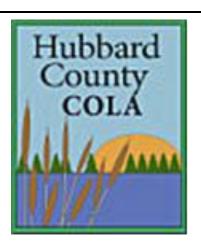
The Value of Clean Water – A Shared Resource and Responsibility

- KEY TOPICS TO DISCUSS
 - 1) The State of Our Lakes
 - 2) The Value of Clean Water
 - 3) The Economics of AIS
 - 4) Early Detection How can You Help?



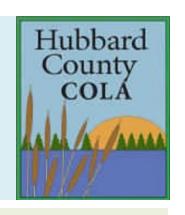








STATE OF OUR LAKES



Outstanding Water Resource

- Majority of lakes with improving or stable water quality.
- Lakes with good water quality are sensitive to change – need greater protection.



STATE OF OUR LAKES





Cong Cake Area

STATE OF OUR LAKES

Help! We're Surrounded by AIS

Our Lakes are mostly AIS Free!

- Zebra Mussels all around (N-S & E-W)
 - Crow Wing (46 lakes), Douglas (33),
 Ottertail (24), Becker (12), Cass (9),
 Beltrami (9).
- Starry Stonewort (North & South)

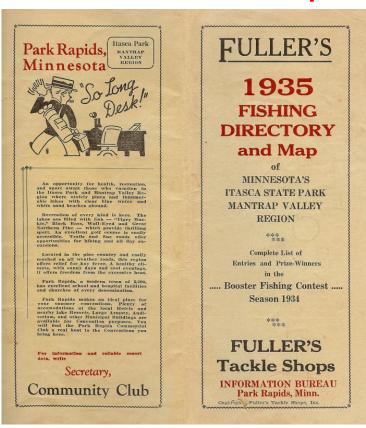
THE VALUE OF CLEAN WATER

Hubbard County Tax Study

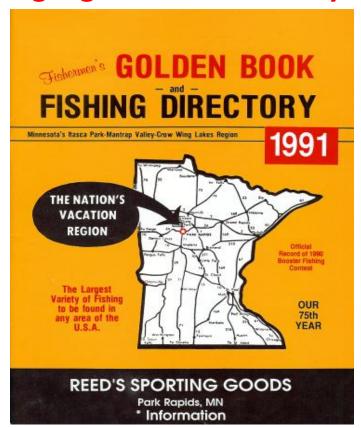
- 37 % of tax parcels have water influence
- Water influence parcels represents 60 % of the total Taxable Market Value.
- Parcels with water influence generate 53
 % of Tax Revenue in Hubbard County.
- Lake Properties "Float the Boat"

THE VALUE OF CLEAN WATER

Past Summers in Park Rapids



Angling & Tourism are Key



ADVERSE EFFECTS OF AIS

Invasive Species impact our environment!

Kill native species



Displace native aquatic plants.



ADVERSE EFFECTS OF AIS

Invasive Species Impact our Society

Impede recreation!

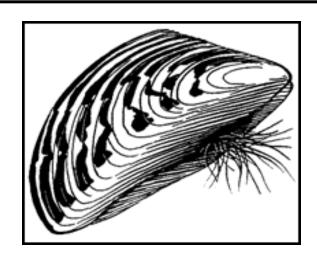


Interfere with boating!



FISH FOOD CHAIN IS IMPACTED BY AIS









A CLOSER LOOK AT STARRY STONEWORT



A CLOSER LOOK AT STARRY STONEWORT

LAKE KORONIS



LAKE KORONIS

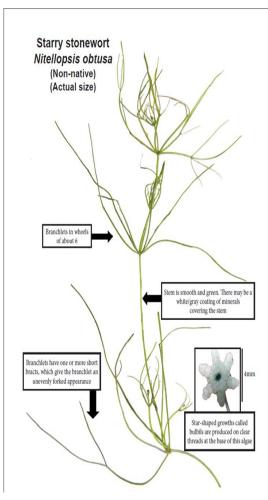


Starry Stonewort in Big Turtle Lake









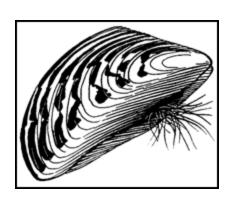
Bunk Trailers Under Scrutiny



Vegetation Sealed between Boat & Trailer Bunks!



A CLOSER LOOK AT ZEBRA MUSSELS









MN Aquatic Invasive Species Research Center

Genetic Research on Zebra Mussels

Minnesota's rate of new inland invasions is now among the highest in the US.

MAISRC Genetic Research on Zebra Mussels

Super –Spreader Lakes?

Mille Lacs Lake: not the source for any of the 35 lakes invaded after 2005!

MAISRC Genetic Research on Zebra Mussels

- Vectors that transmit juveniles or adults – docks, lifts, resident boats!
- Can introduce large #'s of mussels per event.

MAISRC Mussels spread locally in lake-rich region

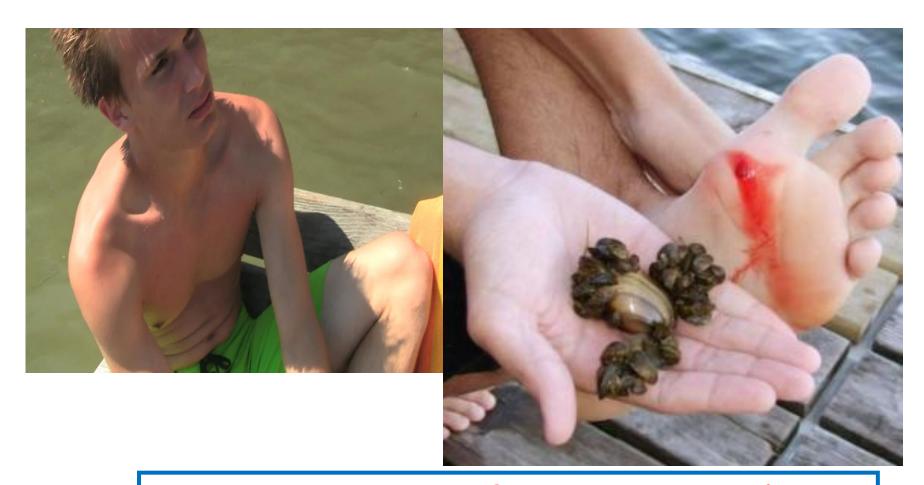
- One or more infestations from outside the region.
- After this local spread is rapid.

PELICAN LAKE

The Center of the Universe







70 Years of Recreational Enjoyment is now Ruined

ECONOMIC IMPACT OF AIS

Wisconsin Study --- 13% reduction in property values – EWM

Washington State Study -- 19% reduction in property values – EWM



EXAMPLES OF ECONOMIC IMPACT

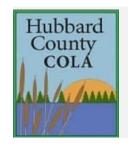
*WISCONSIN STUDY INDICATED A 13% REDUCTION OF PROPERTY VALUES WITH THE INFESTATION OF EURASIAN WATER MILFOIL (ZEBRA MUSSELS WILL BE MORE)



WATERSHED (CY2011)	TMV BASE TOT. NET TAXES	10% TMV LOSS TAX LOSS	13%* TMV LOSS TAX LOSS	30% TMV LOSS TAX LOSS
LONG LAKE (Henrietta & Hubbard Twp)	\$211MM <i>\$1,578K</i>	\$21.1M M <i>\$157.8K</i>	\$27.4M M <i>\$205K</i>	\$63.3MM <i>\$473.4K</i>

County Infestation could cause a Significant Tax Revenue

Gap



LOCAL SPENDING FOR AIS



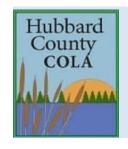
- LGU's
 - Townships
 - Cities
 - County
- Lake associations
 - Supplemental funding (extraordinary)
 - Volunteers





Clean Water \$'s

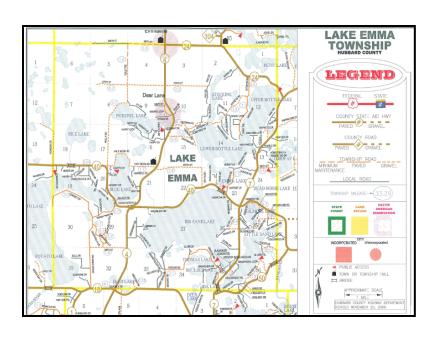
\$35,000 annually For AIS Coordinator



Lake Emma Township / COLA Partnership



Townships Play Key Role





TOWNSHIPS TAKE ACTION

Hubbard County Township & City Contributions for Watercraft Inspections

2012 - 2017

\$183,562



 LGU's Recognize the Value of Clean Water in Hubbard County.

LAKE ASSOCIATIONS TAKE ACTION

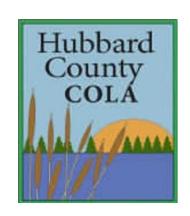
Lake Association Contributions for Watercraft



Inspections

2012 - 2017

\$426,690



 Hubbard County Coalition of Lake Associations is the Leader in Protecting Hubbard County Lakes and Rivers.

Supplemental Funding for AIS Prevention / Inspection

Lake Associations, Cities and Townships Fund Watercraft Inspections

2012 - 2017

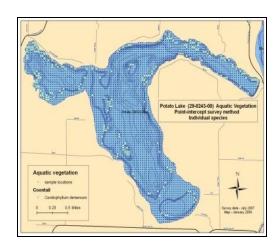
\$610,252

Lake property drives majority of tax base!



A Shared Resource & Responsibility

- Lakeshore is Individual Property
- But Lakes are a Shared Resource
- Everyone is Responsible for
 - Protecting Minnesota's Water Legacy!



A Shared Resource & Responsibility Anglers have Key Role in AIS Prevention



Resorts are Part of our Eyes on the Water- A Shared Responsibility

<u>Sleeping Fawn Resort – Stocking Lake</u>



Sleeping Fawn Resort

 Intercepts Boat coming to Resort with zebra mussels attached to prop in 2016!





Early Detection



Why is early detection important?

- Detect a new infestation before it becomes established lake wide or spreads countywide.
- Inspire citizens to become involved & raise the level of awareness & observation around AIS!

Zebra Mussel Monitoring











How Can You Help?

Become a Casual Observer Watching for Aquatic Invasive Species When Your enjoying our Beautiful Lakes in Hubbard County!

OPPORTUNISTIC SEARCHES FOR AIS IN HUBBARD COUNTY

- Casual, non-structured efforts to look for AIS.
- Any time by anyone on the Lake
- Citizens living or Recreating on the Lake



Why are Opportunistic Searches Important!



- To be Effective....we need to Engage more Citizens to be "actively" looking for new introductions of AIS.
- Simply.....we need to further expand our "Army of Eyes on the Water" to detect a new AIS Infestation.
- You Need a Boat Load(s) of People Looking for AIS on your Favorite Lake

STATE OF OUR LAKES



 Because lakes are a way of life.....it's imperative we protect our water quality for present and future generations.





STATE OF OUR LAKES



 We can protect our most precious resources for generations to come. WE CAN MAKE A DIFFERENCE! Special thanks to Richard Hamilton Smith for sharing his photos!



ACKNOWLEDGEMENTS



- Special Thanks to Richard Hamilton
 Smith for sharing his special photos!
- All property rights reserved for these Photos.



QUESTIONS?



