

CHALLENGE COST SHARE PROPOSAL – Fiscal Year 2009

Station: Huron Wetland Management District (Org Code 64110) Date: 10/24/2008

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Project Description:

Strategic Monitoring within an Adaptive Management Framework using Volunteer Partners

The floristic integrity of our native prairies has been substantially compromised by introduced, cool-season grasses. Attempts to suppress the most significant invaders (smooth brome and Kentucky bluegrass) have met with poor or inconsistent success. Restoration and maintenance of our prairies will require an improved understanding of factors contributing to current ecosystem dysfunction and those necessary for restoring ecosystem health.

Huron WMD (hereafter District) is in the initial stages of developing a strategic monitoring program focused on habitat restoration, largely accomplished with volunteer partners, to address critical management questions necessary to manage the district in an adaptive management framework. Through adaptive management we can advance beyond the static use of best management practices by evaluating and incrementally improving habitat management and restoration through proper monitoring and feedback to decision-making. By operating within an adaptive management framework, the District can improve the efficiency and effectiveness in which we manage wildlife habitat with our limited resources.

Specifically, the District intends to monitor vegetation and avian populations in an effort to elucidate much of the mechanics behind their response to restoration treatments. Further, biotic and abiotic indicators of ecological function will be monitored to improve restoration strategies. The primary focus of strategic monitoring is to identify and describe strategies most likely to enhance native plants in invaded prairies. We expect to identify key uncertainties related to competition among native and introduced plants, relative to degree of invasion and management type (e.g., prescribed fire, prescribed grazing), duration, intensity, and frequency. Equipped with such information, we can begin to be truly strategic in how we plan and implement habitat management and restoration.

Challenge Cost Share funds are being requested to provide funding for a seasonal Biological Science Technician GS-04/05 (hereafter biotech) to lead volunteers in conducting wildlife and vegetation monitoring. This project would be completed in conjunction with the Student Conservation Association, Friends of Maga Ta-Hohpi Waterfowl Production Area, and South Dakota State University. All matching funds were generated by in-kind labor of volunteers from these partners. Our volunteers assist with a diversity of surveys such as vegetation cover mapping; waterfowl pair counts; grassland community composition; surveys of grassland-breeding birds, shorebirds, nesting bald eagles, and colonial waterbirds; vegetation structure, and litter depth. However, volunteers require appropriate guidance and supervision in the field. A biotech would help provide quality control for the data collected; demonstrate the ability to motivate, lead, and teach volunteers while conducting surveys; and safely resolve the full range of irregular or problem situations in the field.

Funding this proposal will also support the outreach and visitors services programs at Huron WMD. In addition to monitoring duties, the biotech would be expected to contribute significantly to the diverse environmental education programs offered by the District, such as birdhouse building, bird watching, gardening for wildlife, wildlife photography, and wetland ecology. Further, our volunteers contribute substantially to the development and presentation of field trips and quarterly educational programs, as well as major outreach events like the SD Outdoor Expo and Huron Prairie Fest.

Funding Proposal: FWS \$12,500 (2:1)

Identified Potential Partners - and their in-kind contributions

<u>MAIN PARTNERS</u>	<u>CONTRIBUTIONS¹</u>
1) Volunteers from Friends of Maga Ta-Hohpi WPA	570 hours × \$19.51 = \$11,121
2) Student Conservation Association Volunteer Intern	480 hours × \$19.51 = \$9,365
1) USFWS Volunteer	180 hours × \$19.51 = \$3,512
2) South Dakota State University student volunteers	60 hours × \$19.51 = <u>\$1,171</u>
	\$25,169

¹Value of volunteer time is calculated by the nonprofit organization Independent Sector, based on the average hourly earnings of all production and non-supervisory workers on private non-farm payrolls (as determined by the Bureau of Labor Statistics).

Special Considerations:

- This grant is >2:1 match
- This grant supports the conservation of biological integrity, diversity, and ecological health as mandated by the 1997 Refuge Improvement Act by monitoring our efforts to stimulate native plants while simultaneously suppressing invasive species.
- It is the policy of the Service to encourage and support management studies in order to provide scientific data upon which decisions may be based. According to the “Fulfilling the Promise” document, “Habitat monitoring is critical. If we are to lead the world in habitat conservation, management, and monitoring, it must be by example...” and “Establishing monitoring protocols on refuges is only a small step toward understanding the status and trends of habitat change. A more systematic monitoring system must be developed. The success of this program will hinge on collaboration with partners....” This proposal addresses WH-10 and WH-14 of the “Fulfilling the Promises” document which recommend, “Develop systematic habitat monitoring programs” and “Use adaptive management to evaluate effectiveness of wildlife conservation programs and periodically evaluate programs to determine if refuge goals and objectives are being achieved”.
- This proposal corresponds with guidelines outlined in the Refuge Manual, Sections 6 RM 5.7 (Monitoring of Grassland and Wildlife Response to Management); 7 RM 11.1 (Wildlife Inventories); and 6 RM 1.5F, which states “...Managers who analyze and test wildlife management concepts and report results accurately will be operating in a more challenging, effective manner.”
- This proposal supports RAPP Goal 1.54: Number of Inventory and Monitoring Surveys.
- Will accept less than that \$12,500 if the full amount cannot be funded.

IF MULTIPLE PROPOSALS ARE SUBMITTED - PRIORITY OF PROPOSAL 2