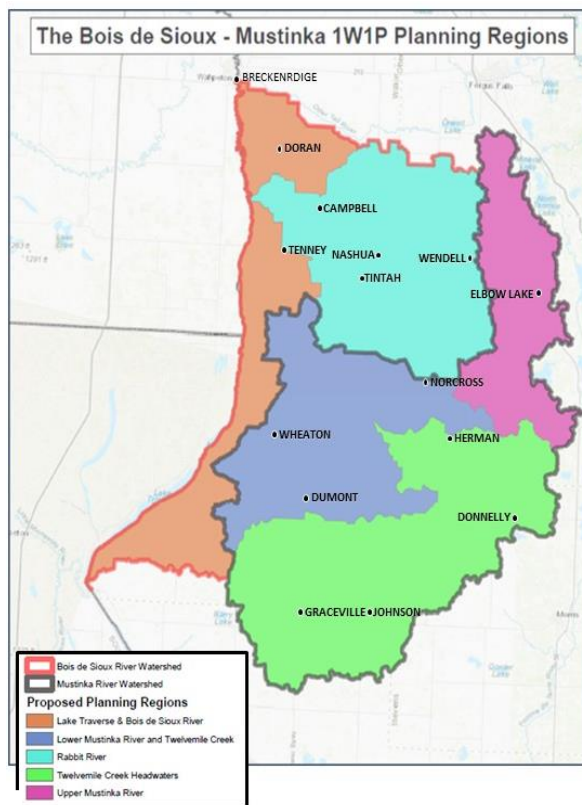


## Plan Annual Update

### IMPLEMENTATION YEAR THREE

On January 27, 2021, partners for Bois de Sioux and Mustinka River Watersheds published the Bois de Sioux – Mustinka Comprehensive Watershed Management Plan (2021 – 2030), with Appendices A - P. Following approval of the plan by the Board of Water and Soil Resources, all thirteen LGU partners adopted the plan by resolution, and Bois de Sioux Watershed District offered to serve as the watershed based implementation grant fund fiscal host. A portion of implementation has been facilitated by two Legacy Amendment BWSR Clean Water Fund Watershed Based Implementation Fund Grants (WBIF #1 2020 – 2023 & WBIF #2 2022 – 2025).

**OTHER ADMINISTRATIVE TASKS:** The Steering Committee continued to meet monthly, and the Policy Committee met twice. Documents and records continue to be shared on a Sharepoint website.



## Watershed Based Implementation Funds

TERM	TOTAL
3/21 - 12/23	\$ 1,064,522.00
9/22 - 12/25	\$ 1,488,685.00
9/24 - 12/27	\$ 1,594,226.00
9/26 - 12/29	TBD
9/28 - 12/31	TBD



## Plan Measurable Goals (Projects & Practices)

### 10-YEAR SHORT-TERM GOALS

These short-term measurable goals describe the interim conditions to accomplish during the 10-year timeframe of this plan.

EROSION & SEDIMENTATION	LAND USE MANAGEMENT			
Reduce Sediment by 3,770 tons/year	Soil Health Practices on 2,321 acres			
SURFACE WATER QUALITY	GROUNDWATER	ALTERED HYDROLOGY	FLOODING	DRAINAGE
Reduce Total Phosphorus by 1,255 lbs/year	Maintain 86 Wells with Safe Arsenic Levels	Install 34,505 acre-feet of Storage	Define Flood Risk for 3 Priority Communities	Stabilize 75 Miles of Public Ditches
Assess and Stabilize 23 Miles of Priority River or Stream Channels	Maintain 396 Wells with Safe Nitrate/Nitrogen Levels		Provide Flood Risk Reduction for 1-2 of At-Risk Priority Communities	Repair/Improve 75 Miles of Public Ditches
Install 3.66 Miles of Fencing	Seal 240 Wells		Identify and Prioritize Most At-Risk Farmsteads	
3 Priority Municipalities have a Stormwater Management Plan			Private Infrastructure and 50% are Protected with Ring Dikes	

## WBIF Grant #1: C21-9685 - \$1,064,522

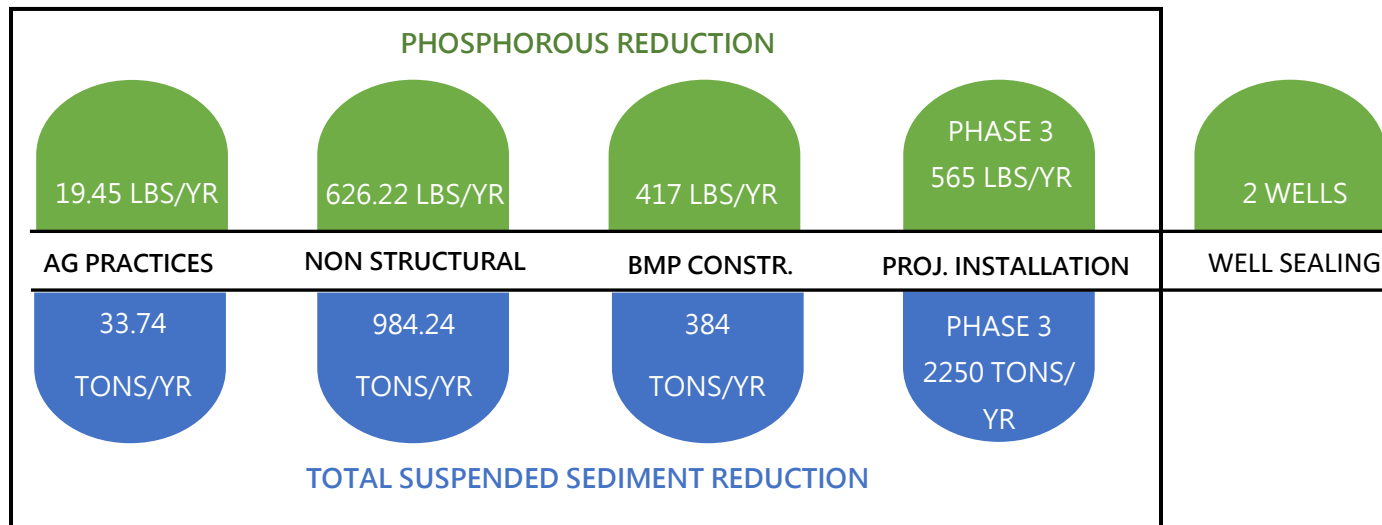
### BWSR AGREEMENT: 2021 – 2023 (EXPIRED 12/31/2022)

The first watershed based implementation funds grant agreement was signed by the Board of Water and Soils Resources on March 18, 2021.

### PRIMARY GRANT SPONSORED ACTIVITIES

<b>AGRICULTURAL PRACTICES</b>	<b>DONE.</b> Funded 2 WASCOB Storage Practices; 7 Grade Stabilization Protect Practices; 28 Lined Waterway Outlet Protection Practices (original plan was to install 19 filtration practice and 1 storage or protection practice).
<b>BMP CONSTN (JD #6)</b>	<b>DONE.</b> Funds used to construct grade stabilization structures (side inlets) and continuous berms. TARGET: JD #6
<b>PROJECT DEVELOPMENT (DORAN CREEK)</b>	<b>DONE.</b> Funds used for Doran Creek restoration project development such as, but not limited to, sediment transport analysis to determine upland contributing areas for additional structural BMPs, consultation w/DNR to finalize the fluvial geomorphology design, development of engineer preliminary plans and cost estimate.
<b>NON STRUCTURAL</b>	<b>DONE.</b> Funds used to install cover crops: 469 acres Rabbit River; 1182 acres Lake Traverse & Bois de Sioux. All other planning regions: 846 acres; Total acres: 2497. Original plan was to install 335 acres Rabbit River; 165 acres Lake Traverse & Bois de Sioux.
<b>PROJECT INSTALLATION (LTWQIP)</b>	<b>DONE.</b> Funds used for phase 2 of 3 of the Lake Traverse Water Quality Improvement Project No. 1, stabilizing 1600' of a manmade channel (6400') adjacent to MN Highway 27. Phase 3 was completed without contributing funds. TARGET: Lake Traverse Planning Region
<b>WELL SEALING</b>	<b>DONE.</b> Funds used to provide 2 well sealings according to locally adopted cost share policies.
<b>OTHER CATEGORIES</b>	<b>DONE.</b> Administration/Coordination, Progress Tracking and Evaluation, Project Development, Technical/Engineering, Project Installation/Cons (Match)

Measurable Outcomes for this Grant



WBIF #1 C21-9685 ACTIVITY  
As of December 31, 2021

The full matching funds for this grant were committed and spent by the Bois de Sioux Watershed District.

WBIF GRANT ACTIVITY	SOURCE	ACTUAL		REQUIRED MATCH
		4/20 & 5/23 AMENDME GRANT BUDGET	EXPENDITURES PAID TO DATE	
Agricultural Practices	WBIF State Grant	\$118,722.00	\$ 118,722.00	\$ -
BMP Construction (JD #6)	WBIF State Grant	\$148,000.00	\$ 148,000.00	\$ -
Project Development (Doran Creek)	WBIF State Grant	\$126,000.00	\$ 126,000.00	\$ -
Administration/Coordination*	WBIF State Grant	\$14,000.00	\$ 14,000.00	\$ -
Non-Structural Management Practices	WBIF State Grant	\$87,000.00	\$ 86,999.97	\$ -
Progress Tracking and Evaluation	WBIF State Grant	\$10,000.00	\$ 10,000.00	\$ -
Project Development	WBIF State Grant	\$194,000.00	\$ 194,000.00	\$ -
Project Installation/Const. (LTWQIP)	WBIF State Grant	\$325,000.00	\$ 325,000.00	\$ -
Project Installation/Const. (LTWQIP Cost Share)	Local Fund Match	\$106,452.00	\$ -	\$106,452.00
Technical/Engineering	WBIF State Grant	\$41,000.00	\$ 41,000.00	\$ -
Well Sealing	WBIF State Grant	\$800.00	\$ 800.00	\$ -
<b>TOTAL</b>		<b>\$ 1,064,522.00</b>	<b>\$1,064,521.97</b>	<b>\$106,452.00</b>

### WATERSHED BASED IMPLEMENTATION FUNDS #1

C21-9685

3/19/21 - 12/31/23

RABBIT RIVER REDUCTIONS	
Sediment	616.18 tons/yr
Phosph Loading	565.34 lbs/yr
Permanent Easement	44.96 acres
Ditch Stabilized	9 miles
Ditch Adequacy	9 miles
Wells Sealed	0 wells
Soil Health	468.96 acres
Alt. Hydrology	34.35 acre-ft
Proj & Practices	\$ 303,797.86
Stream Restoration	

Retrofit, Cover Crops, 3 Grade Stabilizations, CIP JD #6 Retrofit

LAKE TRAVERSE & BOIS DE SIOUX REDUCTIONS	
Sediment	2795.72 tons/yr
Phosph Loading	858.18 lbs/yr
Permanent Easement	35.37 acres
Ditch Stabilized	1.2 miles
Ditch Adequacy	0 miles
Wells Sealed	2 wells
Soil Health	1181.92 acres
Alt. Hydrology	41.15 acre-ft
Proj & Practices	\$ 532,241.59
Stream Restoration	\$ 126,000.00

Wells Sealed, Cover Crops, Grade Stabilization  
CIP LTWQIP No. 1 Phase 3 and Doran Creek Development

LOWER MUSTINKA & TWELVEMILE CREEK	
Sediment	231.37 tons/yr
Phosph Loading	197.96 lbs/yr
Permanent Easement	0 acres
Ditch Stabilized	0 miles
Ditch Adequacy	0 miles
Wells Sealed	0 wells
Soil Health	846 acres
Alt. Hydrology	118.44 acre-ft
Proj & Practices	\$ 64,341.37
Stream Restoration	\$ -

Cover Crops, 2 WASCOS, 12 Lined Waterways

FIVEMILE & TWELVEMILE CREEK REDUCTIONS	
Sediment	7.09 tons/yr
Phosph Loading	4.11 lbs/yr
Permanent Easement	0 acres
Ditch Stabilized	0 miles
Ditch Adequacy	0 miles
Wells Sealed	0 wells
Soil Health	0 acres
Alt. Hydrology	0 acre-ft
Proj & Practices	\$ 69,309.50
Stream Restoration	\$ -

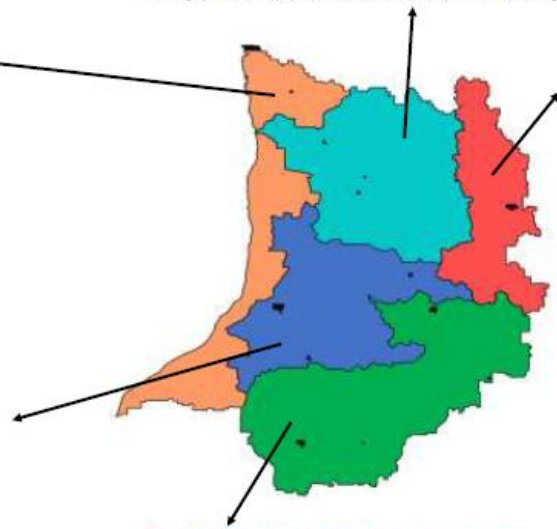
WASCOB

UPPER MUSTINKA REDUCTIONS	
Sediment	1.62 tons/yr
Phosph Loading	2.08 lbs/yr
Permanent Easement	0 acres
Ditch Stabilized	0 miles
Ditch Adequacy	0 miles
Wells Sealed	0 wells
Soil Health	0 acres
Alt. Hydrology	0 acre-ft
Proj & Practices	\$ 75,283.66
Stream Restoration	\$ -

WASCOB

TOTAL REDUCTIONS	
Sediment	4651.98 tons/yr
Phosph Loading	1627.67 lbs/yr
Permanent Easement	80.33 acres
Ditch Stabilized	10.2 miles
Ditch Adequacy	9 miles
Wells Sealed	2 wells
Soil Health	2496.88 acres
Alt. Hydrology	193.94 acre-ft
Proj & Practices	\$ 1,044,973.97
Stream Restoration	\$ 126,000.00
Total	\$ 1,170,973.97

\*SWCD Project Dev & Tech/Eng



## WBIF Grant #2: C23-5729 - \$1,064,522

### BWSR GRANT AGREEMENT: 2022 – 2025 (IN PROGRESS)

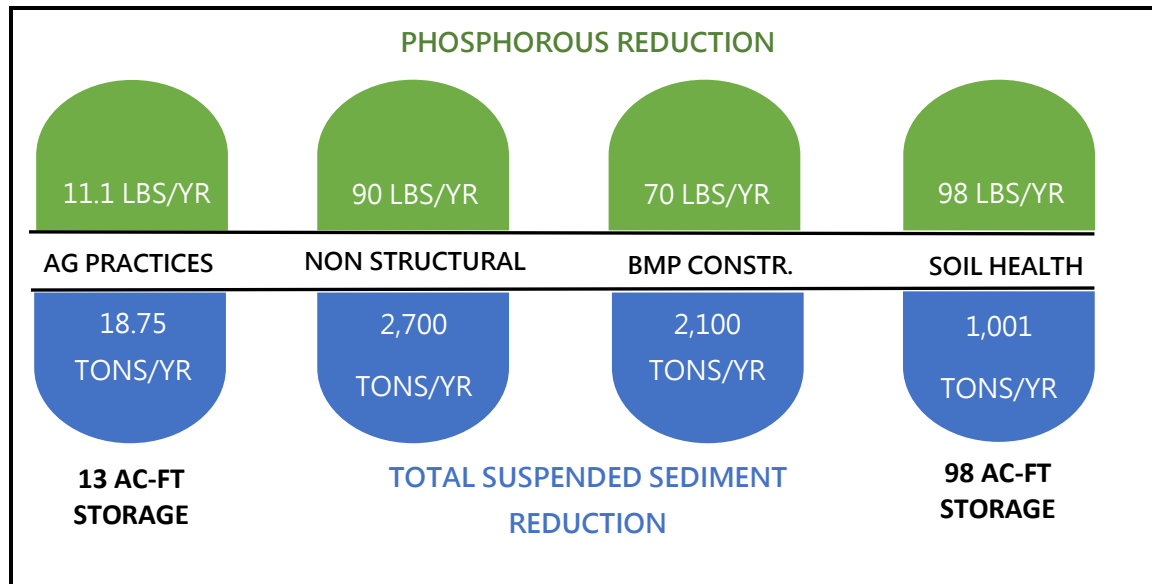
The second watershed based implementation funds grant agreement was signed by the Board of Water and Soils Resources on September 28, 2022. Anticipated measurable outcomes for this grant include:

#### PRIMARY GRANT SPONSORED ACTIVITIES

<b>AGRICULTURAL FILTRATION, STORAGE AND PROTECTION PRACTICES</b>	Fund approximately 8 filtration practice and 1 storage or protection practice. TARGET: Upper Mustinka & Fivemile and Twelvemile Creek
<b>PROJECT CONSTRUCTION</b>	Funds used to pursue activities leading to the construction of channel stabilization CIP projects. TARGET: These funds were not needed for Lake Traverse Water Quality Improvement Project No. 1 Phase 3, and so were reallocated to Twelvemile Creek.
<b>DITCH RETROFIT BMP CONSTRUCTION</b>	<b>DONE.</b> Complete 103E drainage system repairs to address erosion and sedimentation issues (funding used for construction of eligible water quality practices). TARGET: WCD #Sub-1
<b>FIVEMILE CREEK FEASIBILITY STUDY</b>	<b>DONE.</b> Conduct a feasibility study in order to pursue a stream rehabilitation project. TARGET: Fivemile Creek Rehabilitation Project
<b>SOIL HEALTH</b>	Implementation of non-structural practices meeting 3-year contracting requirement to include, but not limited to: tillage reduction, cover crop utilization, nutrient management, MAWQCP. TARGET: Mustinka River contributing catchments
<b>OTHER CATEGORIES</b>	Grant Admin and Plan Coord, Technical Assistance & Engineering, Project Development, Channel Stabilization Match



### Anticipated Measurable Outcomes for this Grant



#### WBIF #2 C23-5729 ACTIVITY September 28, 2022 - December 31, 2025

The full matching funds for this grant were committed and spent by the Bois de Sioux Watershed District.

WBIF GRANT ACTIVITY	SOURCE	GRANT BUDGET	ACTUAL EXPENDITURES PAID TO DATE	BUDGET REMAINING	
Ag Filtration, Storage, and Protection	WBIF State Grant	\$111,000.00	\$0.00	\$111,000.00	
Project Construction (Twelvemile Creek)	WBIF State Grant	\$100,000.00	\$2,073.75	\$100,000.00	100%
Ditch Retrofit BMP Construction	WBIF State Grant	\$370,000.00	\$370,000.00	\$0.00	0% <b>DONE</b>
Fivemile Creek Feasibility Study	WBIF State Grant	\$100,000.00	\$100,000.00	\$0.00	0% <b>DONE</b>
Grant Admin and Plan Coordination	WBIF State Grant	\$24,722.00	\$3,147.26	\$21,574.74	87%
Project Development	WBIF State Grant	\$120,000.00	\$47,848.05	\$72,151.95	60%
Soil Health Management Practices	WBIF State Grant	\$121,800.00	\$17,050.61	\$104,749.39	86%
Technical Assistance & Engineering	WBIF State Grant	\$117,000.00	\$48,074.36	\$68,925.64	59%
Channel Stabilization Match (LTWQIP #3)	Match	\$106,000.00	\$123,027.78	\$0.00	0% <b>DONE</b>
<b>TOTAL WITHOUT MATCH</b>		\$ 1,064,522.00	\$ 588,194.03	\$ 478,401.72	



# Bois de Sioux – Mustinka

## Comprehensive Watershed Management Plan

Report for data thru 12/31/23

### WATERSHED BASED IMPLEMENTATION FUNDS #2

C23-5729

Budget & Expense Report

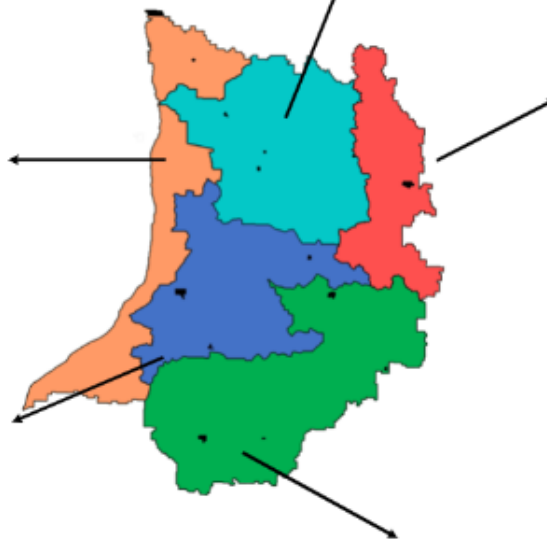
9/28/22 - 12/31/25

RABBIT RIVER REDUCTIONS	
Sediment	129.54 tons/yr
Phosph Loading	75.61 lbs/yr
Permanent Easement	acres
Ditch Stabilized	miles
Ditch Adequacy	miles
Wells Sealed	wells
Soil Health	334.29 acres
Alt. Hydrology	acre-ft
Grant & Match Proj & Practices	\$ 10,450.61
Grant & Match Stream Restoration	\$ -

Cover Crops

LAKE TRAVERSE & BDS RED.	
Sediment	450 tons/yr
Phosph Loading	90 lbs/yr
Permanent Easeme	46.15 acres
Ditch Stabilized	8 miles
Ditch Adequacy	8 miles
Wells Sealed	wells
Soil Health	acres
Alt. Hydrology	acre-ft
Grant & Match Proj & Practices	\$370,000.00
Grant & Match Stream Restoratic	\$ -

Ditch Retrofit



UPPER MUSTINKA REDUCTIONS	
Sediment	53 tons/yr
Phosph Loading	22 lbs/yr
Permanent Easement	acres
Ditch Stabilized	miles
Ditch Adequacy	miles
Wells Sealed	wells
Soil Health	165 acres
Alt. Hydrology	acre-ft
Grant & Match Proj & Practices	\$ 6,600.00
Grant & Match Stream Restoration	\$ -

Cover Crops

LOWER MUST & TWMILE CREEK RED	
Sediment	tons/yr
Phosph Loading	lbs/yr
Permanent Easement	acres
Ditch Stabilized	miles
Ditch Adequacy	miles
Wells Sealed	wells
Soil Health	acres
Alt. Hydrology	acre-ft
Grant & Match Proj & Practices	\$ -
Grant & Match Stream Restoratic	\$ 2,073.75

Stream Restoration Development

FIVEMILE & TWELVEMILE CREEK REDUCTIONS	
Sediment	tons/yr
Phosph Loading	lbs/yr
Permanent Easement	acres
Ditch Stabilized	miles
Ditch Adequacy	miles
Wells Sealed	wells
Soil Health	acres
Alt. Hydrology	acre-ft
Grant & Match Proj & Practices	\$ -
Grant & Match Stream Restoration	\$100,000.00

Feasibility & Hydraulic Study

TOTAL REDUCTIONS	
Sediment	632.54 tons/yr
Phosph Loading	187.61 lbs/yr
Permanent Easement	46.15 acres
Ditch Stabilized	8 miles
Ditch Adequacy	8 miles
Wells Sealed	0 wells
Soil Health	499.29 acres
Alt. Hydrology	0 acre-ft
Grant & Match Proj & Practices	\$387,050.61
Grant & Match Stream Restoration	\$102,073.75
Need to Divide by 5 End of Grant	\$ 99,069.67
Total	\$588,194.03



INTRO



ISSUE  
PRIORITIZATION



MEASURABLE  
GOALS



TARGETED  
IMPLEMENTATION



IMPLEMENTATION  
PROGRAMS



# Bois de Sioux – Mustinka

## Comprehensive Watershed Management Plan

Report for data thru 12/31/23

2023

### Results for WBIF Grants Closed (1)

		Short Term	Long Term
		Goal	Goal
<b>RABBIT RIVER REDUCTIONS</b>			
Sediment	616.18 tons/yr	274%	10%
Phosph Loading	565.34 lbs/yr	298%	3%
Permanent Easement	44.96 acres	No Goal	
Ditch Stabilized	9 miles	Watershed Wide Goal	
Ditch Adequacy	9 miles	Watershed Wide Goal	
Wells Sealed	0 wells	Watershed Wide Goal	
Soil Health	468.96 acres	67%	1%
Alt. Hydrology	34.35 acre-ft	1%	0%
Grant & Match Proj & Prac	\$303,797.86	30%	
Grant & Match Stream Restorations			
<i>Retrofit, Cover Crops, 3 Grade Stabilizations, CIP JD #6 Retrofit</i>			

		Short Term	Long Term
		Goal	Goal
<b>UPPER MUSTINKA REDUCTIONS</b>			
Sediment	1.62 tons/yr	0%	0%
Phosph Loading	2.08 lbs/yr	2%	1%
Permanent Easement	0 acres	No Goal	
Ditch Stabilized	0 miles	Watershed Wide Goal	
Ditch Adequacy	0 miles	Watershed Wide Goal	
Wells Sealed	0 wells	Watershed Wide Goal	
Soil Health	0 acres	0%	0%
Alt. Hydrology	0 acre-ft	0%	0%
Grant & Match Proj & Prac	\$75,283.66	8%	
Grant & Match Stream Re: \$- WASCOB			

		Short Term	Long Term
		Goal	Goal
<b>LOWER MUSTINKA &amp; TWELVEMILE CREEK</b>			
Sediment	231.37 tons/yr	20%	1%
Phosph Loading	197.96 lbs/yr	53%	1%
Permanent Easement	0 acres	No Goal	
Ditch Stabilized	0 miles	Watershed Wide Goal	
Ditch Adequacy	0 miles	Watershed Wide Goal	
Wells Sealed	0 wells	Watershed Wide Goal	
Soil Health	846 acres	355%	2%
Alt. Hydrology	118.44 acre-ft	0%	0%
Grant & Match Proj & Practices	\$64,341.37	7%	
Grant & Match Stream Restorations \$- <i>Cover Crops, 2 WASCOBs, 12 Lined Waterways</i>			

		Short Term	Long Term
		Goal	Goal
<b>LAKE TRAVERSE &amp; BOIS DE SIOUX REDUCTIONS</b>			
Sediment	3795.72 tons/yr	337%	14%
Phosph Loading	858.18 lbs/yr	268%	1%
Permanent Easement	35.37 acres	No Goal	
Ditch Stabilized	1.2 miles	Watershed Wide Goal	
Ditch Adequacy	0 miles	Watershed Wide Goal	
Wells Sealed	2 wells	Watershed Wide Goal	
Soil Health	1181.92 acres	345%	4%
Alt. Hydrology	41.15 acre-ft	3%	2%
Grant & Match Proj & Prac	\$532,241.59	136%	
Grant & Match Stream Re:	\$126,000.00	33%	
<i>Wells Sealed, Cover Crops, Grade Stabilization CIP LTWQIP No. 1 Phase 3 and Doran Creek Development</i>			

		Short Term	Long Term
		Goal	Goal
<b>FIVEMILE &amp; TWELVEMILE CREEK REDUCTIONS</b>			
Sediment	7.09 tons/yr	1%	0%
Phosph Loading	4.11 lbs/yr	2%	0%
Permanent Easement	0 acres	No Goal	
Ditch Stabilized	0 miles	Watershed Wide Goal	
Ditch Adequacy	0 miles	Watershed Wide Goal	
Wells Sealed	0 wells	Watershed Wide Goal	
Soil Health	0 acres	0%	0%
Alt. Hydrology	0 acre-ft	0%	0%
Grant & Match Proj & Prac	\$69,309.50	5%	
Grant & Match Stream Re: \$- WASCOB			

		Short Term	Long Term
		Goal	Goal
<b>TOTAL REDUCTIONS</b>			
Sediment	4651.98 tons/yr	123%	7%
Phosph Loading	1627.67 lbs/yr	130%	1%
Permanent Easement	80.33 acres	No Goal	
Ditch Stabilized	10.2 miles	14%	2%
Ditch Adequacy	9 miles	12%	2%
Wells Sealed	2 wells	100%	8%
Soil Health	2496.88 acres	108%	1%
Alt. Hydrology	193.94 acre-ft	1%	0%
Grant & Match Proj & Practices	\$1,044,973.97	29%	
Grant & Match Stream Restorations	\$126,000.00	9%	
Total	\$1,170,973.97		
<i>*SWCD Project Dev &amp; Tech/Eng</i>			

