

**EROSION AND NUTRIENT CONTROL
PROJECT- Otter Creek Farm Cattle Crossing**

This project, completed in 2016, was designed to improve water quality in the Slate River Watershed. We believe that the partnerships developed with the Thunder Bay Soil and Crop Association, local farmers and The North Shore Steelhead Association will lead to improved water quality in Lake Superior and its tributary watersheds by creating protected “Riparian Zones” or Buffer Zones next to local streams.

The project involved examining satellite imagery and previous water quality sampling to discover areas where erosion or nutrient runoff was occurring. Strong interest was expressed by two of the farm owners visited. The highest priority site was on the Otter Creek Farm; both in terms of severely eroding stream banks and unrestricted cattle access to the water in Otter Creek.

Project Partners

- Jack Hansen—Farm Owner
- The Thunder Bay Soil and Crop Improvement Association
- The North Shore Steelhead Association
- Sir Winston Churchill Secondary School

The participation of the farmer was essential to complete the fencing and the cattle crossing in a cost effective manner. The owner will maintain the crossing in future years.

Project Funding

Project Funding – A \$25,000.00 grant was received through the Great Lakes Guardian Community Fund. This grant covered all of the work completed to re-slope the stream banks, stabilize unstable areas with rip-rap and create a 30 metre long cattle crossing. Stream banks were live-staked with willow, red-osier dogwood, and poplar.



April 2016– Eroding Streambanks– Before Work



Stream Banks were re-sloped and hydro-seeded.

Cattle Crossing

A 30 metre cattle crossing was constructed during the low water period in July, 2016. Geotextile was laid underneath the crossing and was filled with 4-6 inch cobble to resist the Spring freshet and flood events along Otter Creek. This crossing has only been tested by moderate high water events so far. A small section of geotextile was eroded during Spring and had to be filled by Jack Hansen using cobble and rip-rap.



Geotextile and cobble were laid on the base of the cattle crossing. Jack Hansen covered the cobble with granular A to make it a more stable surface for the cattle to walk on.

Fencing

The streambanks have been fenced off to cattle creating 700 metres of wild vegetation which helps to absorb run-off and protect water quality. The LRCA will complete water quality sampling again this summer to determine whether the buffer zones created have reduced the levels of *e-Coli*, *turbidity* and other water quality impairments. Keeping the cattle out of the stream is an excellent start.

Key Project Accomplishments

- **700+ metres of electric fencing installed**
- **30 metre x 5 metre wide cattle crossing**
- **300 metres of stream bank re-sloped**
- **700+ metres of streambank hydro-seeded and live-staked**



Co-operation between the farm owner Jack Hansen, the Lakehead Region Conservation Authority the North Shore Steelhead Association, the Thunder Bay Soil and Crop Improvement Association and Lakehead Public Schools has created a productive partnership. The financial support of the Ontario Ministry of the Environment and Climate Change through the Great Lakes Guardian Community Fund (GLGCF) helped to finance this project.

The GLGCF project for 2017 is being carried out on the Breukside Dairy Farm at 395 Boundary Drive East, Neening, Ontario.

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LAKEHEAD REGION CONSERVATION AUTHORITY

130 Conservation Road; P.O. Box 10427 Thunder Bay ON P7B 6T8