

Project Overview: Doran Creek Stream Rehabilitation

Bois de Sioux Watershed District
Board Meeting – January 26, 2023



moore
engineering, inc.



Why pursue the Doran Creek stream rehabilitation project?

This project is a win-win for everyone involved. It presents a truly unique opportunity to advance goals for all stakeholders.

- ✓ *Landowners*
- ✓ *The Board*
- ✓ *Native habitat/species*
- ✓ *Funding agencies*



Outcomes that benefit habitat

- Natural channel design restores 19 miles of ephemeral stream for effective sediment transport
 - ✓ *Pool and riffle hydrology provides diverse, in-channel habitat types*
- Conservation easements protect 1,300 acres of riparian/upland habitat
 - ✓ *Native/perennial vegetation provides ideal pollinator habitat*



Outcomes that benefit landowners

- Reduce agricultural and economic loss from frequent flooding
 - ✓ *Regularly inundated lands converted to riparian buffer*
 - ✓ *Tillable acres protected by floodplain re-shaping*
 - ✓ *Shortened flood duration and reduced slack water*
 - Reliable and resilient drainage system outlet for increasingly unpredictable weather cycles
 - ✓ *Restored channel capacity*
 - ✓ *Reduce backflow and tailwater conditions*
- ❖ **Enhancing one of the region's critical drainage systems with no net degradation for habitat and sensitive species**



Outcomes that benefit the Board

- Advances sub-watershed goals in the Bois de Sioux-Mustinka Comprehensive Watershed Management Plan
 - ✓ 80% of the 10-year goal for sediment transport reduction
 - ✓ 53% of the 10-year goal for nutrient load reduction
- Advances goals in the Red River Watershed Management Plan
 - ✓ *Rehabilitate within-channel/riparian/upland habitat to enhance healthy and stable riverine ecosystems in the Red River watershed.*



Why pursue an MOA with the Board of Water & Soil Resources?

The BWSR agreement opens *THE* critical pathway for project completion.

It presents a fulcrum for leveraging a broad array of funding opportunities.

Leveraging Agency Partnerships



Funding Strategy Breakdown



Source	2023	2024	2025	2026	Total
BWSR <i>Projects & Practices</i>	400,000	400,000	400,000	400,000	1,600,000
BWSR* ** <i>Reinvest in Minnesota</i>	650,000	650,000	650,000	650,000	2,600,000
LSOHF*			1,000,000		1,000,000
LCCMR		1,200,000			1,200,000
NRCS** <i>National Water Quality Initiative</i>	750,000	750,000	750,000	750,000	3,000,000
RRWMB <i>Clean Water Initiative</i>		200,000	200,000	200,000	600,000
BdS Watershed District <i>Watershed-Based Implementation Fund (1W1P)</i>		200,000	200,000	200,000	600,000
Water Management District		61,400	61,400	61,400	184,200
TOTALS	1,800,000	3,461,400	3,261,400	2,261,400	10,784,200

*Enter into MOA with BWSR

**Collaborate with Wilkin SWCD

Potential Funding Commitments and Terms



Source	Commitments	Terms	Administration
BWSR <i>Projects & Practices</i>	Contract agreement with state	3 years (+ 1-year extension)	10 hours - <i>annual reports, final report, workplan</i>
BWSR (via joint LSOHF application) <i>Reinvest in Minnesota</i>	MOA with BWSR Contract agreement with state	Perpetual	10 hours - <i>annual reports, final report</i>
LSOHF	Contract agreement with state	4 years	10 hours - <i>annual reports, final reports</i>
LCCMR	Contract agreement with state	2-3 years	10 hours
NRCS <i>National Water Quality Initiative</i>	None	3-5 years	20 hours - <i>workplan submittal, annual reporting, progress tracking</i>
RRWMB <i>Clean Water Initiative</i>	Funding agreement with RRWMB		1 hour – <i>final report</i>
BdS Watershed District <i>Watershed-Based Implementation Fund (1W1P)</i>	*Contract agreement with state *Partnership agreement	3 years	5 hours
Water Management District	103.D Statute	Negotiable	5 hours
*Agreements already in place **Hours and rates are an estimate			**71 hours over 5 years \$7,100 over 5 years

Project Timeline/Phases



2023

- Design/Permits Completed
- WMD Established (Spring)
- Phase-1 Funding Applications (Summer)

2024

- Phase-1 Construction
- Phase-2 Funding Applications (Summer)

2025

- Phase-2 Construction

Design/Permitting Progress



- OPCC - ~ \$8.4M
 - ~\$5M Construction Costs
 - ~\$2.6M ROW/Easements
 - ~\$0.8M Road Crossings
- Design
 - Channel excavation, berm construction, side inlet controls, woody stabilization
 - Draft Report nearing completion
 - Present to Board in February
- Permitting
 - Wetlands in progress w/ agency engagement
 - Northern Long-Eared Bat and Monarch changes
 - EAW being prepared
 - 404 required
 - Due diligence revealed sites of cultural significance
 - Will require additional steps, but not likely to have large impact on scope of project

WMD Development



- Landowner engagement
- Average charge of \$5/acre/year
- Draft report prepared
- Hold public hearing beginning of 2023



What are the next steps?

- Consider Draft Engineering Report prior to setting a public hearing (February Meeting?)
- Recommending Board consider entering MOA w/ BWSR at February Meeting
 - Requires a motion to provide draft documents prepared by Moore to your attorney
 - Direct administrator to form a partnership team
- Consider Draft WMD Report prior to setting a public hearing
- Ask for board consensus on funding/project strategy



moore
engineering, inc.