

Pokegama Lake Association
Water Quality Committee Report
May 2023

AIS Survey

The DNR conducted an aquatic invasive species survey on May 4th and 5th. No curlyleaf pondweed was found. With the heavy snow this winter there was not enough sunlight to allow the weed to grow through the winter, as is their normal pattern. A second survey was conducted on May 16th. Curlyleaf was present at during this survey, though in lower quantities than last year. The exception was the west side of the island where a large quantity was found. Chemical treatment will likely take place this coming week.

Subwatershed Analysis

Pine County received a proposal for the Sub Watershed Analysis. The consultant estimated the cost of the study to be \$80,000. The Pine County staff is discussing with the consultant ways in which the work of the study can be shared between the consultant and County staff. The goal is to bring the external cost of the study down to \$30,000. The trade-off in lowering the cost of the study is that County staff will be unable to begin their work until the fall. It seems prudent to delay the study by several months in order to realize a significant cost reduction.

Water Quality Testing

One of our committee's key goals for 2023 was to implement a comprehensive water monitoring and testing program. Last week we made some real progress toward accomplishing that goal. Jim and I met with Pine County staff today to review their recommendation for the purchase of flow meters and other monitoring equipment. The outcome of that meeting is the attached plan. These are just rough notes. A more refined version will be drafted. However, the highlights of the program are as follows:

1. A transducer will be installed at outlet of Pokegama Creek into Pokegama Lake. The transducer measures the pressure of water level.
2. Twice a month a volunteer will collect water volume at various points upstream on Pokegama. This will be done using a flow meter. The flow meter will produce a snapshot measurement will correlate with the transducer data to provide a total volume of inflow. The measurements will be taken from from ice-off to ice-on.
3. Use Sonde unit monthly in the tributaries and in the lake to measure conductivity, dissolved oxygen, and other parameters. This measurement should be taken at the same time of water volume measurements (Watermark
4. Collect monthly water samples for chemical analysis to be submitted to a lab. Samples to be taken in the lake and at each site where flow is measured. Collect at same time as Sonde and Watermark data.

The PLA Board previously budgeted \$4,000 for the purchase of flow meters in 2023. The Water Quality Committee is requesting an additional \$1,200, for a total of \$5,200 for all the equipment needed to implement this testing/monitoring program.

Weed Harvesting

This year the Water Quality Committee initiated submission of the weed cutting permit. Going forward this permit application process will be moved to the Weed Harvesting Committee. The Water Quality Committee and the Weed Harvesting Committee will coordinate efforts to ensure that harvesting is not done in areas which have recently received a chemical treatment.

Hazardous Waste Discharge

A member of Cross Lake contacted the Water Quality Committee to express concerns about possible hazardous waste entering Pokegama Lake and the Snake River from Nordahl Marine, as a result of this year's significant flooding. The MN Pollution Control Agency has a protocol for addressing hazardous waste spills of 5 gallons or greater. However, the PLA was notified well after the fact, and no specific evidence of a discharge could be obtained. Any known hazardous discharge should be immediately reported to the Pine City Fire Department, as they are trained in handling hazardous materials.

Flooding is a frequent occurrence on Pokegama. This year's event is a reminder that no hazardous materials, wood piles or recreational equipment should be stored in an area where flooding may occur. Let's make the removal of these items from lake-facing areas part of our fall clean-up routines.

Submitted by your ***Water Quality Committee***

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