

Lessard-Sams Outdoor Heritage Council Laws of Minnesota 2014 Accomplishment Plan

Date: October 24, 2013

Program or Project Title: Mustinka River Fish and Wildlife Habitat Corridor Rehabilitation

Funds Recommended: \$ 2,440,000

Manager's Name: Jon Roeschlein

Title:

Organization: Bois de Sioux Watershed District

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Legislative Citation:

Appropriation Language:

County Locations: Grant, and Traverse.

Ecological Planning Regions:

- Prairie

Activity Type:

- Protect in Fee
- Restore

Priority Resources Addressed by Activity:

- Habitat

Abstract:

This habitat project presents a unique opportunity within the prairie region to convert 5.5 miles of ditched river to 8+ mile long stream channel within a 260 acre fish and wildlife habitat corridor composed of riparian wetlands and grasslands.

Design and Scope of Work:

In the past 100 years, thousands of miles of rivers and streams in Minnesota were straightened and thousands of acres of riparian wetland and grassland habitat has been lost in the interest of improving drainage. The Mustinka River was first channelized as a state ditch in 1896 and again as an Army Corps of Engineers project in the early 1950's. This channelization resulted in a direct conversion of about 43 miles of natural sinuous channel and floodplain corridor to about 25 miles of straightened channel without a functional riparian corridor. The Mustinka River (Judicial Ditch 14) currently provides little functional aquatic or riparian corridor habitat. This stream corridor project will rehabilitate a 5.5 mile portion and directly provide both fish and wildlife habitat benefits in the prairie region.

This stream corridor rehabilitation project will convert 5.5 miles of the upper reaches of the Mustinka River to a

more functional 8 to 9 mile long meandering channel within a 300 foot wide, 260 acre floodplain corridor. The stream rehabilitation will be based on the principles of natural channel design with an understanding of the hydrology and fluvial geomorphology at the site. The enhanced stream and associated riparian wetland habitats will provide seasonal spawning and nursery habitat to a variety of fish species including northern pike and walleye and some of the other 30+ fish species that are found in the Lake Traverse watershed.

In addition to the fish habitat directly provided in the 8 to 9 mile stream channel, the associated floodplain grassland and wetland habitat elements in the restored and protected 260 acre river corridor will provide year-round wildlife habitat. An estimated 90% of Minnesota's prairie wetlands have been lost due to agricultural drainage and development. The land adjacent to the Mustinka river was historically wet prairie and wetlands but was converted to farmland more than 80 years ago.

The Bois de Sioux Watershed District has led the development of this project through a "project team" process. This process has been a collaborative effort with members of the project team including the Traverse County Soil and Water Conservation District, the Natural Resource Conservation Service, MN DNR, MPCA, USFWS, conservation groups, and landowners. The Bois de Sioux Watershed District will continue to lead the project and the MNDNR, as a non-funded collaborator, will provide technical assistance during the structure design phase and the development of the operating plan as well as ongoing project monitoring and evaluation of the operation, outcomes, and user groups.

The watershed district will be responsible for final design, engineering, and construction of the project. Minnesota Department of Natural Resource stream habitat experts will be consulted throughout project development and implementation. If funding for this corridor rehabilitation is not secured, the opportunity to rehabilitate this reach of the Mustinka River Corridor will be lost and it will remain a ditch.

Planning:

MN State-wide Conservation Plan Priorities:

- H2 Protect critical shoreland of streams and lakes
- H5 Restore land, wetlands and wetland-associated watersheds
- H6 Protect and restore critical in-water habitat of lakes and streams
- H7 Keep water on the landscape
- LU6 Reduce Upland and gully erosion through soil conservation practices

Plans Addressed:

- Long Range Plan for Fisheries Management
- Minnesota DNR Strategic Conservation Agenda
- Minnesota Prairie Conservation Plan
- Minnesota Sustainability Framework
- National Fish Habitat Action Plan
- Northern Tallgrass Prairie Ecoregion: A River and Stream Conservation Portfolio
- Outdoor Heritage Fund: A 25 Year Framework
- Red River of the North Fisheries Management Plan
- Tomorrow's Habitat for the Wild and Rare
- Minnesota Fish Habitat Plan, Bois de Sioux Watershed District Plan; Minnesota DNR Stream Habitat Program Restoration Priority List

LSOHC Statewide Priorities:

- Are ongoing, successful, transparent and accountable programs addressing actions and targets of one or more of the ecological sections
- Attempts to ensure conservation benefits are broadly distributed across the LSOHC sections
- Ensures activities for "protecting, restoring and enhancing" are coordinated among agencies, non profits and others while doing this important work; provides the most cost-effective use of financial resources; and where possible takes into consideration the value of local outreach, education, and community engagement to sustain project outcomes
- Leverage effort and/or other funds to supplement any OHF appropriation

- Produce multiple enduring conservation benefits
- Provide Minnesotans with greater public access to outdoor environments with hunting, fishing and other outdoor recreation opportunities
- Restore or enhance habitat on permanently protected land
- Use a science-based strategic planning and evaluation model to guide protection, restoration and enhancement, similar to the United States Fish and Wildlife Service's Strategic Habitat Conservation model

LSOHC Prairie Section Priorities:

- Protect, enhance, or restore existing wetland/upland complexes, or convert agricultural lands to new wetland/upland habitat complexes
- Restore or enhance habitat on public lands

Relationship to Other Constitutional Funds:

- No Relationships Listed

Accelerates or Supplements Current Efforts:

The Bois de Sioux Watershed District initiates projects based on priority problems, including natural resource issues that are identified in their comprehensive plan. The watershed district sets priorities in this plan and initiates projects to meet those priorities as opportunities for land acquisition become available and when there is landowner interest. Projects that restore and protect stream, riparian, wetland and upland habitats are identified as desired projects in the district's plan.

The Minnesota DNR prioritizes stream restoration projects statewide based on their ecological benefit, degree of impact, merit, and feasibility. The Mustinka River ranks number 7 among streams on the DNR's stream restoration list.

This project presents the greatest opportunities that we are aware of in Minnesota to convert a ditch back to a functional natural channel. Final engineering is complete under watershed law. Environmental review, permitting, and the land acquisition associated with this project is in process. Without additional funding for the stream and riparian wetland habitat benefits of this project, the district will likely proceed to improve the ditch using established methods in ditch law rather than restore and protect 260 acres of a functional riparian corridor to this area.

Sustainability and Maintenance:

The Bois de Sioux Watershed District will be responsible for long term maintenance of this project. Sustainability and maintenance of this channel rehabilitation is required within watershed district law (Minnesota Statutes 103D). Long term project maintenance is authorized and funded through established watershed district construction and maintenance funds.

The watershed district is leading the land acquisition, project development, and engineering of this project with full cooperation of a watershed-based "project team" composed of landowners and representatives of local, state, and federal agencies.

Government Approval:

*Will local government approval be sought prior to acquisition? - **Yes***

Permanent Protection:

Is the land you plan to acquire free of any other permanent protection? - **Yes**

Hunting and Fishing Plan:

Is this land open for hunting and fishing? - **Yes**

No variation from state regulations.

Permanent Protection:

Is the activity on permanently protected land and/or public waters per MS 103G.005, Subd. 15? - **Yes (Public Waters)**

Accomplishment Timeline

Activity	Approximate Date Completed
Environmental Review	December, 2013
Land Acquisition	December, 2014
Permitting (USACE 408 and 404; Public Waters Work Permit; MPCA 401)	December, 2014
Finalize Plans and Specifications	December, 2014
Construction	December, 2015

Outcomes

Programs in prairie region:

- Expiring CRP lands are permanently protected *Several parcels along proposed corridor are currently enrolled in CRP. The amount of CRP converted to permanent protection will be reported.*
- Protected, restored, and enhanced shallow lakes and wetlands *The amount of riparian wetland restored and protected will be measured and reported.*
- Restored and enhanced upland habitats *The amount of riparian grassland acres restored and protected will be measured and reported.*
- Agriculture lands are converted to grasslands to sustain functioning prairie systems *Pre and post project amounts of agricultural lands will be measured and reported.*
- Increased wildlife productivity *The project will restore and protect 260 acres of fish and wildlife habitat including conversion of a 5.5 mile ditch into 8-9 miles of meandering channel. Fish and wildlife use of these habitats will be monitored and reported.*
- Water is kept on the land to reduce flood potential and degradation of aquatic habitat *Creating the 260 acre stream corridor will provide additional floodplain storage not currently present along the ditch. The amount of floodplain storage will be measured and the increase in stream habitats and stream stability will be assessed.*
- The enhanced stream channel and associated riparian wetland and grassland habitats will provide seasonal spawning and nursery habitat to a variety of fish species including northern pike and walleye and some of the other 30+ fish species that are found in the Lake Traverse watershed.

This project presents the greatest opportunities that we are aware of in the prairie region of Minnesota at

this time to convert a ditch back to a functional stream channel. If funding for this corridor rehabilitation is not secured, the opportunity to rehabilitate this reach of the Mustinka River Corridor will be lost and it will remain a ditch.

Budget Spreadsheet

Budget reallocations up to 10% do not require an amendment to the Accomplishment Plan

Total Amount of Request: \$ 2440000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$0	\$0		\$0
Contracts	\$1,920,000	\$1,192,300	Bois De Sioux watershed district, Red River Watershed Management Board, Flood Hazard Mitigation Program	\$3,112,300
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$520,000	\$780,000	Bois De Sioux watershed district, Red River Watershed Management Board, Flood Hazard Mitigation Program	\$1,300,000
Easement Acquisition	\$0	\$0		\$0
Easement Stewardship	\$0	\$0		\$0
Travel	\$0	\$0		\$0
Professional Services	\$0	\$118,600		\$118,600
Direct Support Services	\$0	\$0		\$0
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$0	\$0		\$0
DNR IDP	\$0	\$0		\$0
Total	\$2,440,000	\$2,090,900		\$4,530,900

Output Tables

Table 1. Acres by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	260	260
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	260	260
Protect in Easement	0	0	0	0	0
Enhance	0	0	0	0	0
Total	0	0	0	520	520

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$1,920,000	\$1,920,000
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$520,000	\$520,000
Protect in Easement	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$2,440,000	\$2,440,000

Table 3. Acres within each Ecological Section

Type	Metro Urban	Forest Prairie	SE Forest	Prairie	N Forest	Total
Restore	0	0	0	260	0	260
Protect in Fee with State PILT Liability	0	0	0	260	0	260
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	0	0	0	0	0	0
Total	0	0	0	520	0	520

Table 4. Total Requested Funding within each Ecological Section

Type	Metro Urban	Forest Prairie	SE Forest	Prairie	N Forest	Total
Restore	\$0	\$0	\$0	\$1,920,000	\$0	\$1,920,000
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$520,000	\$0	\$520,000
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$2,440,000	\$0	\$2,440,000

Table 5. Target Lake/Stream/River Miles

8 miles

Parcel List

For restoration and enhancement programs ONLY: Managers may add, delete, and substitute projects on this parcel list based upon need, readiness, cost, opportunity, and/or urgency so long as the substitute parcel/project forwards the constitutional objectives of this program in the Project Scope table of this accomplishment plan. The final accomplishment plan report will include the final parcel list.

Section 1 - Restore / Enhance Parcel List

No parcels with an activity type restore or enhance.

Section 2 - Protect Parcel List

Grant

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Tract 1	12844219	18	\$91,900	No	Full	Full
Tract 2	12844219	20	\$101,200	No	Full	Full

Traverse

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Tract 10	12845223	37	\$187,000	No	Full	Full
Tract 11	12845224	11	\$57,300	No	Full	Full
Tract 12	12845224	11	\$56,600	No	Full	Full
Tract 13	12845224	23	\$113,400	No	Full	Full
Tract 3	12845214	1	\$3,000	No	Full	Full
Tract 4	12845215	31	\$153,700	No	Full	Full
Tract 5	12845215	27	\$136,700	No	Full	Full
Tract 6	12845216	29	\$143,300	No	Full	Full
Tract 7	12845216	14	\$70,500	No	Full	Full
Tract 8	12845216	14	\$72,300	No	Full	Full
Tract 9	12845223	23	\$117,100	No	Full	Full

Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

Section 3 - Other Parcel Activity

No parcels with an other activity type.