



Improving water quality in the Yellow Medicine River



Clean Water Funds: 2013

Clean Water Grant	\$60,000.00
Leveraged Funds*	\$15,000.00
Total Project Budget	\$75,000.00

Actual Budget Summary:

Grant	\$48,101.36
Leverage Funds	\$39,081.84

Target Water:

All waters in Lac qui Parle and Yellow Medicine Counties

Project Sponsor:

Yellow Medicine Soil and Water Conservation District along with the Lac qui Parle SWCD

Grant Period:

January 2012 — December 2013
Amended to December 2015

Project Contact:

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C12-65 - Conservation Drainage

Project Narrative

This Clean Water Fund 2013 Targeted Drainage Water Management Grant was written to retrofit drainage infrastructure with water quality improvement techniques in both Lac qui Parle and Yellow Medicine Counties.

The Yellow Medicine Soil & Water Conservation District (SWCD) agrees to grant reporting and fiscal management of this grant.

The Yellow Medicine and Lac qui Parle SWCDs will work together to develop the prioritization process for this grant.

Agricultural drain tiles with surface intakes are considered a significant delivery mechanism of nutrients to Minnesota River. Protecting those surface water inlets can reduce the direct path those nutrients have to the river. In addition, in agricultural fields with subsurface drainage, leached nitrate creates elevated nitrate levels in tile drainage water. These high nitrate concentrations can cause algae blooms that remove oxygen. To help remove nitrates leached into tile drains, wood chip bioreactors can be installed to remove nitrate from the tile water before it enters surface water. The goal of this project is to: develop CAP130 plans, install bioreactors, install control drainage structures and replace one intakes with alternative intakes.

Proposed Outcomes:

Offer 75% cost share to install bioreactor with control drainage structures.

Offer 75% cost share to install control drainage structures.

Offer 75% cost share not to exceed \$600.00/dense pattern tile system

Offer 75% cost share not to exceed \$1,650.00/CAP Plan

Actual Outcomes:

2 CAP130 plan were developed for landowners who installed control structures.

Fifty open intakes was replaced by alternative intake resulting in a reduction of phosphorus of 75 tons/year and 52.5 tons/year of sediment. 15 Control Structures were installed resulting in a reduction of 840 lbs/year of nutrients.

These practices resulted in a reduction of phosphorus of 75 tons/year, 52.5 tons/year of sediment and 840 lbs/year of nutrients.

Unfortunately only \$48,101.36 of the \$60,000.00 were spent. Another \$6,900.00 was encumbered but the landowners did not complete the projects in the allotted time frame. The remaining grant dollars of \$11,898.64 was retained by the MN Board of Water & Soil Resources.

2013 Clean Water Fund Drainage Water Management Lac qui Parle & Yellow Medicine Counties

-  Lac qui Parle River
-  Yellow Bank River
-  Yellow Medicine River
-  Major Cities
-  Minor Cities
-  Counties
-  YMC Twps
-  LQP Twps

