

Main Request for Funding Form

**Lessard-Sams Outdoor Heritage Council
Fiscal Year 2012**

**Program or Project Title: Mustinka River Fish & Wildlife Corridor
Restoration/Enhancement**

Funds Requested (\$000s)	Funding Request	OHF Out-Year Projections of Needs		
	FY 2012	FY 2013	FY 2014	FY 2015
Outdoor Heritage Fund	\$ 13,100,000	0	0	0

Manager's Name: Jon Roeschlein
Organization: Bois de Sioux Watershed District
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County Location: Traverse & Grant

Ecological Planning Regions [to](#)

- Northern Forest
 Forest/Prairie Transition
 Southeast Forest
 Prairie
 Metro/Urban

Activity Type:

- Protect
 Restore
 Enhance

Priority Resources addressed by activity:

- Wetlands
 Forests
 Prairie
 Habitat

Project Abstract

This project will restore 18.8 miles of river and associated corridor habitats, 1440 acres of moist soil, wetland and seasonal waterfowl habitats, and 320 acres of multipurpose pool habitat.

Project Narrative

Design and scope of work

This project is being co-sponsored by the Minnesota Department of Natural Resources. It is made up of two major restoration components.

Stream Restoration and reconnection:

In the past 100 years, many rivers and streams in the Red River Basin were straightened or rerouted and a substantial amount of wetland habitat has been lost in order to improve drainage. The Mustinka River was first channelized as a state ditch in 1896 and again as a project in the early 1950's. This channelization resulted in a direct conversion of about 43 miles of natural sinuous channel to about 25 miles of straightened channel without a functional corridor. The channelization not only cut through the meandering natural channel it also disconnected an entire 8.8 mile reach of natural channel. The current Mustinka River (Judicial Ditch 14) provides little functional aquatic or riparian corridor habitat.

The stream restoration portions of the project are based on the principles of natural channel design, hydrology, and fluvial geomorphology. Use of these scientific principles will restore 5.3 miles of ditch into 8 miles of functional, natural channel with 250 acres of associated stream corridor habitat, convert two miles of ditch to a two-stage channel with 80 acres of corridor habitat, and restore stream flow to 8.8 miles of the Mustinka River, which were bypassed and disconnected when the natural channel was channelized. The restored river habitats will provide seasonal spawning and nursery habitat to a variety of fish species including northern pike and walleye and others that are found in the watershed of Lake Traverse.

Moist Soils/Wetland Restoration:

An estimated 90% of Minnesota's prairie wetlands have been lost due to agricultural drainage and development. The quality of the remaining wetlands has declined markedly due to landscape changes, increased runoff carrying sediment and nutrients, invasive plants and fish species, and the difficulties associated with managing wetlands. The land associated with this project was historically wet prairie and wetlands, however, the land has been converted to primarily farmland and few very wetlands exist since the channelization of Mustinka River.

The moist soils/wetland portion of the project will provide breeding pair territories, nesting cover, brood water, and migration habitat for many species of waterfowl.

A variety of wetland types are required for good waterfowl production and migration habitat, including temporary, seasonal, semi permanent and permanent wetlands.

Seasonally flooded wetlands, which can be created by properly managed moist soil units, are particularly important to both breeding and migrating waterfowl by providing needed protein and carbohydrate food sources. This project will also provide an excellent opportunity to intensively manage wetlands for maximum benefits to waterfowl and many other wetland and grassland wildlife species as well.

This project will create several of these types of wetlands, including a large moist soil unit. The moist soils/wetland portion of the project will create a 640 acre managed moist soil unit for waterfowl, create 160 acres of type 4/5 wetland, and provide 640 acres of seasonally flooded cropland. In addition, a 320 acre multipurpose pool will be created and managed to provide 160 acres of northern pike spawning and juvenile habitat and 160 acres of grassland in dry years, and 320 acres of northern pike habitat in wetter years.

Project Priorities and Development

The Bois de Sioux watershed district initiates projects based on priority problems, including natural resource issues that are identified in the watershed district plan. The watershed district sets priorities in its watershed plan and initiates projects to meet those priorities as opportunities for land acquisition become available and when there is landowner interest in a project. Projects that restore stream, riparian, wetland and upland habitats are identified as desired projects in the district's plan. The Minnesota DNR prioritizes stream restoration projects through a process that uses a worksheet to numerically score proposed projects based on their ecological benefit, degree of impact, and merit and feasibility, then ranks them on a statewide priority basis based on these scores.

This project ranks number one on the DNR's stream restoration list. Minnesota DNR wetland restoration, creation, and improvement projects are proposed by area wildlife managers, approved at the regional level, and prioritized by the Section Management Team. Projects are evaluated on their biological importance, matching funds available, and the number of project partners. Statewide, this project from this perspective, would rate high in importance. 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.

Preliminary engineering is complete, environmental review is in process, and land acquisition is in process. A lack of sufficient funding is the only known obstacle that would delay completion of this project. This project presents the greatest opportunities that we are aware of in Minnesota at this time to convert a ditch back to a functional natural channel and to reconnect a long reach of river disconnected by channelization. The 8.8 mile channel is the longest reach

of disconnected channel that we are aware of in the Red River basin. Construction could be complete in 2015 if full funding is secured

This stream and wetland habitat restoration/enhancement project is part of a comprehensive flood damage reduction and natural resource enhancement project known as the Redpath Project. This application describes the aquatic habitat project components of this project.

Planning

Minnesota Statewide Conservation and Preservation Plan

Proposed projects are consistent with *“Habitat recommendation 6: protect and restore critical in-water habitats of lakes and streams”*.

In particular, it is consistent with the recommendations on page 82: *“A priority for former prairie zones of Minnesota is to reverse the negative effects of stream channelization on in-stream habitats for fish and other aquatic organisms.....”*

Minnesota Department of Natural Resources 2006 Duck Recovery Plan

Parts of this proposed project are largely based on the Department of Natural Resources 2006 Duck Recovery Plan. This plan is similar to the Strategic Habitat Conservation model adopted by the US Fish and Wildlife Service in that it establishes a statewide duck population goal, identifies the challenges to be met in achieving that goal, proposes specific strategies and objectives for habitat restoration and protection, and selects specific metrics for evaluating progress. The primary strategy of this plan is the protection and restoration of wetland and grassland habitats. A critical element identified by this plan is the need for seasonal wetlands, which this project will address.

Lessard – Sams Outdoor Heritage Council Preliminary Goals and Objectives 25-Year Targets, Prairie Section, August 27, 2009

This proposed project is consistent with this plan and will help achieve goals for channel restoration and riparian restoration.

Bois de Sioux Watershed District Plan (2003)

This proposed restoration project is consistent with flood damage reduction, natural resource enhancement, and water quality goals and objectives in the Bois de Sioux Watershed District Plan.

Red River Basin Mediation Agreement (1998)

This habitat restoration project is consistent with the flood damage reduction and natural resource goals and objectives in the mediation agreement including:

1. *Manage streams for natural characteristics.*
2. *Enhance riparian and in-stream habitats.*
4. *Provide connected, integrated habitat including compatible adjacent land uses.*
6. *Provide recreational opportunities.*

Campaign for Conservation – Fifty Year Vision

This habitat restoration project is consistent with the recommended actions in the fifty year vision for the Red River Valley planning region as follows:

C. Lakes, Rivers, Wetlands and Groundwater

2. Return watercourses to semi-natural hydrology and morphology.

D. Fish and Wildlife

1. Develop incentives and regulations for enhanced protection of shoreline and stream restoration in both Minnesota and North Dakota.

4. Ensure that suitable habitat for species of concern is primary focus of land and water conservation efforts.

5. Expand private landowner stewardship incentive programs. Provide ongoing funding to entice landowners to idle (plant grass or trees) acres in sensitive wetland, riparian, and prairie areas.

6. Create habitat corridor connections for prairie chickens and other grassland species across the Red River Valley from the Agassiz Beach Ridges prairies in the east to the Sheyenne National Grasslands in the west. Corridors are needed to provide dispersal routes and prevent genetic isolation.

State AMA Acquisition Plan

This project is consistent with the following recommendations from the Red River Prairie Ecoregions needs section of the plan:

“The recreational demand on this area of the state will likely outpace the projected population change and additional public access to fishing lakes and streams is a priority. Permanent angling and management easements on streams, while maintaining private ownership, draw anglers to the area, bring additional dollars into the local economy, and provide the inroad to create permanent protection to shoreline habitat, which insures clean water for future generations. Additional lake and warmwater shoreline should still be acquired when extraordinary opportunities arise and County approval is obtained. There may be opportunities for Non-Government Organizations to acquire critical shoreline parcels in this area, to either be managed by them or turned over to the DNR as AMAs or other Outdoor Recreation Units.”

Tomorrow’s Habitat for the Wild and Rare- Minnesota’s Comprehensive Wildlife Conservation Strategy

This project is consistent with the following goals and strategies.

Goal 1: Stabilize and increase SGCN populations

3. Nonforested wetlands and floodplain forests

c. manage habitats adjacent to wetlands and floodplain forests to enhance SGCN values

4. Stream habitats

a. maintain good water quality, hydrology, geomorphology, and connectivity in priority stream reaches

b. Maintain and enhance riparian areas along priority stream reaches

National Fish Habitat Action Plan

These projects in this proposed program are consistent with the goals and objectives of this plan.

- *Reverse declines in the quality and quantity of aquatic habitats to improve the overall health of fish and other aquatic organisms.*
- *Increase the quality and quantity of fish habitats that support a broad natural diversity of fish and other aquatic species.*

Relationship to Other Constitutional Funds

Similar to wetland and prairie restorations, this stream and wetland restoration project is primarily a habitat restoration project with incidental clean water benefits. The Mustinka River is impaired for turbidity and a TMDL is under review by EPA. Representatives of BWSR and PCA have been members of the watershed based project team that helped develop this project. The watershed district will consider preparation of grant applications for BWSR clean water assistance and BWSR shore land improvement grants.

Relationship to Current Organizational Budget

The Bois de Sioux Watershed District is a unit of local government, a political subdivision of the State. The watershed district's 2010 total budget is \$7,754,851.56. This grant will not affect the current budget and will not replace our customary or established patterns of funding as we budget for these types of projects on a yearly basis. In the last four years, the District has executed upwards of 11 million dollars of matching grants from various state agencies to administer and construct various flood damage reduction and natural resource enhancement projects throughout the Bois de Sioux Watershed District.

Sustainability and Maintenance

The Bois de Sioux watershed district in cooperation with landowners will be responsible for long term maintenance of this project. The watershed district is leading the land acquisition, project development, and engineering of this project with full cooperation of a "project team" composed of landowners and representatives of local, state, and federal agencies. The Bois de Sioux Watershed district initiated this project by action of their board under watershed district law (Minnesota Statutes 103D). Long term project maintenance is thus authorized through established watershed district construction and maintenance funds. Maintenance of vegetation along the newly created stream corridor and in the wetland pools will be part of project maintenance.

Types of Projects

Fee Acquisition Projects

Will local government approval be sought prior to acquisition?

Yes No, please explain not applicable

If no, please explain here:

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

Yes No, please explain not applicable

If no, please explain here:

Easement Acquisition Projects

Will the eased land be open for public use?

Yes No, please explain not applicable

If no, please explain here:

Land will be purchased by the Bois de Sioux Watershed District and will be open to the public for recreational purposes including: hunting, fishing, wildlife watching and other outdoor activities.

Will the conservation easement be permanent?

Yes No, please explain not applicable

If no, please explain here:

Restoration and Enhancement Projects

Is the activity on permanently protected land and/or public waters?

Yes No, please explain not applicable

If no, please explain here:

Does the activity take place on an Aquatic Management Area (AMA), Scientific and Natural Area (SNA), Wildlife Management Area (WMA), or State Forests?

Yes, which ones No, please explain not applicable

The land will be purchased by the Bois de Sioux Watershed District.

If so, please indicate which ones:

Accomplishment Timeline

Activity	Milestone	Date
Land Acquisition	All Land Acquired	Fall 2012
	Conduct Final Hearing	December 2012
Permits	All Required Permits Secured	January 2013
Project Design	Conduct Detailed Engineering/Design	Fall 2012
	Finalize Plans & Specifications	March 2013
Construction	Conduct Bidding Process	April 2013
	Begin Construction	May 2013
	Finalize Construction	Fall 2015

Attachments:

- A. Budget
- B. Proposed Outcome Tables 1-5
- C. Map
- D. Parcel List

Attachment A. Budget Spreadsheet

[Link Here to definitions of the budget items below.](#)

Total Amount of Request \$ 13,100,000 *From page 1 on the funding form.*

Personnel

Position breakdown here	FTE	Over # of years	LSOHC Request	Anticipated Cash		Total
				Leverage	Cash Leverage Source	
<i>Manager of Programs</i>		4	\$ -	\$ 350,000	<i>BdSWD</i>	\$ 350,000
<i>Admin Asst</i>		4	\$ -	\$ 175,000	<i>BdSWD</i>	\$ 175,000
<i>position 3</i>						\$ -
<i>position 4</i>						\$ -
<i>position 5</i>						\$ -
<i>position 6</i>						\$ -
<i>position 7</i>						\$ -
Total	0		\$ -	\$ 525,000	\$ -	\$ 525,000

Budget and Cash Leverage *(All your LSOHC Request Funds must be direct to and necessary for program outcomes.)*

Please describe how you intend to spend the requested funds.

Budget Item	LSOHC Request	Anticipated Cash		Total
		Leverage	Cash Leverage Source	
Personnel - auto entered from above	\$ -	\$ 525,000	\$ -	\$ 525,000
Contracts	\$ 7,376,276	\$ 8,058,509	<i>State FHM Fund, Local</i>	\$ 15,434,785
Fee Acquisition w/ PILT (breakout in table 6 & 7)	\$ -	\$ -		\$ -
Fee Acquisition w/o PILT (breakout in table 6 & 7)	\$ 3,862,613	\$ 4,739,627	<i>State FHM Fund, Local</i>	\$ 8,602,240
Easement Acquisition	\$ -			\$ -
Easement Stewardship	\$ -			\$ -
Travel (in-state)	\$ -	\$ -		\$ -
Professional Services	\$ 1,861,111	\$ 1,365,373	<i>State FHM Fund, Local</i>	\$ 3,226,484
DNR Land Acquisition Costs	\$ -			\$ -
Other	\$ -	\$ -	\$ -	\$ -
Capital Equipment	\$ -			\$ -
Other Equipment/Tools	\$ -			\$ -
Supplies/Materials	\$ -	\$ -		\$ -
	\$ 13,100,000	\$ 14,688,509	\$ -	\$ 27,788,509

Attachment B. Proposed Outcome Tables

Only enter data in the outlined cells

Table 1 and Table 3 column totals should be the same AND Table 2 and Table 4 column totals should be the same

If your project has lakes or shoreline miles instead of land acres, convert miles to acres for Tables 1 and 3 using the following conversion:

Lakeshore = 6 acres per lakeshore mile / Stream & River Shore = 12 acres per linear mile, if both sides

Table 1. Acres by Resource Type

Describe the scope of the project in acres (use conversion above if needed)

	Wetlands	Prairies	Forest	Habitats	Total
Restore	160			1930	2090
Protect					0
Enhance					0
Total	160		0	0	1930

Total Acres (sum of Total column)

2090

These two cells should be the same figure.

Total Acres (sum of Total row)

2090

Table 2. Total Requested Funding by Resource Type

	Wetlands	Prairies	Forest	Habitats	Total
Restore				\$ 13,100,000	\$ 13,100,000
Protect					\$ -
Enhance					\$ -
Total	\$ -	\$ -	\$ -	\$ 13,100,000	

Total Dollars (sum of Total column)

\$ 13,100,000

These two cells should be the same figure.

Total Dollars (sum of Total row)

\$ 13,100,000

Check to make sure this amount is the same

as the Funding Request Amount on page 1 of Main Funding Form.

Table 3. Acres within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore				2090		2090
Protect						0
Enhance						0
Total	0	0	0	2090	0	

Total Acres (sum of Total column)

2090

These three cells should be the same figure.

Total Acres (sum of Total row)

2090

Total Acres from Table 1.

2090

Attachment B. Proposed Outcome Tables

Table 4. Total Requested Funding within each Ecological Section

	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore				\$ 13,100,000		\$ 13,100,000
Protect						\$ -
Enhance						\$ -
Total	\$ -	\$ -	\$ -	\$ 13,100,000	\$ -	

Total Dollars (sum of Total column)

\$ 13,100,000

These two cells should be the same figure.

Total Dollars (sum of Total row)

\$ 13,100,000

Check to make sure these amounts are the same

as the Funding Request Amount on page 1 of Main Funding Form.

Table 5. Target Lake/Stream/River Miles

18.8

 # miles of Lakes / Streams / Rivers Shoreline

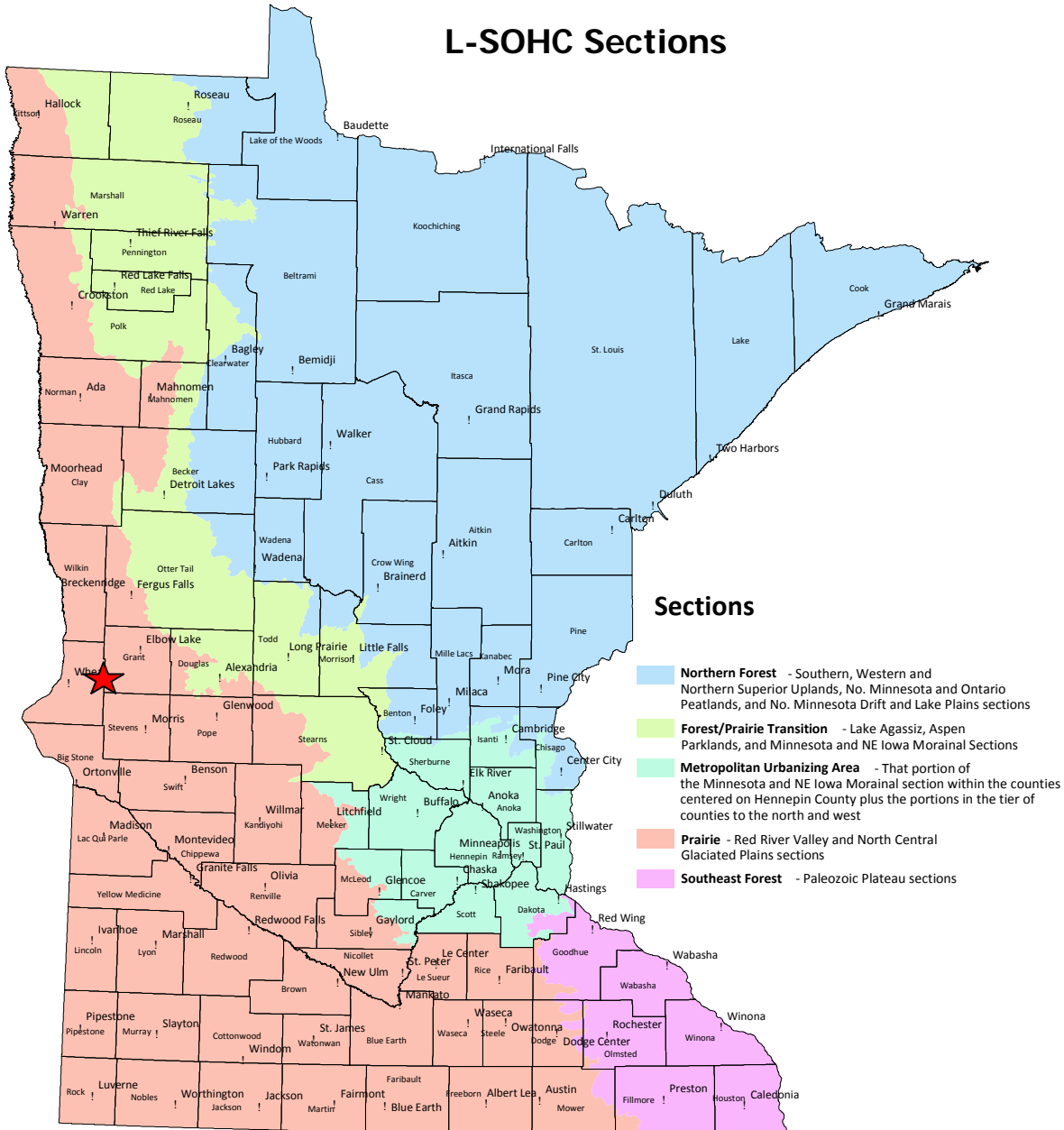
Table 6. Acquisition by PILT Status (enter information in acres)

	Wetlands	Prairies	Forests	Habitats	Total
Acquired in Fee with State PILT Liability					0
Acquired in Fee without State PILT Liability					0
Permanent Easement NO State PILT Liability					0

Table 7. Estimated Value of Acquisition by PILT Status (enter information in dollars)

	Wetlands	Prairies	Forests	Habitats	Total
Acquired in Fee with State PILT Liability					\$ -
Acquired in Fee without State PILT Liability					\$ -
Permanent Easement NO State PILT Liability					\$ -

L-SOHC Sections



Sections

- Northern Forest** - Southern, Western and Northern Superior Uplands, No. Minnesota and Ontario Peatlands, and No. Minnesota Drift and Lake Plains sections
- Forest/Prairie Transition** - Lake Agassiz, Aspen Parklands, and Minnesota and NE Iowa Morainal Sections
- Metropolitan Urbanizing Area** - That portion of the Minnesota and NE Iowa Morainal section within the counties centered on Hennepin County plus the portions in the tier of counties to the north and west
- Prairie** - Red River Valley and North Central Glaciated Plains sections
- Southeast Forest** - Paleozoic Plateau sections

Attachment D. Parcel List

**Program Title
Mustinka River Fish & Wildlife Corridor Restoration/Enhancement**

Parcel Name	County	Township	Range	Direction	Section	TRDS	# of acres	Estimated Cost to OHF	Description	Activity R=Restore P=Protect E=Enhance	Any existing protection? (yes/no)	Open to hunting and fishing? (yes/no)
Lands required for Impoundment												
3	Traverse	128	45		17		0.2	\$213.33		R, E	No	Yes
4	Traverse	128	45		16		5.4	\$5,760.00		R, E	No	Yes
5	Traverse	128	45		16		5.7	\$6,080.00		R, E	No	Yes
6	Traverse	128	45		16		12.2	\$13,013.33		R, E	No	Yes
7	Traverse	128	45		15		1.2	\$1,280.00		R, E	No	Yes
9	Traverse	128	45		20		14.6	\$15,573.33		R, E	No	Yes
10	Traverse	128	45		21		164.2	\$175,146.67		R, E	No	Yes
11	Traverse	128	45		21		162.8	\$173,653.33		R, E	No	Yes
12	Traverse	128	45		22		510.0	\$544,000.00		R, E	No	Yes
13	Traverse	128	45		23		8.1	\$8,640.00		R, E	No	Yes
14	Traverse	128	45		23		8.1	\$8,640.00		R, E	No	Yes
15	Traverse	128	45		24		7.9	\$8,426.67		R, E	No	Yes
16	Traverse	128	45		24		3.7	\$3,946.67		R, E	No	Yes
17	Traverse	128	45		24		3.5	\$3,733.33		R, E	No	Yes
18	Traverse	128	45		20		15.6	\$16,640.00		R, E	No	Yes
19	Traverse	128	45		21		164.6	\$175,573.33		R, E	No	Yes
20	Traverse	128	45		21		163.2	\$174,080.00		R, E	No	Yes
21	Traverse	128	45		23		325.6	\$347,306.67		R, E	No	Yes
22	Traverse	128	45		24		120.2	\$128,213.33		R, E	No	Yes
23	Traverse	128	45		24		200.8	\$214,186.67		R, E	No	Yes
24	Traverse	128	45		29		6.0	\$6,400.00		R, E	No	Yes
25	Traverse	128	45		28		22.8	\$24,320.00		R, E	No	Yes
26	Traverse	128	45		28		22.4	\$23,893.33		R, E	No	Yes
27	Traverse	128	45		27		20.7	\$22,080.00		R, E	No	Yes
28	Traverse	128	45		27		19.7	\$21,013.33		R, E	No	Yes
29	Traverse	128	45		26		11.2	\$11,946.67		R, E	No	Yes
30	Traverse	128	45		26		8.7	\$9,280.00		R, E	No	Yes
31	Traverse	128	45		26		19.6	\$20,906.67		R, E	No	Yes
32	Traverse	128	45		25		10.7	\$11,413.33		R, E	No	Yes
33	Traverse	128	45		25		8.2	\$8,746.67		R, E	No	Yes
34	Traverse	128	45		25		15.6	\$16,640.00		R, E	No	Yes
35	Grant	128	44		19		6.0	\$6,400.00		R, E	No	Yes
36	Grant	128	44		19		0.4	\$426.67		R, E	No	Yes
41	Grant	128	44		19		142.5	\$152,000.00		R, E	No	Yes
42	Grant	128	44		19		9.6	\$10,240.00		R, E	No	Yes
Sub-Total							2,221.7	\$2,369,813.33				

Lands required for Mustinka River Restoration

Attachment D. Parcel List

1	Traverse	128	45	18	12.5	\$40,000.00	R, E	No	Yes
2	Traverse	128	45	17	16.2	\$51,840.00	R, E	No	Yes
3	Traverse	128	45	17	46.0	\$147,200.00	R, E	No	Yes
4	Traverse	128	45	16	17.6	\$56,320.00	R, E	No	Yes
5	Traverse	128	45	16	17.6	\$56,320.00	R, E	No	Yes
6	Traverse	128	45	16	35.4	\$113,280.00	R, E	No	Yes
7	Traverse	128	45	15	14.9	\$47,680.00	R, E	No	Yes
8	Traverse	128	45	19	1.9	\$6,080.00	R, E	No	Yes
12	Traverse	128	45	22	59.3	\$189,760.00	R, E	No	Yes
13	Traverse	128	45	23	33.8	\$108,160.00	R, E	No	Yes
14	Traverse	128	45	23	31.3	\$100,160.00	R, E	No	Yes
15	Traverse	128	45	24	30.1	\$96,320.00	R, E	No	Yes
16	Traverse	128	45	24	15.1	\$48,320.00	R, E	No	Yes
17	Traverse	128	45	24	14.9	\$47,680.00	R, E	No	Yes
36	Grant	128	44	19	9.0	\$28,800.00	R, E	No	Yes
37	Grant	128	44	20	37.1	\$118,720.00	R, E	No	Yes
38	Grant	128	44	20	12.1	\$38,720.00	R, E	No	Yes
39	Grant	128	44	21	1.5	\$4,800.00	R, E	No	Yes
40	Grant	128	44	20	31.7	\$101,440.00	R, E	No	Yes
42	Grant	128	44	19	22.5	\$72,000.00	R, E	No	Yes
43	Grant	128	44	20	3.9	\$12,480.00	R, E	No	Yes
56	Grant	128	44	21	2.1	\$6,720.00	R, E	No	Yes
Subtotal					466.5	\$1,492,800.00			

TOTAL **2,688.2** **\$3,862,613.33**