail Lake State	Eurasian water milfoil
Turtle Lake State	Eurasian water milfoil, Curly Leaf Pond weed,
Wabasso Lake State	Eurasian water milfoil, Curly Leaf Pond weed,
White Bear Lake	<b>Zebra Mussels</b> , Eurasian water milfoil,



## FUNDING

- 10 MILLION STATEWIDE - YEARLY
- RAMSEY COUNTY
  - 2014 = \$47,000
  - 2015 AND ONGOING = \$103,500
- RCPR WAS DELEGATED BY RC TO ADMINISTER THE FUNDS

## STAKEHOLDERS MEETING 2/2015

### WATERSHEDS (3) LAKE ASSOCIATIONS(2)

- |   |  |
|---|--|
| <ol style="list-style-type: none"><li>1. Capitol Region</li><li>2. Rice Creek</li><li>3. RWMWD</li><li>4. Valley Branch</li></ol> | <ol style="list-style-type: none"><li>1. Lake McCarrons Neighborhood Association</li><li>2. White Bear Conservation District</li><li>3. Bald Eagle Area Association</li><li>4. Lake Johanna Association or Friends of Lake Johanna</li><li>5. Lake Josephine Improvement Association</li><li>6. Long Lake Homeowners Association</li><li>7. Turtle Lake</li><li>8. White Bear Conservation District</li><li>9. Friends of Island Lake</li><li>10. Gervais Lake Association, Kohlman Lake Association</li><li>11. Owasso Lake Association</li><li>12. SLID</li><li>13. Owasso Lake Association</li><li>14. Silver Lake volunteers and residents</li></ol> |
|---|--|

### OTHER LGUS(4)

1. City of St. Paul
2. City of White Bear Lake
3. City of Maplewood
4. Ramsey County PW Lakes Mngmt.
5. MN DNR



## STAKEHOLDERS --RAMSEY COUNTY AIS PREVENTION OBJECTIVES

- **ACCESS SITES** – THE POINT OF EXIT AND ENTRY INTO A LAKE CAN BE THE MOST SUSCEPTIBLE AREA TO AIS RELOCATION. ANY INITIATIVES, INCLUDING BUT NOT LIMITED TO AWARENESS, INSPECTIONS, AN ENFORCEMENT PROGRAM, AND SURVEYS, AT THE ACCESS SITES WILL BE CONSIDERED FOR FUNDING.
- **EDUCATION AND PLANNING** – EDUCATION, PLANNING AND AWARENESS CAN PREVENT THE FURTHER INTRODUCTION OR SPREAD OF AIS AND WILL BE CONSIDERED FOR FUNDING. INITIATIVES MUST STRIVE TO COLLATE EDUCATIONAL MATERIALS AND PLANNING EFFORTS ACROSS MULTI-JURISDICTIONAL AGENCIES COUNTY WIDE.
- **RESEARCH/MONITORING** – RESEARCH AND MONITORING IS KEY TO DETERMINE THE MOVEMENT, EXISTENCE, AND ESTABLISHMENT OF AIS WITHIN THE COUNTY. GATHERING AND PROCESSING AIS INFORMATION IS THE BASIS FOR ANY ACTION PLAN. ALL RESEARCH AND MONITORING INITIATIVES WILL BE CONSIDERED FOR FUNDING.
- **TREATMENT** – WHERE APPLICABLE THE RCPRD AND KEY STAKEHOLDERS MAY REVIEW AND APPROVE THE TREATMENT OF AIS WITH FUNDING PROVIDED BY AIS PREVENTION AID. TREATMENT CONSIDERED WILL LIKELY INCLUDE EARLY DETECTED AND AGGRESSIVE SPECIES THAT HAVE PREVIOUSLY NOT INHABITED THE WATER BODY, SUCH AS A NEWLY FOUND POPULATION OF ZEBRA MUSSELS. LARGE SCALE TREATMENT OF ESTABLISHED AIS, PRIMARILY VEGETATION SUCH AS EURASIAN WATERMILFOIL, WILL NOT BE CONSIDERED.

## STAKEHOLDERS –FUNDING INITIATIVES 2015/2016

Launch inspections



Education & outreach



Access Site Improvements at launches



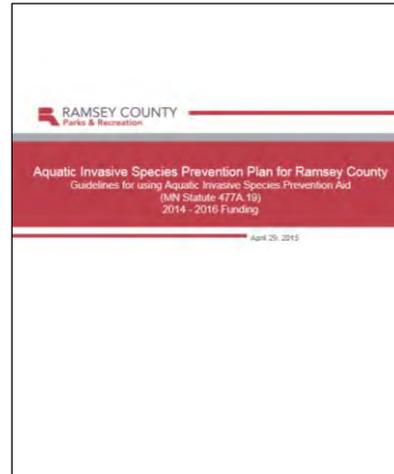
Zebra mussel surveys & monitoring program



## STAKEHOLDERS REQUESTED FUNDS, MARCH 2015

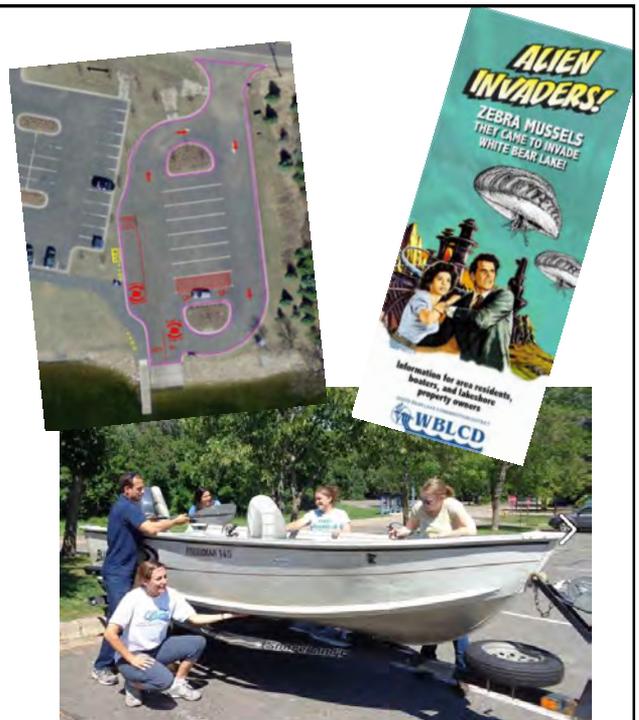
## PLAN DRAFTED, APPROVED BY COUNTY & DNR APRIL, 2015

		2016 Initiatives					
		Access Sites	Education & Planning	Research/Monitoring	Treatment	City Funding	
1	RCPR Access Site Improvements	\$55,000.00					
2	Access Site Inspections/Enforcement	\$9,000.00					
3	Education & Outreach 2015		\$5,248.00				
4	Zebra Mussel Surveys at Access Sites			\$7,000.00			
5	Zebra Mussel Monitoring Program			\$1,000.00			
6	Funding for Municipal Launches					\$26,752.00	
	<b>TOTALS</b>	<b>\$64,000.00</b>	<b>\$5,248.00</b>	<b>\$8,000.00</b>	<b>\$0.00</b>	<b>\$26,752.00</b>	<b>TOTAL 2016 FUNDING \$104,000.00</b>



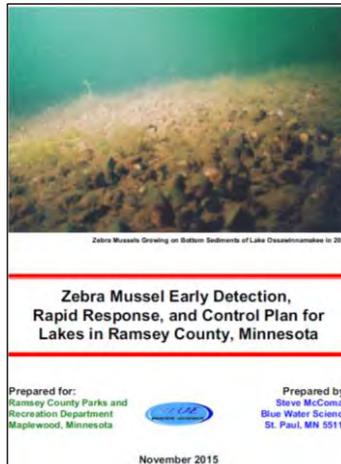
## 2015 INITIATIVES COMPLETED

- **ACCESS SITE IMPROVEMENTS – RCPR**  
ACCESS IMPROVEMENTS DESIGNS COMPLETED
- **LAUNCH INSPECTIONS- 150 HOURS-**  
LONG LAKE, TURTLE LAKE, BALD EAGLE LAKE,  
LAKE JOHANNA. LHA & RCD (COMPLETED  
LEVEL 1 DNR TRAINING)
- **EDUCATION & OUTREACH – WBL**  
PAMPHLET, RCD SWCD  
QUESTIONNAIRE



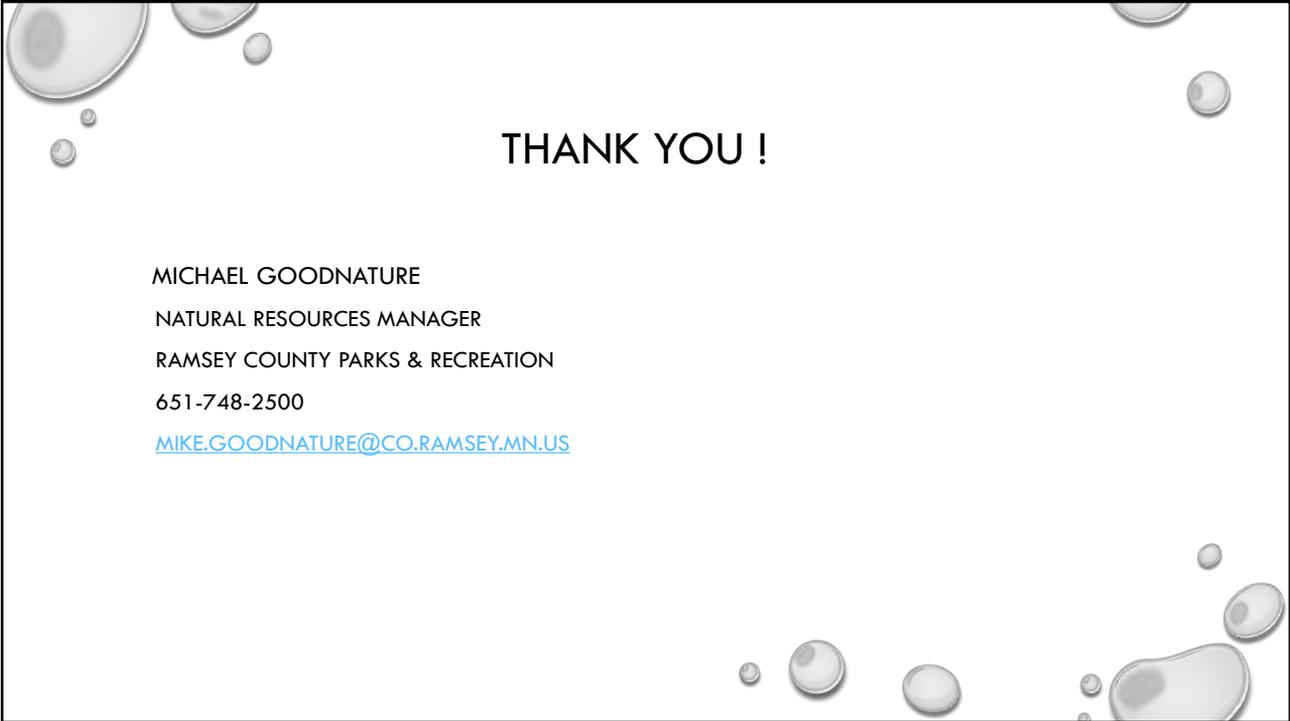
## 2015 INITIATIVES COMPLETED

- **ZEBRA MUSSEL SURVEYS** – COMPLETED AT ALL RCPR LAUNCHES. REPORT & RAPID RESPONSE DOCUMENT
- **ZEBRA MUSSEL MONITORING PROGRAM- RC PW LAKE** MANAGEMENT GAINED EQUIPMENT TO ID VELIGER'S IN SAMPLES



## 2016 INITIATIVES & BEYOND

- **ACCESS SITE IMPROVEMENTS** – RCPR ACCESS IMPROVEMENTS INSTALLED THIS SPRING
- **LAUNCH INSPECTIONS** - INCREASED HOURS BY RCD & LHA
- **EDUCATION & OUTREACH** – PRESENTATIONS, INCREASED AWARENESS THROUGH MEDIA, LINDERS FISHING EDGE (OUTDOOR NETWORK)
- **ZEBRA MUSSEL SURVEYS** – COMPLETE AGAIN IN 2016
- **ZEBRA MUSSEL MONITORING PROGRAM-** CONTINUE VELIGER MONITORING, RESIDENT VOLUNTEER ZEBRA MUSSEL MONITORING PROGRAM
- **BEYOND 2016** – AIS COORDINATOR???



THANK YOU !

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# Ramsey County Aquatic Invasive Species

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# RAMSEY COUNTY

## AQUATIC INVASIVE SPECIES

Andrea Prichard  
Ramsey Conservation District



### Invasive aquatic plants

- [Infested Waters List](#)
- [Early detection of aquatic invasive plants](#)
- [Aquatic invasive plant management](#)
- [Minnesota Invasive Non-native Terrestrial Plants](#) - an identification guide available for purchase from Minnesota's Bookstore

 <a href="#">Brazilian elodea</a>	 <a href="#">Brittle naiad</a>
 <a href="#">Curly-leaf pondweed</a>	 <a href="#">Eurasian watermilfoil</a>
 <a href="#">Flowering rush</a>	 <a href="#">Non-native phragmites</a>
 <a href="#">Non-native waterlilies</a>	 <a href="#">Purple loosestrife</a>
 <a href="#">Reed canary grass</a>	 <a href="#">Starry Stonewort</a>
 <a href="#">Yellow iris</a>	

### Invasive aquatic animals

[Guide to Fish Invaders of the Great Lakes Region PDF](#)

 <a href="#">Bighead &amp; silver carp</a>	 <a href="#">Chinese and Banded Mystery Snails</a>
 <a href="#">Common carp</a>	 <a href="#">Faucet Snail</a>
 <a href="#">Grass carp</a>	 <a href="#">Invasive carp information</a>
 <a href="#">New Zealand Mud Snail</a>	 <a href="#">Round goby</a>
 <a href="#">Ruffe</a>	 <a href="#">Rusty crayfish</a>
 <a href="#">Sea lamprey</a>	 <a href="#">Spiny waterflea</a>
 <a href="#">White perch</a>	 <a href="#">Zebra mussel</a>

SOURCE:  
DNR

# MPR Aquatic Invasive Interactive Map

**Map: Aquatic invasive species spread across Minn.**  
By Nathaniel Minor

invasive species like Eurasian watermilfoil and zebra mussels can choke our lakes and kill off native plants and animals. They have been moving through Minnesota lakes and rivers steadily over the last few decades. Use this map to track their spread.

Show me waterbodies that have ...

- Bighead and silver carp
- Eurasian watermilfoil
- Faucet snail
- Flowering rush
- Spiny waterflea
- Zebra mussels

Find a lake or river  
--Select--

Year of infestation 1971 - 2016  
1971 2016

Location search (find me)  
Enter city name or address  
within

[HTTP://MINNESOTA.PUBLICRADIO.ORG/PROJECTS/2014/04/INVASIVE-AQUATIC-SPECIES-MAP/](http://minnesota.publicradio.org/projects/2014/04/invasive-aquatic-species-map/)

**Minnesota's Listed Infested Waters**

Search by Water Body

**Infested Water Body**  
**Bald Eagle**

The DNR has listed Bald Eagle (Ramsey Count(y)ies) as an infested water body because it contains an aquatic invasive species that could spread to other waters or because it is connected to a body of water where an aquatic invasive species is present. The water body was listed only for the aquatic species that are followed by a year below. Visit our website for the official infested waters list.

- Bighead Carp
- Eurasian Watermilfoil: 2007
- Faucet Snail
- Flowering Rush: 2013

Zoom to

[HTTP://MNDNR.MAPS.ARCGIS.COM/APPS/WEBAPPVIEWER/INDEX.HTML?ID=576913C7ABB141968846812B217C4EB2](http://mndnr.maps.arcgis.com/apps/webappviewer/index.html?id=576913c7abb141968846812b217c4eb2)

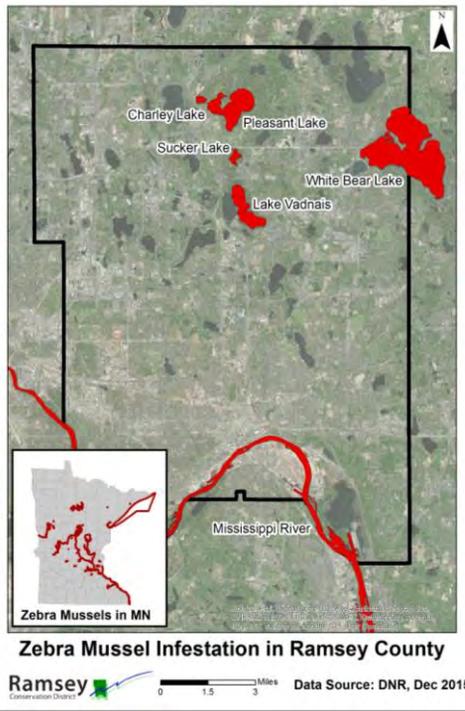
# ZEBRA MUSSEL INFESTATION

Year Listed as Infested

2014: White Bear Lake

2007:

- Charley Lake
- Pleasant Lake
- Sucker Lake
- Vadnais Lake
- Mississippi River



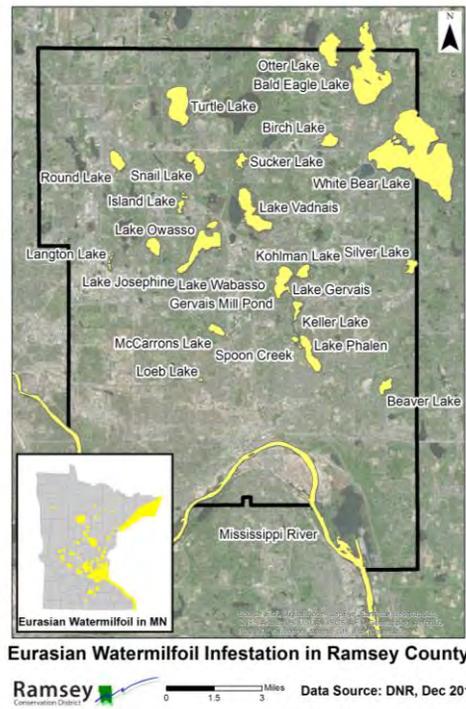
St Paul Regional Water Services Chain of Lakes

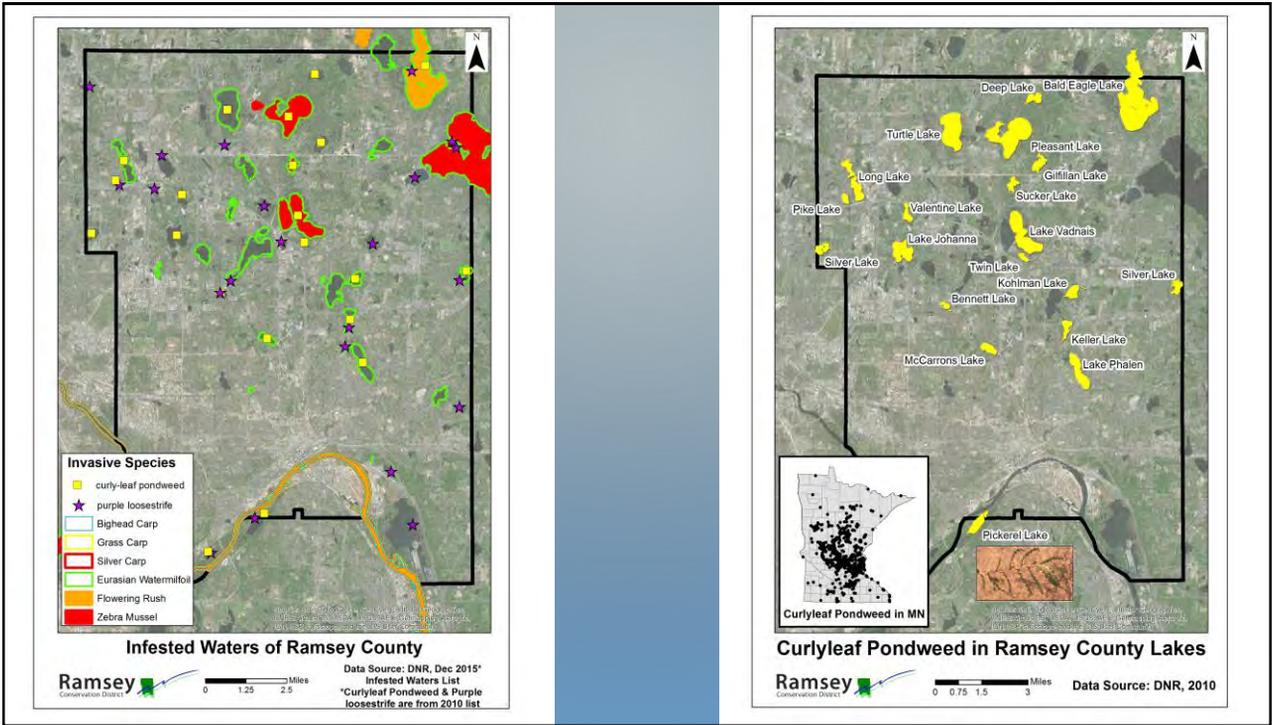
Infestation follows pumped Mississippi River water from Fridley to:

- Charley Lake
- Pleasant Lake
- Sucker Lake
- Vadnais Lake

# EURASIAN WATERMILFOIL

- Dense mats raise pH, decrease oxygen, and increase water temperature
- Nuisance for swimmers
- Outcompete native vegetation





## MACROPHYTE LAKE SURVEYS

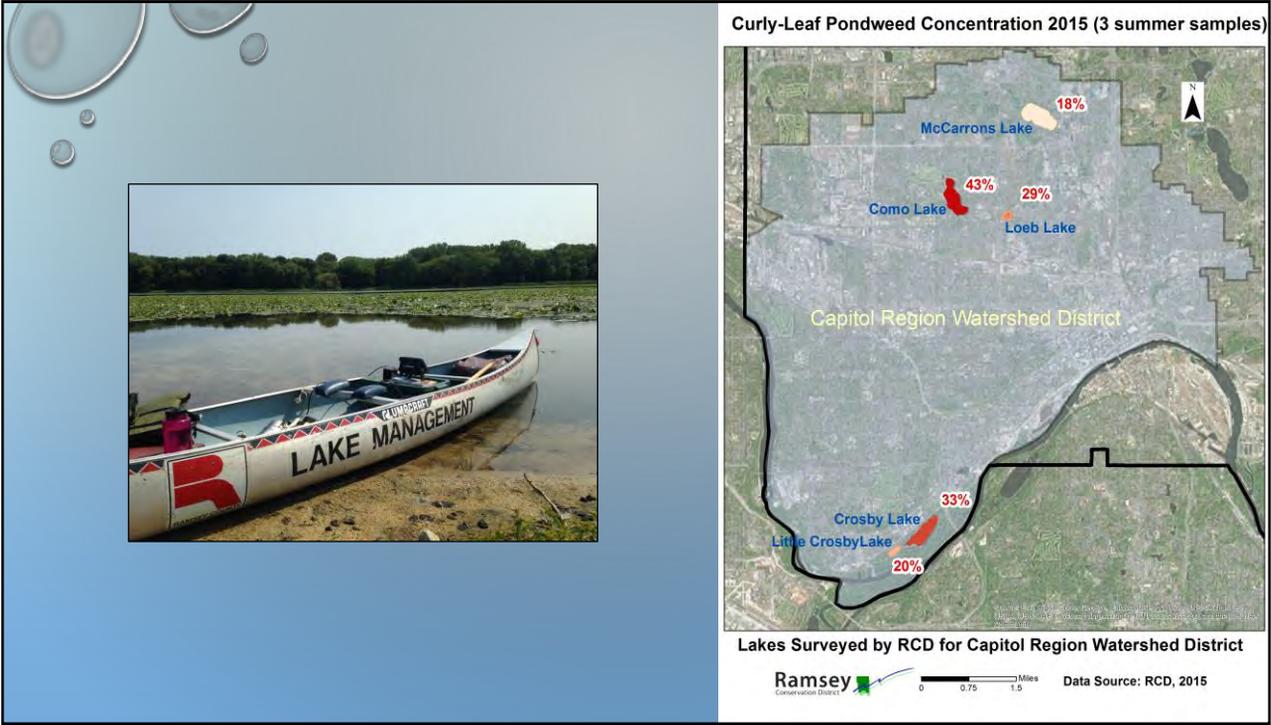
Capitol Region Watershed District  
Ramsey Conservation District collaboration




Minneapolis Parks & Recreation

MACROPHYTE SURVEYS:

- MCCARRONS
- COMO
- LOEB
- CROSBY
- LITTLE CROSBY



BREAK TIME!

# Water Quality in Ramsey County

John Manske  
Water Quality Specialist  
Ramsey County  
Environmental Services, Lake Management  
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# WATER QUALITY IN RAMSEY COUNTY

John Manske

Environmental Services, Lake Management



## RAMSEY COUNTY LAKE MANAGEMENT SUMMER MONITORING PROGRAM

- 30 lakes sampled at deepest point
- Sampled 8 times between May 1<sup>st</sup> – September 30<sup>th</sup>
- Samples taken for laboratory analysis
- Depth profile taken
  - Dissolve Oxygen, Temperature, Conductivity, pH
- Aquatic vegetation monitoring

# RAMSEY COUNTY LAKE MANAGEMENT LABORATORY

Phosphorus

Nitrogen

Chloride

Chlorophyll A

Turbidity

Phytoplankton

Zooplankton

Zebra Mussel Veliger

LAKENAME	2015 GRADE	2014 GRADE	2013 GRADE
BALD EAGLE	B	C	C
BEAVER	B	B	B
BENNETT	C	C	D
COMO	D	D	D
CROSBY	C	D	C
GÉRV AIS	B	C	C
ISLAND NORTH	-	B	B
ISLAND SOUTH	B	B	B
JOHANNA	A	B	B
JOSEPHINE	B	B	B
KELLER	B	C	B
KOHLMAN	B	C	C
Little Crosby	C	D	B
LOEB	B	B	A
LONG	D	D	D
LONG	C	C	C
MCCARRON	A	B	A
OTTER	A	A	A
QWASSO	B	B	C
PHALEN	A	B	B
ROUND(NR PHALEN)	B	C	B
SILVER E	C	C	D
SILVER W	B	C	C
SNAIL	A	A	A
TURTLE	A	A	A
TWIN	B	C	B
VALENTINE	D	D	C
WABASSO	A	A	A
WAKEFIELD	-	C	C
WHITE BEAR	A	A	A

## RAMSEY COUNTY LAKE MANAGEMENT WINTER MONITORING PROGRAM

- Dissolved oxygen monitoring/aerating
  - Como, Owasso, Island, Otter, Silver West, Beaver
- Chloride monitoring
  - Worked with MPCA to establish a state water quality standard for chloride.
  - A large number of lakes were categorized as impaired for aquatic life, or at high risk of becoming impaired.

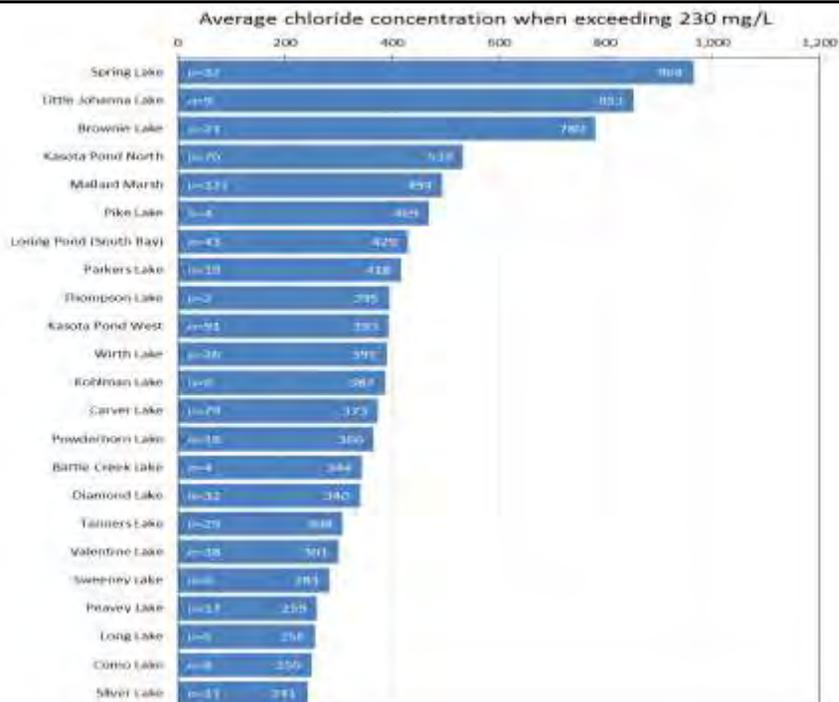


Table 2.TCMA Chloride Management Plan - MPCA 2015

## LAKES WITH A HIGH RISK OF CHLORIDE IMPAIRMENT

- Beaver
- Bennett
- Crosby
- Gervais
- Johanna
- Keller
- McCarrons
- Wabasso
- Wakefield

## WHERE DOES CHLORIDE COME FROM ?

- Residential water softeners
- Winter maintenance of roads, sidewalks, and parking lots with rock salt
  - Ramsey County uses 16,000,000 lbs/year to deice roads
  - 700,000,000 lbs/year used in the Twin Cities Metro Area (1)

Table 1. Summary of annual road salt application amounts

User	Use (Tons)	Use %
MNDOT	80,797	23%
Counties	70,284	20%
Cities	114,314	33%
Commercial Bulk	66,349	19%
Packaged	17,460	5%
Total	349,204	100%

## WHY IS CHLORIDE SO BAD?

- 1 Teaspoon of road salt can permanently pollute 5 gallons of water.
- There's no easy way to remove salt from water.
- Causes osmotic stress to organisms
- Decreases the biodiversity of sediment organisms and plants(2)
- Increases the release and transport of heavy metals(3)

## WHAT CAN BE DONE TO REDUCE SALT USE?

- Salt brine solution instead of rock salt
- Dispersal monitoring devices added to salt trucks
- Plow and shovel more effectively!
  - The more snow and ice you remove manually, the less salt you will have to use.
- More salt does not mean more ice melting!
- Evaluate your water softener usage
  - Test your water!
    - Only hardness over 120mg/L CaCO<sub>3</sub> needs softening.
  - Switch to a demand based softener.
  - Bypass your softener for landscape watering.

## Great Online Resources

MN Key Water Info List

<http://es.metc.state.mn.us/KeyWaterList/#SurfaceWater>

Surface Water Data – MPCA

<http://cf.pca.state.mn.us/water/watershedweb/wdip/index.cfm>

Road Salt and Water Quality - MPCA

<https://www.pca.state.mn.us/water/road-salt-and-water-quality>

Improved Winter Maintenance: Good Choices for Clean Water

## REFERENCES

1. Sander, A., E. Novotny, O. Mohseni, H.G. Stefan, (2007) "Inventory of Road Salt Uses in the Minneapolis/St. Paul Metropolitan Area". University of Minnesota, St. Anthony Falls Laboratory, Minneapolis, MN, Report No. 503, December 2007, 46 pp.
2. Talmage P J, Lee K E, Goldstein R M, Anderson J P, Fallon J D. Water Quality, Physical Habitat, and Fish-Community composition in Streams in the Twin Cities Metropolitan Area, Minnesota 1997-98. 1999; 18.
3. Novotny V, Muehring D, Zitomer D H, Smith D W, Facey R. Cyanide and metal pollution by urban snowmelt: impact of deicing compounds. Water Science and Technology 1998; 38: 223-230.

# Ramsey Conservation District Aquatic Invasive Species Prevention 2015-16

Ashley Bennett  
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## 2015 Pilot Watercraft Inspections

- ▶ Six staff trained as Level 1 Inspectors
- ▶ Pilot lake inspection year
  - ▶ Inspected at 6 boat launches
    - ▶ Bald Eagle Lake
    - ▶ Lake Owasso
    - ▶ Turtle Lake
    - ▶ Lake Josephine
    - ▶ Lake Johanna
    - ▶ Long Lake
- ▶ Attended DNR trainings and overviews
- ▶ Co-hosted Eastern Ramsey County Lakes Meeting



## 2016 Work Plan

- ▶ DNR 2016 Watercraft Inspections Grant
- ▶ Applied for 563 hours
  - ▶ White Bear Lake
  - ▶ Bald Eagle Lake
  - ▶ Lake Owasso
  - ▶ Long Lake
  - ▶ Turtle Lake
  - ▶ Lake Johanna
  - ▶ Lake Josephine
- ▶ Education and Outreach

Ramsey County  
Cooperative Weed Management Area

Carole Gernes  
Ramsey County Cooperative Weed Management  
Coordinator  
Ramsey Conservation District  
C/O Ramsey-Washington Metro Watershed District  
651-792-7977  
Carole.Gernes@rwmwd.org



## Many infest shorelines, ditches and other wet places:



## Invasive Terrestrial Plant Infestations:

- often have shallow root systems
- prevent growth of other plants, leading to large areas of bare or poorly-held soil.
- soil carried in run-off
- water clarity decreases



A few species we are looking for:

## Oriental bittersweet

*Celastrus orbicularius*

- ❑ Buds/flowers/fruit along stem
- ❑ Replacing our native American bittersweet
- ❑ Often mislabeled at nurseries
- ❑ Cut and treat like buckthorn: with glyphosate or triclopyr

## Common Tansy

*Tanacetum vulgare*

- ❑ Gravel pits, roadsides, trails
- ❑ Toxins absorbed through skin!
- ❑ Mow or treat with Escort before flowering
- ❑ Do not mow or spray after flower buds open

## Wild parsnip

*Pastinaca sativa*

- ❑ Spreads by seeds carried on feet, tires and mowers
- ❑ Mow before seeds form, cut root, pull, graze; spot spray 2,4-D (1%), glyphosate (2%)
- ❑ **CAUTION!!!**  
Juices of plant on skin can cause severe burns!

## Narrow-leaf bittercress

*Cardamine impatiens*

- ❑ Tiny, 0.1" White flowers May-Aug., thin seed pods
- ❑ Small pointed auricles (ears) at leaf bases
- ❑ Moves via feet, tires, and waterways
- ❑ Pulling effective before blooming

## Non-Native *Phragmites australis*

*Phragmites australis*, ssp. *australis*, Haplotype M

- ❑ Blue-green leaves
- ❑ Large, thick seed heads
- ❑ No red color on upper stems
- ❑ No circular fungus dots on stems
- ❑ Upper Great Lakes Phragmites Collaborative



## Japanese knotweed

*Polygonum cuspidatum*

- ❑ Breaks concrete, asphalt and destroys foundations
- ❑ Bamboo-like stems
- ❑ Cut/treat/foliar: glyphosate *not* triclopyr; cover/monitor/treat for at least 4 years



## Greater Celandine

*Chelidodium majus*

- ❑ Grows in wet areas, woods, floodplains, along trails
- ❑ easily confused with, celandine poppy, *Stylophorum diphyllum*
- ❑ Up to 4 feet tall
- ❑ Look for smaller flower size, long style & long seed pods
- ❑ Irritating sap! Wear gloves; **do not rub eyes!**



Photos courtesy of minnesotawildflowers.info

## Chinese Amur/Silver Grass

*Miscanthus species*

- ❑ Popular ornamental; many varieties
- ❑ *M. sacchariflorus* often found along waterways
- ❑ White mid-vein on leaves (sharp)
- ❑ Grows into tall, thick monocultures





More information available at  
<https://www.ramseycounty.us/residents/environment/ramsey-conservation-district/cooperative-weed-management-area>

Ramsey County  
Cooperative Weed Management Area

is on Facebook!



# Cost Share Opportunities in Ramsey County

Joseph Lochner  
Conservation Design Specialist  
Ramsey Conservation District  
651-266-7273  
[Joseph.Lochner@co.ramsey.mn.us](mailto:Joseph.Lochner@co.ramsey.mn.us)

# Government Resources:

Technical Assistance and Cost Share Opportunities for Ramsey County Citizens

## Cost Share Program Technical Assistance Contacts:

District Technician	Phone	Email
Joe Lochner	651-266-7273	Joseph.Lochner@co.ramsey.mn.us
Mike Schumann	651-266-7275	Michael.Schumann@co.ramsey.mn.us



## Ramsey County Watershed Districts Cost Share Program Contacts:

Watershed District	Contact	Phone	Email
Capitol Region	Gustavo Castro	651-644-8888	Gustavo@capitolregionwd.org
Rice Creek	Sam Kreibich	763-398-3084	SKreibich@ricecreek.org
Ramsey-Washington Metro	Paige Ahlborg	651-792-7964	paige.ahlborg@rwmwd.org
Valley Branch	Tara Kline	651-275-1136 x.28	TKline@mnwcd.org
Vadnais Lake Area	Kristine Jenson	651-204-6074	kristine.jenson@vlawmo.org

## Compost Bin Sale



- ▶ \$39 Compost Bins for all Ramsey County Residents (\$59 regularly)
- ▶ To place your order, visit [RecycleMinnesota.org](http://RecycleMinnesota.org) and enter promo code ramsey, or call 651-641-4589



## Environmental Forum: Pollinators- Plight and Possibilities

Hosted by: Ramsey-Washington Metro Watershed District and H.B. Fuller

When: Thursday March 24, 2016, 7 PM

Speaker: Dr. Marla Spivak, Director of the Bee Lab and Professor in the U of M Department of Entomology

Where: H.B. Fuller Company  
1200 Willow Lake Blvd  
Vadnais Heights, MN 55110

Contact Debbie Barnes at 651-792-7959 or [deb.barnes@rwmwd.org](mailto:deb.barnes@rwmwd.org) to RSVP



Free Public Event

## April Conservation Forum: Urban Pollinators

- ▶ April 21, 2016 2-4 PM
- ▶ Speakers
  - ▶ Commissioner Victoria Reinhardt
    - ▶ Ramsey County Commissioner: District 7
  - ▶ Dr. Marla Spivak
    - ▶ University of Minnesota Professor of Entomology
  - ▶ Sarah Foltz Jordan
    - ▶ Xerces Society
  - ▶ Heather Holm
    - ▶ Author of *Pollinators of Native Plants*

