

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

LCCMR ID: 073-C1+2

Project Title: Wild Rice Conservation Through Citizen Science and Engagement

Category: C1+2. Protection, Restoration, and Enhancement

Total Project Budget: \$ \$214,200

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

Other Non-State Funds: \$ 0

Summary:

Develop monitoring network and protocol for a database on wild rice abundance, through citizen involvement, that protects wild rice waters, water quality and wildlife habitat. Increase citizen harvest/education opportunities.

Name: Annette Drewes

Sponsoring Organization: Bemidji State University

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Bemidji MN 56601

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Web Address: _____

Location

Region: NW, NE, Central

Ecological Section: Western Superior Uplands (212K), Northern Superior Uplands (212L), No. Minnesota and Ontario Peatlands (212M), No. Minnesota Drift and Lake Plains (212N)

County Name: Statewide

City / Township:

_____ 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: WILD RICE CONSERVATION THROUGH CITIZEN SCIENCE AND ENGAGEMENT

I. PROJECT STATEMENT

Wild rice, once abundant statewide, is now found primarily in the northern half of Minnesota. Current funding is lacking for monitoring wild rice populations and data on abundance is extremely limited. Engaging citizens in protecting their local wild rice through scientific monitoring provides a fiscally responsible means for conserving a resource that supports habitat for wildlife, especially ducks; supports an important recreational and subsistence harvest; serves as a foundation for a million dollar commercial industry; maintains healthy shallow lakes; and is the cultural heart of the Ojibwe people. Without data on wild rice abundance we lack the ability to identify threats and implement conservation strategies.

Minnesota is one of only two states that support a harvestable wild rice resource. Minnesota's lakes and rivers provide habitat for the largest natural population of wild rice in the United States. With an average of 1,500 license sales/year, few funds are available for protecting this resource. Protecting wild rice for future generations requires that we have people and communities involved and knowledgeable about wild rice. There are more than 1200 basins in Minnesota that contain wild rice. More than 400 of these basins have great ecological and economic impact through wild rice harvest, hunting and trapping of wildlife, and protecting water quality. Developing a database to monitor and identify trends in abundance will provide a basis for protecting wild rice populations into the future.

Wild rice is an organic, traditional and local food. Highly nutritious, wild rice can be gathered by families both to supplement income and for personal consumption. Over 70% of harvesters surveyed in 2006 harvest for their own consumption and use. Recognition of this resource and the sustainable aspects of its natural production and growth support a healthy local lifestyle. New resources and information, developed for citizens interested in hand-harvesting wild rice, are needed and the establishment of mentoring networks will help prevent unskilled harvesters from damaging local wild rice beds.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Database and protocol development for citizen monitoring **Budget:** \$ 164,200

Design, develop and implement a citizen-based monitoring program for wild rice distribution and abundance. This database will be designed with the input of the Minnesota Department of Natural Resources and participants on the Wild Rice work group, including the 1854 Treaty Authority which has initiated a monitoring program for wild rice waters in the northeast. A large portion (\$120,000) of the budget is for staff time, including funds for intern research to measure density of monitored beds to provide perspective on abundance in relation to monitoring results. Remaining funds allocated to database design (\$35,000), protocol, equipment and materials development for citizen training (\$6200) and assessment of volunteer experiences (\$3000).

Outcome	Completion Date
1. Monitoring protocol for citizen-based wild rice monitoring	Mar 2012
2. Volunteer network (100 citizens) representative of harvesting population	July 2013
3. Baseline of density/monitoring relationships for a subset of lakes (25)	Dec 2013
4. Data collection initiated on at least 300 basins with wild rice	June 2014
5. Groundwork laid to institutionalize data collection for long-term collection	June 2014

PROJECT TITLE: WILD RICE CONSERVATION THROUGH CITIZEN SCIENCE AND ENGAGEMENT

Activity 2: Resource protection through citizen engagement **Budget:** \$ 50,000

Protection of wild rice waters begins at the local level with citizens and community members who are knowledgeable about the resource. Citizens looking for wild rice information, whether for habitat protection or hand harvesting, find limited resources. Local resources for education through community education programs, local celebrations, and electronic searching are much needed. Approximately \$40,000 is allocated for staff time to work with harvesters and project partners to review and refine existing information, with the remaining \$10,000 available for supporting development of materials and networks. Connecting people interested in harvesting with those with experience is a win/win situation for both natural wild rice stands and communities interested in protecting these areas of local wildlife habitat.

Outcome	Completion Date
1. Active website providing current harvest information and education.	June 2012
2. Education resources (including displays) for loan and/or distribution	Feb 2013
3. Recognition of wild rice waters in 30 communities	June 2014
4. A Network of local harvester contacts (300) across wild rice region	June 2014

III. PROJECT STRATEGY

A. Project Team/Partners

Annette Drewes has worked with wild rice and harvesting communities since 2005, expanding opportunities for public education and facilitating discussions between harvesters and managers of wild rice. Bemidji State University sits in the heart of wild rice country and has access to citizens and students engaged in the tradition of hand-harvesting wild rice. The project team will seek input from members of the Wild Rice Workgroup, organized by the Minnesota Department of Natural Resources (DNR)– a group comprised of representatives from the 1854 Treaty Authority, Great Lakes Indian Fish and Wildlife Commission (GLIFWC), Rice Lake National Wildlife Refuge, Save Our Rice Alliance (SORA) and tribal resource managers.

B. Timeline Requirements

This project has an initial timeline of three years. Within that time frame proper protocol and methods for citizen monitoring of wild rice will be in place and 100 volunteers will be trained and collecting data. Citizen engagement will be ongoing, however the initial development of materials, establishment of networks and pilot mentoring projects will be set in those first three years.

C. Long-Term Strategy and Future Funding Needs

Conserving wild rice requires data on abundance and knowledge of influences that decrease distribution and a willingness by citizens to support conservation efforts. This project is the first step in addressing our lack of data on wild rice distribution and abundance and can help us shape future management direction while keeping citizens engaged and informed. Maintaining a genetically healthy and abundant stock of natural wild rice is important for sustaining a commercial wild rice industry, maintaining access to healthy, local foods, and supporting wildlife populations.

2011-2012 Detailed Project Budget

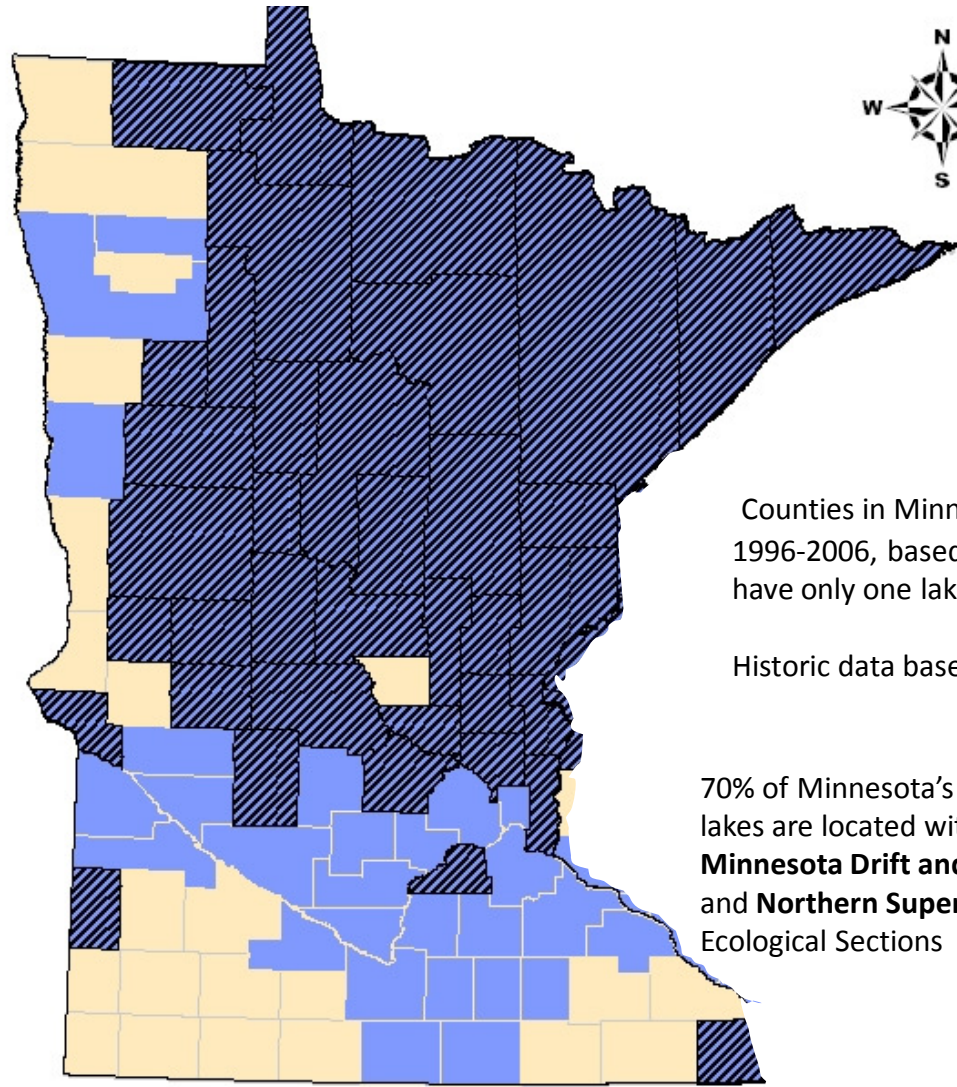
ProjectTitle: Wild Rice Conservation Through Citizen Science and Engagement

IV. TOTAL TRUST FUND REQUEST BUDGET 3 years

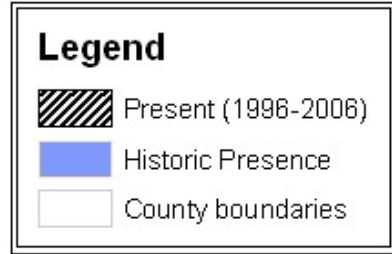
<u>BUDGET ITEM</u>	<u>AMOUNT</u>
Personnel: Project Manager .75FTE salary \$42,000/yr w/fringe (11.65%); 3 years = \$126,000 - 2 Student interns: seasonal (3 mos) salary \$9600; 2 years = \$ 19,200 - 1 student intern: 15 hrs/wk annual salary \$7800; 2.5 years = \$19,500	\$ 164,700
Contracts: Contract with state agency or contract out for competitive bid for development of database system involving GIS capabilities, mapping or related functions	\$ 35,000
Equipment/Tools/Supplies: 25 - Garmin GPS 72H handhelds, or similar units (\$150/piece +tax/ship) \$1,500 16-17 ft Royalex Canoe w/equip (1) for abundance monitoring \$2,000 Misc. for abundance monitoring (pvc pipe, tape, etc.) \$500 Wild Rice Education brochures, 10,000 pieces; layout and printing: \$2500 Rice seed variability across region - educ. display; materials (4 displays); \$1,000 Training materials (for 100 volunteers); printing and production; \$500	\$ 8,000
Travel: Project manager: facilitate citizen monitoring trainings (4000 miles) and obtain harvester input on development of resources (1000 miles) @ .50; \$2500 Summer Interns: abundance monitoring, 25 lakes/yr for 2 yrs; 5000 miles; \$2500 Lodging: Project manager 10 nights (citizen training); interns: 5 nts; Lodging \$1000 Meals: 20 days, Project Manager \$500	\$ 6,500
Additional Budget Items:	
TOTAL ENVIRONMENT & NATURAL RESOURCES TRUST FUND \$ REQUEST	\$ 214,200

V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
Other Non-State \$ Being Applied to Project During Project Period: Save Our Rice Alliance - Wild Rice Education Display Prints and Maps	\$ 2,000	pending
Other State \$ Being Applied to Project During Project Period:	None	
In-kind Services During Project Period: Save Our Rice Alliance - website platform for requesting resources and hosting information on citizen monitoring and engagement; \$400/yr, 3 year; \$1200 BSU Faculty - Dr. Rick Koch, Wetlands 30 days (\$18,000) per year; project development and implementation assistance with interns \$54,000	\$ 55,200	
Remaining \$ from Current ENRTF Appropriation (if applicable): NA	NA	
Funding History: Save Our Rice Alliance received \$8,000 in funds from the National Forest Foundation Community Assistance Program that were used to develop a website for wild rice information, initiate a citizen listserv and procure a display framework.	\$ 8,000	



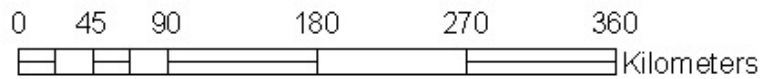
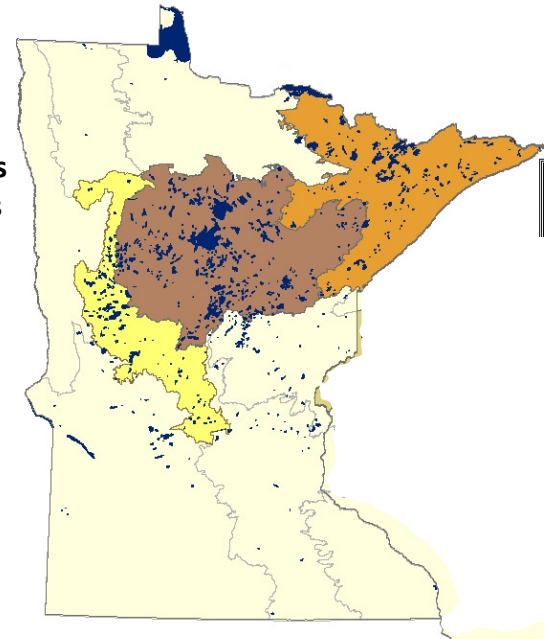
Minnesota Wild Rice Waters Past and Present, by County



Counties in Minnesota with **documented** wild rice waters from 1996-2006, based on *available data*. Some of these counties have only one lake with wild rice.

Historic data based on records only going back to 1940's.

70% of Minnesota's wild rice lakes are located within **N. Minnesota Drift and Lake Plains** and **Northern Superior Uplands** Ecological Sections



Maps by Annette Drewes (2008) with data from Minnesota Department of Natural Resources and 1854 Tribal Authority

Project Manager Qualifications and Organization Description

Project title: WILD RICE CONSERVATION THROUGH CITIZEN SCIENCE AND ENGAGEMENT

Dr. Annette Drewes, project manager, has been working with wild rice harvesters and managers since 2005, beginning with her doctoral research at the University of Wisconsin - Madison. She is the current chair of the Education and Outreach committee of the DNR facilitated Wild Rice work group. In her work she has organized and facilitated harvester input meetings across northern Minnesota and Wisconsin, involving both tribal and state harvesters. She has worked with DU and the Minnesota Department of Natural Resources, along with the 1854 Treaty Authority and the Great Lakes Indian Fish and Wildlife Commission. She co-authored a survey of Minnesota wild rice harvesters in cooperation with the Minnesota DNR in 2006.

Dr. Drewes is well prepared for this project, having developed and served as the Metro Trout Stream Watershed Coordinator in the Twin Cities for the Minnesota DNR from 1996-1998. There she engaged citizens in watershed protection through monitoring and land planning. Prior to that, she worked with the DNR's MinnAqua Program as a Project Specialist, coordinating interns and volunteers across southern Minnesota. Annette currently resides in northern Minnesota and has been working on the establishment of SORA (Save Our Rice Alliance), a non-profit for the conservation of wild rice, involving harvesters and managers in discussions on resource protection and harvester recruitment.

Dr. Drewes is familiar with database development and the use of GIS, and has worked with faculty from Biology, Environmental Studies and Geography at Bemidji State University. Her expertise and knowledge in regards to the region, resources and culture will benefit this project and move the project forward quickly.

Organization Description

Bemidji State University(BSU) is a member of the Minnesota State Colleges and Universities. Our mission as northern Minnesota's university, is to engage in new worlds of thought, embrace responsible citizenship, and educate for a future that can only be imagined. Signature themes at BSU address multicultural understanding, civic engagement and environmental stewardship, all significant in regards to understanding wild rice culture and ecosystems.