Lake Shamineau Lake Improvement District

Where Are We Now April 2018



High Water Takes Center Stage

Current water level is over 1.5 feet above the OHWL (Ordinary High Water Level)

Excerpt From <u>DNR Flood Damage Reduction (FDR) Grant Application</u>—Lake Shamineau is a 1600 acre lake located in Central Minnesota. Lake Shamineau water levels have been rising, causing shoreline erosion, loss of trees, wildlife habitat destruction, loss and/or changes of aquatic vegetation, reduced water clarity, flooding of properties, challenging water quality, and causing hundreds of thousands of dollars of property damage and loss. Shoreline damages caused from ice jacking is also a significant impact to the lakeshore caused by the high water during winter conditions.

Property owners have attempted to lessen the effect of shoreline damages from ice jacking by using lake aeration systems. These systems help minimize the size of the ice slabs reducing damages from the ice jacking effects. Lake Shamineau has 32 lake aeration permits currently issued, the most for any lake in Minnesota, which is a strong indication of the significant damages the high water is causing to the shoreline of Lake Shamineau relative to other developed lakeshores. A recent survey of lake owners found an estimated \$1.520 million in expenses due to high water level. The survey of Lake Shamineau property owners describing property damage may be found online at: <a href="https://minnesotawaters.org/lakeshamineau/high-water

Minnesota Waters — https://minnesotawaters.org/ lakeshamineau/

LSLID CONTACT INFO

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water-damage-survey/

High Water Takes Center Stage - continued

We are learning more about what is causing the high water and what we can do to lower the water to manageable levels.

Lake Shamineau is located in a closed watershed basin. The total contributing drainage area to Lake Shamineau is approximately 11.91 square miles. A natural outlet does not exist for Lake Shamineau so the lake relies on groundwater movement, evaporation and evapotranspiration to maintain or lower the Water Surface Elevation (WSE).

A review of the historic and recent problems appear due to the wet hydrologic cycle and the lake not having an outlet. During the more recent wet hydrologic cycle, inflows from runoff and groundwater have exceeded outflows and have caused Lake Shamineau's sustained WSE to rise.

Since the early 1990's, higher than normal precipitation has occurred and the WSE has been rising above the OHWL (Ordinary High Water Level) since early 2000's. The WSE has been consistently above the OHWL since 2013 and is currently over 1.5 feet above the OHWL

Proposed High Water Project

Houston Engineering has developed a plan to lower the high water

The purpose of this project is to establish a maximum operating level of Lake Shamineau for economic and natural resource benefits. This can be accomplished by managing the high-water levels of Lake Shamineau at an elevation that protects adjacent property owners and sustains a healthy wildlife environment.

The need for the project is to significantly reduce future property and shoreline damages, reduce property owner costs and provide more efficient strategic planning abilities for the LID, County and State. The proposed project involves the construction of a permanent outlet for Lake Shamineau. The proposed outlet includes a pumping station that will pump water from Lake Shamineau along a proposed alignment to a channel that will be constructed along Highway 10.

The Lake Shamineau Lake Improvement District (LSLID) is the implementing party and has contracted with Houston Engineering to manage and oversee the engineering, design, permitting and construction of the project. LSLID will seek special assessment funding from all Lake Shamineau property owners and we hope the FDR Grant Assis-

tance Program will provide additional supplemental governmental funding assistance. While we have checked with other funding sources including Morrison County, no funds are available and there are no other known funding options. A public hearing to discuss the project and financing is scheduled for April 21, 2018 at 1:00 PM at Lincoln Evangelical Free Church 1354 320th St Cushing, MN.

The Engineers Feasibility Report provides considerable insight into the conceptual design and basis of recommendation for the proposed project. The 3-part report may be found HERE and HERE. Or visit our website to find the Engineers Feasibility Report:

https://minnesotawaters.org/lakeshamineau/Islid-hearing/

ENGINEERS OPINION OF PROBABLE COST

	42 020 000
Construction Items	\$2,020,000
Project Contingency	290,000
Engineering, environ, survey, etc.	285,000
Admin, legal, finance processing	75,000
Easement Acquisition	60,000
Utility Accommodation & Service	20,000
Total OPC for the Project	\$2.750.000

* This amount may be reduced up to 50% or more depending on grants and final alignment.



Why Was The LSLID Created

The Lake Shamineau Lake Improvement District (LSLID) grew out of the Lake Shamineau Association and was created in 2015 for a number of reasons including:

- To increase the visibility of Lake Shamineau in an effort to improve support and interaction with Morrison County, Scandia Valley Township, DNR, and other governmental agencies.
- To fairly and effectively confront our existing and potential lake problems.
- To provide a mechanism to recognize lake problems and act to correct them without relying on unpredictable voluntary funding.
- To manage the growing expense for monitoring and removing aquatic invasive species (AIS).
- To partner with DNR, Morrison County, Scandia Valley Township to improve public access signage, increase boat inspections and expand AIS education.
- To increase shoreline erosion protection, restoration and educational methods to maintain a healthy shoreline.
- To continue our Citizen Lake Monitoring Program of secchi disk readings for clarity, trophic state index, dissolved oxygen content, lake water levels and reporting results.
- Become eligible and apply for grants to help pay costs of lake management.



AIS Costs Are On The Rise

Eurasian Water Milfoil is an aquatic invasive species (AIS) and is present at multiple areas along the west end of Lake Shamineau.

Each year the LSLID obtains a permit from the DNR to control AIS and twice each year a team of SCUBA divers with special training have been hired to hand pick Eurasian Water Milfoil. Until last year hand picking seemed to keep AIS in check, however a new larger and more aggressive patch was recently discovered. This aggressive patch is of special concern and a new more aggressive remediation plan that includes chemical treatment will begin for the first time this summer. Hand picking efforts will continue and will be stepped up from two times per summer to three times.

In addition to hand picking, SCUBA divers monitor and track the location of AIS and maintain GPS coordinates. This data is used as a basis to develop future AIS control methods. A special grant from Morrison County will allow an AIS survey to be performed around the entire lakeshore this summer. The results of this survey will be published when available. If you would like to volunteer to assist SCUBA divers or have specific questions about the AIS program, please contact Rick Rosar 612-709-6402.

While the DNR has provided partial grant funding to help pay AIS remediation costs in the past, the DNR has reallocated dollars and no longer contributes toward our AIS con-

trol. We are on our own and costs have doubled this year.

The LSLID also provides AIS education and has constructed special display signs at each public and private boat access. These signs include a map that illustrates the location of known AIS.

This photo illustrates known locations of AIS at Lake Shamineau:



What is a Lake Improvement District (LID)?

A LID is a local government unit, a political subdivision, established by resolution of a county board, city council or by the commissioner of the department of natural resources. A LID allows for greater local involvement in lake management activities.

What authorities does a LID have?

In its resolution establishing the LID, the county board delegates specific authorities to the LID. Each LID will likely be granted different levels of authority depending upon existing problems and proposed activities. Some of these may include the right to:

- Apply for and comply with DNR and other agency and local permits and policies required for specific lake management projects;
- Undertake lake research projects;
- Conduct programs of water improvement and conservation;
- Serve as local sponsor/recipient for state and federal projects or grants;
- Regulate water surface use;
- and more

2018 LSLID Budget

AIS - Eurasian Water Milfoil Control (Planning-Permits-Projects)	\$12,000
Cabin and pontoon rental	1,000
Aquatic Vegetation Surveys	2,500
High Water/No Outlet (Study-Planning-Permits-Projects) -	*
Administration, Engineering, Legal	20,000
Water Quality Monitoring	800
Public Access Cooperative Projects	3,000
Liability Insurance	1,500
Administrative Expense	600
Wetland Condition Study	0
Loan Repayment - Association	12,500
Floating Bog Mitigation	500
Reserves	2,000
Total Expense	\$56,400
* see proposed high water project	