



Stubbs Bay Ravine Stabilization



Clean Water Funds: 2011

Clean Water Grant	\$183,684
Leveraged Funds*	\$45,921
Total Project Budget	\$229,605

* Leveraged Funds include required 25% local match

Targeted Water:

Stubbs Bay of Lake Minnetonka

Project Sponsor:

City of Orono

Grant Period:

January 2011 - December 2012

Project Contact:

Mike Gaffron
(952) 249-4600
mgaffron@ci.orono.mn.us
<http://www.ci.orono.mn.us/>

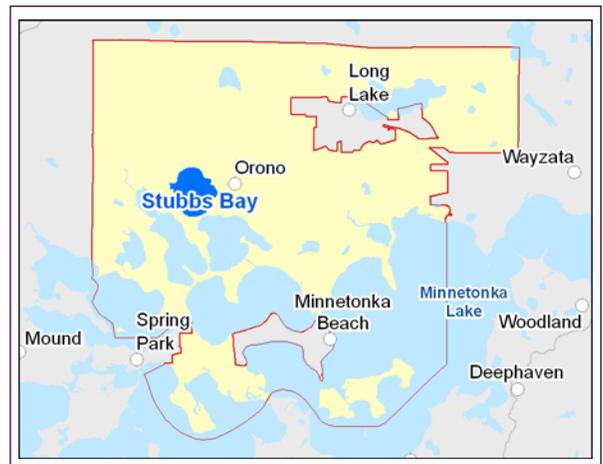


Project Narrative

Stubbs Bay on Lake Minnetonka is impaired for excess nutrients due to phosphorus loading. This impairment results in nuisance algae blooms that limit the recreational use of this water body. As a part of its surface water management planning process, the City of Orono has identified projects to help improve the water quality of Stubbs Bay and Lake Minnetonka. The "Stubbs Bay Ravine Stabilization" project is one of the projects scheduled for completion in 2011.

The project will stabilize an existing 500-foot-long ravine that has eroded to a depth of approximately 15 feet. The unstable ravine discharging sediment to the lake contributes to the phosphorus loads that are detrimental to water quality. To repair the eroding ravine, the City will design a stable cross-section, install weirs or other grade control structures, and utilize bioengineering techniques that incorporate deep rooting native vegetation.

It is estimated that this project will reduce phosphorus loading to Lake Minnetonka by 41 lbs/year, which equates to 27% of the 152 lb/year goal set by the Minnehaha Creek Watershed District (MCWD) for the City of Orono.



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Eroding slopes of the ravine cause significant tree loss



Exposed roots indicate erosion