



**PRIOR LAKE  
SPRING LAKE  
WATERSHED DISTRICT**

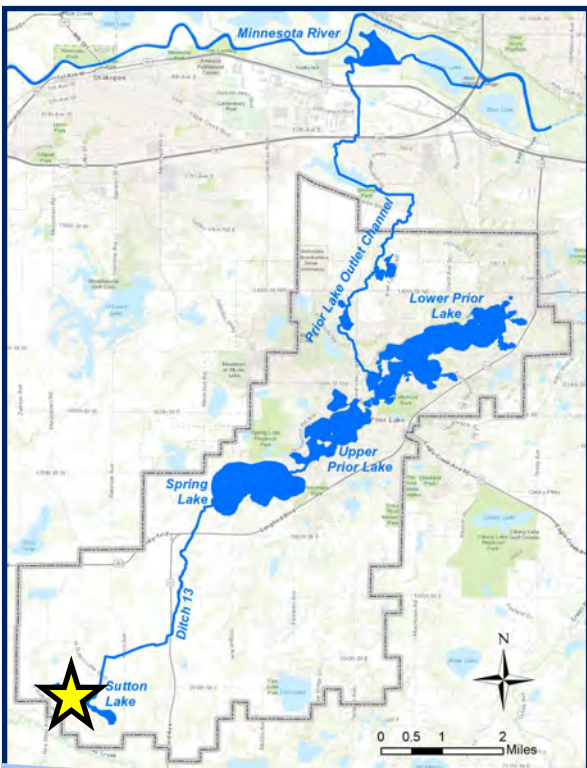
# SUTTON LAKE OUTLET PROJECT



## 2021 District Mini-Tour

### Chain of Lakes: Improving the Connected System

The project is located on Sutton Lake within the Prior Lake-Spring Lake Watershed District (PLSLWD). Sutton Lake is at the headwaters of the Ditch 13 channel that flows northeast into Spring Lake which then outlets into Upper Prior Lake and then into Lower Prior Lakes, eventually making its way into Pike Lake via the Prior Lake Outlet Channel and then down to the Minnesota River. Water quality improvements and flood storage at this headwaters location on Sutton Lake can have positive, lasting impacts to all of the chain of lakes downstream of it.



### An Ounce of Prevention is Worth a Pound of Cure

Following the record-setting 2014 flood on Prior Lake, the PLSLWD completed the Prior Lake Stormwater Management & Flood Mitigation Study. This study identified several potential projects that could reduce the impact of flooding on Prior Lake. The Sutton Lake project was one of the highest ranking project as it had a relatively high flood damage reduction potential and lower costs compared to other options.

Installation of the berm, the controlled outlet weir, and the active management gate structure on Sutton Lake is intended to control high flows and have flood reduction benefits on Spring & Prior Lakes. This project will allow Sutton Lake to bounce periodically, more similar to a natural lake/wetland system that does not have a ditched outlet. The PLSLWD will use an optimization process for management of the outlet system that will achieve an estimated 0.1 - 0.3 feet reduction in the high-water line of Prior Lake during the 100-year, 30-day event, and will not raise the 100-year, 24-hour high-water line on Sutton Lake.

*Funding for the Sutton Lake Outlet Project is provided in part by the State of Minnesota Flood Hazard Mitigation Grant Assistance Program administered by the MN DNR.*



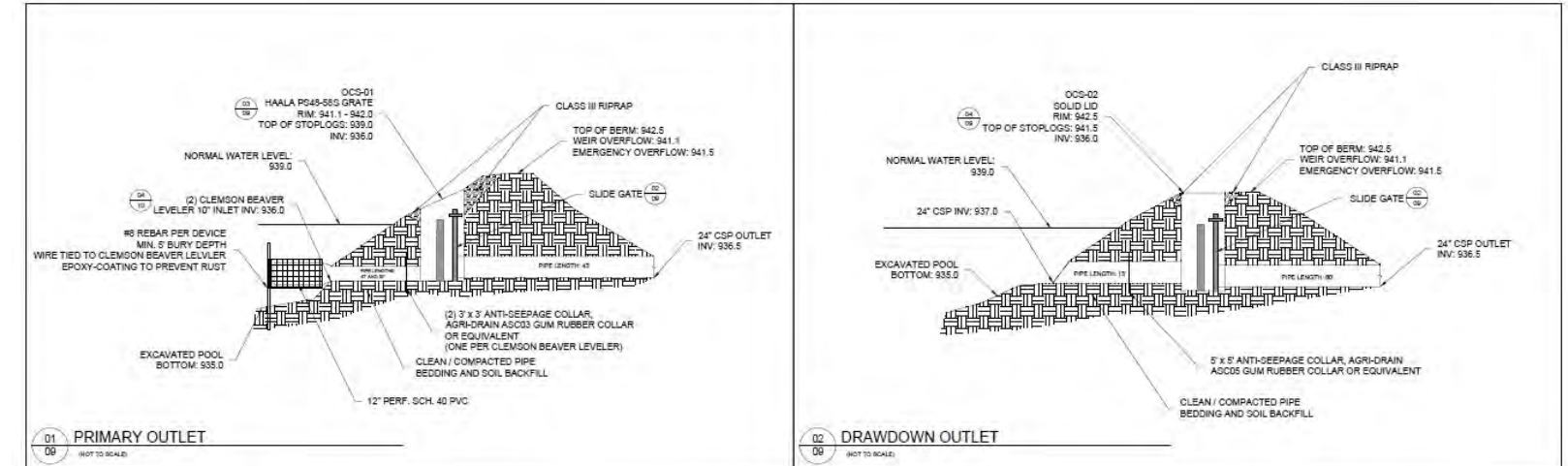
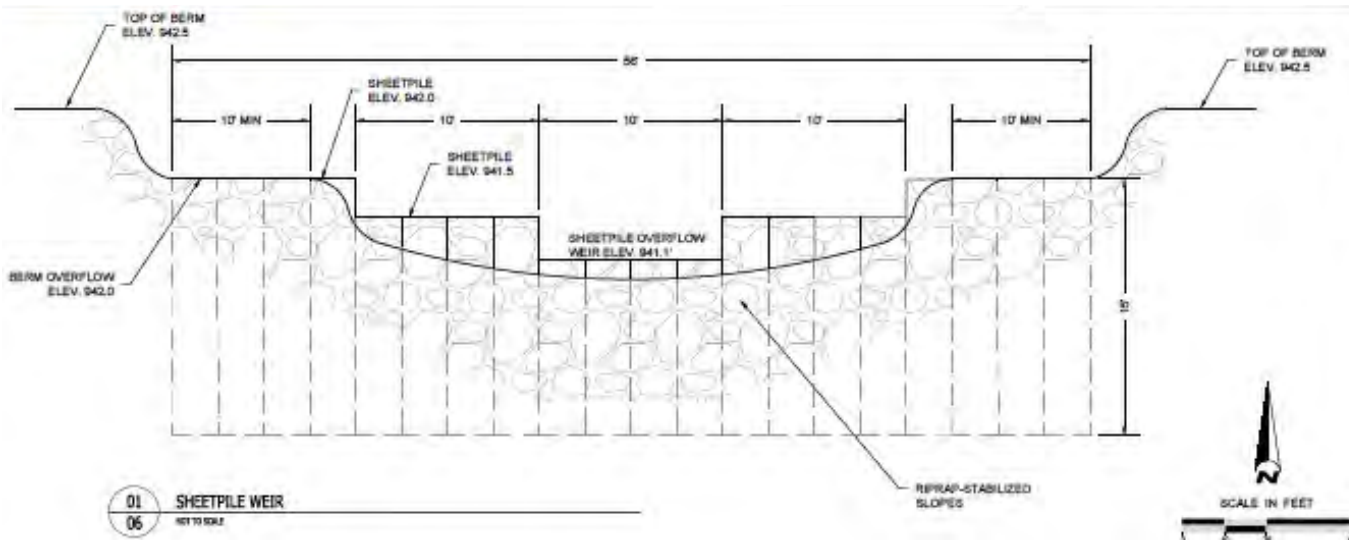
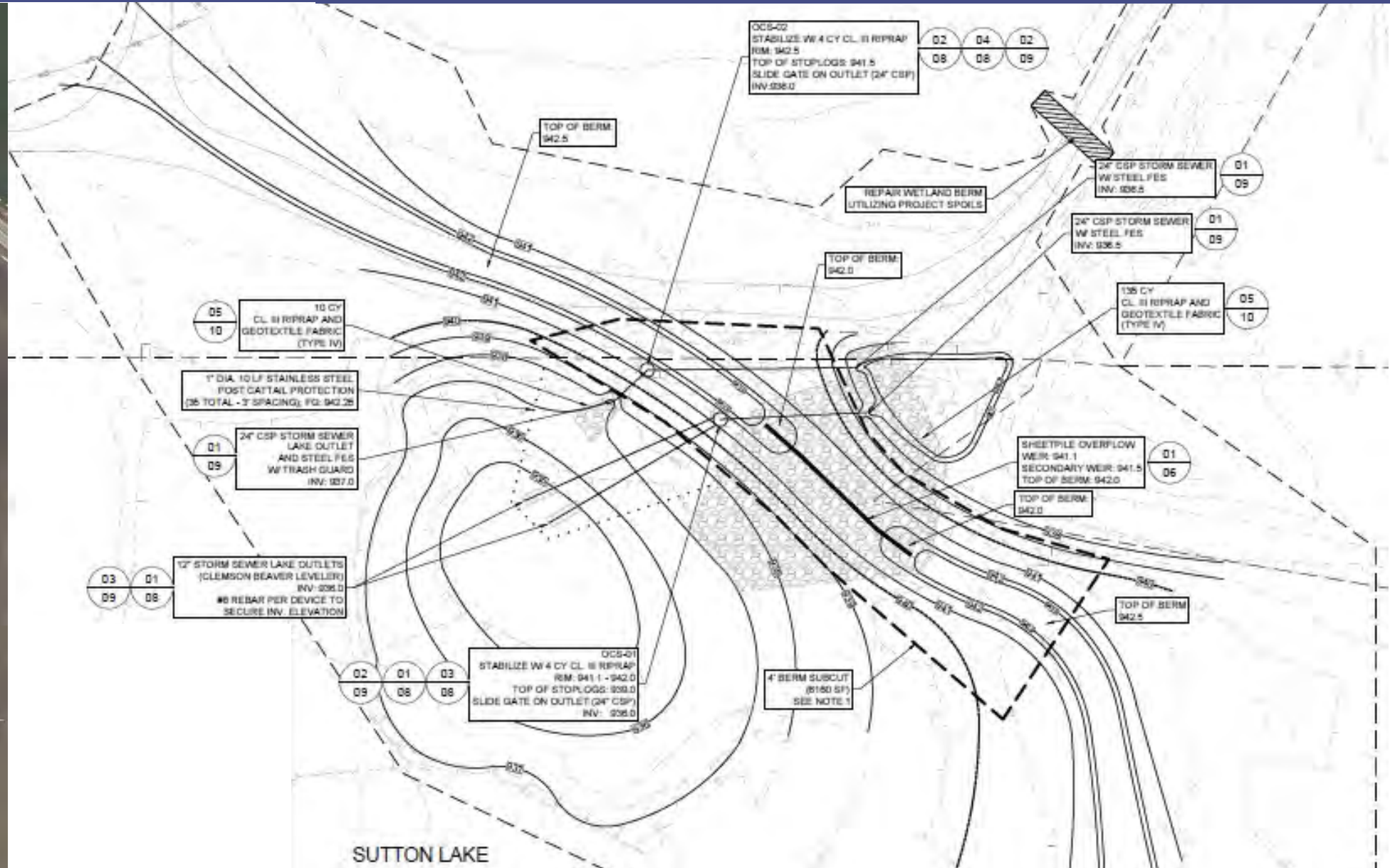
*The local landowners are important partners of this project and the PLSLWD acknowledges their contributions.*

*The innovative design concept and engineering for this projects was completed by the District's engineer, EOR.*





# 2021 Sutton Lake Outlet Project





# Next Steps

## SUTTON LAKE OUTLET PROJECT

### Lake Management Plan

In order to maximize the flood reduction potential on Prior Lake and maximize the wildlife habitat benefit on Sutton Lake, the District is currently exploring a comprehensive lake management plan in coordination with the MN DNR that will guide timing and implementation of winter drawdowns on the lake, as well as operation of the gate valve structure. This would likely entail a fall drawdown after hunting season is over by opening the outlet structures to 937.0, keeping them open through winter and then adjusting the structures back to an elevation of 939.0 in the spring. This type of active management, if approved, could improve wildlife habitat and provide increased flood reduction on Prior Lake to as much as 0.3 feet.

### Optimization of the Outlet System

The Prior Lake-Spring Lake Watershed District is working on modeling different scenarios to determine how to maximize benefits during different rain event activities. The PLSLWD will be exploring these different scenarios with the DNR and the landowner of Sutton Lake to ensure that the project is meeting multiple goals including enhancement of wildlife habitat and improvements to plant diversity.



Please visit us at our website for more information: [www.plslwd.org](http://www.plslwd.org)  
or call us at (952) 447-4166.