

Lac qui Parle-Yellow Bank Watershed District Clean Water Partnership

Water of Concern

Lac qui Parle River

Impairments (if any)

Turbidity Impaired Reaches

CWL Grant Awarded

Type \$ 210,000.00

Funds Returned to State

Type \$ 43,708.02
Date Fund Returned:12-23-2010

Grant Period (incl. extensions)

From: Date February 1, 2008
To: Date December 1, 2010

CWL Expenditures by Category

Technical Assistance Funds

SSTS Funds 0

Professional Development 0

Hired Positions 0

Total TA Funds 0

Implementation Funds

AgBMP Loans 0

Clean Water Assistance Funds \$210,000.00

Leveraged Dollars \$26,365.88

Total Imp. Funding \$192,657.86

Total CWL Expenditures \$166,291.98

PROJECT CONTACT

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Project Title: Basic BMPs for Lac qui Parle River Turbidity Impairments



Overall Project Description (abstract)

The Diagnostic Study of the Lac qui Parle-Yellow Bank Rivers and tributaries revealed high sediment loads being transported to the Minnesota River. Basic Best Management Practices (BMPs) included streambank stabilization, buffering streambanks and replacing open tile intake with alternative drainage practices of rock intakes or pattern tile.

A streambank stabilization in Wergeland 5 of Yellow Medicine County stabilized 370 feet of streambank. Another 135 feet was ready to be completed when record rain fell in October 2009 which caused the river to remain elevated throughout 2010 and prevented further stabilization work to be completed. Two demonstrative rain gardens were installed and have provided additional educational opportunities in the local communities. While only 7 open tile intakes were replaced in the impaired area, there were applications for another 28 intake replacements that were unable to be completed.

The goal of 150 acres was met plus an additional 29.1 acres were enrolled into filter strips with an incentive for a 15 year Continuous CRP contract.

Conservation Practices Implemented

Conservation Practices Installed	Number or Linear Feet Installed	Estimated Pollutant Load Reduction (include units)	Total Cost
Streambank Stabilization-3 Sites	370 linear feet	10.77 T/yr sediment and soil; 12.39 Phosphorus lbs./yr	\$ 24,551.00
Rain Gardens-2 Sites	2,240 square feet	1.38 Phosphorus lbs./yr 154.21 TSS T/yr, 7.96 lbs/yr	\$ 18,016.91
Alternative Intakes-7	7 units	3.5 Phosphorus lbs./yr 1.4 T/yr soil	\$ 4,365.63
Filter Strips-14 plans	179.1 acres	788.87 T/yr sediment; 282.97 T/yr soil; 1178.51 lbs/yr Phosphorus	\$129,900.00

Conservation Planning Activities

Name of Plan(s) Written	Number of Landowners Contacted	Number of Plans Written	Total Cost	Types of Practices Identified	Number of Practices Identified	Number of Practices Implemented
Continuous CRP-Filter Strips	26	14	\$129,608.50	Filter Strips	179.1 acres	14 contracts

Contributing Partners

Partner	Description	Project Contribution	Leveraged Funds
Area II MN River Basin Project, Inc.	Survey and Design For streambank stabilization	In-Kind	
NRCS-LqP, YM & Lincoln	Write Continuous CRP Plans	In-Kind	\$6,300.00
Yellow Medicine River Watershed District	Streambank Stabilization Cost Share	Cash	\$6,137.75
City of Dawson	Rain Garden materials	Cash-materials-labor	\$1,350.00
Heather Nursery	Rain Garden materials	Landscaping and labor	\$1,700.00
Lincoln Historical Society	Rain Garden Materials	Plants, Labor, Maintenance	\$ 951.15
SWCD-LqP, Linc. YM	Newsletters-Promotion	In-kind	\$ 525.00
Landowners	Equipment and labor	Labor and cash	\$9,401.98

Project Informational/Educational Activities

Type of Activity	Newsletters, Brochures, Posters, Etc.	Work with Youth Groups	Tours, De-mos, Etc	Presentations Given	Presentations by guest speakers	Other

The project did not include an education component but was promoted in county fair displays, SWCD newsletters and radio programs. The community rain gardens have provided education-

Project Outcomes

Detail specific project outcomes that work towards meeting Restoration (total maximum daily load studies) and Protection (local water plans) water quality goals. For restoration projects, please include overall TMDL Point Source Reductions Needed (% & Pounds) Overall TMDL Non-Point Source Reductions Needed (% & Pounds) Estimated Total TMDL Non-Point Source Reduction (% & Pounds) from Projects (s).

The Lac qui Parle River has seven turbidity impaired reaches that are being addressed currently in a multi-impairment/multi-reach TMDL Assessment Report. The streambank stabilization project restored 370 feet of eroded streambanks on three meanders of the Lac qui Parle River that has the highest turbidity exceedance levels. This river reach needs an approximate 71% reduction to meet the turbidity standard of 25 NTU. The stabilization project is projected to reduce 10.77 Tons/year of sediment and soil loss and 12.39 lbs./year of Phosphorus. This project has the potential to bring the water body into compliance for 30 to 60% of flow duration.

The Continuous CRP Filter Strips enrolled into 15 year contracts will reduce sediment 788.87 tons/yr., soil 282.97 tons/yr. and phosphorus 1178.51 lbs/yr. These contracts, in addition to floodplain pastures, protect approximately 85% of watershed ditch #11 in the headwaters of the LqP River.

The rain gardens and alternative intakes do not currently have calculators to provide sediment, soil and phosphorus reduction amounts.

The practices accomplished complement the Lac qui Parle-Yellow Bank Watershed Management Plan *Section 4: Implementation– Goal #1 Protect and Enhance Surface Water Quality; Objective B. Reduce sediment loading to water bodies by reducing soil erosion.*

Unfortunately, our goals were not completely met. Many unforeseen circumstances came into play such as the record rainfalls during October 2009 and September 2010, economic factors for agricultural producers and the recession that is still affecting the United States.

Project Photos, Additional Maps, or Conservation Practice Designs



Streambank Stabilization on Lac qui Parle River on one of three meanders.



Construction Process of Rain Gardens



Replacing Tile Intakes with Pattern Tile