

Shoreline Stabilization Project

2015 Little Birch Lake



Practice :

Shoreline Stabilization

Target Waters :

Little Birch Lake

Year Constructed :

2015

Components :

- Bluff/Slope Failure
- Boat House Collapse Into The Lake
- Retaining Wall Removal
- Stormwater Management
- Sediment Logs
- Coconut Erosion Control Blanket
- Native Planting

Benefits :

- Slope Stabilization
- Sediment Reduction
- Nutrient Removal
- Wildlife Habitat
- Natural Aesthetics

Partners :

- MN DNR
- West Central TSA
- Stearns County ESD

Watershed :

Sauk River Watershed

Project Description : This site consists of a very steep bluff to Little Birch Lake along 110 feet of shoreline. There was an existing boathouse constructed into the bluff. During the summer of 2014, the bluff and boathouse collapsed resulting in the materials being deposited on the shoreline and in the lake. As a contributing factor to the bluff failure, the stormwater from the cabin on the property was routed down the bluff. In addition, near the shore there was a failing retaining wall. The bluff restoration and boathouse removal were completed in two phases. In March of 2015, the boathouse debris removal and bluff restoration was completed. This portion was done by accessing the site from the lake over the ice. During the bluff restoration, soil was hauled in and compacted to restore the slope, reshaping of the shoreline was completed, a diversion was constructed with a filter basin and outlet, and native grasses, wildflowers as well as a cover crop were seeded. Coconut erosion control blanket and sediment logs were also installed. In May of 2015 the second phase of the project was completed. This involved the rerouting of the cabins stormwater, as well as planting native tree and shrubs on the restored bluff.

Pollution Reduction Estimates :

Phosphorus	203 Lbs/Yr
Sediment	177 Lbs/Yr

Funding :

MN DNR AHR Funds*	\$	13,637
Landowner Investment	\$	4,546

* Administered by Stearns SWCD

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"The landowner recognized the importance of restoring the bluff shoreline and worked with the contractor and SWCD in phases to complete the project in a sound manner." Greg Berg – Stearns County SWCD



Before Project – Boathouse/Bluff Failure



Before Project – Boathouse/Bluff Failure



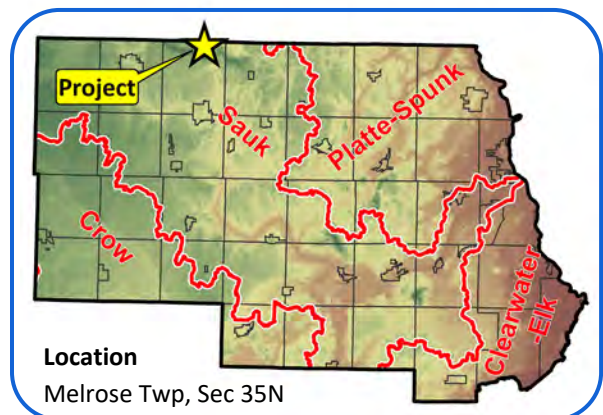
Before Project – Bluff Failure



After Project – Bluff/Shoreline Restored



After Project – Bluff/Shoreline Restored



Location

Melrose Twp, Sec 35N