

**Environment and Natural Resources Trust Fund  
2012-2013 Request for Proposals (RFP)**

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**Project Title:**

**ENRTF ID: 063-D**

Restoring Aquatic Habitat to Combat Asian Carp

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**Topic Area:** D. Land Acquisition & Restoration

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**Total Project Budget:** \$ 3,000,000

**Proposed Project Time Period for the Funding Requested:** 3 yrs, July 2013 - June 2016

**Other Non-State Funds:** \$ 0

**Summary:**

Asian carp are a serious threat to Minnesota. Restoring habitat to make native species more resilient is one of our best long term solutions for combating Asian carp.

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**Name:** Tim Schlagenhaft

**Sponsoring Organization:** MN DNR

**Address:** 1801 S Oak  
Lake City MN 55041

**Telephone Number:** (651) 345-3365 ext 233

**Email** timothy.schlagenhaft@state.mn.us

**Web Address** www.dnr.state.mn.us

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**Location**

**Region:** SE

**County Name:** Dakota, Goodhue

**City / Township:**

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<input type="checkbox"/> Funding Priorities	<input type="checkbox"/> Multiple Benefits	<input type="checkbox"/> Outcomes	<input type="checkbox"/> Knowledge Base
<input type="checkbox"/> Extent of Impact	<input type="checkbox"/> Innovation	<input type="checkbox"/> Scientific/Tech Basis	<input type="checkbox"/> Urgency
<input type="checkbox"/> Capacity Readiness	<input type="checkbox"/> Leverage	<input type="checkbox"/> Employment	<input type="checkbox"/> TOTAL <input type="checkbox"/> %



# Environment and Natural Resources Trust Fund (ENRTF) 2012-2013 Main Proposal

**PROJECT TITLE:** Restoring aquatic habitat to combat Asian carp

**I: PROJECT STATEMENT:**

Asian carp are a serious threat to Minnesota’s aquatic resources. One of the best tools to fight this threat is to improve habitat for native species so they are better able to compete against Asian carp. Improving habitat provides multiple benefits through healthier and more diverse populations of native fish, improved ecosystem health, and greater resiliency by native fish to combat Asian carp due to better spawning habitat and increased food availability.

This project will leverage federal funding by cost-sharing with the Corps of Engineers to improve habitat by constructing islands and completing a summer water level drawdown in Upper Mississippi River Pool 3. The cost share would be \$5.2 million federal and \$2.8 million non-federal (state of MN). The proposal also includes one FTE for Minnesota DNR to coordinate with the Corps of Engineers and other partners on project design, implementation, and evaluation.

Since escaping aquaculture ponds in the south, Asian carps (bighead, silver, grass) have been moving up the Mississippi River basin and individuals have been caught in the Mississippi and St. Croix Rivers in Minnesota. In other rivers where Asian carp are abundant they make up a high percentage of the fish population and have caused negative impacts to native fish. Most recently, a commercial fisherman caught both a bighead and silver carp in the same seine haul near Winona. This represents the northern-most documented occurrence of silver carp in the Mississippi River. In addition, eDNA testing has resulted in positive samples for silver carp in the Mississippi, St. Croix, and Minnesota rivers. At this time, we have no evidence of natural reproduction and believe population levels are low and there is time to take action.

Habitat on the Upper Mississippi River has declined. Locks and dams built in the 1930’s created many islands within the floodplain that blocked wave action and provided sheltered areas with abundant aquatic vegetation and deep backwaters. Over time, many of these islands eroded and disappeared due to wave action, filling adjacent backwaters with sediment. In addition, locks and dams eliminated the natural low water conditions that historically dried out many backwaters, which exposed substrates and allowed aquatic vegetation to flourish. In combination, island loss and artificially high water levels have caused significant declines in aquatic vegetation, especially between the Twin Cities and Lake Pepin where habitat conditions are especially poor. Combined with high sediment loads from the watershed, this reach of river is turbid and in many areas aquatic vegetation is absent or limited. Fish habitat for native species is poor, and populations are stressed.

Island construction and water level drawdowns have been used successfully on the Mississippi River to improve water quality and increase aquatic vegetation. Islands have been built in Pools 5, 5a, 7 and 8, and pool-scale drawdowns have been conducted during the summer growing season on Pools 8 and 5, all with good success. Several interagency committees charged with recommending water level management and island construction projects have identified Pool 3 (approximately Hastings to Red Wing) as an important location for a project combining island construction with water level management. Pool 3 includes two large backwater lakes (North and Sturgeon) covering over 2,000 acres that would especially benefit.

**II. DESCRIPTION OF PROJECT ACTIVITIES**

**Activity 1:** Provide 35% cost share to the Corps of Engineers to construct islands in North and Sturgeon Lakes and implement a pool scale drawdown in Mississippi River Pool 3 **Budget:** \$2,800,000

Outcome	Completion Date
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1. Design and construct up to 12 islands in North and Sturgeon Lakes	July, 2015
2. Conduct summer water level drawdown Pool 3	

**Activity 2:** One FTE to manage contracts and coordinate with partners. **Budget:** \$200,000

Outcome	Completion Date
1. Contracts are administered and coordination is ongoing between project partners	July, 2015

### III. PROJECT STRATEGY

#### A. Project Team/Partners

The project would be implemented through the Environmental Management Program which requires a 35% non-federal cost share for projects that are not on federal lands. The federal share would be \$5.2 million and the state share \$2.8 million. It would be led by the Corps of Engineers with input from the Water Level Management Task Force and Fish and Wildlife Work Group, which have representatives from the Minnesota and Wisconsin Department of Natural Resources, Corps of Engineers, US Fish and Wildlife Service, and other partners.

This project is cost effective in that it builds upon lessons learned over 25 years of habitat restoration work on the Upper Mississippi River. It provides an opportunity to leverage federal and state funding to provide multiple benefits to fish and wildlife while combating harmful invasive species like Asian carp.

#### B. Timeline Requirements

Project design would be completed during 2013-2014, with implementation in 2014-2015.

#### C. Long-Term Strategy and Future Funding Needs

Reducing or eliminating impacts from Asian carp will be difficult. One of our best long-term strategies is the restoration of habitat for native species so they can better compete with Asian carp. Healthy populations of native species could increase predation on young Asian carp, and help important commercial species like bigmouth buffalo compete for plankton and other important food sources.

Islands are designed for a 50 year life expectancy. Drawdowns would need to be repeated on some frequency. Vegetation response from the Pool 8 drawdowns has persisted for 10 years.

## 2012-2013 Detailed Project Budget

Restoring aquatic habitat to combat Asian carp

### IV. TOTAL ENRTF REQUEST BUDGET [*Insert # of years for project*] years

<b>BUDGET ITEM</b> <i>(See list of Eligible and Non-Eligible Costs, p. 11)</i>	<b>AMOUNT</b>
<b>Personnel:</b> One DNR FTE is needed to manage contracts and work with the Corps of Engineers and other partners on project design and implementation.	\$ 187,000
<b>Contracts:</b> Funding to Corps of Engineers to design and construct islands and implement a summer water level drawdown on Mississippi River Pool 3.	\$ 2,618,000
<b>Additional Budget Items:</b> DNR used a rate of 6.5% to calculate costs for direct support services, which are DNR's direct and necessary business services required to support this proposal.	\$ 195,000
<b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =</b>	<b>\$ 3,000,000</b>

### V. OTHER FUNDS

<b>SOURCE OF FUNDS</b>	<b>AMOUNT</b>	<b>Status</b>
<b>Other Non-State \$ Being Applied to Project During Project Period:</b> This project would be cost shared 65% federal/35% non-federal. The contract amount in the budget column in this row is the federal share and the amount listed in contracts (above, row 8) is the state share. This project is contingent upon the Corps of Engineers securing the federal share.	\$5,200,000	Pending



**PROJECT TITLE:** Restoring aquatic habitat so native species can better compete with Asian carp

Project manager/organization qualifications

Tim Schlagenhaft  
Mississippi River Planner  
Minnesota Dept. of Natural Resources  
1801 S. Oak  
Lake City, MN 55041  
651-345-3365 ext. 233  
[Timothy.schlagenhaft@state.mn.us](mailto:Timothy.schlagenhaft@state.mn.us)

Mr. Schlagenhaft has been with MN DNR over 20 years, most of that time working on the Mississippi River. He served as Area Fisheries Manager in Lake City from 1992-2001, and as a Mississippi River Planner since 2001.

He chaired and currently participates on the water level management task force, an interagency committee that planned, implemented, and evaluated pool –wide drawdowns on Mississippi River Pools 8, 5, and 6. He is experienced in all aspects of water level management coordination and planning and is well suited to administer this habitat restoration project.

In addition, for the past year Mr. Schlagenhaft has coordinated Asian carp activities for MN DNR. He co-chairs that Asian Carp Task Force and was instrumental in developing an Action plan which includes improving habitat for native species.

He has experience managing large-scale grant projects, having coordinated the efforts of the Lower Mississippi River Habitat Partnership which has received \$1.7 million from Outdoor Heritage funding for habitat restoration on the Mississippi River.

The Minnesota Department of Natural Resources' overall mission is to work with citizens to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life.