

Main Request for Funding Form

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

Program or Project Title: *Carp Exclusion Fish Barriers for Water Quality Improvement*

	Funding Request	OHF Out-Year Projections of Needs		
Funds Requested (\$000s)	FY 2012	FY 2013	FY 2014	FY 2015
Outdoor Heritage Fund	\$ 570,000	0	0	0

Manager's Name: Andy Henschel, Watershed Conservationist
Organization: Shell Rock River Watershed District
Street Address: 411 S Broadway PO Box 1147
City: Albert Lea State: MN Zip: 56007-1147
Telephone: 507-379-2964
E-Mail: andy.henschel@co.freeborn.mn.us
Organization Web Site: www.shellrock.org

County Location: Freeborn

Ecological Planning Regions: *[check all that apply – to]*

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

Activity Type: *[check all that apply]*

- Protect Restore Enhance

Priority Resources addressed by activity: *[check all that apply]*

- Wetlands Forests Prairie Habitat

Project Abstract

Our program will install two fish barriers on Goose Lake and Twin Lake to exclude carp and other rough fish that destroy aquatic vegetation and cause water quality impairments.

Project Narrative

Design and scope of work

The Shell Rock River Watershed District (SRRWD) Clean Water Initiative encompasses 246 square miles in Freeborn County and includes 11 lakes that drain to the Shell Rock River which flows into the Cedar River. Water Quality in many of the lakes and waterways is poor due to high turbidity largely caused by carp.

Water quality in Goose Lake and Upper and Lower Twin Lakes has been assessed to be poor due to high turbidity, excessive nutrients and the lack of rooted aquatic vegetation resulting in algal blooms, oxygen depletion and water quality impairments. Studies conducted in similar shallow lakes and fish population assessments in Goose and Twin Lakes have shown that high populations of Common Carp (*Cyprinus carpio*), other carp species and bottom feeding rough fish consume rooted aquatic vegetation, stir up phosphorous rich sediments and increase turbidity, reduce light penetration and cause algal blooms responsible for oxygen depletion.

Assessments of the Goose and Upper and Lower Twin Lakes carp population has determined that the large population of foraging rough fish is detrimental to the ecology of the lakes having adverse affects on shoreline and littoral habitat for destroying hydrophytic vegetation, game fish spawning habitat, waterfowl nesting, breeding and feeding habitat and is adversely affecting fish, migratory bird and waterfowl, mammal and invertebrate populations in Goose and Twin Lakes.

The project proposes to control carp by preventing upstream and downstream migration of the fish by installing two (2) fish barriers. The SRRWD project would;

- Install an electrical fish barrier at the outlet of Goose Lake located at Bridge Street.
- Install a mechanical fish barrier at the outlet of Upper and Lower Twin Lake.

The Goose Lake and Twin Lake Fish Barriers will complement similar fish barriers previously funded thru the Lessard Sams Outdoor Heritage Council and installed in 2009 on Fountain Lake.

The anticipated outcomes will restore and enhance the water quality, rooted aquatic vegetation, fish and wildlife habitat and will increase and enhance the community use of this important recreational resource in the adjacent to the City of Albert Lea. The strategy of carp/rough fish control and exclusion is known to be effective and is a program endorsed and being conducted with technical assistance and in cooperation with the DNR Fishery and Wildlife Divisions and the Minnesota Pollution Control Agency.

- The fish barriers will be installed in cooperation with the Freeborn County and Minnesota Department of Natural Resources efforts to eradicate the existing carp population and re-introduce game fish (sunfish, crappie, bass, and northern).
- Water quality improvements and habitat restoration and enhancements are anticipated as soon as the carp are eradicated and prevented from re-entering Goose and Twin Lakes. Visible and measurable effects are anticipated within two to three years.

Rough fish, especially common carp and black bullheads are major contributing factors to poor water quality. In addition to the installation of the fish barriers to prevent rough fish from re-entering the lakes, Rotenone treatment will be implemented on these lakes. Rotenone is a restricted use pesticide approved both federally and by the State of Minnesota to eradicate fish populations. It is a naturally occurring extract derived from various bean species grown in South America and other locations. Rotenone has an enzyme that blocks the uptake of oxygen from the blood cells. The purpose of the treatment is to eradicate rough fish in order to improve water quality and aquatic habitats. Department of Natural Resources, Division of Fish and Wildlife and Shell Rock River Watershed District will be working together to accomplishing this task.

Goose Lake and Upper and Lower Twin Lake have public access and are open to public fishing, hunting and trapping during the regular open seasons.

The fish barrier project has been identified as a high priority in the SRRWD Management Plan, a plan developed with public participation, subject to public review and approval by the SRRWD Board. There are no known opponents or anticipated barriers to completion of the project. The project will be highly visible and is seen as a benefit to the entire community.

The fish barrier locations are controlled by Shell Rock River Watershed District, Freeborn County and MNDOT. No land acquisitions are required for the project.

The Shell Rock River Watershed District will be the fiscal agent receiving funds for the project with the following local agencies providing technical input and assistance: Freeborn County Soil & Water Conservation District, Minnesota Natural Resources Conservation Service, Freeborn County and Minnesota Department of Natural Resources.

Planning

This project would be working under the following published resource management plans;

The Minnesota Conservation and Preservation Plan Phase II provisions that address the control of invasive species, the restoration of shallow lakes, water quality improvements in impaired waters and the protection and enhancement of fish and waterfowl breeding habitat (pg 57-90).

The 2004 Shell Rock River Watershed Management Plan addresses the project as a top priority (Appendix E, F &J).

The Minnesota Department of Natural Resources Invasive Species Control Program.

Freeborn County Comprehensive Water Plan

These projects are within the stated goals of the Basin Alliance for the Lower Mississippi in Minnesota (BALMM)

Endorsed by local Chamber of Commerce and Sportsmen's Club

Relationship to Other Constitutional Funds

After construction of the two fish barriers, the District will pursue other grant opportunities supported through the Legacy Funding for projects that will continue to work on the rough fish control needed to improve water quality and habitats within the watershed.

Relationship to Current Organizational Budget

The District currently operates under \$2 million annual budget and has the matching funds available. The District had budgeted funds for a small portion of the overall proposed project and wishes to leverage these limited funds to complete the Fish Barrier and Habitat Project, that is proposed. The District is a permanent entity, subject to annual audits, with a proven track record of successfully constructing and maintaining projects.

Sustainability and Maintenance

Long-term costs and maintenance of the fish barriers are part of the operating budget for the SRRWD, which derives its financial support from local option sales tax, grants and donations. The district has a public budgeting process. The land for all of the installations will be owned by the Shell Rock River Watershed District and will not generate a tax liability or an in-lieu of tax obligation.

Types of Projects

Fee Acquisition Projects

Will local government approval be sought prior to acquisition?

X Yes No, please explain not applicable
If no, please explain here:

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

X Yes No, please explain not applicable
If no, please explain here:

Easement Acquisition Projects

Will the eased land be open for public use?

X Yes No, please explain not applicable
If no, please explain here:

Will the conservation easement be permanent?

Yes No, please explain X 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

If so, please indicate which ones:

Accomplishment Timeline

Activity	Milestone	Date
Install 1 Electric Fish Barrier on Goose Lake	1	September 2012
Install 1 Mechanical Fish Barrier on Upper and Lower Twin Lake	2	October 2012
Rotenone Chemical Treatment of Goose Lake	3	Fall 2013

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 \$ 570,000 *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>	0.5		\$ -	\$ 40,300	<i>SRRWD Sales Tax</i>	\$ 40,300
<i>Admin Asst</i>	0.3		\$ -	\$ 18,400	<i>SRRWD Sales Tax</i>	\$ 18,400
<i>Technician</i>	0.3			\$ 18,700	<i>SRRWD Sales Tax</i>	\$ 18,700
<i>position 4</i>						\$ -
<i>position 5</i>						\$ -
<i>position 6</i>						\$ -
<i>position 7</i>						\$ -
Total	1.1		\$ -	\$ 77,400	\$ -	\$ 77,400

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	\$ -	\$ 77,400	\$ -	\$ 77,400
Contracts	\$ -			\$ -
Fee Acquisition w/ PILT <i>(breakout in table 6 & 7)</i>	-			\$ -
Fee Acquisition w/o PILT <i>(breakout in table 6 & 7)</i>				\$ -
Easement Acquisition	\$ -	\$ 9,000	<i>SRRWD Sale Tax</i>	\$ 9,000
Easement Stewardship				\$ -
Travel (in-state)	\$ -	\$ -	\$ -	\$ -
Professional Services	\$ 130,000	\$ 8,800	<i>SRRWD Sale Tax</i>	\$ 138,800
DNR Land Acquisition Costs	\$ -			\$ -
Other				\$ 440,000
Capital Equipment	\$ 340,000			\$ 340,000
Other Equipment/Tools	\$ -			\$ -
Supplies/Materials	\$ 100,000	\$ -	\$ -	\$ 100,000
	\$ 570,000	\$ 95,200	\$ -	\$ 665,200

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	0	0	0	322	322
Protect	0	0	0	83	83
Enhance	0	0	0	83	83
Total	0	0	0	488	

Total Acres (sum of Total column)

488

These two cells should be the same figure.

Total Acres (sum of Total row)

488

Table 2. Total Requested Funding by Resource Type

	Wetlands	Prairies	Forest	Habitats	Total
Restore				\$ 380,000	\$ 380,000
Protect				\$ 95,000	\$ 95,000
Enhance				\$ 95,000	\$ 95,000
Total	\$ -	\$ -	\$ -	\$ 570,000	

Total Dollars (sum of Total column)

\$ 570,000

These two cells should be the same figure.

Total Dollars (sum of Total row)

\$ 570,000

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		0	0	322		322
Protect		0	0	83	0	83
Enhance		0	0	83	0	83
Total	0	0	0	488	0	

Total Acres (sum of Total column)

488

These three cells should be the same figure.

Total Acres (sum of Total row)

488

Total Acres from Table 1.

488

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		\$ -		\$ 380,000		\$ 380,000
Protect		\$ -		\$ 95,000		\$ 95,000
Enhance		\$ -		\$ 95,000	\$ -	\$ 95,000
Total	\$ -	\$ -	\$ -	\$ 570,000	\$ -	

Total Dollars (sum of Total column)

\$ 570,000

These two cells should be the same figure.

Total Dollars (sum of Total row)

\$ 570,000

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

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				5	5

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				\$ 8,800	\$ 8,800

Attachment D. Parcel List

Program Title: Carp Exclusion Fish Barriers for Water Quality Improvement

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)
<i>TBD</i>										<i>R, E</i>	<i>No</i>	