

Lake Shamineau Lake Improvement District High Water Project

Background

Lake Shamineau is a 1434-acre lake located in Central Minnesota. It is home to approximately 100-year-round residents, 285 seasonal residents, and 4 commercial properties. 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 millions of dollars of property damage and loss.

The increased water level has resulted in flooded and uninhabitable homes and property. Recreational traffic has been affected by the imposition of a 300' No Wake Zone and due to the large number of trees that have fallen into the lake. The purpose of this project is to lower and maintain the water level in Lake Shamineau at an elevation that protects adjacent property.

Nature of Flooding

Lake Shamineau is in a closed watershed basin. The total contributing drainage area to Lake Shamineau is approximately 11.91 square miles. Lake Shamineau has had increasing lake levels during the last several years and now is over 2.4 feet above the Ordinary High-Water Level (OHWL). A natural outlet does not exist for Lake Shamineau, so the lake relies on groundwater movement and evaporation to maintain or lower the Water Surface Elevation (WSE).

A review of the historic and recent problems appear that the cause is a wet hydrologic cycle and the lake not having an outlet. Since 1962 the water has risen approximately 7 feet. During the more recent wet hydrologic cycle, inflows from runoff and groundwater have exceeded outflows and have caused the sustained WSE to rise. Beginning in the early 1990's, higher than normal precipitation in the region 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 the most recent recorded reading by the DNR in September 2020 was 2.42 feet above the OHWL.

High-Water Project

The proposed project is located at and near Lake Shamineau in Morrison County in Central Minnesota. The purpose of this project is to establish a maximum operating level of Lake Shamineau for economic and natural resource benefits. The proposed project involves the construction of a permanent outlet for Lake Shamineau to manage the high-water levels of Lake Shamineau at an elevation that protects adjacent property owners and sustains healthy natural vegetation and wildlife habitat.

On August 20, 2019, The Morrison County Board of Commissioners approved a second amended order establishing the Lake Shamineau Lake Improvement District which, in part, authorizes the LSLID to study the impacts of and develop solutions to high water levels and outlet adequacy issues. On September 24, 2019, the Morrison County Board of Commissioners, for the purpose of the planning, establishment, construction and financing of the Lake Shamineau High-Water Outlet project, delegated authority as authorized by MN Statutes section 103B.555, subd. 4 to the Lake Shamineau Lake Improvement District Board of Directors. The Lake Shamineau Lake Improvement District members voted overwhelmingly in August 2020 to plan, develop, and construct an outlet that will transfer water from Lake Shamineau to Fish Trap Creek.

The proposed project includes the installation of a new lake outlet structure and pumping station near Lake Shamineau immediately adjacent to the shoreline at the west part of the lake. From the pumping station, a pressurized forcemain pipe will take water west and then south along US Highway 10 to the location of an outlet structure located on the south side of County Road 203 where the water exits the forcemain pipe. From there, the water continues to gravity flow through an existing drainage ditch that passes through US Highway 10 before flowing west into Todd County and eventually reaching Fish Trap Creek. Fish Trap Creek becomes part of Todd County Ditch No. 41 and eventually reaches the Long Prairie River about six miles downstream.

The Lake Shamineau Lake Improvement District (LSLID) is the responsible Local Governmental Unit (LGU) and has contracted with Houston Engineering to manage and oversee the engineering, design, permitting and construction of the project. The project will be funded through charges to Lake Shamineau property owners. In addition, funding has been received through the MN DNR Flood Hazard Mitigation Grant funds to offset some of the planning costs.

Status

The Lake Shamineau Lake Improvement District (LSLID) is in process of obtaining easements and approvals for the project flowage route. The LSLID and Houston Engineering are working closely with property owners along the route to ensure that the project is not detrimental to their property. In addition, the LID is working with agencies for the appropriate approvals. An operations and maintenance plan will be developed for the project and approved during the DNR permitting process to ensure strict operational guidelines are followed. Design and planning work are in process to develop project details.

Schedule

High Water Project Estimated Timeline

Note that the following schedule is tentative and based on preliminary engineering.

<i>Outreach and System Capacity Analysis</i>	<i>September 2020</i>
<i>Outreach, Value Engineering, Preliminary Wetland Delineation</i>	<i>December 2020</i>
Complete Preliminary Project Planning, Preliminary Design Drawings, Updated Cost Estimate, Petition Process and Right of Way	March 2021
Develop planset, complete EAW Process, Permit Applications, and Complete Wetland Delineation	May 2021
Complete Final Engineering Plans and Specifications	Summer 2021
Obtain Bids from Contractors and bid review	Summer 2021
Issue Bond and Project Financing based on construction bids	Fall 2021
Construction Begins	Fall 2021
Project Operational	Late Fall 2021
Final High-Water Project Assessments	December 2021

Tasks in italics have been completed. The project timeline is estimated and is dependent on weather, agency approvals, funding, etc.

For More Information

Lake Shamineau Lake Improvement District
 PO Box 394
 Motley MN 56466
 Email: LSLIDBD@gmail.com
 Website: <https://minnesotawaters.org/lakeshamineau/lid>