

# Rock County SWCD LMO

**Water of Concern**  
Rock River

**Impairments (if any)**  
Turbidity and Mercury

**CWL Grant Awarded**  
\$ 69,000.00

**Funds Returned to State**  
\$ 7,300.25  
January 20, 2011

**Grant Period (incl. extensions)**  
From: 02/01/2008  
To: 12/31/2010

## CWL Expenditures by Category

### Technical Assistance Funds

**SSTS Funds**      \$type here

**Professional  
Development**      \$type here

**Hired  
Positions**      \$type here

**Total TA  
Funds**      \$type here

### Implementation Funds

**AgBMP  
Loans**      \$type here

**Clean Water  
Assistance  
Funds**      \$ 61,699.75

**Leveraged  
Dollars**      \$ 37,224.50

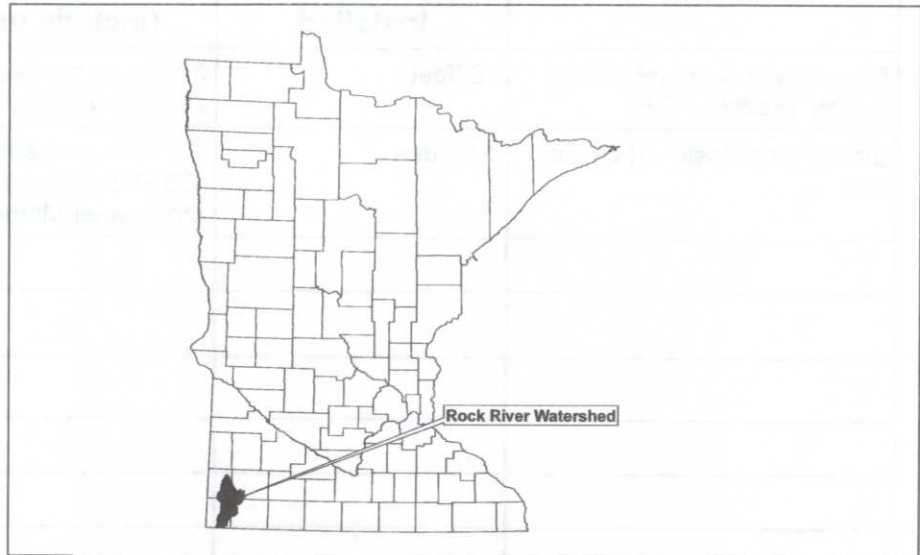
**Total Imp.  
Funding**      \$type here

**Total CWL  
Expendi-  
tures**      \$ 61,699.75

## PROJECT CONTACT

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## Project Title: Rock River Turbidity and Mercury Prevention



## Overall Project Description (abstract)

The Hatting Street Dump was a 2.5 acre site along a sharp bend in the Rock River with a history of unregulated dumping of garbage and hazardous materials in the 1940s and 1950s. The river was cutting into the dump site each year, creating an eroding stream bank 18-20' high which along with surface erosion, caused mercury contaminated soils, ashes and garbage to enter the river. What made this site particularly sensitive was the fact that the City of Luverne's well-field is one mile downstream and Rock County Rural water's well-field is four miles downstream. This project was a great example of the advantages of successful partnerships with the City of Luverne, Rock County and the landowner providing in-kind services along with assistance from the US Fish and Wildlife and the DNR. These partnerships allowed cost savings on the dump site which then provided dollars to also construct a rain garden in partnership with the City of Luverne in Kolbert Park, reducing contributions to the turbidity impairment of the Rock River.

The storm water that ran past Kolbert Park entered the Rock River next to the Hatting Street Dump via the Poplar Creek. By capturing storm water runoff before entering the Poplar Creek, the rain garden constructed in Kolbert Park lowers the sediment, and solids from 21,920 square feet of city streets. The garden will also store storm water during rain events which will reduce stream load preventing increased sedimentation from stream bank erosion. Besides water quality, the rain garden will provide a unique type of planting that will attract and benefit birds and butterflies as well as provide a beautiful show of color throughout the year. The rain garden is located along a busy county highway and with signage, will serve to educate and promote the benefits of rain gardens to area residents. The rain garden also served as an educational opportunity for area junior and senior students by first utilizing a classroom presentation and then followed by students planting the vegetation in the rain garden. This project also was also a product of the partnership with the City of Luverne which provided inkind contributions of trucking, dirt, rock and labor.

*Prepared by Board of Water and Soil Resources  
Fiscal Year 2007-2009, Clean Water Legacy Project*

## Conservation Practices Implemented

Conservation Practices Installed	Number or Linear Feet Installed	Estimated Pollutant Load Reduction (include units)	Total Cost
Streambank & Shoreline Protection Practice—580	197feet	31.5 Tons per year—TSS 293 ppb Mercury	\$ 57,872.87
Bioretention Basin—Rain Garden	1 garden	.75 Tons per year—TSS 136,900 gal per year Stormwater Management	\$ 3,826.88

## 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

## Contributing Partners

Partner	Description	Project Contribution	Leveraged Funds
City of Luverne	Provided trucking, labor, soil, payload work	In kind	\$ 13,100.00
Rock Cty Hwy Dept	Provided trucking & labor	In Kind	\$ 4,500.00
Rock Cty LMO	Provided labor & project oversight	In Kind	\$ 8,064.50
Local Landowner	Provided labor, site preparation	In Kind	\$ 11,560.00

## Project Informational/Educational Activities

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

If this project included an education component, please include brief education narrative here:

## Project Outcomes

The project started by back-sloping 200' of shoreline at a three to one slope, armoring the shore line bank with concrete covered by 2' of quartzite and installing six stream diversion structures to divert the energy of the stream. The top of the dump site was leveled, sloped away from the river, overlaid with over one foot of top soil and seeded to native grasses to stop surface erosion. To ensure the permanence of the project, the owner signed a permanent restrictive easement prohibiting removal or alteration to the site.

The project has been a success in many aspects. The estimated reduction in sediment delivered to the Rock River will be 500 cubic yards of soil loss per year from the stream bank and an estimated reduction of 200 cubic yards of surface soil erosion per year thus addressing the turbidity impairment of the river. The reduction in delivery of sediment containing 9.31mg/kg of mercury will reduce mercury contamination in the river also. Higher inkind contributions provided by the landowner, Rock County and the City of Luverne resulted in a lower overall cost for the project. These partnerships allowed cost savings on the dump site which then provided dollars to also construct a rain garden in partnership with the City of Luverne in Kolbert Park, reducing contributions to the turbidity impairment of the Rock River. The 1000 square foot rain garden in Kolbert Park catches the storm water from 21,920 square feet of city streets. The rain garden is estimated to filter out 15,060 pounds of the Total Solids along with other contaminants over a period of ten years. The rain garden will also slow delivery of storm water to the Rock River, reducing stream flow and bank erosion, a high contributor of sediment. Besides water quality, the rain garden will provide a unique planting to benefit birds and butterflies as well as an interesting show of colorful plants. The rain garden is located along a busy county road that with signage will educate and promote rain gardens.

**Project Photos, Additional Maps, or Conservation Practice Designs**



The Rock River view of the Hatting Street Dump



Ellsworth Public School Science class help plant the Kolbert Park Rain Garden