

**Environment and Natural Resources Trust Fund
2011-2012 Request for Proposals (RFP)**

LCCMR ID: 010-A1

Project Title: Monitoring Minnesota River Fish Populations and Recreational Use

Category: A1. Natural Resource Data and Information: Collection

Total Project Budget: \$ \$649,075

Proposed Project Time Period for the Funding Requested: 3 yrs, July 2011 - June 2014

Other Non-State Funds: \$ 0

Summary:

Conduct nongame and game fish population monitoring and recreational use survey on the Minnesota River. Connect landscape changes to fish populations and communities, develop educational products, and enhance recreational use.

Name: Jack Lauer

Sponsoring Organization: DNR

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New Ulm MN 56073

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Web Address: _____

Location

Region: Central, Metro, SW, SE

Ecological Section: Minnesota and NE Iowa Morainal (222M), North Central Glaciated Plains (251B)

County Name: Big Stone, Blue Earth, Brown, Carver, Chippewa, Dakota, Hennepin, Lac qui Parle, Le Sueur, Nicollet, Redwood, Renville, Scott, Sibley, Swift, Yellow Medicine

City / Township: Various

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ Employment	_____ TOTAL _____%

2011-2012 MAIN PROPOSAL

PROJECT TITLE: Monitoring Minnesota River Fish Populations and Recreational Use

PROJECT STATEMENT

In the early 1990s, Governor Arne Carlson stood on the banks of the Minnesota River and issued a challenge to make it “fishable and swimmable” in 10 years. Since then, extensive water quality monitoring data have been collected and provide a much better picture of pollutant problems and trends. However, fish monitoring on the main stem of the River has been insufficient due to the large geographic area covered (335 river miles), complexity and diversity of habitats, and limited Fisheries staff assigned to large river studies. DNR Fisheries, Ecological Resources, PCA, USFWS, USGS, and Universities have conducted surveys of limited gear, locations and season, but there is a need for a comprehensive long-term monitoring program to assess fish population and species trends and understand recreational use and future needs. This project will launch the DNR into a long-term monitoring program for game fish, threatened and special concern fish species, and community composition on the Minnesota River.

Equally important, the Minnesota River is an important recreational resource. The excellent catfish and walleye fishing, the designation as a state canoe route, and the state parks along the River draw users to the River. This project will assess recreational use and needs (which are poorly studied to date), and enhance recreational and educational opportunities for users.

The benefits of long-term monitoring of the fish and river users are numerous, including but not limited to: assessing fish population trends for numerous game and nongame species as changes occur in the landscape and hydrology of the river, documenting possible Asian carp occurrence and invasive species effects on the native fish community, completing inventories of flathead and channel catfish habitat (www.mndnr.gov/staging/catfish.html), developing strategies to deliver recreational, economic, and environmental education opportunities specific to the River, and providing the fisheries and recreation data to interested stakeholders,

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Long-term monitoring program implementation. Budget: \$ 330,645

Design and implement a long-term monitoring program for the Minnesota River main channel in collaboration with PCA, DNR Ecological Resources, and academic institutions. The program will complement and enhance surveys on upstream reservoir lakes and PCA IBI monitoring (done only about every 10 years). Annual surveys will be completed. Techniques may include: trapnet, trotline, and gill net sets; Index of Biotic Integrity (IBI) electrofishing; trawling; underwater video; and sampling at fishing tournaments and in seines.

Outcome	Completion Date
1. Report on fish species and community information to anglers, researchers, and other stakeholders. Include analysis of previous surveys (by DNR and others) and information on fish species, recruitment, growth, stability, health, species assemblages, population trends, and habitat use.	6/1/2014
2. Identify future management strategies and recommend program for long-term monitoring that is efficient in cost and staff resources.	6/30/2014

Activity 2: Recreational use and angler creel survey and development of educational materials for river users and state park visitors **Budget: \$297,693**

Measure recreational and angler use, demographics of users, and user satisfaction and desires, on the main channel portion of the River. Educational display materials and kiosks will be developed for use at State Parks along the Minnesota River based on assessed needs of users and in collaboration with State Park staff.

Outcome	Completion Date
1. Report on recreational use and determine information and infrastructure needs along the River.	6/1/2014
2. Complete educational displays at State Parks along the River.	6/30/2014

Activity 3: Reproductive endocrine disruption and contaminant monitoring **Budget: \$ 28,615**

Fish will be collected as part of survey work. Lab work will be contracted to measure for bioindicators of exposure to endocrine-disrupting compounds and mercury.

Outcome	Completion Date
1. Report on endocrine disruption and contaminant monitoring to anglers, researchers, and other stakeholders in context of human health and fish population health. Compare Minnesota River fish levels to other relevant studies.	6/30/2014

III. PROJECT STRATEGY

A. Project Team/Partners

DNR Fisheries will be receiving dollars from the Environment and Natural Resources Trust fund to cover the costs associated with completing the activities described above, including hiring one Minnesota River Fisheries Biologist, two seasonal interns, and six seasonal clerks. In addition to the money received, DNR Fisheries plans to contribute at least \$59,620 cash, \$91,000 in supplies and equipment to the program, and \$336,000 in kind labor. Design of the long-term monitoring program as well as field sampling will be closely coordinated with DNR Ecological Resources, PCA, Minnesota State University, and other interested stakeholders.

B. Timeline Requirements

Coordination and design of the long-term monitoring program, recreational use survey, and endocrine disruption monitoring will require hiring a newly established position, a Minnesota River Fisheries Biologist. With this funding, two complete seasons of fish survey data and one season of recreational use survey data will be collected during 2012-2014. Severe flooding could impact sampling if areas are unsafe or sampling techniques are ineffective in high water. This project is the initial development of a longer term program as described in part C below.

C. Long-Term Strategy and Future Funding Needs

Because this is a long-term project, sampling and analysis must continue beyond the three-year period for as long as the data is providing value to anglers, river users, researchers, and managers. DNR Fisheries in the Southern Region will prioritize long-term monitoring of the Minnesota River and look for opportunities to permanently retain a Minnesota River Fisheries Biologist and the long-term monitoring sampling regime. In addition, DNR Fisheries will continue to seek multiple funding initiatives for vital monitoring and habitat projects in the Minnesota River basin.

2011-2012 Detailed Project Budget

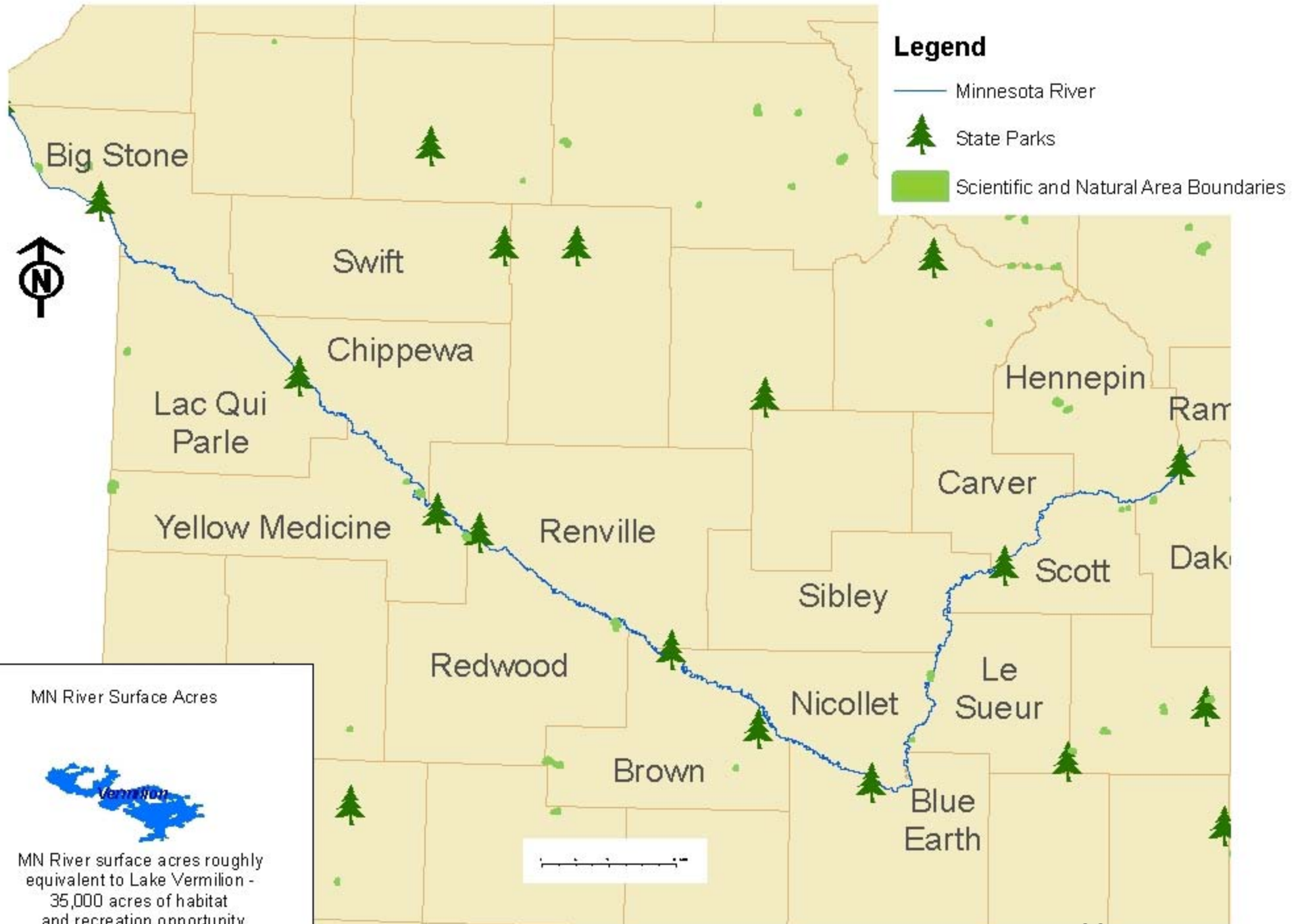
IV. TOTAL TRUST FUND REQUEST BUDGET 3 years

<u>BUDGET ITEM</u>	<u>AMOUNT</u>
Personnel: MN River Fisheries Biologist (NEW POSITION, unclassified): 36 mo. FT (79% sal, 21% ben)	\$ 198,000
2 Student Interns (NEW POSITIONS, unclassified): 4 mo. Seasonal May-Aug. 2012 & 2013 (100% sal)	\$ 30,000
6 Survey Clerks (NEW POSITIONS, unclassified): 4 mo. Seasonal May-Sept. 2012 (92% sal, 8% ben)	\$ 83,000
Contracts: Contract with a lab to measure the concentration of vitellogenin in plasma and conduct histological characterizations of liver and testes tissue in male fish	\$ 15,000
MCC Water Recreation Specialist, 30 months (Jan 2012 - June 2014, \$18.50/hr)	\$ 96,200
Equipment/Tools/Supplies: Boat, trailer, motor for fish sampling	\$ 24,000
Fish sampling equipment: trapnets (10*\$1000), gillnets (10*\$300), trawl (1*\$1000), dipnets (3*\$200), GPS unit (1*\$350), digital camera (1*\$225), underwater camera (1*\$500), voucher supplies (\$250), fish scales (2*\$300), measuring board (1*\$100), equipment repair (\$3000)	\$ 19,625
Electrofishing equipment including electrofishing boat and motor, specialized nets, and associated gear	\$ 79,000
Life jacket, waders, rain gear for 1 Biologist, 2 Interns, and 6 Survey Clerks (\$250 each)	\$ 2,250
Survey Clerk supplies: fish scales (6*\$300), measuring boards (6*\$100), equipment repair (\$5000)	\$ 7,400
Educational Displays at State Parks (6*\$10,000)	\$ 60,000
Endocrine disruption sampling equipment: syringes, sample bottles, and supplies	\$ 1,000
Acquisition (Fee Title or Permanent Easements): N/A	\$ -
Travel: Instate travel to sampling locations along 335 miles of Minnesota River during the field season, includes meals and occasional lodging for work >35 miles from office	\$ 2,000
Transportation: Mileage for Biologist and interns (36,000 miles * \$0.62/mile = \$22,300)	\$ 22,300
Mileage for Recreational Use Survey Clerks (15,000 miles * \$0.62/mile = \$9300)	\$ 9,300
TOTAL ENVIRONMENT & NATURAL RESOURCES TRUST FUND \$ REQUEST	\$ 649,075

V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
Other Non-State \$ Being Applied to Project During Project Period: N/A	\$ -	N/A
Other State \$ Being Applied to Project During Project Period: DNR Shared Services (\$35,877); Fish and Wildlife Division Support (\$17,744); Office space, a computer, phone, network access, and storage space provided at a MnDNR office (\$6000)	\$ 59,621	Secured
Existing boat, trailer, motors will be used by Survey Clerks.	\$ 91,000	Pending
In-kind Services During Project Period: Existing MnDnr staff will be reassigned to assist with development and implementation of the long-term monitoring program (approximately 3200 staff hours/year).	\$ 336,000	
Remaining \$ from Current ENRTF Appropriation (if applicable): N/A	\$ -	N/A
Funding History: There is no directed funding for Minnesota River surveys. However several discrete surveys have been completed on approximately a 6 - 10 year cycle recently with Game and Fish Funds. List provided on request.	\$ -	N/A

Minnesota River Monitoring and Recreational Opportunities



MN River Surface Acres



MN River surface acres roughly equivalent to Lake Vermilion - 35,000 acres of habitat and recreation opportunity

PROJECT MANAGER

PROJECT TITLE: Long-Term Monitoring Program for Minnesota River Fish Communities

Project Manager: Jack Lauer, MnDNR Southern Regional Fisheries Manager, New Ulm

- Administers a regional budget totaling \$3.4 million for the 33-county DNR Southern Region. Budget impacts the management of fisheries of several hundred intensively managed lakes, thousands of miles of warm, cool, and cold water streams, and fish production at two hatcheries.
- Direct, supervise, develop and implement fisheries programs, plans, and policies across five DNR Fisheries Administrative Areas and Regional Fisheries staff.
- Collaborate with state and federal agencies, local units of government, non-governmental organizations, landowners, stakeholders, and the angling public so that input and information is shared in order to make sound decisions on managing and protecting Minnesota's natural resources while promoting recreational opportunities.
- Jack has worked for the MnDNR for 25 years in all parts of the state gaining extensive field experience on fish population management and operations. Coordinated with many internal and external partners to advance conservation strategic directions in Minnesota that has benefitted both the natural resources and the recreational users.
- The past decade he has worked in southern Minnesota and has prioritized stewardship and education about southern Minnesota's valued lakes, streams, and rivers that are integrated within the agricultural rich landscape.

Interests, expertise, and vision: Jack is interested in connecting people to the natural functions that our landscapes can offer, while keeping habitat protection in the fore-front of their conservation values. He champions good fishing and hunting opportunities and has a passion to make wetland complexes better than he found them. He leads by example with the thought that all citizens have a choice to manage our lands and waters wisely and an understanding that incorporates the need to promote healthy and sustainable growth.