

Request for Funding

Lessard-Sams Outdoor Heritage Council Fiscal Year 2015 / ML 2014

Program or Project Title: Protect Aquatic Habitat from Asian Carp

Funds Requested: \$6,500,000

Manager's Name: Nick Frohnauer

Title: Invasive Fish and River Habitat Coordinator

Organization: Minnesota DNR

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Organization Web Site:

County Locations: No Counties Listed

Ecological Planning Regions:

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

Activity Type:

- Protect in Easement
- Restore
- Protect in Fee

Priority Resources Addressed by Activity:

- Habitat

Abstract:

Asian carp pose a real threat to Minnesota's aquatic communities and recreational water activities. This program aims to implement a variety of projects to slow the spread of these species and make native communities more resilient to an invasion.

Design and Scope of Work:

There are real concerns about the consequences of Asian carp introductions into North America. Asian carp (e.g., bighead carp, silver carp, grass carp, and black carp) risk assessments and data collections have been ongoing in recent years in the Midwest, with common findings that these carp species can cause substantial ecological and economic damage to waterways where they have colonized. Asian carp have exhibited tremendous population growth in parts of the Mississippi and Missouri River basins during recent years. Asian carp populations have had cascading negative ecological impacts by competing for food and habitat and even causing changes in water quality through their voracious feeding characteristics. They have been shown to predate heavily on zooplankton and strongly compete with young native fish species. Their ability to migrate long distances through connected rivers and streams in North America has challenged scientists and decision-makers in finding solutions to stay ahead of the leading edge of Asian carp dispersal.

In response, an ad hoc committee co-chaired by the Minnesota DNR and National Park Service was formed and tasked with developing an action plan. A formal plan was completed in November of 2011. The plan includes 20 actions that were categorized into four main elements: early detection and response; prevention and deterrence; mitigation and control; and outreach and communication. To date, many of the action items have been implemented or are in various stages of implementation. The MN DNR and University of Minnesota – Aquatic Invasive Species Center are co-chairing a committee that will update the plan utilizing new information, data, and projects. The plan update will be completed in December 2013. A variety of funding sources are being tapped to implement the action plan.

The goal and purpose of this program is to implement a variety of projects that slow the spread of Asian carp, monitors the expansion of Asian carp, makes native communities more resilient to an invasion, and institutes management actions if Asian carp become established. This proposal focuses on actions in the prevention/deterrence and mitigation/control elements of the Asian Carp Action Plan. At this time, this proposal is unable to identify specific tasks since there are projects that are currently incomplete that will help direct where funding is needed. Due to the time limitations of the Asian carp problem, funding is being requested at this time with the expectation that prioritization and project selection will be completed before funds become available.

The Minnesota DNR Division of Fish and Wildlife, Section of Fisheries initiated a GIS project to identify barriers and watershed breaches in the state of Minnesota. Barriers were evaluated as to whether they were 100% effective, partially effective, or did not stop fish movement. Watershed breaches were identified as areas where fish could move from one watershed to the next during high water flows. The data was collected from area fisheries office and is currently being compiled with a completion date of late summer 2013. The next step in the process is performing a risk analysis to determine the likelihood of Asian carp entering a system and the potential impact to native communities. This analysis would help identify and prioritize strategic locations for management efforts to slow the expansion of Asian carp. This phase of the project should be completed in late 2014. Funding from this proposal would be used to implement projects identified in the risk analysis. These may include barrier modifications, barrier installations, breach modifications, flowage easements, and acquisitions needed to advance projects.

Another component of the action plan is improving water quality and habitat so native species can better compete with Asian carp and other invasive species. The Army Corps of Engineers – Environmental Management Program has identified “Habitat Rehabilitation and Enhancement Projects”. These projects are large scale in nature, costing in the millions of dollars. A 35% match is required for projects that take place off of federal lands. The Army Corps of Engineers – St. Paul District has identified several projects in the Minnesota portion of the Mississippi River and one in the lower Minnesota River. Recommendations on these projects will be contained in the Asian Carp Action plan update. The funding from this proposal could potentially be used as matching funds to initiate these projects.

Additionally, the Minnesota DNR is beginning to identify smaller scale projects; deep water creation, island creation, backwater reconnection, and vegetation establishment; that improve aquatic habitat in rivers and streams. Recommendations on these projects will be contained in the Asian Carp Action plan update. Funding from this proposal could be potentially used for dredging, island creation, water level drawdowns, and aquatic shoreline restorations.

Specific projects that are identified through prioritization will be presented to the council before funds are allocated.

Planning

MN State-wide Conservation Plan Priorities:

- H6 Protect and restore critical in-water habitat of lakes and streams

Plans Addressed:

- Asian Carp Action Plan

LSOHC Statewide Priorities:

- Address Minnesota landscapes that have historical value to fish and wildlife, wildlife species of greatest

conservation need, Minnesota County Biological Survey data, and rare, threatened and endangered species inventories in land and water decisions, as well as long-term or permanent solutions to aquatic invasive species

- 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
- 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:

- Restore or enhance habitat on public lands

LSOHC Forest Prairie Transition Section Priorities:

- No Forest Prairie Transition Priorities Listed

LSOHC Northern Forest Section Priorities:

- No Northern Forest Priorities Listed

LSOHC Metro Urban Section Priorities:

- Protect, enhance, and restore riparian and littoral habitats on lakes to benefit game and nongame fish species

LSOHC Southeast Forest Section Priorities:

- Protect, enhance, and restore habitat for fish, game, and nongame wildlife in rivers, cold-water streams, and associated upland habitat

Relationship to Other Constitutional Funds:

- Environmental and Natural Resource Trust Fund

The Minnesota DNR Division of Fish and Wildlife, Section of Fisheries continues to do surveys and sampling of our major rivers. This project will determine the distribution and abundance of any Asian carp in Minnesota waters above Pool 4 of the Mississippi River and use this information to inform rapid response efforts. It will also delineate the leading edge of Asian carp reproductive success. Locating the areas and habitats these fish are using, when they appear to be in very low numbers and have not yet established spawning populations, is vital to targeting removal or other control efforts. Funding goes through June 2015. The Minnesota DNR Division of Fish and Wildlife, Section of Fisheries has completed an initial risk assessment that identified and evaluated watershed connections for potential Asian carp pathways into southwestern Minnesota. This assessment was refined by GIS and LIDAR imagery detection tools to pinpoint best locations for installing electric barriers; site inspections ensued and projects prioritized. There is a funding request for the implementation phase; contracting a vendor to design and install small-scale electric barriers, and land agreements for operating at least six systems. Funding may not cover all six systems. The Minnesota state legislature awarded the University of Minnesota \$3,800,000 in 2012 to create an Aquatic Invasive Species (AIS) Research Center. The goal of the Research Center is to develop and implement solutions to control aquatic invasive species. It will do this by developing scientific expertise in variety of disciplines so that new solutions can be devised and extant ones improved while educating management agencies and the public. The Center will function in collaboration with the Minnesota Department of Natural Resources, federal and state governmental agencies as well as private citizens groups. The 2013 grant provides operating funds so that the scope of research can be extended to include common carp, pathogens designed to control invasive fishes, risk analysis of AIS, as well as establish as an extension and education component. The new funding will support the center through 2019 and the opportunity to secure supplemental funding from other

sources.

Accelerates or Supplements Current Efforts:

The Invasive Species Program in the DNR includes a dedicated specialist working on the Asian carp issue and numerous people that work on a variety of Asian carp elements throughout the year. The Asian Carp Action Plan includes many actions, some of them costly and/or beyond the capabilities of the MN DNR. This funding would be used to supplement DNR efforts and other sources of funding to implement the Asian Carp Action Plan.

Sustainability and Maintenance:

Funds would be used on specific projects with outcomes expected to exceed five years with no further funding requirements.

Funding for annual and maintenance costs of fish barriers would be secured before initiating barrier projects.

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

Hunting and Fishing Regulations Not Listed

Public Use:

Will the eased land be open for public use? - Yes

Dependant on the easement aquired. Fishing easements will allow angling to take place on lands. Flowage easements do not allow public use.

Permanent Protection:

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

Permanent Protection:

Is the activity on permanently protected land and/or public waters per MS 103G.005, Subd. 15? - Yes (WMA, WPA, AMA, Private Land, County/Municipal, Refuge Lands, Public Waters, State Wilderness Areas)

Accomplishment Timeline

Activity	Approximate Date Completed
Strategic Asian Carp Barriers	2016
Strategic Land Acquisitions	2016
Strategic Easement Acquisitions	2016
Aquatic Habitat Improvements to Strengthen Native Communities	2016

Outcomes

Programs in the northern forest region:

- Asian carp are not detected in targeted waters.

Asian carp densities are minimal in habitats where they cannot be prevented from entering.

Programs in forest-prairie transition region:

- Asian carp are not detected in targeted waters.

Asian carp densities are minimal in habitats where they cannot be prevented from entering.

Programs in metropolitan urbanizing region:

- No Programs Listed

Programs in southeast forest region:

- Asian carp are not detected in targeted waters.

Asian carp densities are minimal in habitats where they cannot be prevented from entering.

Programs in prairie region:

- Asian carp are not detected in targeted waters.

Asian carp densities are minimal in habitats where they cannot be prevented from entering.

Budget Spreadsheet

Total Amount of Request: \$6,500,000

Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$0	\$424,000		\$424,000
Contracts	\$5,500,000	\$0		\$5,500,000
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$250,000	\$0		\$250,000
Easement Acquisition	\$200,000	\$0		\$200,000
Easement Stewardship	\$0	\$0		\$0
Travel	\$0	\$0		\$0
Professional Services	\$0	\$0		\$0
Direct Support Services	\$500,000	\$0		\$500,000
DNR Land Acquisition Costs	\$50,000	\$0		\$50,000
Capital Equipment	\$0	\$47,600		\$47,600
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$0	\$0		\$0
DNR IDP	\$0	\$0		\$0
Total	\$6,500,000	\$471,600		- \$6,971,600

Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
3 NR Specialist	3.00	2.00	\$0	\$319,000	LCCMR	\$319,000
Contract - Commercial Fishermen	2.00	2.00	\$0	\$105,000	LCCMR	\$105,000
Total	5.00	4.00	\$0	\$424,000		- \$424,000

Capital Equipment

Item Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Asian Carp Sampling Equipment	\$0	\$47,600	LCCMR	\$47,600
Total	\$0	\$47,600		- \$47,600

Output Tables

Table 1. Acres by Resource Type

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

Table 2. Total Requested Funding by Resource Type

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$6,000,000	\$6,000,000
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$275,000	\$275,000
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$0	\$225,000	\$225,000
Enhance	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$6,500,000	\$6,500,000

Table 3. Acres within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0
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	0	0	0

Table 4. Total Requested Funding within each Ecological Section

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$1,640,000	\$0	\$2,180,000	\$2,180,000	\$0	\$6,000,000
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$275,000	\$0	\$275,000
Protect in Easement	\$0	\$0	\$0	\$225,000	\$0	\$225,000
Enhance	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$1,640,000	\$0	\$2,180,000	\$2,680,000	\$0	\$6,500,000

Table 5. Target Lake/Stream/River Miles

0 miles

Parcel List

Section 1 - Restore / Enhance Parcel List

No parcels with an activity type restore or enhance.

Section 2 - Protect Parcel List

No parcels with an activity type protect.

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.