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Dave,

As you are aware, the Comfort Lake-Forest Lake Watershed District manages a watercraft inspection program, where we hire a summer staff member to inspect incoming and outgoing watercraft for aquatic invasive species (AIS) at the public access on Bone Lake. I would like to provide you with a summary of this year's watercraft inspection program. Please feel free to forward this summary to Bone Lake Association members or anyone else who may be interested.

### **Total Inspection Hours and Number of Inspections**

This summer we hired one full-time inspector to split their time between Comfort Lake and Bone Lake. The inspector was able to perform **266 hours** of inspections on Bone Lake which amounted to **322 total inspections**. This compares to 396 hours and 402 inspections in 2015.

### **Inspection Rate**

With regard to the inspection rate, or the average number of inspections per hour, the 2016 season totaled to **1.2 inspections per hour**, while the 2015 season totaled to 0.9 inspections per hour.

### **Survey Results**

As mentioned above, a total of 322 surveys were performed on Bone Lake this season. Below are some findings from the compiled inspection survey data:

- Number of watercraft arriving at the Bone Lake with water, vegetation or mud on their watercraft = 1. This number was 4 in 2015.
- Number of watercraft requiring removal of the bilge drainage plug upon arriving at Bone Lake = 2. This number was 6 in 2015.
- Number of watercraft exiting the Bone Lake with vegetation or AIS animals attached or present = 7. This number was 24 in 2015.

### **Risk of New AIS**

Zebra mussels, starry stonewort, and the spiny water flea are three examples of aquatic invasive species found in Minnesota that are not yet in Bone Lake. Zebra mussels are currently found in Forest Lake, but starry stonewort and the spiny water flea are not found anywhere in the District.

Zebra mussels are an aquatic invasive species that grow to very high densities in invaded lakes. Zebra mussels are given their name due to the alternating black and white stripes on their shells. Due to their high densities in invaded lakes, zebra mussels are often found covering boat lifts and docks. Additionally, zebra mussels have sharp shells that can cut the feet of swimmers. Zebra mussels are filter feeders, meaning that they filter phytoplankton (algae) out of the water. Some lake residents may think that this is a good thing, as it often leads to an increase in water clarity. In reality, the mussels feeding on phytoplankton (algae) means that small animals called zooplankton will have no food and fish, which

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feed on zooplankton, will have no food once the zooplankton disappear. As this process continues, it is common for infested lakes to show declines in sport fish populations of species like walleye and northern pike.

Starry stonewort is an invasive algae that forms dense mats in lakes that impede boating and prevent the establishment of native (beneficial) plants. Starry stonewort was discovered in Lake Koronis near Paynesville, MN in 2015 and has since been discovered in eight additional lakes across the state.

The spiny water flea is an invasive species of zooplankton which is about the size of a grain of rice that competes with small fish for the same food resource (other zooplankton). The spiny water flea was first discovered in Lake Superior in the early-1980s and has since spread to more than 35 inland lakes in Minnesota including: Mille Lacs Lake, Lake Vermilion, Lake of the Woods, and others. All three of these invasive species are thought to be transported primarily by recreational watercraft.

Part of the inspection survey involves asking the boaters which lake they visited last and how long ago they were at that lake. I looked through this data to determine the risk of introduction for Bone Lake from lakes infested with zebra mussels, starry stonewort, and the spiny water flea. Here is what I found:

- 62 boats launching into Bone Lake came from lakes infested with zebra mussels. Eight of the 62 boats had been in the infested lake less than 24 hours before launching into Bone Lake. All of these boats were inspected upon arrival at Bone Lake and deemed acceptable to launch into Bone Lake.
- 25 boats launching into Bone Lake came from lakes infested with the spiny water flea. Five of the 25 boats had been in the infested lake less than 24 hours before launching into Bone Lake. All of these boats were inspected upon arrival at Bone Lake and deemed acceptable to launch into Bone Lake.
- Two boats launching into Bone Lake came from lakes infested with starry stonewort. Zero of the two boats had been in the infested lake less than 24 hours before launching into Bone Lake. Both of these boats were inspected upon arrival at Bone Lake and deemed acceptable to launch into Bone Lake.

These were the main results of the 2016 watercraft inspection program on Bone Lake. We expect to continue the program next year and intend to fund a similar number of Bone Lake inspection hours using our District levy ( $\approx$ 15 hours per week from May to October).

We currently receive funding for additional inspection hours from the Forest Lake Lake Association for Forest Lake and anticipate receiving additional funding from the Comfort Lake Association for Comfort Lake next year. If the Bone Lake Association is ever interested in funding additional inspection hours for the public access, we would be able to handle the hiring, training, and administration associated with those extra hours. The level 1 inspectors that we hired this year cost \$20 per hour, including the overhead costs associated with uniforms, materials, etc. If the Bone Lake Association is interested in supplementing the number of inspection hours (at \$20 per hour), please let me know by early March, so that we can incorporate that into our planning and hiring processes.

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If you, or any BLA members have questions or comments about this, please feel free to contact me. My email address is [mike.sorensen@cflwd.org](mailto:mike.sorensen@cflwd.org) and my phone number is 651-395-5857.

Sincerely,

-Mike Sorensen