Environment and Natural Resources Trust Fund
2009 Phase 2 Request for Proposals (RFP)

LCCMR ID: 022-A1

Project Title: Statewide Ecological Ranking CRP and other Critical Lands

Total Project Budget: $ $275,464

Proposed Project Time Period for the Funding Requested: 2 years; July 09 to June 11

Other Non-State Funds: $ $0.00

Priority: A1. Critical Lands Analysis

First Name: Julie **Last Name:** Klocker

Sponsoring Organization: Board of Water and Soil Resources (BWSR)

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Region: Statewide

County Name:

City / Township:

Summary: This project will identify and rank the ecological value of CRP and other critical lands throughout Minnesota using a multiple parameter approach including soil productivity, landscape, water and wildlife factors.

Main Proposal: 0908-2-028-proposal-LCCMRCRPRanking 3.1.doc

Project Budget: 0908-2-028-budget-crpbudgrfp2.xls

Qualifications: 0908-2-028-qualifications-LCCMR Project Manager Quals.doc

Map:

Letter of Resolution:

MAIN PROPOSAL

PROJECT TITLE: Statewide Ranking of Ecological Value of CRP and other Critical Lands

I. PROJECT STATEMENT

Minnesota had 1,475 impairments on 336 rivers and 510 lakes in 2008. Including impairments from previous years, there are 2,575 impairments. Impaired waters occur in every region of the state. Minnesota has been a leader in protecting sensitive lands through the Conservation Reserve Program (CRP), the Conservation Reserve Enhancement Program (CREP), and the Reinvest in Minnesota Program (RIM). Roughly 1.7 million acres of land is currently enrolled in CRP, producing valuable habitat for wildlife and protecting sensitive land from wind and water erosion. By the end of 2010 contracts on 700,000 acres of CRP will expire. If all of these contracts expire, Minnesota wildlife populations and water quality will suffer. With prices for commodities such as corn, soybeans and wheat more than doubling in the last two to three years, many producers with CRP contracts are likely to convert their CRP land to annual cropping systems unless payments for land retirement increase. Minnesota also has 1,380 public wildlife management areas (WMAs) encompassing 1.2 million acres of habitat for waterfowl and deer. Additional breeding habitat for waterfowl is needed to improve waterfowl populations. This project seeks to identify and rank the ecological value of CRP and other critical lands throughout Minnesota—using a multiple parameter approach-- for the purposes of developing new programs and policies designed to promote and retain perennial vegetation, buffer strips, well-connected wildlife habitat and wetland restoration in areas of sensitive ecological value. Parameters considered include soil productivity, soil erosion potential, proximity to water and habitats and biological diversity.

II. DESCRIPTION OF PROJECT RESULTS

Result 1: Prioritize CRP lands statewide according to soil productivity. **Budget: $** 25,000
The potential for growing annual crops on CRP lands will be assessed. Because of their ability to produce agricultural crops, expiring CRP lands with the highest soil productivity would be difficult to acquire or convert to long term conservation cover. This analysis will indicate the location of expiring CRP lands and their soil productivity rating. Premise: expiring CRP lands with low soil productivity may be candidates for perennial vegetation and/or energy crops.

Deliverable	Completion Date
1. GIS overlay of CRP lands and soil productivity	December 30, 2009
2. Estimated potential loss and location of CRP acreage	February 1, 2010

Result 2: Identify and prioritize CRP and other critical lands by land and surface water features. **Budget:** $71,000

Use terrain analysis of statewide digital elevation models and surface hydrologic features to identify lands suitable for riparian buffer strips, perennial or cover crop plantings, and wetland restoration. Assess wind and water erosion potential for CRP and other critical lands and rank their environmental impact to surface water.

Deliverable	Completion Date
1. Ranking of CRP and other critical lands according to erosion, proximity to water and potential for delivery of sediment and nutrients to surface waters.	December 1, 2010

Result 3: Further identify and prioritize CRP and other critical lands with wildlife and other habitat criteria. **Budget**: $84,464

Overlay result 2 with GIS layers for wildlife management areas, other sites of significant biodiversity, and integrated terrestrial and aquatic habitat scores.

Deliverable	Completion Date
1. Prioritization of CRP and other critical lands according to soil productivity, erosion, proximity to water, potential for delivery of sediment to surface waters and wildlife habitat potential.	February 1, 2011

Result 4: Promoting the product with the implementers. **Budget**: $70,000

Deliverable	Completion Date
1. Training and education of Soil and Water Conservation District personnel and other implementers of conservation programs on the conservation targeting tools developed above.	June 30, 2011

Result 5: Develop recommendations for acquisition and protection of CRP and other critical lands. **Budget**: $25,000

Deliverable	Completion Date
1. Completion of Final Report, which will include an example application of the targeting strategy.	June 30, 2011

III. PROJECT STRATEGY AND TIMELINE

A. Project Partners

This is a partnership between the Board of Water and Soil Resources (BWSR) and the University of Minnesota. BWSR (Julie Klocker) will have overall responsibility for management of the project, and will be the lead for education and training of conservation program personnel. The University of Minnesota and BWSR will jointly compile statewide GIS datasets needed to assess the ecologic sensitivity of CRP and other critical lands, including those located in agricultural regions of Minnesota. The University of Minnesota at Duluth will be responsible for developing criteria to assess the impacts of these lands on wildlife populations. BWSR (Greg Larson, Aaron Spence) and the University of Minnesota (David Mulla, Joel Nelson, George Host, Terry Brown) have already compiled statewide databases for CRP parcels, crop productivity, wind and water erosion potential of SSURGO soil units, sites of biodiversity significance, integrated terrestrial habitat scores, integrated aquatic habitat scores, surface hydrology networks, lakes and wetlands, topographic elevation, and leaching risk potential for contamination of groundwater. BWSR will be responsible for training and education of personnel in Soil and Water Conservation Districts and other implementers of local conservation programs.

B. Project Impact

The project seeks to rank the statewide ecological sensitivity of expiring CRP parcels and other sensitive lands (riparian areas, potentially restorable wetlands, lands adjacent to parks, etc) in order to identify lands that could be protected, and develop a plan that optimizes the connectivity of wildlife corridors. If these lands are not identified and protected, Minnesota could lose valuable habitat. In addition, Minnesota could see degradation of surface and ground water quality in many areas.

C. Time

The estimated cost of this project is $275,464. The tasks can be completed in roughly two years.

Project Budget

Funding requested for two years

Statewide Ecological Ranking CRP and other Critical Lands

IV. TOTAL PROJECT REQUEST BUDGET

BUDGET ITEM	AMOUNT	% FTE
Personnel:	$ -	%
BWSR (Results 4 and 5)	$ 95,000	50%
GIS technician, supplies, in-state travel to support UM-led results, develop training materials, train implementers and produce final report	$ -	
	$ -	%
Contracts: (One or more as needed) .	$ -	
University of Minnesota - Soil, Water & Climate in St. Paul (Results 1 and 2) GIS Specialist Salary+Fringe (36%)	$ 30,000	20%
University of Minnesota - Soil, Water & Climate in St. Paul (Results 1 and 2) Grad Research Asst Salary + Fringe (21%)	$ 66,000	50%
University of Minnesota - NRRI in Duluth (Result 3) Scientist Salary+Fringe (30%)	$ 21,216	8.30%
University of Minnesota - NRRI in Duluth (Result 3) Scientist Salary+Fringe (30%)	$ 39,410	25.00%
University of Minnesota - NRRI in Duluth (Result 3), Info Tech Prof Salary + Fringe (30%)	$ 19,238	15%
University of Minnesota - NRRI in Duluth (Result 3), Supplies, In-state Travel, and GIS Lab fees	$ 4,600	
Equipment/Tools:	$ -	
Restoration: *List # of acres.*	$ -	
Other: *List by item and explain.*	$ -	
TOTAL PROJECT BUDGET REQUEST TO LCCMR	$ 275,464	

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other Non-State $ Being Leveraged During Project Period: *What additional non-state cash $ will be spent on the project during the funding period? For each individual sum, list out the source of the funds, the amount, and indicate whether the funds are secured or pending approval.*	None	*Secured or Pending*
Other State $ Being Spent During Project Period: *What additional state cash $ (e.g. bonding, other grants) will be spent on the project during the funding period? For each individual sum, list out the source of the funds, the amount, and indicate whether the funds are secured or pending approval.*	None	*Secured or Pending*
In-kind Services During Project Period: *What in-kind services will be provided during the funding period? List type of service(s) and estimated value. In-kind services listed should be specific to the project.*	$30,000 (BWSR project management and GIS oversight)	Pending

Project Manager Qualifications and Organization Description

Project Manager: Julie Klocker

Current Position: Assistant Director, Minnesota Board of Water and Soil Resources

Education:

- MS: State University of New York College of Environmental Science and Forestry and Syracuse University, Syracuse, New York (joint diploma)
  - Environmental and Forest Biology with Systems Ecology Emphasis

- BA: St. Cloud State University, St. Cloud, MN
  - Major: Cultural Anthropology
  - Minor: Environmental Science

Experience:

- Seven years experience in executive leadership positions in state and local government, including the Minnesota Board of Water and Soil Resources (BWSR), the Middle Fork Crow Watershed District and the Sauk River Watershed District. Four years of experience as a Water Resource Educator with the University of Minnesota Extension Service prior to working in local government.

--Major project management responsibilities have included:

  - Eleven projects totaling nearly $5 million dollars in grants and State Revolving Loan program funds (Clean Water Partnership, EPA Section 319 grants, TMDL, and Clean Water Legacy Funds).
  - Watershed based water quality monitoring programs with more than 20 stream sites and 19 lake sites, using state of the art sampling equipment while coordinating volunteers and staff as well as utilizing engineering expertise; documenting trends and addressing areas of special concern.
  - Completing multiple watershed diagnostic studies and coordinating and implementing three TMDL studies.
  - Managed projects petitioned through MN State Statute 103D including: creating a long-term, resource based collaborative project involving seven units of government that worked to address the impaired segment of the Sauk River; and comprehensive stormwater projects for the cities of Sauk Centre and Eden Valley.
  - An incentive program of more than 700 best management practices from manure management and filter strips to shoreline restoration and stormwater wetlands.

- Administrative experience and responsibilities includes: program development, supervision of staff, board management and development and management of budgets.