

## 2017 is off to a great start!

- Our team of 33 inspectors has completed over 4,000 inspections at 25 different lakes.
- We are also partnering with Mahnommen again to provide weekend inspections at Tulaby and South Twin lakes.
- We have intercepted zebra mussels on 2 occasions so far: 1 pontoon on Detroit and 1 fishing boat at Upper Cormorant yesterday.
- Overall compliance continues to be high, around 97%.
- We are seeing slight increase in boat traffic and violations over last year, and I attribute the violations to the season and better staff.

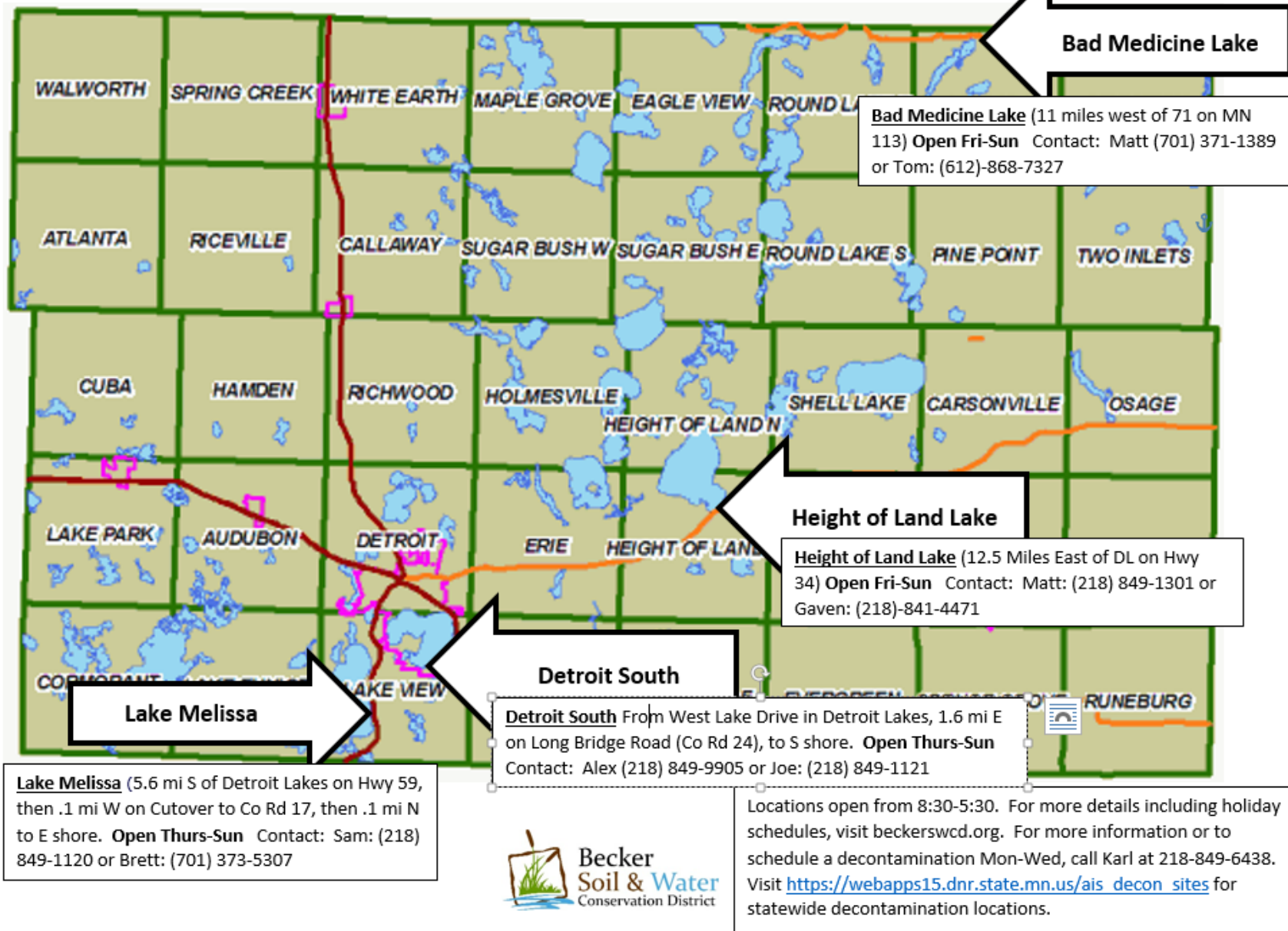


In addition to the TV3 project, which runs 6 x per day, 7 days a week for the remainder of June, July and August, we are also doing;

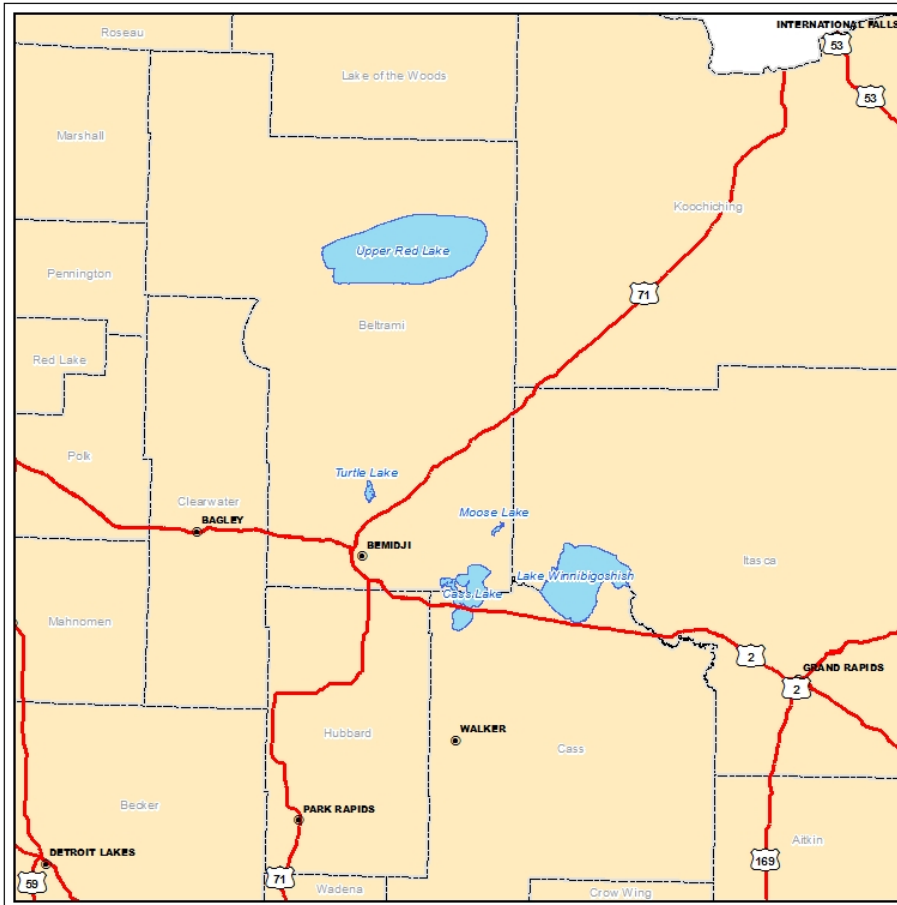
- a statewide television commercial with 19 other counties
- radio advertising and interviews
- indoor advertising at 4 locations
- bar coasters at 16 locations
- newspaper articles and paid ads
- City of DL water fest
- 5<sup>th</sup> grade conservation tour
- 9 scheduled lake association meetings
- A tax insert to all county parcel owners
- Public Access Monitoring at 11 high traffic lakes by RMB Labs and additional monitoring by myself and volunteers.



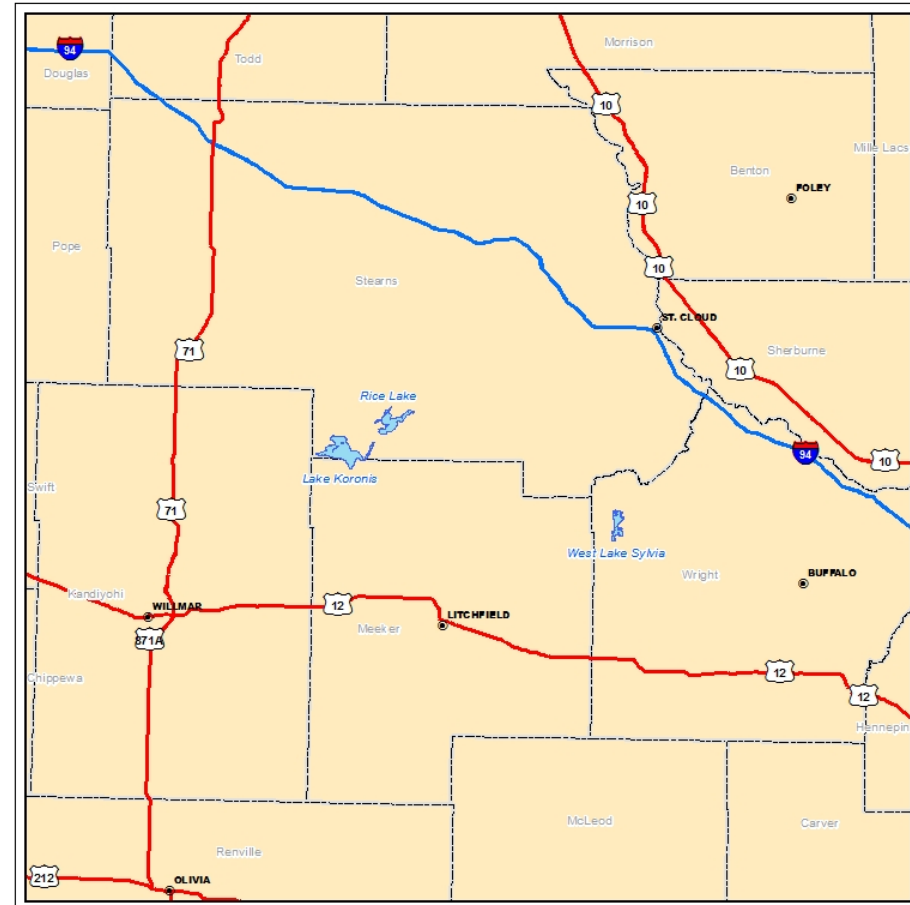
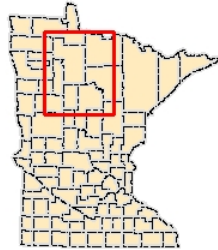
## 2017 AIS Decontamination Locations



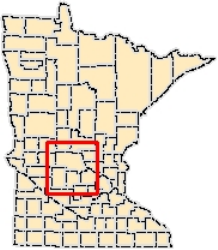




**Starry  
Stonewort**  
June  
2017



**Starry  
Stonewort**  
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Starry Stonewort was first found in Minnesota at Lake Koronis in 2015. In 2016 it was confirmed at Rice Lake in Stearns County and West Sylvia Lake in Wright County. Starry Stonewort has also been found in Cass, Upper Red, Moose and Turtle Lakes in Beltrami County and Lake Winnibigoshish in Cass and Itasca County.

# INVASIVE

## Starry stonewort

*Nitellopsis obtusa*

### KEYS TO ID

- Long, smooth branchlets are attached in whorls of 5 – 8
- Small, star-shaped bulbils form on clear threads at base of plant and may be found above or below the sediment surface
- Small, orange spheres called antheridia may be visible, these are male reproductive structures
- Typical branchlets are long; can be up to twelve inches
- Can form dense mats in water

### LOOKS SIMILAR TO

- Native *Chara* (native)
- Native *Nitella* (native)
- Sago pondweed (native)
- Water stargrass (native)

### WHERE TO LOOK

- In shallow, still water and near access

### CURRENTLY FOUND



Actual size of bulbils

Below: orange antheridia



NATIVE

# Muskgrasses

*Chara spp.*

## KEYS TO ID

- Stems are typically rough and crunchy
- Thin branchlets form whorls around thin stems
- May produce bulbils, but not star-shaped
- May have musky odor



*Rough stems; whorled branchlets*

## LOOKS SIMILAR TO

- Starry stonewort (invasive)
- Native *Nitella* (native)
- Sago pondweed (native)
- Water stargrass (native)
- Minnesota has nine *Chara* species

## WHERE TO LOOK

- Fully submerged
- Along lake bottoms forming patches called meadows

## CURRENTLY FOUND



NATIVE

# Stoneworts

*Nitella spp.*

seen ♀

## KEYS TO ID

- Stems are smooth
- Branchlets fork into two or three tips at end
- Typical branchlets are around an inch; much shorter than starry stonewort
- Unlike starry stonewort, forked tips are of equal length
- Becomes limp when out of water

## LOOKS SIMILAR TO

- Starry stonewort (invasive)
- Native *Chara* (native)
- Sago pondweed (native)
- Water stargrass (native)

## WHERE TO LOOK

- Often in deeper zones of lake
- At depths up to 30 feet

## CURRENTLY FOUND



*Branchlets; smooth stems*







# Starry Trek 8/5

We need volunteers for as many lakes as possible. Contact me with any questions/comments/ideas. Thanks for all you do for the lakes.