

**Sponsor Name:** Center for Rural Affairs **Nearest Town:** Hartington  
**Project Name:** Biofuel Crops and Soil Management **Project No:** 08-160  
**Amount Requested:** \$181,000 **Term of Project Request:** 3 **Review Group:** Soil Management

Farmers are being asked to grow crops for energy production to relieve dependence on foreign energy, reduce reliance on diminishing fossil fuels, and cut greenhouse gases. Some production methods for these energy crops could degrade soil quality and other resources, as well as release additional carbon into the atmosphere. It's prudent to produce bioenergy in ways that protect soil quality and sequester carbon, while still allowing food production for the long term.

Farmers who participated in two previous NETF projects made informed decisions on how to preserve the soil, build its resilience and maintain crop yields, after building a knowledge base of soil management. This project will expand on those results by asking farmers to learn how to produce energy crops with management that preserves the soil quality and other resources.

This project requests \$181,000 over three years to train farmers in northeast Nebraska, to cost-share new crops and practices, and to monitor their soils while they grow energy crops. Project partners will learn what practices and incentives are effective in achieving resource protection, and will build a curriculum and process for replicating this project. At least ten farmers will develop plans for both producing profitable energy crops and protecting soil quality. They will monitor their soils and compare results with each other over two growing seasons. Most participants will improve their soil fertility and want to continue these practices. The public and other farmers will learn of the results through published progress reports and project summaries.

Project partners include Center for Rural Affairs, University of Nebraska-Lincoln, USDA Natural Resources Conservation Service, and Lewis and Clark NRD. We will evaluate what training techniques work, what practices farmers use, and how their soils are affected. We will publish a summary report for national distribution.

THIS PROJECT WAS SUBMITTED IN 2007 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST.

**Sponsor Name:** Central Platte Natural Resources District **Nearest Town:** Lexington  
**Project Name:** Aquifer Tests for Defining Aquifer Parameters in Support of Magnetic Resonance Soundings for Groundwater Model Development **Project No:** 08-130  
**Amount Requested:** \$687,850 **Term of Project Request:** 3 **Review Group:** Water

To better understand future and long-term effects related to Integrated Management including drought on the central Platte River riparian ecosystem and to effectively manage water resources, the COHYST ground-water flow model is being constructed to simulate current and/or future ground-water and surface-water conditions. The predictive accuracy of this model depends upon the quality and quantity of hydrogeologic data available in the study area. Input parameters are typically derived from test holes and aquifer pump tests, and the existence of this data is often sparse and additional drilling can be time-consuming and expensive. Magnetic Resonance Sounding (MRS) is a quick, non-intrusive surface geophysical technique that directly measures ground-water to gather information similar to that gained by aquifer pump tests, specifically hydraulic conductivity and water in storage. These are valuable parameters that can improve the accuracy of ground-water models, therefore enabling water-resource managers to make more informed decisions.

A recent application of the MRS technique at Lexington, Nebraska showed excellent results. However, ground truth data in the form of long term aquifer tests is limited to only one site among the 11 sites surveyed to make an assessment of the accuracy of this data, or to assure that the proper calibration parameters are being used. Two additional sites have been selected for these aquifer tests. Additional MRS measurements are necessary in conjunction with timely, appropriately located ground truth data to realize the full potential of this technology as an alternative to extensive well drilling and pumping test. The data collected will be used in a sub regional groundwater model, based on the COHYST model, which is currently under construction by the CPNRD and NPPD.

THIS PROJECT WAS SUBMITTED IN 2007 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST.

**Sponsor Name:** Ducks Unlimited, Inc.**Nearest Town:** Ponca**Project Name:** Heald Tract Wetland Restoration**Project No:** 08-159**Amount Requested:** \$83,020**Term of Project Request:** 1**Review Group:** Rural Habitat

In 2001 the Nebraska Game and Parks Commission introduced the potential of a long-range, multi-dimensional plan known as the Elk Point Bend Project. Concepts identified in this plan include restoration of river connectivity to its floodplain, restoration of dynamic ecological processes, and restoration of an assemblage of native species. The area within this plan consisted of approximately 4,500 acres including seven miles of river frontage on the north and east boundaries, floodplain/bottomland, and wooded bluffs on the southwest edge of the floodplain. In 2002, as a result of significant effort by several public agencies, private organizations (including NETF), and many individuals, the Nebraska Game and Parks Commission acquired 1,168 acres (Newton Tract) in this area. The tract is now known as the Ponca State Park North Addition and the Elk Point Bend Wildlife Management Area. In the spring of 2006, a wetland restoration project was completed on the Newton tract. The project was funded by NETF and Ducks Unlimited. The project has been a resounding success and has received extensive use by a wide variety of wildlife species. Also in 2006, the 206-acre Heald Tract was purchased as an addition to the wildlife area. The parcel is located adjacent to the western boundary of the Newton tract. The property was purchased with a combination of NETF funds and North American Wetlands Conservation Act funds provided by Ducks Unlimited. The objective of this current proposal to NETF is to secure sufficient new funding to complete wetland restoration activities on this new parcel. The proposed project will involve wetland restoration techniques similar to those used on the Newton tract. The restored wetlands will complement restored wetlands on the adjacent Newton parcel. Under this new proposal, 100 acres of wetlands will be restored. THE TRUST AWARDED THE CONSERVATION FUND \$550,000 IN 2006 FOR THE ACQUISITION OF THIS TRACT. (ONLY \$286+ USED, THE REST WAS RETURNED)

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**Sponsor Name:** Ducks Unlimited, Inc.**Nearest Town:** Clay Center**Project Name:** Rainwater Basin Habitat Restoration**Project No:** 08-161**Amount Requested:** \$153,641**Term of Project Request:** 1**Review Group:** Rural Habitat

The Rainwater Basin Habitat Restoration Project will result in the permanent restoration of 1,544 acres of wildlife habitat in Nebraska's Rainwater Basin. The project consists of five distinct tracts of land in three counties. Restoration work to be completed includes: planting of native grasses and forbs on recently retired cropland, plugging drain ditches and filling tailwater recover/wetland drainage pits, and other activities that will restore wetlands and native grasslands on these tracts. The project will restore 443 acres of seasonal wetlands and 1,101 acres of native grasslands. The proposal offers several significant benefits, including: restoration of important wildlife habitat that will benefit millions of migratory birds that descend upon the Rainwater Basin during migration periods. Several rare and at-risk species will benefit. The project will also result in significant conservation of ground water and surface water, soil conservation, the improvement of air quality, and an increase in wildlife-dependent recreation. Two of the five properties are part of Ducks Unlimited's "Revolving Habitat Program" where properties are restored, protected through conservation easements, then sold to conservation minded buyers. Future owners of the property will be able to use these lands for haying and grazing purposes, insuring that rural economies remain an important component of the project. The conservation easements will require the restoration and maintenance of native grasslands and wetlands, providing significant benefits to migratory birds, resident wildlife and many other wildlife species. Two of the properties will be transferred to the Nebraska Game and Parks Commission, providing important public access areas for recreational opportunities. The fifth property is Ducks Unlimited's Verona tract, which is already open to public recreation. Funds from the Nebraska Environmental Trust Fund are requested to assist with the restoration costs associated with these projects. Partners will provide 65% of the overall project costs.

**Sponsor Name:** Ducks Unlimited, Inc. **Nearest Town:** Multiple  
**Project Name:** Platte River Habitat Enhancement Program **Project No:** 08-166  
**Amount Requested:** \$303,763 **Term of Project Request:** 1 **Review Group:** Rural Habitat

With the successful inception of the Ducks Unlimited (DU) Platte River Conservation Easement Program in 2006, numerous protected properties providing vital wildlife habitat have been identified as having tremendous potential to be further enhanced. The Platte River provides critical habitat to millions of migratory birds and other wildlife, including 500,000 sandhill cranes and several million ducks and geese. The river also provides abundant recreational opportunities to the citizens of Nebraska. Habitat along the Platte River has changed dramatically from the days when early settlers first traversed the Oregon Trail. Changes in natural river flows and land uses have resulted in degraded habitat not providing optimal conditions for migratory birds and other wildlife. Under this proposal, DU will launch a concerted effort to build on the successes of the Conservation Easement Program along the river by enhancing riverine and backwater slough wetlands, and reducing woody encroachment along the river's banks and islands. Over a one year period approximately 119 acres (16 miles of stream channel) of the most ecologically sensitive floodplain habitat will be enhanced further increasing the benefits of lands protected in perpetuity. DU has identified 10 properties along the entire stretch of the Platte River with significant wetland enhancement opportunities. Additionally, enhancement projects on private lands lacking protection will provide the opportunity to communicate the importance of benefits of long-term protection to additional private landowners not currently enrolled in the Conservation Easement Program. NETF funds for the habitat enhancement program will be used to leverage matching funds through a North American Wetlands Conservation Act (NAWCA) grant. Participating landowners will also contribute a portion of the enhancement costs, further increasing leveraged match. DU will work closely with the Nebraska Game and Parks Commission, U.S. Fish and Wildlife Service and other partners with enhancement design plans and implementation of the program.

**Sponsor Name:** Ducks Unlimited, Inc. **Nearest Town:** Multiple  
**Project Name:** Restoration of Spring Migration Habitat on the Loup River **Project No:** 08-167  
**Amount Requested:** \$120,040 **Term of Project Request:** 1 **Review Group:** Rural Habitat

This proposal will restore and enhance roosting and feeding habitat along the Loup River for spring migrant species that depend on the resources available in the central Nebraska region each year. Similar to the Platte River, the Loup River has gone through alterations caused by water diversion, groundwater table elevation declines, and wetland conversion equating to degraded habitat with high restoration potential. Ducks Unlimited has identified six key project sites on private land that would restore 78 acres of high quality habitat for migratory birds and other wildlife species. Project implementation will include clearing trees and brush from accretion ground to open sandbars for roosting, excavation of degraded sloughs and river channel to the available ground water elevation for backwater feeding sites, and restore hydrology to wet meadow habitat for cranes and other migratory species. Restoration would greatly enhance those particular stretches of river but also benefit the entire watershed through increased flows, reduction of in water loss from invasive tree colonization, and raised awareness on the importance and influence of the Loup on critical stretches of the Platte River. Funds in the amount of \$120,040 are requested from NETF to restore habitat where Ducks Unlimited will provide \$33,846 of additional funds to the project, a \$10,000 contribution from private landowners participating in the proposal, and \$15,000 from the USFWS Partners for Fish & Wildlife Program.

**Sponsor Name:** Edgar, City of **Nearest Town:** Edgar  
**Project Name:** An Integrated, Community-Based Approach to Reducing Nitrate Containment in the Wellhead Management Area for the City of Edgar **Project No:** 06-139-3  
**Amount Requested:** \$26,267 **Term of Project Request:** 1 **Review Group:** Statement of Intent

This integrates, community-based project will apply innovative and proven practices to reduce the amount of nitrogen applied on the soil, reducing further contamination of the groundwater which serves the City of Edgar, Nebraska's public water system. There are many communities in Nebraska besides Edgar who are facing high nitrate levels. These communities are spending millions of dollars to dig new wells or install water treatment plants; however, they may still face nitrate problems if they do not identify potential areas for future contamination. THIS PROJECT WAS FUNDED \$65,667 IN 2006 WITH THE INTENT TO FUND UP TO \$5,175 IN YEAR TWO AND \$26,267 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

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**Sponsor Name:** Ericson Lake Corporation **Nearest Town:** Ericson  
**Project Name:** Aquatic Ecosystem Restoration **Project No:** 08-164  
**Amount Requested:** \$430,000 **Term of Project Request:** 3 **Review Group:** Lake Rehabilitation

With this application, the Trust is being requested to fund the final restoration project for the Ericson Lake Aquatic Restoration. GOALS: A) Increase and protect open-water areas and volume in the reservoir's 65 acres of wetlands, B) Enhance waterfowl and bird habitat, C) Enhance reservoir fisheries with spawning and rearing habitat, D) Increase native vegetation in disturbed areas, E) Improve habitat for endangered Otter, and F) Continue water recharge into the aquifer system by preventing the wetlands from becoming dry land. PROPOSALS: 1) Excavate sediment to create hemi-marsh conditions of 30% to 50% open water, 2) Excavate wetlands to as much as 12 feet from the existing one foot or less with connection to the main reservoir, 3) Construct 6 pod areas, 4) Replant native species on disturbed areas for waterfowl, bird nesting and terrestrial benefits. THIS PROJECT WAS SUBMITTED IN 2003, 2004, 2005, 2006 AND 2007, BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST. ERICSON LAKE #99-119 WAS FUNDED \$900,000 FROM 1999-2001 FOR LAKE DREDGING AND BANK STABILIZATION.

**Sponsor Name:** Fontenelle Nature Association **Nearest Town:** Bellevue  
**Project Name:** Watershed Stabilization Study **Project No:** 08-114  
**Amount Requested:** \$49,880 **Term of Project Request:** 1 **Review Group:** Water

Fontenelle Forest Nature Center is a 1400 acre natural area in northern Sarpy County adjacent to the Missouri River and situated between the cities of Omaha and Bellevue. It is owned and managed by the Fontenelle Nature Association (FNA). Half the nature center property is deciduous floodplain and half is upland oak-hickory woodland. Within the upland are several drainage basins, or watersheds which drain in an easterly or northeasterly direction toward the river. Some of the watersheds are small and are contained within nature center borders, while three larger watersheds extend well beyond the center's boundaries.

Residential development in the upper reaches of these larger watersheds has changed the hydrology from its predevelopment conditions, resulting in erosion and siltation, loss of water quality, damage to wildlife habitat and public safety concerns. Damage has occurred both in Fontenelle Forest and on adjacent land within Bellevue city limits.

To address these issues we formed the "Bellevue Watershed Task Force" made up of representatives of Fontenelle Nature Association, City of Bellevue, Papio-Missouri NRD, Sarpy County Roads Dept., U.S. Army Corps of Engineers and the owner of a private golf course. The task force is taking a "top to bottom" approach to the watersheds in order to fix existing damage and slow storm surges by employing innovative filtering and impounding methods. Potential fixes may include homeowner rain gardens, bioretention wetlands, impoundments and channel stabilization.

As a first step the Army Corps of Engineers has prepared a proposal and cost estimate to perform a stabilization study for the three watersheds. The study will be completed under authority of the Section 22 Planning Assistance Program which requires a 50/50 federal and sponsor match. The Nebraska Environmental Trust is being asked to fund a portion of the match and FNA, the NRD and Bellevue are pledging monetary and in-kind contributions.

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**Sponsor Name:** Franklin Public Schools **Nearest Town:** Franklin, Lexington  
**Project Name:** Comparison of Well Water in Dawson and Franklin Counties **Project No:** 08-101  
**Amount Requested:** \$15,771 **Term of Project Request:** 1 **Review Group:** Water

Dawson and Franklin Counties are located in central and south central Nebraska and contain within them various agricultural inputs, which represent many of the sources of ground water pollution.

It is easy to see and understand the value of managing and teaching natural resources found in Nebraska. With the Republican River Compact and talk of diverging Platte River water into the Republican Water Basin, one needs to be certain our water supply is clean of any contaminants. In order to test the aquifers in Dawson and Franklin counties it will be necessary to collaborate with Mr. Mike Zarate from Lexington Public School, Lexington, NE. Together we plan to have our students test the ground and surface waters for coliform bacteria, arsenic and nitrates in these two counties using EPA and state approved methods and standards. By testing the water we can make sure the water supply is safe for wildlife and human consumption as well as educate the private landowners in maintaining a clean water supply.

If selected, the Nebraska Environmental Trust Fund will be used for supplies and equipment so that our students can accurately test and document the levels of coliform bacteria, nitrates, and arsenic in existing household wells and surface water located throughout Dawson and Franklin Counties. We will attempt to determine if new management practices for private landowners need to be addressed in order to keep a healthy clean water supply in our communities.

**Sponsor Name:** Friends of the Rainwater Basin**Nearest Town:** Macon**Project Name:** Macon Lake Restoration Project**Project No:** 08-162**Amount Requested:** \$229,400**Term of Project Request:** 1**Review Group:** Rural Habitat

The Macon Lakes Restoration Project proposal being submitted to the Nebraska Environmental Trust requests grant funding to complete a large, expansive wetland restoration project in the Rainwater Basin. The Macon Lakes Waterfowl Production Area is approximately 1,021 acres in size and is owned and managed by the U.S. Fish and Wildlife Service. The property is open to a variety of public uses, including bird watching, wildlife photography and hunting. This property has extensive opportunities to restore and enhance wetland and associated habitats. The property has an extensive system of wetland drainage ditches. Many areas have become choked with invasive trees. At an approximate size of 1,021 acres, this property represents one of the largest and most extensive opportunities to restore critically important wetland habitats in the Rainwater Basin. Grant funding from the Nebraska Environmental Trust will be combined with partner funding provided by the U.S. Fish and Wildlife Service, Ducks Unlimited, Inc. and the Rainwater Basin Joint Venture to implement habitat restoration work on the site. Project activities include: plugging wetland drainage ditches, installing water control structures to maximize habitat management capabilities, removing invasive trees, excavating sediment that has accumulated within wetland basins, installing low berms to protect neighboring properties while maximizing wetland habitats within the project area, and re-seeding disturbed areas to native grasses. The Rainwater Basin Joint Venture will provide cash for the project and grant administrative support. Ducks Unlimited will provide engineering assistance and cash from a pending grant through the North American Wetlands Conservation Act and the U.S. Fish and Wildlife Service will provide staff to assist with tree removal activities, planning and permitting. The project will restore and enhance approximately 500 acres of wetlands, providing resources that are used by millions of migratory birds each year.

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**Sponsor Name:** Groundwater Foundation, The**Nearest Town:** Statewide**Project Name:** Groundwater Guardian Green Sites Nebraska Pilot**Project No:** 07-120-2**Amount Requested:** \$22,393**Term of Project Request:** 1**Review Group:** Statement of Intent

Rural, urban and suburban areas are frequently subject to intense fertilizer, chemical, and irrigation use that causes pollutants to run off into surface water or leach into groundwater. After 22 years of educating the public about these facts, the Groundwater Foundation (GF) believes it is time to move forward by documenting the beneficial outcomes to groundwater that result from educated citizens taking action on groundwater's behalf. For this reason, the GF is asking the Nebraska Environmental Trust (NET) to assist with a new program called Groundwater Guardian Green Sites (GGGS). GGGS will calculate, document, and recognize on an annual basis the environmental benefit of groundwater-friendly practices in specific locations such as golf courses and city parks. GGGS will enhance the efforts of citizens already protecting groundwater through the GF's local groundwater protection program, Groundwater Guardian (GG), and introduce an effective way for citizens currently not participating in GG to become part of a community groundwater protection effort. THIS PROJECT WAS FUNDED \$48,540 IN 2007 WITH THE INTENT TO FUND UP TO \$22,393 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.



**Sponsor Name:** High Plains Weed Management Association      **Nearest Town:** Scottsbluff  
**Project Name:** North Platte River Invasive Species Control Project      **Project No:** 08-118  
**Amount Requested:** \$3,000,000      **Term of Project Request:** 3      **Review Group:** Rural Habitat

The current drought in Western Nebraska has forced landowners to evaluate every available option for water conservation. The High Plains Weed Management Association (consisting of eight panhandle counties) has taken on the responsibility to address the water loss caused by the expansive growth of invasive species. Three main invasive species (Russian olive, Saltcedar and Phragmites) are targeted to be controlled. The funds requested will be used to begin removal and control of these invasive species in the riparian areas of the North Platte River watershed. Approximately 14,300 acres will be treated. Staff will be needed to coordinate the project and keep the public informed. The educational process will use newsletters, workshops and web pages to help landowners and others understand the value of cost sharing on this project. The project will have a positive effect locally on the work force by creating jobs to stimulate the economy of the panhandle. Monitoring sites and test plots for existing and new technologies will be established. This will ensure the best results achievable. The Russian Olive will be sheared, stump treated and removed to areas not in the flood plain. Saltcedar and Phragmites will be treated and left standing to ensure complete eradication. Goats will be used to control re-growth and control noxious weeds. We are leveraging these requested funds with in-put from conservation partners and landowner participation. This collaboration will assist in restoring the riparian areas to their more natural states. The project will reduce water consumption benefiting the entire Platte River watershed. The possibility of flooding due to debris in the flood plain will be greatly reduced after it is removed. Restoring native habitat and pastureland will have a desired effect on the treated areas. This project will enhance the aesthetics of the entire watershed.

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**Sponsor Name:** Joslyn Castle Institute for Sustainable Communities      **Nearest Town:** Statewide  
**Project Name:** Nebraska Sustainability Leadership Workshop      **Project No:** 08-151  
**Amount Requested:** \$270,000      **Term of Project Request:** 3      **Review Group:** Rural Habitat

This is a proposal by the Joslyn Castle Institute for Sustainable Communities for funding support for the Nebraska Sustainability Leadership Workshop, a unique forum for community leaders to explore solutions to environmental challenges. It is a three-year proposal for an annual series of 20 statewide sessions in which mayors, city managers, county board members, city councils, school boards and other civic leaders can engage planning, design and leadership experts in finding solutions to critical ecological challenges. Organized around case studies, community leaders will present local issues for discussion with experts and fellow community leaders. Limited to 15 participants and five consultants per session, the workshops will explore solutions for 1) Habitat - building consensus on fragile habitats and examining how sound ecosystem management is not only about plants and animals but about all living systems including human, which has the greatest potential impact on natural systems, 2) Soil Management - exploring interdependencies of communities and land and how solutions can be gained through regional cooperation in public/private and urban/rural coalitions. New knowledge and tools to address complex issues from urban sprawl to depopulation that affect land use will be available in the form of case studies and best practices, 3) Air Quality - linking air quality to interjurisdictional planning and cooperation. Sustainable design and smart growth strategies examined as effective ways to address air quality and community health, 4) Surface and Ground Water - understanding the interaction of water sources in the natural environment and how to manage watersheds across jurisdictional boundaries. Explore how regional planning and cooperation can ensure safe and adequate water for all living systems, 5) Waste Management - examining how valuable natural resources (water, wind, soils, materials, 4-season solar climate) are often underutilized or misallocated. Also examining how jurisdictions can cooperate to make the most efficient use of resources, including energy efficiency and waste reduction through material re-use and recycling.

**Sponsor Name:** Lincoln, City of **Nearest Town:** Ceresco, Davey, Lincol  
**Project Name:** Eastern Saline Wetlands Project 2008 **Project No:** 08-129  
**Amount Requested:** \$1,200,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Eastern Saline Wetlands Project 2008 will conserve the most imperiled natural community in Nebraska. The targeted eastern saline wetlands ecosystem is located primarily in the Salt Creek watershed in northern Lancaster and southern Saunders counties. Conserving the eastern saline wetlands also protects the endangered Salt Creek tiger beetle and saltwort plant as well as other fauna and flora which survive in the saline wetlands unique to this limited area of the state. Only about 4,700 acres of saline wetlands still exist and these acres are only partially conserved.

Conservation would be afforded the saline wetlands in four ways:

1. By acquiring the wetlands and adjoining buffer and connective tracts in fee simple from willing sellers.
2. By purchasing permanent conservation easements from willing sellers on the wetlands and adjoining buffer and connective tracts.
3. By continuing to retain a full-time Saline Wetlands Coordinator with a portion of the matching fund contributions.
4. By restoration and management work on the wetlands.

No commercial, industrial, residential, or other use detrimental to the protected ecosystem would be allowed on project lands. Land acquired or conserved by a conservation easement would be largely left in its natural state or used for limited agricultural purposes. The saline wetlands are largely in the flood plains of the streams; the conservation of them will provide a permanent measure of flood control along the waterways and protect the quality of the stream water and groundwater from typical urban and agricultural pollutants.

With the existing Saline Wetlands Conservation Partnership and a Coordinator focused on the project, the partners will implement the Conservation Action Plan; a framework for more effective and higher-leverage conservation of the eastern saline wetlands as an integrated unit.

We feel the Eastern Saline Wetlands Project 2008 qualifies for the feature program bonus.

THIS PROJECT WAS FUNDED \$1,550,000 FROM 2002-2007. THIS REQUEST IS FOR A CONTINUATION OF THIS PROJECT.

**Sponsor Name:** Lincoln, City of **Nearest Town:** Lincoln  
**Project Name:** Rain Garden Water Quality Project **Project No:** 08-132  
**Amount Requested:** \$145,000 **Term of Project Request:** 2 **Review Group:** Water

Install approximately 90 rain gardens throughout the City and to create a comprehensive educational campaign about the benefits of homeowner rain gardens. Installing approximately 18,000 square feet of rain gardens to provide on-site treatment of runoff will improve the quality of stormwater in the City. The benefits are realized by removing pollutants from stormwater, providing localized runoff control, reducing erosion, catching sediment, improving habitat and adding aesthetic value to the property. Many rain gardens will be installed in front yards of private property or at schools to be visible to the public so the entire neighborhood can benefit from the rain garden's aesthetic and functional features.

The educational campaign will include soliciting rain garden installations on private properties, giving each homeowner the opportunity to improve stormwater quality and teach others about improving stormwater quality. Educational information about rain gardens and other water quality issues will be presented at public meetings, events, websites, and other media. Installation of rain gardens at area schools will enhance the educational campaign through coordination with science lesson plans. A broader audience will be reached because students will have a hands-on opportunity to learn about and maintain a rain garden. The major benefit of this program is improving the quality of stormwater and actively incorporating public participation.

The City of Lincoln is seeking a match for this proposal. The cost would be covered 51% by Nebraska Environmental Trust for rain gardens, education, and administration; 21% by NDEQ for rain gardens, education and administration; 14% by the private sector for rain gardens; 7% by the Lower Platte South NRD for rain gardens and 7% by the City for rain gardens. No state or federal permits are needed for the completion of the project.

**Sponsor Name:** Little Blue Natural Resources District**Nearest Town:** Chester**Project Name:** Irrigation Conservation Initiative**Project No:** 07-108-2**Amount Requested:** \$90,240**Term of Project Request:** 1**Review Group:** Statement of Intent

This application is for the purchase of soil moisture probes and acquiring 50% cost share money to install flow meters on high capacity irrigation wells within "Unit 8" of the Little Blue Natural Resources District. The probes and flow meters will be used for implementing proper irrigation scheduling techniques to conserve the local groundwater aquifer. The Little Blue NRD's Groundwater Management Plan divides the District into hydro-geologic units. Each unit has similar characteristics such as saturated thickness, transmissivity, depth to water, etc. Unit 8 is an isolated paleo-valley groundwater aquifer within the boundaries of the NRD where; as determined by data collected in the District's groundwater observation well network, groundwater declines have occurred. This paleo-valley groundwater aquifer within Unit 8 averages about 2 miles wide and runs across the length of two counties. Depths of wells can vary within the Unit from 205 to as little as 140 feet, well outputs can vary from 1200 gpm to 50 gpm just as quickly. Depths to water in individual wells, as compared to the 1970s, have declined 20 feet in and around the Chester, NE area. The area lies within the boundaries of a three year hydro-geologic study which is nearing completion and water isotope sampling raises questions over adequate groundwater recharge in Unit 8; also, major ion chemistry testing also brought to light potential concerns on water quality. Measures to reduce groundwater withdrawals or enhance recharge are being investigated.

A SIMILAR PROJECT WITHIN "UNIT 11" WAS SUBMITTED IN 2005 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST.

THIS PROJECT WAS FUNDED \$95,640 IN 2007 WITH THE INTENT TO FUND UP TO \$90,240 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

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**Sponsor Name:** Little Blue Natural Resources District**Nearest Town:** Tobias**Project Name:** Little Sandy Creek Watershed Conservation Project**Project No:** 07-125-2**Amount Requested:** \$42,000**Term of Project Request:** 1**Review Group:** Statement of Intent

The LBNRD, NDEQ and the NRCS are developing a Watershed Management Plan to reduce non-point source (NPS) pollution loads (e.g. sediment, nutrients, atrazine, etc.) entering the newly constructed Lone Star Reservoir. The dam was completed in July of 2006 and the recreation area is nearly complete. This application was developed based on the interest expressed by landowners/producers within the watershed to implement Best Management Practices (BMPs) designed improve soil conservation and protect water quality throughout the watershed. Implementation of this project will improve and protect the surface water quality of Lone Star Reservoir by reducing the NPS pollution load entering the reservoir. This project is being modeled similar to previously ETF funded watershed projects including Powder Creek, Iron Horse Trail, Kirkmans Cove and Swan Creek 5. The ETF component of the overall watershed project will focus specifically on the rehabilitation of five (5) small dams located upstream from the reservoir.

The LBNRD is seeking a 2-year NETF grant in the amount of \$180,000 to assist in the small dam re-habilitation effort which will be critical in reducing the NPS pollution loads to Lone Star Reservoir. The Little Blue NRD will invest roughly \$2,000 and the producers share for the re-habilitation projects is estimated at \$10,000. In-addition, these funds will serve in-part as local match required by the Section 319 NPS federal grant being applied for in the amount of \$250,000 to fund additional conservation efforts. Also, the NRCS will be providing technical expertise along with assistance in applying for EQIP funding. Landowners will provide the remaining amount of monies for the BMPs not covered by the cost-share programs. The LBNRD will contribute \$64,000 for the implementation of BMPS, project management, construction, information and education, and monitoring activities.

THIS PROJECT WAS FUNDED \$138,000 IN 2007 WITH THE INTENT TO FUND UP TO \$42,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

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**Sponsor Name:** Little Blue Natural Resources District **Nearest Town:** Davenport  
**Project Name:** Irrigation Technology to Improve Irrigation Management **Project No:** 08-131  
**Amount Requested:** \$43,700 **Term of Project Request:** 3 **Review Group:** Water

This application is to acquire cost-share monies for the purchase of soil moisture equipment to help producers determine when irrigation is needed. The Little Blue NRD has five Water Quality Sub-Areas developed to curb nitrate leaching and has been actively working with communities on Wellhead Protection Management with 20 communities within the District having "State Approved" Wellhead Protection Plans. The concern is that some of these communities' municipal wells nitrate levels have exceeded the drinking water limit of 10 PPM.

The NRD has emphasized soil sampling and applying the correct amount of nitrogen when fertilizing crop ground. This year, the LBNRD was blessed with nearly adequate rainfall and a full water profile in the soil. Producers had some questions when to start and stop the irrigation. Over-watering has been a concern since the invention of irrigation. If the producers are putting on more water than needed, leaching of nitrates into aquifer will potentially occur. The NRD board is proceeding with a pro-active approach to assist the producers in irrigation management so trends in nitrate levels can decrease.

This equipment can be used in a variety of settings from croplands, rangelands and lawns. The equipment can assist with decreasing nitrate and pesticide leaching and conserving water, especially in Wellhead Protection Management Areas. The equipment includes soil moisture sensors and meters, data loggers, ET (evapotranspiration) gauges, and soil probes.

**Sponsor Name:** Loup Basin Resource Conservation and Development Council **Nearest Town:** Multiple  
**Project Name:** Statewide Noxious Weed Control Using Goats (Goats Across Nebraska) **Project No:** 08-133  
**Amount Requested:** \$883,802 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Unwanted weeds are a renewable resource. Consider the impact of recycling weeds into biological components to regenerate soils. This encourages growth of desirable plants that lead to restoration of natural habitat. This project utilizes weeds as a feed source, yielding increased economic return through more prolific forages and goat production. Intensive grazing uses highly concentrated livestock density for short times to speed and magnify results. Weeds are recycled into beneficial fertilizers. Goats' digestive processes render weed seeds non-viable, further managing weed problems.

Herd moves are scheduled to address all 8 Nebraska noxious weeds in the appropriate season to decimate the weeds. This project will target a minimum of 10 statewide properties and implement intensive goat grazing for 11 months/year for 3 years. Three years are required to show maximum impact. Landowners agree to hire the goats for a minimum of two weeks per year. 800 goats, with herders onsite 24/7, will be used to graze approximately 2,010 acres/year for about \$13.61/acre for landowners, demonstrating an affordable option to chemicals. This project will run for 3 years to accommodate grazing each site up to twice a year to make the largest impact on weed infestations. Project success will be measured and quantified through UNL Haskell Ag Lab utilizing a graduate student.

Educational results include a documentary DVD, 5 annual field days, presentations at the State Ag Teacher's Convention, school field trips, a State FFA Convention booth, and opportunities for Ag producers to explore diversifying their business by raising goats to supply growing demand for goat meat. The economic and public benefits include chemical-free methods to eliminate Nebraska's weed problem, improved soil health, improved habitat and improved water quality and quantity in riparian areas grazed. It directly benefits landowners, and indirectly benefits all Nebraskans. We respectfully request the Feature Bonus Points.

**Sponsor Name:** Lower Big Blue Natural Resources District      **Nearest Town:** Wymore  
**Project Name:** Big Indian 11A Watershed Improvement Project      **Project No:** 08-139  
**Amount Requested:** \$150,000      **Term of Project Request:** 2      **Review Group:** Water

The LBBNRD and Big Indian 11A Stakeholders have been working to develop a Watershed Management Plan to protect and reduce the amount of sediment and phosphorus entering Big Indian 11A, Big Indian Recreations Area, and to improve the water quality within the lake and the watershed. Big Indian Lake is currently included on the State's Section 303(d) list of "impaired" waters for phosphorus, and in-lake sedimentation (i.e., total volume loss nearing 25%) is a concern. This application is being made due to the interest already expressed by the stakeholders within the watershed to implement conservation measures (Best Management Practices-BMPs) to improve the water quality of the watershed and to reduce sediment entering the lake. This watershed treatment project is a prelude to future restoration of the Big Indian Lake itself. This plan will improve surface water quality, reduce the amount of sediment loading, and reduce non-point source pollution in the streams leading to the recreation area and the lake itself. The plan centers around, but is not limited to, an information and education program, installation of BMPs including terraces, tile outlets, buffers, nutrient and pest management, no-till incentives, erosion control structures and pasture management. The LBBNRD is seeking a 2 year-NETF grant for \$150,000 to support this project. We will request additional funds (\$250,000) from the Nebraska Department of Environmental Quality (NDEQ) for monitoring and installation of BMPs. The USDA will be requested to provide additional technical assistance along with EQIP funding (Est. \$262,500). Landowners and the LBBNRD will provide the remaining amount of the funding for BMPs not covered by the cost-share programs. The LBBNRD will contribute (\$50,000) for the implementation of practices, project management and construction, information and education, and monitoring activities.

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**Sponsor Name:** Lower Loup Natural Resources District      **Nearest Town:** Multiple  
**Project Name:** Wood Waste/Saw Log Utilization and Red Cedar Management Project      **Project No:** 08-170  
**Amount Requested:** \$46,075      **Term of Project Request:** 1      **Review Group:** Education

The Wood Waste/Saw Log Utilization and Red Cedar Management Project would provide a series of six educational workshops across the Lower Loup NRD beginning in 2008 and running through 2009. NRD and Nebraska Forest Service staff would lead the workshops and provide information regarding uses of woody biomass, merchantable timber, and red cedar management options. Utilizing the EZ Boardwalk portable band saw-mill and the Vermeer BC1500 drum-style brush chipper, the potential for rural residents and communities to create successful businesses from these under-utilized resources would be demonstrated. One method of controlling the red cedar population expansion on rangeland will be demonstrated through use of a Brush Wolf 7800 skid steer-mounted rotary brush cutter. The project would help small communities deal with the disposal of waste wood and compliment NRD work with landowners to combat the on-going problem of red cedar trees encroaching on and taking over productive rangeland. Utilizing woody biomass, round-wood, and saw-timber for various wood products and bio-fuels applications will allow the disposal and management tasks to be accomplished at an affordable cost to the community and landowner. The purchase of portable equipment gives the opportunity to take the demonstrations and information to potential audiences, increasing the amount of exposure to the concepts and ideas presented. Small communities will have a means to recycle and dispose of usable wood waste. The environmental benefits created would be a better alternative to current wood waste disposal methods. Expanding red cedar populations on rangeland would be controlled. Treated rangeland would be returned to its natural state, where native plants can grow undeterred and unimpeded. Landowners will see better land use, improved grazing and a reduction in fire danger.

**Sponsor Name:** Lower Platte North Natural Resources District      **Nearest Town:** multiple  
**Project Name:** Lower Platte River Modeling Study      **Project No:** 08-116  
**Amount Requested:** \$176,366      **Term of Project Request:** 3      **Review Group:** Water

The purpose of this project is to develop a regional groundwater flow model that will be used to analyze the interactions of aquifer-stream-well systems and to determine the 10/50 boundary line for wells that are hydrologically connected to rivers and streams. The model will focus on the following counties: Saunders, Butler, Colfax, and Dodge, which are administered by the Lower Platte North NRD. This project consists of two phases: phase I - development of model framework, phase II - hydrologic data collection and groundwater stream model development. This model will be used as a management tool for the districts water resources. A SIMILAR PROJECT TO IDENTIFY AQUIFER SUB-AREAS IN THE DISTRICT WAS SUBMITTED IN 2006 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST.

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**Sponsor Name:** Lower Platte North Natural Resources District      **Nearest Town:** Schuyler  
**Project Name:** Conservation No-Till Grass Drill      **Project No:** 08-126  
**Amount Requested:** \$18,670      **Term of Project Request:** 1      **Review Group:** Equipment

The Lower Platte North NRD is seeking funding from the NETF to purchase a No-Till Grass Drill for landowners to use in establishing cool and warm season grasses for soil conservation, water quality and wildlife habitat. A No-Till native grass drill would be very useful for the demand in the Colfax, Butler and Dodge County area. The nearest drill of this type is 30 miles from Schuyler. There have been significant increases in Prairie type plantings in the area through Federal & State programs like CRP, Continuous CRP, CREP (Conservation Reserve Enhancement Program), WRP (Wetland Reserve Program), EQIP (Environmental Quality Incentive Program), Buffer Strip Program, Corners for Wildlife, Wild Nebraska, etc... which greatly increases the need for a No-Till Grass Drill in the area. The purchase of a No-Till Grass Drill is \$24,893. The operation and maintenance will be taken care of by the Schuyler Co-operative, NRD and the Implement dealer in which the drill is purchased. The drill will be available for any landowner in the area at a reasonable fee. A No-Till Drill is needed to handle the fluffy seeds associated with many warm & cool season grasses. These fluffy seeds are not effectively planted with conventional drills. A No-Till drill is also very effective in planting small seeds such as wildflowers and legumes. The establishment of these native grass stands will help control erosion & sedimentation of our streams and ponds, improve water quality and improve wildlife habitat. TRUST HAS FUNDED 5 OTHER DRILLS IN THE AREA (SAME COUNTIES LISTED) - 3 PHEASANT FOREVER CHAPTERS, LOWER PLATTE NORTH NRD AND LOWER LOUP NRD. NONE ARE STORED VERY CLOSE TO SCHUYLER.

**Sponsor Name:** Lower Platte South Natural Resources District      **Nearest Town:** Multiple  
**Project Name:** Environmental Suitability Assessment of the Lower Platte River Corridor - A      **Project No:** 08-149  
 Planning Resource for Natural Environments  
**Amount Requested:** \$100,000      **Term of Project Request:** 1      **Review Group:** Rural Habitat

Spanning 110 miles from Columbus to the Missouri River, the Lower Platte River Corridor constitutes a very important natural corridor in Nebraska. Not only do 50% of Nebraskans get drinking water from this area, but the diverse habitats, large tracts of open space, and clean water provide ideal conditions for so many species including several threatened and endangered species. The area is also desirable for residential and commercial development due to the vast array of natural and scenic qualities. With 80% of Nebraska's population in and near the Corridor, there is ever-increasing pressure to develop the area, which can result in degradation of natural resources and loss of important habitat. Ecological communities transcend political boundaries, but the scale at which land use decisions are made is at the local jurisdictional level (and often confined to those boundaries). With over 40 jurisdictions involved in land use planning in the Corridor, the need for coordinated land use planning sensitive to environmental issues becomes apparent. The Environmental Sustainability Assessment project will address this need by developing a dynamic planning framework for responsible, consistent, and sustainable development in the Lower Platte River Corridor. The vision is to assemble environmental and natural resource-related information into a geo-database and Geographic Information System to assist local land use jurisdictions in making informed decisions in natural areas with environmental features and constraints. No such collection of information or tools currently exist to guide these important decisions, which have a long-term impact on shaping the landscape and sustaining resources. This project really focuses on the heart of the problem - land use planning for natural areas across multiple jurisdictions. As a result, symptomatic issues such as degradation of water quality, loss/fragmentation of habitat and open space, and water scarcity can be prevented before they occur.

THIS PROJECT WAS SUBMITTED IN 2005 AND 2007 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST.

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**Sponsor Name:** National Audubon Society      **Nearest Town:** Kearney  
**Project Name:** Younkin Estate Acquisition and Restoration      **Project No:** 08-156  
**Amount Requested:** \$243,250      **Term of Project Request:** 1      **Review Group:** Rural Habitat

The purpose of this project is to complete a key acquisition and restoration project in the Big Bend Reach of the Platte River. The Younkin Estate includes one mile of Platte River frontage. The property's location on the river makes this project an extremely high priority for conservation purposes. The tract of land is immediately west of National Audubon Society's Rowe Sanctuary. The conservation of this property will serve to extend and connect a series of previously protected and restored lands, providing threatened and endangered species with a continuously connected, large block of habitat. The project will protect federally designated critical habitat for whooping cranes, piping plovers and least terns. In addition, the proposed restoration of an extensive complex of wet meadow wetlands and grasslands will provide habitat for millions of waterfowl and sandhill cranes that depend on the Platte River during migration periods. The acquisition of this property will permanently protect precious habitat from the threat of gravel pits, housing development and other uses, which would negatively impact wildlife habitat not only on this property, but on adjoining lands that are being managed for wildlife purposes. This proposal will permanently conserve 439 acres of riverine wetlands, wet meadow wetlands, and grasslands, including a full mile of frontage along the Platte River. Significant funding for this project is being provided by Ducks Unlimited, Inc., the U.S. Fish and Wildlife Service and a federal grant received by the National Audubon Society. Partner funds will be combined with proposed NETF grant dollars to complete the acquisition and restoration of this property. It is proposed that the National Audubon Society will retain title to the property and manage it as part of the Rowe Sanctuary.

**Sponsor Name:** Nebraska Cattlemen **Nearest Town:** Statewide  
**Project Name:** Leopold Conservation Award 2008, 2009, 2010 **Project No:** 08-115  
**Amount Requested:** \$45,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The majority of Nebraska's fish and wildlife live on private lands. Nevertheless, private landowners remain the most underutilized resource for conservation today.

In 2008, Nebraska Cattlemen will again partner with Wisconsin-based Sand County Foundation (SCF) to nominate, recognize, and reward Nebraska's Landholder Leaders - those exceptional landowners whose voluntary initiatives for conservation exemplify the spirit and history of Nebraska ranching and farming. The 2008 Leopold Conservation Award will be the third such annual award and similar awards are planned for 2009 and 2010.

Leopold Conservation Awards (LCA) recognize outstanding landowner achievement in conservation and land stewardship and showcase their achievements among their peers. Leopold Conservation Awards also serve to inspire others by the example set by the winner and provide a forum where agricultural leaders are recognized as conservation leaders. Sand County Foundation presents Leopold Conservation Awards annually in Wisconsin, Texas, Wyoming, Colorado, and California, in addition to Nebraska, in each case working with a local agricultural partner, most often a cattlemen's organization. The award is unique in that it carries the Leopold name, bestowed by the organization dedicated to his teaching and philosophy and is accompanied by a cash component of \$10,000, presented to the winner.

Nebraska Environmental Trust has been involved in the first two years of Leopold Conservation Award as judges on the evaluation panel. Chairmen Gloria Erickson in 2006 and Executive Director Mark Brohman in 2007 participated in the discussions that ultimately named the winner for each year.

Toward the \$38,000 annual expenses needed to present the award to a Nebraska landowner, Nebraska Cattlemen expect to contribute \$8,000 in-kind to match \$15,000 that Sand County Foundation will fundraise. We are asking the Nebraska Environmental Trust to provide the remaining \$15,000 for each of the next three years. THIS PROJECT WAS SUBMITTED BY ANOTHER SPONSOR (SAND COUNTY FOUNDATION) IN 2007 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST

**Sponsor Name:** Nebraska Department of Economic Development **Nearest Town:** Multiple  
**Project Name:** Exit 426 Recreational Amenities & Platte River Resources Survey **Project No:** 08-128  
**Amount Requested:** \$595,000 **Term of Project Request:** 1 **Review Group:** Rural Habitat

Not many people can tell you what is located at Exit 426 without looking first at a map. But if one was to say, Mahoney State Park or Platte River bridge, the scenery and location then is connected to Exit 426. This exit is known for its natural resources and landscape. There is no doubt that Nebraska's species and landscapes within the I-80 corridor region are at-risk. Population trends demonstrate that the Exit 426 area is vulnerable to extreme growth and development. The time is now to make strong commitments within the corridor to enhance and protect the vista's that make the environment unique. Attendance at selected attractions 2002-2004, listed the top four within the region in the following order; 1- Mahoney State Park, 2 - Louisville Lakes State Recreation Area, 3 - Platte River State Park, 4 - Two Rivers State Recreation Area (west of Omaha). All four sites fall within the targeted counties and demonstrate public interest and usages. (Data for 2002-2004 from Nebraska Game & Parks Commission) Past trends indicate that the demand for amenities will grow more rapidly in the future than in the past. Demand for pleasant scenery, recreational opportunities and similar amenities is likely to expand as the nation's population grows and as it of life,. There also is a growing need to better protect and preserve all wildlife and special landscapes. In Nebraska, Exit 426 off I-80 is an outstanding example of a special landscape. This exit, commonly known as the Mahoney exit, leads to the Schramm bluffs and Platte River. Between 2000 and 2004, Sarpy County (in which the Schramm bluffs are located) experienced population growth that exceeded the national average. Growth in three nearby counties, Washington, Cass and Lancaster was near the national average. This continued growth pattern will have a direct effect on the environmental amenities surrounding Exit 426. If Nebraskans act now to protect these amenities in tandem with overseeing responsible growth, the state will enhance the quality of life as it creates more jobs and income. There is a direct correlation between economic development and natural-resource amenities. Improving habitat for sensitive species, for example, can reduce the need to implement regulatory restrictions on activities harmful to habitat which also have been known to deter business development. Economic development and natural environmental entities can assist each other by working together to develop a recreational amenities protection plan. This project will focus on a recreation amenities survey within the corridor region, targeting tourism, recreation, and the influence of public and private programs by disseminating information regarding these opportunities to landowners, recreationalists, and the general public. Collaborative efforts in disseminating information will assist in the education and development of legislation that focuses on increasing and protecting the economic value of natural resources statewide.

**Sponsor Name:** Nebraska Department of Environmental Quality      **Nearest Town:** North Platte  
**Project Name:** Wet-Deposition Mercury Monitoring in Nebraska      **Project No:** 08-127  
**Amount Requested:** \$40,844      **Term of Project Request:** 2      **Review Group:** Air Quality

Mercury is a pollutant that is found naturally in the environment that can also be introduced or enhanced as a result of anthropogenic (human) activity. The concern with mercury is the neurotoxin effects especially with developing children. For most people, the main route of exposure to mercury is through the consumption of fish and shellfish. As of January 2007, the Nebraska Dept. of Environmental Quality (NDEQ or Department), in conjunction with the Nebraska Dept. of Agriculture, Nebraska Game and Parks Commission and the Nebraska Health and Human Services System had issued fish consumption advisories on 24 waterbodies where mercury is considered the parameter of concern. Since 1997, fish consumption advisories in Nebraska due to mercury have generally increased with each subsequent sampling season. Mercury is considered a global pollutant and deposition of mercury in the U.S. results from both domestic and international anthropogenic sources. EPA's modeling has estimated that, on average, over three-quarters (83%) of the mercury deposited in the U.S. originates from international sources (excluding Canada); the remaining 17% comes from U.S. and Canadian sources. Solid waste incineration and fossil fuels combustion facilities contribute approximately 87% of the emissions of mercury in the United States. Other sources of mercury releases to the air include mining and smelting and the production of chlor-alkali and cement.

Historic information on mercury deposition in Nebraska is lacking. In 2007, in conjunction with UNL, a mercury wet-deposition monitoring site was installed and is being operated near Mead, NE. In order to better understand the statewide status of mercury in Nebraska and assist in identifying areas of concern, a second monitoring site in western Nebraska is desired. This project will establish the second mercury wet-deposition monitoring site near North Platte, Nebraska and complete an east to west network.

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**Sponsor Name:** Nebraska Department of Natural Resources      **Nearest Town:** Statewide  
**Project Name:** Enhancing the Value of Water Through Management Education      **Project No:** 08-140  
**Amount Requested:** \$215,000      **Term of Project Request:** 3      **Review Group:** Education

The project will develop and deliver an organized water management educational program to provide irrigators, and those advising irrigators, with the knowledge and skills necessary to obtain maximum value from a constrained water supply. The program will be developed through the University of Nebraska Extension, Biological Systems Engineering Department with extensive input and assistance from the Nebraska center pivot manufacturers, Lindsay Corporation, Reinke Manufacturing Company, Inc., T-L Irrigation Company, and Valmont Industries, Inc. Efforts will be made to involve Natural Resources Districts (NRDs). Although the program will be offered statewide, initial efforts will be concentrated in water short areas, including the Republican River Basin and the Platte River Basin upstream of Kearney. This program will differ from previous educational programs in emphasis, scope, marketing strategy, and will rely on input from the center pivot manufacturers to reach a previously unreached audience. This will result in stronger delivery with a specific concentration on maximizing the value of a constrained water supply. The need for this type of program has increased in recent years because the water resources in many of Nebraska's NRDs have been declared fully or over-appropriated, and are subject to either moratoriums, or to restrictions on the amount of water that may be used. The program should help irrigators obtain maximum value from the water they use. If constraints on water usage result in water savings, these savings will provide flow levels that are likely to provide substantial environmental benefits as well as economic benefits from the delivery of this program. This educational program will provide an introductory 3 to 4 hour module addressing basic principles for efficient irrigation: soil and water management, evapotranspiration (ET), and application uniformity and efficiency. It will also provide an intermediate-level module (3 to 4 hours) providing specialized hands-on instruction addressing such topics as soil water measurement, ET measurement and estimation, and measuring application efficiency and uniformity; an advanced-level module will address the use of state-of-the-art sensing, decision-making tools, and control technology (with demonstration of this technology). The effort will include: developing the educational materials (for both on-site and distance delivery), coordination among the partners, organizing, scheduling and delivering on-site workshops, interfacing with client groups (including input from irrigators), active program promotion, access to irrigators through center pivot dealers, developing written and electronic program material, and dealers providing resources such as meeting venues, meals, promotional materials, and equipment. A project completion report will be provided.

**Sponsor Name:** Nebraska Department of Natural Resources **Nearest Town:** Statewide  
**Project Name:** Riparian Vegetation Impacts on Water Quantity, Quality, and Stream Ecology **Project No:** 08-141  
**Amount Requested:** \$433,960 **Term of Project Request:** 3 **Review Group:** Water

This project's three year goal is to document and understand the complex behavior and response of river systems to riparian vegetation removal. It can help us to understand the effectiveness of various riparian vegetation management strategies in controlling consumptive water use in water short areas of the state, and especially in the Platte Basin above Columbus and the Republican Basin. This will help provide methods of improving ongoing efforts such as those funded through the Noxious Weed and Invasive Plant Species Assistance Fund and ultimately help us to better target efforts to provide maximum benefits in basins implementing limitations on water use.

Specific objectives include: 1) Perform historical flood frequency analysis at select river basins to document changes in the disturbance regime. 2) Estimate maximum evapotranspiration (ET) in riparian areas across Nebraska's river networks. 3) Directly measure and quantify hydrologic fluxes and in-stream aquatic ecosystem health for two riparian-stream transects: (a) a control reach with invasive species, and (b) a reach with active invasive species removal. 4) Compare geomorphic controls on aquatic ecosystem health in control and treated stream reaches. 5) Adapt and implement a terrestrial ecosystem/land surface hydrology model across Nebraska's river basins to examine the regional water balance and potential impact of large-scale removal of riparian vegetation. 6) Compare and contrast historical river discharge with invasive species encroachment in order to estimate the in-stream flow regime required for maintaining a healthy riparian ecosystem.

Project outcomes are expected to include: 1) Model based estimation of impacts of vegetation removal within riparian zones. 2) Analysis of impacts of vegetation removal on water quality, geomorphology and hydrology. 3) Basin-wide understanding and prediction of hydrologic impacts of riparian invasive species removal throughout Nebraska. 4) Analysis of minimum hydrologic disturbance regime required for maintaining riparian function and minimizing invasive species infestation. 5) Provide tools to better manage riparian vegetation for economic, social and environmental needs.

An effort will be made to coordinate vegetation management efforts underway or about to begin for comparison and transects. UNL personnel are partnering on this effort and will carry out the needed work with significant off budget work expected to occur prior to receipt of any trust funds.

**Sponsor Name:** Nebraska Department of Natural Resources **Nearest Town:** North Platte, Clay Cent  
**Project Name:** Quantifying Evaporation, Crop Evapotranspiration, and the Water Balance for Tilled and Untilled Fields **Project No:** 08-142  
**Amount Requested:** \$742,576 **Term of Project Request:** 3 **Review Group:** Water

The water managers of Nebraska are currently working very hard to reduce the consumptive use of water in the state so that we can sustain the use of our streams and aquifers for many years into the future. If these efforts are to be effective, we must accurately identify the causes of increased consumptive use. Many allege that the decrease in stream flows seen in many of the states streams are the result of conservation practices such as no-till farming. There are over eight million irrigated acres in the state and many of these are managed under no-till practices. Thus, the impacts of conservation measures on Nebraska's water supplies has become a key question facing water and land managers in the state. How much water use difference can be expected under different tillage practices? What is the seasonal and annual evaporation from a no-till field versus tilled field?

The benefits of no-till practices, such as energy savings, reduced dust emission, reduced wind and water erosion and enhanced soil quality have been documented for many years. However, one of the fundamental gaps in understanding the impacts of irrigated and dryland agriculture in Nebraska is the effect of the no-till practices on crop water use. The effect of different tillage practices on soil hydraulic properties and infiltration, runoff, deep percolation and other water balance components have not been sufficiently documented for Nebraska soil, climate and crop management conditions. Until we have this understanding we cannot be sure that we are focusing our management efforts in the right direction.

In this project, the annual, seasonal, monthly and weekly ET losses from the no-till and conventional till fields will be quantified and the amount of surface evaporation difference between the two tillage practices will be determined. Differences in soil physical properties and hydrologic balance components of the two tillage practices for a center pivot-irrigated corn-soybean rotation will be measured. Methodologies will be developed to estimate ET from both fields using airborne and satellite remote sensing data. The project findings and knowledge will be transferred to clientele through appropriate means to help growers and their advisors to enhance irrigated and dryland agricultural productivity. The project findings will aid policy and decision-makers and state water regulatory agencies to make better-informed decisions about water resources assessments and designing for the integrated management plans that will aid Nebraskans and enhance the environmental benefits.

**Sponsor Name:** Nebraska Department of Natural Resources      **Nearest Town:** Statewide  
**Project Name:** Nebraska Climate Variability Education Module      **Project No:** 08-143  
**Amount Requested:** \$118,300      **Term of Project Request:** 2      **Review Group:** Water

The purpose of this project is to provide an innovative education module that increases the understanding of the natural variability of Nebraska's climate and the implications that forecasted changes in climate have for water availability and use in Nebraska. An initial step will be to identify the relevance of climate variability information to Nebraskans and current and potential future use of that information in decision making. The program is geared to help stakeholders anticipate vulnerability and take steps ahead of time to reduce it. This can promote sustainable and integrated use of surface water and ground water in water short areas. It can especially benefit basins implementing limitations on water use and may ultimately help water users in those basins better deal with limitations.

The two year project will include listening sessions, workshops, education module development, web development, an on-line discussion forum, fact sheets, planning guides and resources, downloadable educational material development and satisfaction surveys as well as a project completion report. There is a significant need for simple and applicable climate information for management and policy decisions as well as educational efforts. This project can help meet that need and may be especially helpful in basins with water use limitations. It can also help maximize economic, social and environmental use of water in those areas.

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**Sponsor Name:** Nebraska Forest Service      **Nearest Town:** Chadron  
**Project Name:** Restoring the Pine Ridge Forest Ecosystem      **Project No:** 06-126-3  
**Amount Requested:** \$100,000      **Term of Project Request:** 1      **Review Group:** Statement of Intent

The Nebraska Environmental Trust grant will provide critical funding to protect, enhance and restore approximately 1,000 acres of the unique Pine Ridge forest ecosystem located in northwest Nebraska. The ultimate threat to this natural resource is lack of forest management on private land, resulting in overstocked, stagnated pine stands with tree densities 3-5 times that of healthy growing conditions. These sick forests continue to be threatened by stand-destroying crown fire that decimates prime habitat of "at-risk" bird species such as the pygmy nuthatch and Lewis's woodpecker. In addition, wildfire has a devastating impact on the social, economic and ecosystem services provided by a forest-based environment. The project will provide voluntary, cost-share incentives for forest stand improvement practices on private forestland. Specifically, the practices will include thinning or release cuts and thinning slash treatment aimed at reducing heavy fuel loads in the ponderosa pine forest. This proactive forest stewardship effort will deter future crown fires, help restore Pine Ridge forest health and sustain the flora and fauna that depend on this unique ecosystem for survival. THIS PROJECT WAS FUNDED \$100,000 IN 2006 WITH THE INTENT TO FUND UP TO \$100,000 IN YEAR TWO AND \$100,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Statewide  
**Project Name:** Nebraska Aquatic Habitat Rehabilitation Initiative **Project No:** 07-103-2  
**Amount Requested:** \$303,333 **Term of Project Request:** 2 **Review Group:** Statement of Intent

The goal of the Nebraska Aquatic Habitat Rehabilitation Initiative is to conserve, restore and enhance water quality of aquatic ecosystems across the state using environmentally sound rehabilitation techniques. The Initiative goal will be accomplished through an ongoing program of project design, technical assistance and funding administration by the Nebraska Game and Parks Commission while working and cost sharing with private partners, local political subdivisions and municipalities. A major objective of this initiative is to facilitate completion of the aquatic rehabilitation projects that were submitted to and approved by the Legislature as part of the Aquatic Habitat Plan. The core of the Initiative's \$2,500,000 funding will be used to design, engineer and implement these water quality projects over a three year period. NGPC will match Initiative funds with Aquatic Habitat Stamp, Sport Fish Restoration, EPA Section 319, Bureau of Reclamation Title 28, Game Cash, Parks Cash and private monies to complete the projects. Potential project techniques include sediment/nutrient dikes, dredging, excavation, bank stabilization, offshore breakwaters, jetties, aeration, sediment by-passes, water level management, islands, submerged islands, riparian buffer zones, alum treatments, fringe wetland development and fish renovations. The Initiative will address the Trust's priorities for improving water quality and conserving water by rehabilitating lakes, reservoirs, rivers and streams in order to provide diverse, stable and productive habitats that support a greater diversity of flora and fauna. Associated human benefits would include high quality recreation and aesthetics.

THIS PROJECT WAS FUNDED A TOTAL OF \$2,641,750 FROM 1997-2004. THIS PROJECT WAS FUNDED \$521,664 IN 2007 WITH THE INTENT TO FUND UP TO \$303,333 IN YEAR TWO AND \$175,003 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

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**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Statewide  
**Project Name:** Nebraska Natural Legacy Plan - Phase II Implementation **Project No:** 07-145-2  
**Amount Requested:** \$295,000 **Term of Project Request:** 2 **Review Group:** Statement of Intent

The Nebraska Natural Legacy Plan (NNLP) is the state's first comprehensive wildlife conservation strategy. The plan included input from over 500 biologists, conservation practitioners, citizens and private landowners. A twenty-member Partnership Team, including representatives from major conservation, agricultural and tribal organizations guided the planning effort. This habitat-based plan identified over 500 at-risk species, key threats to those species, conservation actions needed to address those threats and 40 biologically unique landscapes (BULs) where conservation activities have the best chance to conserve the state's biological diversity. We are requesting \$850,000 of NET Funds for this three-year project. The project partners will provide \$705,000 in cash match. Our primary goal is to implement Legacy Plan flagship initiatives in seven selected BULs: 1) Wildcat Hills, 2) Middle Niobrara River Valley, 3) Pine Ridge, 4) Platte Confluence, 5) Sandstone/Southeast Prairies, 6) Indian Cave/Rulo Bluffs, and 7) Lower Platte River. Flagship initiatives are collaborative, community-supported enterprises that use voluntary and incentive-based conservation actions to address threats to at-risk species and natural communities, build awareness and support for conservation through education, initiate monitoring and research and support nature-based recreational opportunities. Presently, three flagship initiatives, partially funded by NETF, have been started in the Verdigre-Bazile Watershed BUL, Central Loess Hills BUL, and Loess Canyons BUL. Another goal of this project is to implement selected statewide conservation actions identified in the NNLP. Conservation actions, such as invasive plant control, prescribed fire, planned grazing, and wetland restoration will be implemented through voluntary, incentive-based programs, with the objective of conserving and managing at-risk species habitat, primarily on private lands. Project ranking, monitoring, and evaluation procedures are in place. The Nebraska Game and Parks Commission is the project sponsor and will conduct all project administration. We believe this project qualifies for the "Feature Program Bonus Points" and contains a water saving initiative.

A REQUEST FOR PHASE I ACTIVITIES WAS SUBMITTED IN 2003 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST. THIS PROJECT WAS FUNDED \$250,000 FROM 2005 THROUGH 2007. THIS PROJECT WAS FUNDED \$270,000 IN 2007 WITH THE INTENT TO FUND UP TO \$295,000 IN YEAR TWO AND \$285,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

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**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Gordon, Valentine, Ains  
**Project Name:** Instream Flows for the Niobrara River Basin **Project No:** 07-174-2  
**Amount Requested:** \$200,000 **Term of Project Request:** 1 **Review Group:** Statement of Intent

Since 1985 only 2% of Nebraska's 12,371 miles of streams and rivers have received instream flow appropriations. On May 24, 2006, the NGPC Board of Commissioners passed a resolution directing agency staff: to develop recommendations for instream flow appropriations in the Niobrara River and its high quality tributary streams. Initially, Niobrara basin stream reaches in the counties of Sheridan, Cherry, Brown, Rock, Keya Paha, Boyd, Holt, and Knox will be considered. The Niobrara River is known for its beauty, biological significance, and paleontological resources, and recreational use. Two reaches of the Niobrara River are designated as part of the national Wild and Scenic River System. NGPC has 21 areas that are managed as Wildlife Management Areas, State Parks, State Recreational Areas, and a State Fish Hatchery along the mainstem of the lower Niobrara (downstream of Dawes County) and along several tributaries. NGPC and its partners seek grant funding to assist with the project that includes:

- \* Public involvement through public meetings and development of a broad-based stakeholder team to help with planning instream studies;
- \* Developing and disseminating multimedia educational materials describing beneficial values associated with instream flows in the Niobrara Basin;
- \* Retaining research consultants qualified in the fields of socio-economics of instream flow values, biological-riverine ecology and habitat modeling, evaluations of hydrological factors important to determine unappropriated flows and maintaining channel morphology, and evaluations of recreational uses related to flow conditions at selected stream locations; and
- \* Acquiring some specialized equipment for measuring discharge, monitoring river channel and habitat characteristics, and an airboat for river work.

The goal of this grant is to help fund the collection and evaluation of information needed to develop instream flow recommendations to the NGPC Board of Commissioners for action on appropriations from the Nebraska Department of Natural Resources (NDNR). THIS PROJECT WAS FUNDED \$400,000 IN 2007 WITH THE INTENT TO FUND UP TO \$200,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Elwood, Lexington  
**Project Name:** Elwood Reservoir Water Supply Enhancement Initiative **Project No:** 08-105  
**Amount Requested:** \$225,000 **Term of Project Request:** 3 **Review Group:** Water

Elwood Reservoir is owned by Central Nebraska Public Power and Irrigation District (Central) and was constructed to provide water for irrigation via the E65 canal. The reservoir and surrounding land are operated as a Wildlife Management Area by the Nebraska Game and Parks Commission. Elwood Reservoir contains a high-quality sportfish community and has been managed, with harvest restrictions, to produce trophy walleye, white bass x striped bass hybrids (wiper), and muskellunge.

Water inflow to Elwood Reservoir is primarily dependent upon releases from Lake McConaughy, which have been minimal during the past three years. In May 2007, Elwood Reservoir was 50 vertical feet below capacity, due to low inflows, evaporation, and seepage that amounts to -1.5 feet per month. Water levels this low put the fishery at extreme risk and limit boat angler access to the reservoir.

This request seeks funding to compensate Central for delivery of as much as 12,500 acre-feet of water annually for three years to Elwood Reservoir. An \$8 per acre foot payment would be made to Central to divert water to Elwood Reservoir rather than generate hydropower with it at the J1 and J2 plants below Johnson Lake. Tri-Basin NRD will pay for 25% of the cost and the Trust would be asked to pay for 75%. Flow would be diverted to Elwood Reservoir only when flows in the central Platte River meet or exceed all instream flow rights and U.S. Fish and Wildlife Service target flows.

**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Multiple  
**Project Name:** Cold Water Stream Restoration and Maintenance **Project No:** 08-138  
**Amount Requested:** \$88,833 **Term of Project Request:** 1 **Review Group:** Equipment

This grant application requests funding for equipment, tools, and materials to be utilized to complete stream restoration and habitat enhancement activities, and maintenance of existing structures. Nebraska has numerous coldwater streams in the northcentral and northwestern portions of the state. Most coldwater streams in Nebraska are privately held, making the publicly owned coldwater streams a valuable resource for the general public. A number of these streams currently support natural recruiting trout populations. A smaller number of these streams are actively managed by Nebraska Game and Parks (NGPC) to provide trout fishing opportunities for the general public. The proposed equipment and materials will be used on these publicly owned streams. The goal of these proposed stream restoration activities is to restore natural stream conditions that have been altered from past land use practices. The benefits of stream restoration extend well beyond benefiting fish. Healthy streams and the steps taken to restore and protect them benefit all wildlife, with water being the foundation of a healthy ecosystem. Many of the properties now owned and managed by the NGPC have been historically used for season long grazing. Unrestricted access to grazing livestock has resulted in the trampling of stream banks and degradation of stream channel morphology (depth and width). This has resulted in a broader shallower channel, resultant increased water temperatures, further bank erosion, reduction in suitable spawning habitat, reduced aquatic vegetation, and reduced aquatic insect production. These impacts negatively affect all fish species, and other riverine wildlife that feed on aquatic insects and/or small fish present in these streams. As stated, this grant application is for the purchase of equipment and materials needed to complete numerous stream restoration projects. The Nebraska Game and Parks Commission will carry out these projects over a period of 5 to 10 years (the minimum life expected of the equipment). While this contribution is not shown on the budget summary, the man hours involved in carrying out these restoration projects will be a major contribution, estimated at approximately \$10,000/year (two restoration projects per year requiring 20 man days plus associated travel expenses). In addition, ongoing monitoring of stream fish population in the project streams will be conducted to help evaluate the success of each project and some fish stocking may be carried out in project streams.

**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Statewide  
**Project Name:** Wildlife Habitat Improvement Through Prescribed Grazing: A Private/Public Partnership **Project No:** 08-144  
**Amount Requested:** \$100,000 **Term of Project Request:** 1 **Review Group:** Rural Habitat

The objective of this project is to improve wildlife habitat on private and public lands by installing fencing and watering facilities to allow for prescribed grazing management. The environmental outputs will be improved lake, stream, wetland, and prairie habitat on 4,635 acres and improved water quality by encouraging best management practices on surrounding lakes, streams, and wetland areas. Partners in this project include Nebraska Cattlemen, private landowners, the Natural Resources Conservation Service, and the Nebraska Game and Parks Commission. These partners will provide match exceeding 1:1. In 2004 and 2005, this project received \$250,000 from the Nebraska Environmental Trust (grants #04-169 and #05-176). The first grant has been closed-out, and the balance remaining for the last grant is all obligated and the grant is expected to be closed-out shortly. A summary of the results from the previous grants for this project is provided in the narrative.

THIS PROJECT WAS FUNDED \$150,000 IN 2004 AND \$100,000 IN 2005. THIS REQUEST IS FOR A CONTINUATION OF THIS PROJECT.

**Sponsor Name:** Nebraska Game and Parks Commission      **Nearest Town:** Lincoln  
**Project Name:** WILD Nebraska Program      **Project No:** 08-150  
**Amount Requested:** \$300,000      **Term of Project Request:** 3      **Review Group:** Rural Habitat

The Nebraska Game and Parks Commission and its' partners have been implementing the WILD Nebraska program on private lands in the state since 2000. This habitat based program has been widely accepted and received by ranchers and farmers throughout the state as a means of encouraging conservation and wildlife habitat on private lands. Currently, the agency allocates approximately \$250,000 towards WILD Nebraska and requests for these funds far exceed the annual allocation. With approval of this NETF grant, more funds will be available to private landowners fostering better stewardship on the landscape, creating better wildlife habitat, and increasing public use opportunities.

The main goal of WILD Nebraska is to increase and improve wildlife habitat on private land and public land not owned or controlled by the Commission to optimize recreational access opportunities. The program accomplishes its goal through 3 main objectives: 1) To increase quantity and quality of wildlife habitat in Nebraska to meet program and doctrine goals of the agencies strategic plan; 2) To evaluate current Nebraska Game and Parks Commission and non-Commission habitat programs and their impacts on regional habitat needs in Nebraska; and 3) To expand public access opportunities on private land and other publicly owned lands not currently open to public access.

The NETF grant request of \$300,000.00 (\$100,000.00 per year) will be distributed among habitat projects in approximately the following proportions: 40% to grassland/prairie projects; 40% to wetland projects; and 20% to woodland projects. Specific projects are not identified in this grant application so some latitude in project type will be necessary to maximize the grant outcomes. Acres resulting directly from NETF funding are estimated at 750-1200 grassland acres, 240-400 wetland acres, and 150-400 woodland acres. With partner contributions, the noted acreage estimates should be considered as minimum habitat benefits.

THIS PROJECT WAS FUNDED \$300,000 FROM 2004-2006. THIS REQUEST IS FOR A CONTINUATION OF THIS PROJECT.

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**Sponsor Name:** Nebraska Game and Parks Commission      **Nearest Town:** Statewide  
**Project Name:** Statewide Grassland Enhancement Project      **Project No:** 08-157  
**Amount Requested:** \$825,000      **Term of Project Request:** 3      **Review Group:** Rural Habitat

The objective of this project is to significantly improve habitat for grassland birds on 25,000 acres and provide public access to 250,000 acres of private land currently enrolled in the United States Dept. of Agriculture's (USDA) Conservation Reserve Program (CRP) across Nebraska annually for the next three years. These acres will provide nesting and brood-rearing cover for pheasants and other grassland birds of concern such as bobwhite quail, bobolinks, and dickcissels. Currently in Nebraska, 1.3 million acres are enrolled in CRP. For nearly 20 years, CRP has effectively provided water quality benefits, reduced soil erosion, and provided wildlife habitat. Water quality and soil erosion benefits have endured throughout the life of individual contracts but wildlife habitat benefits have decreased significantly as CRP grasslands have aged.

Approximately 70% of Nebraska's CRP is now over 13-years old. With time, plant diversity of CRP grasslands has decreased and many tracts have become monocultures of grass. This loss of plant diversity has resulted in a marked decrease in the amount of suitable nesting and brood-rearing habitat for grassland birds. Consequently, pheasant and other grassland bird populations have also decreased substantially. The Nebraska Game and Parks Commission (NGPC), Pheasants Forever (PF), private landowners, USDA, and other partners have been actively working to improve habitat and provide public access on CRP grasslands. Programs such as CRP-Management Access Program (CRP-MAP) and Focus on Pheasants (FOP) specifically address CRP grassland habitat enhancement and public access across the state. However, the statewide need and requests for improvement of CRP grassland habitat greatly exceeds current program capacities. The additional acres of grassland habitat enhanced with Nebraska Environmental Trust funding for these programs will continue to generate many direct and indirect benefits not only to wildlife but landowners, hunters, birdwatchers, and local community economies as well. This is one of the most visible programs that involves Environmental Trust Funds. THIS PROJECT WAS NOT FUNDED IN 2004, BUT WAS FUNDED \$275,000 IN 2005 AND \$600,000 IN 2006 AND 2007. (TOTAL \$875,000)

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**Sponsor Name:** Nebraska Game and Parks Commission      **Nearest Town:** Multiple  
**Project Name:** Prioritized Resource Areas in the Central Basins CREP      **Project No:** 08-158  
**Amount Requested:** \$623,000      **Term of Project Request:** 3      **Review Group:** Rural Habitat

The Nebraska Central Basins Resource Enhancement Project (CREP) is a voluntary, incentive based conservation program designed to address Nebraska's water quality and wildlife resource problems. The project encompasses 13 Natural Resources Districts, 4 river basins of significant concern and 37 counties in eastern Nebraska. Intensive agricultural production in this area provides significant challenges for maintaining and enhancing wildlife habitat, specifically for grassland wildlife. In spring of 2003, enrollment in the CREP began. Within the first 4 months of applications, landowners applied to enroll over 21,000 acres in the Prioritized Resource Areas and enrollment was halted. The enrollments were primarily pivot corners, and also included small fields (5-7 acres in size) that were considered difficult to farm or marginally productive by landowners. Those acres were planted to perennial grasses, legumes, and wildflowers to provide wildlife habitat, reduce soil erosion, and improve water quality for at least 10 years. Landowners continued to ask that additional acres and opportunities for enrollment in the Prioritized Resource Areas be offered, and in August of 2006 the Central Basins CREP agreement was amended to provide an additional 14,000 acres for this purpose. Because some landowners that applied for the initial 21,000 acres declined enrollment in the CREP when offered a contract, Nebraska has a current total of 16,271 acres that could be enrolled in the Prioritized Resource Areas. Given the demand by landowners, the acceptance and success of this practice in the past, and the wildlife benefits that have accrued, we would like to again open enrollment in order to meet the new goal of 35,000 acres of Prioritized Resource Areas in the Central Basins CREP. Under the CREP, the federal government pays the producer an annual (per acre) rental payment based on soil rental rates plus a 20% rental rate incentive, annual (per acre) maintenance payments, and 50% cost-share for establishing the grassland habitat. In order to open enrollment for these practices, Nebraska needs to provide 30% additional cost-share for establishing habitat, and provide incentive payments for enrollments of Prioritized Resource Areas (\$100 per corner or small fields 5-7 acres in size, plus an additional \$100 if all four corners of a pivot are enrolled). Currently, state and local funds are unavailable to meet these requirements. We request \$623,000 in funds from the Nebraska Environmental Trust over the next 3 years to allow new enrollment of 16,271 acres of Prioritized Resource Area practices in CREP, provide additional incentive payments to landowners, and build on the established resource success of this program. Trust funds will be leveraged against \$2,473,500 in contributions by USDA, the Nebraska Game and Parks Commission, and Pheasants Forever. THIS PROJECT HAS BEEN FUNDED \$600,000 FROM 2003-2007.

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**Sponsor Name:** Nebraska Grazing Lands Coalition      **Nearest Town:** Statewide  
**Project Name:** Cowboy Logic: A Stewardship Networking Project Using Grazing Strategies for Invasive Plant Control      **Project No:** 08-171  
**Amount Requested:** \$201,500      **Term of Project Request:** 3      **Review Group:** Rural Habitat

Assisting Nebraska's private grassland managers in the application of long-term, invasive plant management is the objective of this project. The project proposes the development of 10 cross-state community networks of land stewards that will facilitate the application of effective invasive plant treatments involving grazing strategies. This peer-to-peer network will fill the gap that exists between agency and institute driven education efforts toward invasive plant management and the practical application of these treatments by land managers. The protection of native plant habitats, surface and groundwater quality, soil health, and air quality will be accomplished through this project. The responsibility of promoting and adopting grassland conservation practices by land managers to land managers is the underlying theme of this proposal.

Each of the 10 networks will be established with a core group of volunteer land stewards recognized for excellent grassland management skills. Each network will operate within the 10 areas to assist in identifying local resource concerns regarding the management of invasive plants and the grazing management that sustains healthy grassland ecosystems. Each steward within the core network has agreed to provide one-on-one consultation with one to three cooperators annually on grazing management strategies that address invasive plants. The project proposes to develop 15 stewardship cooperators within each of the 10 networks for a total of 150 potential stewardship cases annually. In addition, each of the 10 networks will offer twice yearly, a tour, workshop, or demonstration that show-cases examples of invasive plant management through effective grazing management as identified through these consultations. Coordination and cooperation with Weed Management Areas, Natural Resource Districts, University of Nebraska Extension, Nebraska Dept. of Agriculture and the Natural Resources Conservation Service is an integral part of this proposal. Partial funding for the demonstration components of this project are requested from the Nebraska Environmental Trust.



**Sponsor Name:** Nebraska Public Power District **Nearest Town:** Hallam, Beatrice  
**Project Name:** Climate Change Carbon Sequestration Demonstration Research Forest and Grassland **Project No:** 08-110  
**Amount Requested:** \$164,732 **Term of Project Request:** 3 **Review Group:** Air Quality

Nebraska Public Power District (NPPD) is proposing a carbon sequestration demonstration research forest and grassland that meets the criteria of the Nebraska Environmental Trust's funding category of "Air Quality". The proposed pilot project implements a clean air strategy to offset greenhouse gas (GHG) emissions by storing carbon in trees. NPPD will plant 157 acres of trees in forest and shelterbelt configurations. Research on tree species-specific biomass production in forests and shelterbelts will provide unique baseline information on shelterbelt/crop interactions that can be used to promote future large-scale agroforestry applications. The forest will also create a unique educational forum for students and the general public, and generate environmental benefits, such as wildlife habitat.

NPPD recognizes the growing public concern about global climate change. To this end, NPPD is developing a comprehensive climate strategy which includes researching methods to offset GHG emissions. A carbon sequestration demonstration research forest provides an opportunity to evaluate planting trees as one of the potential means to address this challenge in the semi-arid Great Plains.

NPPD will provide: 1) the land, which is currently in agricultural row-crop production, 2) a long-term commitment to manage the forest, 3) forest and grassland maintenance, 4) public access for education and research, and 5) information and educational materials. The Nebraska Forestry Service and the University of Nebraska School of Natural Resources will provide the technical oversight to establish and manage the forest and conduct the research necessary to determine/document the extent of the value of tree planting to reduce the use of fossil fuels and the value in capturing carbon. By this application we are asking the Nebraska Environmental Trust to fund the cost of the trees, protective tree tubes, grass seed and planting of the trees and grass for the climate change carbon sequestration demonstration research forest and grassland.

**Sponsor Name:** Nebraska State Recycling Association **Nearest Town:**  
**Project Name:** Recycling Equipment Grant Coordination Project **Project No:** 07-179-2  
**Amount Requested:** \$150,000 **Term of Project Request:** 2 **Review Group:** Statement of Intent

This project represents an extension of the "cluster" grant project originally funded in 1999, and re-extended in 2005-2006. In the past we have consistently reviewed the opportunities of collaborating with other entities such as the Resource Conservation and Development Districts, Natural Resources Districts, Nebraska Bankers Association, Nebraska Economic Developers Association and Nebraska Cornhusker Chapter of SWANNA (Solid Waste Association of North America) as well as other community leaders. By involving these entities we are able to develop the recycling infrastructure in Nebraska, and promote recycling as an environmental and economic benefit to communities and businesses. The goal is to foster recycling development and entrepreneurship as a way to strengthen a community's economy and environment. The development of a "hub and spoke" recycling infrastructure and cooperative marketing of materials are just two examples of the success of this area. We anticipate further demand for recycling services which are directly related to the rise in oil prices, rise in landfill tipping fees and cost for solid waste services.

THIS PROJECT WAS FUNDED \$1,377,350 IN 1999-2006. THIS PROJECT WAS FUNDED \$150,000 IN 2007 WITH THE INTENT TO FUND UP TO \$150,000 IN YEAR TWO AND \$150,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.



**Sponsor Name:** Nebraska Tallgrass Prairie Partnership **Nearest Town:** Multiple  
**Project Name:** Tallgrass Prairie Conservation on Private Lands II **Project No:** 06-157-3  
**Amount Requested:** \$225,000 **Term of Project Request:** 1 **Review Group:** Statement of Intent

Tallgrass prairie is one of the most threatened ecosystems in North America. Over 98% of eastern Nebraska's tallgrass prairie has been lost. The vast majority of Nebraska's tallgrass prairies are on private lands making it essential that conservationists work closely with private landowners to conserve this unique resource.

In 2003 the Nebraska Tallgrass Prairie Partnership (NTPP), an affiliation of public and private conservation groups, formed with the mission of enhancing, conserving, and restoring Nebraska's tallgrass prairie ecosystem, while meeting the needs and objectives of landowners. On April 7, 2005 the Partnership received a one-year Nebraska Environmental Trust Fund (NETF) grant (Project #05-177) in the amount of \$225,000. As of September 1, 2005, the majority of these funds have been allocated to 23 on-the-ground conservation projects (\$190,000), education activities (\$10,000), and salary for our private lands biologist (\$25,000). The 23 projects will enhance 4,750 acres of tallgrass prairie.

Through this application the NTPP is applying for \$675,000 for a three-year project to continue tallgrass prairie conservation on private lands. The majority of the funds, \$570,000, will be used for on-the-ground tallgrass prairie conservation on private lands. Through activities, such as invasive tree clearing, installation of planned grazing systems, and prescribed fire, we will enhance nearly 10,000 acres of tallgrass prairie. Thirty thousand dollars will be dedicated to tallgrass prairie education for landowners and the public, and \$75,000 will contribute to our private lands biologist's salary. We will provide approximately \$750,000 in cash and in-kind match. The Nebraska Game and Parks Commission will be the grant managers.

We believe our project is an innovative, ecosystem-based project that will serve as a model for other conservation initiatives in the state. Through our partnership we will decrease duplication of effort and work in a more coordinated fashion to conserve and manage tallgrass prairie. THIS PROJECT WAS FUNDED \$225,000 IN 2005. THIS PROJECT WAS FUNDED \$225,000 IN 2006 WITH THE INTENT TO FUND UP TO \$225,000 IN YEAR TWO AND \$225,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Nemaha Natural Resources District **Nearest Town:** Johnson  
**Project Name:** Big Muddy Creek Watershed Project **Project No:** 07-118-2  
**Amount Requested:** \$267,850 **Term of Project Request:** 2 **Review Group:** Statement of Intent

For over 40 years, treatment in the Big Muddy Creek Watershed has been desperately needed. Years of non-treatment has turned this once small creek into a deep massive raging river in times of heavy rainfall and has caused negative environmental effects and havoc to local authorities and landowners. Negative environmental effects include impaired water quality and the loss of ecological diversity. Negative effects to local authorities and landowners include damages to bridges, roads, natural gas and rural water pipelines, and substantial loss of agricultural land.

Recently the Nemaha NRD formed a local watershed task force and hired a consultant to put together a watershed work plan. Completion of the Big Muddy Creek Watershed Work Plan by JEO Consulting Group and Mead & Hunt Engineering contained the study area description, study procedure, study findings, proposed improvements and associated probable opinion of cost.

The Big Muddy Creek Watershed Work Plan agreed with findings of the task force in that severe stream bed and stream bank degradation is occurring in the top fifth of this watershed and included the following objectives. 1.) Control Stream Bed and Stream Bank Erosion 2.) Prevent Further Damage to Public Infrastructure 3.) Prevent Further Damage to Public Utilities 4.) Improve Water Quality 5.) Improve Ecologic Diversity 6.) Prevent Further Loss of Agricultural Land Utilizing information from the Big Muddy Creek Watershed Work Plan, the Nemaha Natural Resources District, along with project partners are requesting \$566,000 from NETF over a 3-year period to assist with implementing 8-10 grade stabilization structures, 8-10 rock or sheet pile weirs and 1 road dam structure. The cost estimate to install these structures is \$662,000 for construction, \$300,000 for engineering, \$24,000 for project management, \$3,000 for information and education and \$3,000 for water quality and project monitoring expenses bringing total project costs to \$992,000. THIS PROJECT WAS FUNDED \$117,650 IN 2007 WITH THE INTENT TO FUND UP TO \$267,850 IN YEAR TWO AND \$180,500 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Nemaha Natural Resources District **Nearest Town:** Multiple  
**Project Name:** High Capacity Groundwater Well Management **Project No:** 08-169  
**Amount Requested:** \$40,000 **Term of Project Request:** 2 **Review Group:** Water

The Nemaha Natural Resources District lies within the glacial drift groundwater region of Nebraska where the geology is a complex composition of fine to coarse grained glacial deposits containing localized interbedded sands and gravels. The principle aquifer systems are comprised of paleovalley, alluvial, bedrock and glacial drift aquifer units that range in saturated thickness from less than 50 feet to over 300 feet. Groundwater well yields throughout most of the District are generally less than 50 gallons per minute and the water is often highly mineralized. High capacity well development historically has occurred primarily in buried paleovalleys and alluvial stream valleys where the aquifers are the highest yielding but are of limited extent. Technological irrigation improvements have reduced the traditional capacity demand of center pivot irrigation systems permitting lower yielding aquifers to be developed. Development in these lower yielding aquifers along with several years of drought has created conflict between groundwater users. The District is currently updating its Groundwater Management Plan and developing a groundwater model to better address groundwater quantity issues. The groundwater model will be used as a tool to define aquifer regions and corresponding sustainability. Results from a groundwater model are completely dependent upon the accuracy of the input data and collection efforts revealed that a large amount of geologic data was readily available however actual pumpage information from existing high capacity wells was lacking. The District is seeking assistance from the Nebraska Environmental Trust Fund to provide a voluntary cost-share program for the purchase of flow meters for high capacity wells.

**Sponsor Name:** North Central Nebraska Resources Conservation & Development Council **Nearest Town:** Basset  
**Project Name:** An Integrated Approach to Cedar Control in the Middle Niobrara Valley **Project No:** 08-146  
**Amount Requested:** \$676,804 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Nebraska Natural Legacy Plan identifies "interruption of the natural fire regimen leading to increased tree densities, primarily eastern red cedar and ponderosa pine, excess litter accumulation and exotic plant invasion in the valley" as one of the biggest stresses to native species and habitats within the Middle Niobrara River Valley. The North Central Nebraska Resource, Conservation, Development and Planning Council (RC&D), The Nature Conservancy (TNC), and Sawle Mill, LLC propose to reduce the impact of these stresses by pursuing an integrated approach to managing woody vegetation and extreme fuel loads. The three will work together to increase the use of tree thinning and prescribed fire on private and public lands. With the purchase of the equipment detailed in this proposal, the Sawle Mill will be able to mechanically control problem cedars on approximately 10,500 acres of private and public lands over three years. The Nature Conservancy will offer technical assistance to landowners wishing to develop burn plans, will establish a fire equipment cache to be housed with the Middle Niobrara Natural Resources District, and will offer the assistance of its personnel in burning around 1,500 acres of private lands. Additionally, TNC will burn approximately 7,500 acres (depending on weather and other variables) on its Niobrara Valley Preserve to increase benefits for at-risk species and serve as demonstration sites for outreach activities by the RC&D. The RC&D will coordinate these activities, continue to investigate uses for woody biomass, and host annual field days targeting 200 private landowners and agency representatives to observe the benefits and challenges of managing woody vegetation with mechanical controls, prescribed burning, and biomass utilization. This collaborative approach will result in landscape-scale conservation benefits to native plant and animal species within the Middle Niobrara Valley and surrounding area, while improving human safety and promoting local economic development.

**Sponsor Name:** North Platte Natural Resources District **Nearest Town:** Scottsbluff, Sidney  
**Project Name:** Aerial Geophysical Survey of Selected Panhandle Aquifers **Project No:** 08-119  
**Amount Requested:** \$880,000 **Term of Project Request:** 3 **Review Group:** Water

This is a crucial time for management of water resources of western Nebraska and the North Platte NRD and South Platte NRD are asking the Environmental Trust to assist in gathering information to solve some of these problems. After eight years of sustained drought, aquifers in the panhandle have been strained to supply water to users and base flow to the North Platte River and Lodgepole Creek. Municipalities face challenges in providing adequate supplies of water. In numerous communities, uranium and arsenic concentrations in drinking water exceed federal maximum contaminant levels. Communities are under administrative order by the Nebraska Health and Human Services System. It is imperative to find a new source of water for these communities soon. Public water supplies also are threatened by non-point source pollution, unreliable local aquifers and other factors. Meanwhile, changes are in store for water management. Legislative Bill 962 requires that NRDs and the Dept. of Natural Resources develop integrated management plans for the North Platte and South Platte Basins.

For these reasons, it is vital to have accurate, affordable information about the geology affecting water supplies. This information could best be obtained through a program of geophysical mapping of subsurface geologic characteristics. Traditional methods, including surface geophysics and borehole logging, are needed for this work in order to calibrate the survey results, but they are inefficient to map an area of 252 square miles. An innovative, cost-effective, \$6 per acre, alternative is airborne geophysical mapping, performed by a helicopter carrying a sensor that analyzes geologic formations. The North Platte and South Platte NRDs are proposing to work together, using the expertise of the U.S. Geological Survey and the University of Nebraska Conservation & Survey Division, to take advantage of economies of scale and undertake a project to conduct geophysical mapping of priority target areas within each basin. THIS PROJECT WAS SUBMITTED IN 2004, 2005 AND 2007 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST.

**Sponsor Name:** Northeast Nebraska RC&D **Nearest Town:** Norfolk  
**Project Name:** Managing and Renovating Old Windbreaks in Northeast Nebraska **Project No:** 08-111  
**Amount Requested:** \$177,060 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Many old windbreaks in rural Nebraska are damaged from snow and ice storms or are deteriorating due to age and other factors. Renovating these plantings and getting them back into better health for more efficient energy conservation, wildlife habitat, erosion control and other benefits for the landowner and the local farming neighborhood is expensive. Most renovation involves removal of the damaged/dying trees in a portion of the existing windbreak and replanting new species to create a "two-aged" windbreak system. Healthy windbreaks benefit local landowners, the local neighborhood and the entire state of Nebraska.

Nebraska Environmental Trust Fund (NETF) monies will provide funding to assist landowners in renovating/managing old windbreaks so there's a "new generation" of trees and shrubs growing. NETF could potentially provide up to 75% cost share for removal of the old and establishing a new windbreak except where Natural Resource Districts (NRD) are cooperating. In those cases NETF dollars will supplement NRD or Nebraska Soil & Water Conservation Program (NSWCP) funds (usually at 50%) to a maximum of 75% cost share. Landowners will pay at least 25% of the cost. Nebraska Forest Service staff or other natural resource professionals will visit sites and provide technical assistance for renovations and new planting plans.

The project will be located in the 12 counties served by the Northeast Nebraska Resource Conservation & Development (RC&D) Council and the PrairieLand RC&D Council - Antelope, Boone, Cedar, Colfax, Dixon, Knox, Madison, Nance, Pierce, Stanton, and Wayne.

**Sponsor Name:** Northeast Nebraska RC&D **Nearest Town:** Plainview  
**Project Name:** Invasive Species Control on Ecologically Sensitive Sites **Project No:** 08-122  
**Amount Requested:** \$88,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Invasive species are cited frequently as significant threats to biological diversity in Nebraska's Natural Legacy Project planning document (NNLP). To address those issues, NNLP recommended development of collaborative conservation efforts to seek effective control measures, increase awareness of biological diversity, and implement strategies addressing specific issues in biologically unique landscapes (BUL's) identified in the plan. One such group is the Northeast Nebraska Weed Management Area (NNWMA) who seeks innovative, collaborative, and effective means to reduce ecological and economic impacts of noxious weed infestations. NNWMA's diverse group of partners covers 8 counties and 4,610,212 acres of private, public and tribal land whose northern boundary is the Missouri National Recreational River. Eight BUL's with ecologically significant riverine, woodland, wetland, and grassland habitats are partially or wholly within NNWMA boundaries. These include prairies that contain federally threatened Western Prairie Fringed Orchid and state listed Small White Lady Slipper Orchid as well as habitats that are home to 34 other Tier 1 plant, mussel, fish, insect, bird, and mammal species (NNLP). Beginning in 2008, NNWMA proposes to acquire biological control agents (insects) to control noxious weeds on ecologically sensitive areas. Releases will be prioritized and targeted at places where herbicide use is not desired (i.e. high diversity grasslands, wetland/riverine habitats, rangeland with organic designations, etc.). Targeted plants are Purple Loosestrife, Leafy Spurge, Spotted Knapweed and Canada Thistle. Appropriate insects will be acquired for each weed species. Releases will occur in a variety of locations within the NNWMA over a 3 year period. Each release will be marked using GPS and photo points will be established to monitor progress. Outreach is a key component to this effort. A Project Coordinator will maintain communication with all partners, schedule activities, assist with outreach activities, and work with the RC&D Council on fiscal matters.

**Sponsor Name:** Northeast Nebraska RC&D **Nearest Town:** Statewide  
**Project Name:** Organic Farming Statewide **Project No:** 08-147  
**Amount Requested:** \$331,500 **Term of Project Request:** 3 **Review Group:** Soil Management

This project fills a serious gap in Nebraska's ability to reduce non-point source pollution while building a resilient soil and stronger economic base. The training provided will enable farmers and ranchers to produce profitable grain, forage and livestock products while increasing soil carbon, reducing soil erosion, and lowering the threat of fertilizer and pesticide contamination. The NRCS EQIP Organic Transition Program offers financial incentives to offset feared yield losses. However that cannot overcome the social pressure and personal risk farmers face when they choose non-conventional farming practices. The expertise and guidance from the organic specialists provided through this project is very important to their success. This project will provide farmers and ranchers with the knowledge base and skills they need to confidently adopt practices that do not rely on chemical fertilizer and pesticides - the cause of most non-point pollution in Nebraska. It will train NRCS and others too so they can provide better service through EQIP. This project provides long-term benefits without continued funding. The 3-year life of the project coincides with the 36-month history of chemical-free production needed for access to premium markets by qualifying for Natural Organic Program (NOP) certification. Providing support at the local level through RC&Ds will mean continued and expanded participation by other farmers. At the end of the project, Nebraska will have a base of trained, knowledgeable farmers and resource professionals who will continue to search for management solutions to pest and fertilizer problems long after the financial incentives terminate. These changes will have long lasting effects on the land. A statewide planning committee has been working together several months and this project is a result of their vision. The EQIP financial incentives, valued at over \$1,320,000 for this project, are critical to getting over 17,000 acres into a program of doing without chemicals. FUNDED SIMILAR PROJECT FROM 2005-2007 WITH THE CENTER FOR RURAL AFFAIRS FOR \$78,000.

**Sponsor Name:** Pheasants Forever - Medicine Creek

**Nearest Town:** Hayes Center

**Project Name:** No-till Grass Drill

**Project No:** 08-121R

**Amount Requested:** \$15,000

**Term of Project Request:** 1

**Review Group:** Equipment

This grant application seeks funding from the NET to purchase a no-till grass drill to be used by landowners to establish wildlife habitat. Currently, there are few no-till drills available in the state and those that are available are owned and rented out by private businesses. A no-till grass drill made available to interested landowners would increase both the quantity and quality of wildlife habitat established. Significant increases in wildlife habitat plantings in the area through programs like: Conservation Reserve Program, Conservation Reserve Enhancement Program, Continuous Conservation Reserve Program, Corners for Wildlife, CRP-MAP, etc. have greatly increased the need for this type of specialized equipment. Matching NET moneys with that of the Medicine Creek Pheasants Forever chapter would purchase the no-till drill. The purchase price of a no-till grass drill is approximately \$22,500 to \$24,500. The Middle Republican Natural Resources District of Curtis, NE, will oversee the operation, maintenance and rental of the drill. A fund will be set up to pay for routine maintenance of the drill as well as any repairs needed to keep the drill in top operating condition. The drill will be available for any landowner in the area to use at a nominal fee. A no-till grass drill is needed to handle the fluffy seeds associated with many warm-season grasses, wildflowers and legumes. These fluffy seeds are not effectively planted with conventional drills. By establishing more wildlife habitat to a higher quality habitat provided by these seed mixtures, wildlife will benefit.

**Sponsor Name:** Pheasants Forever - Webster County

**Nearest Town:** Red Cloud

**Project Name:** No-till Grass Drill

**Project No:** 08-120R

**Amount Requested:** \$15,000

**Term of Project Request:** 1

**Review Group:** Equipment

This grant application seeks funding from the NET to purchase a no-till grass drill to be used by landowners to establish wildlife habitat. Currently, there are few no-till drills available in the state and those that are available are owned and rented out by private businesses. A no-till grass drill made available to interested landowners would increase both the quantity and quality of wildlife habitat established. Significant increases in wildlife habitat plantings in the area through programs like: Conservation Reserve Program, Conservation Reserve Enhancement Program, Continuous Conservation Reserve Program, Corners for Wildlife, CRP-MAP, etc. have greatly increased the need for this type of specialized equipment. Matching NET moneys with that of the Webster County Pheasants Forever chapter would purchase the no-till drill. The purchase price of a no-till grass drill is approximately \$22,500 to \$24,500. The Lower Republican Natural Resources District of Red Cloud, NE, will oversee the operation, maintenance and rental of the drill. A fund will be set up to pay for routine maintenance of the drill as well as any repairs needed to keep the drill in top operating condition. The drill will be available for any landowner in the area to use at a nominal fee. A no-till grass drill is needed to handle the fluffy seeds associated with many warm-season grasses, wildflowers and legumes. These fluffy seeds are not effectively planted with conventional drills. By establishing more wildlife habitat to a higher quality habitat provided by these seed mixtures, wildlife will benefit. TRUST FUNDED A DRILL WITH THE LITTLE BLUE NRD IN 2001 FOR A DRILL - STORED NEAR DAVENPORT (INCLUDED WEBSTER COUNTY AS AN AREA COVERED).

**Sponsor Name:** Pheasants Forever, Inc. **Nearest Town:** St. Paul  
**Project Name:** Corners for Wildlife **Project No:** 07-150-2  
**Amount Requested:** \$200,000 **Term of Project Request:** 2 **Review Group:** Statement of Intent

This application is a continuation of a partnership funded by the Trust from 1994 to 2006. The program successfully partners money from the Trust, Pheasants Forever, Inc., Pheasants Forever Chapters, Natural Resources Districts and landowners throughout the state to establish permanent wildlife habitat. In the twelve years the program has been offered to the public, Trust funds have been partnered with over \$896,332 from materials from 45 Pheasants Forever chapters, 16 Natural Resources Districts and private landowners on 1,091 projects throughout the state. With "in-kind" contributions included, the level of partnership in the program exceeds \$3,462,587.

Landowners enrolling in Corners for Wildlife agree to establish wildlife habitat on center pivot irrigation field corners. Corners are established to one of two available cover practices. Landowners receive a per acre rental payment for a five-year contract. Materials to establish cover practices are cost-shared 75% by Pheasants Forever chapters with landowners responsible for 25% of material costs. In some cases, the cover practices are established with a 100% cost share by the participating Natural Resources Districts.

This program is very successful at establishing permanent wildlife habitat as landowners have averaged 514 trees and shrubs per corner in the program. Every year the program has been offered, there has been more interest in enrollment than the program can fund. The history, innovativeness and success of this program laid the cornerstone for the USDA Conservation Reserve Enhancement Program (CREP) offered in Nebraska where 21,000 acres of center pivot irrigation field corners were enrolled in wildlife habitat. In addition, the success of this program is serving as the model for proposed modifications to the Platte-Republican CREP that is currently being enrolled in southwestern Nebraska. These factors are a clear sign of the acceptance, generated results and long-term success of the Corners for Wildlife program.

THIS PROJECT WAS FUNDED \$1,940,000 FROM 1994-2006. THIS PROJECT WAS FUNDED \$300,000 IN 2007 WITH THE INTENT TO FUND UP TO \$200,000 IN YEAR TWO AND \$200,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

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**Sponsor Name:** Pheasants Forever, Inc. **Nearest Town:** Statewide  
**Project Name:** Mobile Prescribed Burn Unit **Project No:** 08-165R  
**Amount Requested:** \$15,000 **Term of Project Request:** 1 **Review Group:** Equipment

This application seeks funding to build and make available a mobile prescribed burn unit to be used by landowners, resource professionals and agencies to establish, maintain and improve wildlife habitat. Nearly every wildlife partnership and management plan in the state calls for the increased use of prescribed burns to reach their management and partnership goals. Despite those management plans, prescribed burning continues to be a management option that is hard to have performed in Nebraska. Four major factors are consistently identified as limiting its use on the landscape: 1) Access to prescribed burn equipment; 2) Prescribed burn training; 3) Man-power to conduct prescribed burns; and 4) Prescribed burn liability coverage.

Pheasants Forever and Quail Forever has begun the process of identifying the four prescribed burning limitations and is working to overcome them. Eight different scenarios are outlined that are specifically working to remove limitations and increase the use of prescribed burning on the landscape. The requested NET Funds (\$15,000) will be matched with those of Pheasants Forever and Quail Forever (\$40,000) to purchase, maintain and administer a mobile prescribed burn unit for use throughout the state, specifically in NNLP Biologically Unique Landscapes.

Pheasants Forever and Quail Forever are working closely with the Nebraska Natural Legacy Project (NNLP) to implement its management goals and employs five Coordinating Wildlife Biologists in the state that are working directly with the plan. The creation of a mobile prescribed burn unit would directly benefit the NNLP by creating a prescribed burn unit that could quickly be transported to whichever NNLP Biologically Unique Landscape was ready for its use and the weather conditions made burning possible. The unique aspect of this mobile unit is that the necessary prescribed burn equipment could be available in any region of the state in less than a day.

**Sponsor Name:** Platte River Basin Environments, Inc. **Nearest Town:** Lyman  
**Project Name:** Wildcat Hills Wildlands Initiative (WHWI): Montz Property Acquisition **Project No:** 08-106  
**Amount Requested:** \$1,250,000 **Term of Project Request:** 1 **Review Group:** Rural Habitat

We are requesting funding to acquire the 4,800-acre Montz property - a critical habitat located in the Wildcat Hills of Scotts Bluff County. Acquisition and conservation of the Montz property will enhance the network of conservation lands owned and managed by partners in the Wildcat Hills Wildlands Initiative, which include PRBE, TNC, and the NGPC. Several WHWI lands, including the Cedar Canyon WMA, Carter Canyon Ranch, and the Cedar Canyon Summit, lay in close proximity to the Montz tract. The NETF was involved with the acquisition of these properties, which serve as vital areas for conservation, open spaces protection, public access, and conservation education.

The Montz property is critically important in that it:

- Falls within the Wildcat Hills Biologically Unique Landscape, identified in the Nebraska Natural Legacy Plan as an area critical to the conservation of Nebraska's biological diversity.

- Serves as critical habitat for bighorn sheep.

- Contains native plant communities including western mixedgrass prairie, sandsage prairie, pine woodland, rock outcrops, and springs.

- Serves as habitat for native species including 6 Tier 1 and 34 Tier II species.

- Contains rare archeological sites, fossils, and geological features.

The Montz tract is in imminent threat of urban development and if not protected, it will lose its ecological and cultural values. Conservation ownership is the only assurance that the site's native plant communities, wildlife, water, air, and soil are protected in perpetuity. Acquisition of the tract would also allow for public recreation and conservation education. The property's present owner has approached PRBE wishing that the property and its natural and open space values be protected. There is strong community support within the Scottsbluff/Gering area for this project.

We are requesting \$1,250,000 for acquisition of the Montz property. The project partners will provide \$745,000 in matching funds, including \$690,000 for acquisition.

**Sponsor Name:** Platte River Whooping Crane Maintenance Trust, Inc. **Nearest Town:** Wood River  
**Project Name:** Whooping Crane Trust (WTC) Restored Sites Evaluation **Project No:** 08-124  
**Amount Requested:** \$65,734 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Several tall grass prairie and wetland restorations have been performed on WCT lands, and others, ranging from twenty to zero years post-restoration. While different restoration strategies were used, no detailed evaluation or monitoring has been done to identify the best restoration practices. This project is intended to evaluate previous restoration efforts and enhance roosting and feeding habitat for Sandhill cranes, endangered Whooping cranes, waterfowl, and grassland birds. We plan to perform evaluations of restored sites in order to better understand successional and plant establishment processes involved in restored areas to identify better ecological and economical practices. We also will test new approaches to restore tall grass prairies and wetlands. This new approach includes the use of "successional restoration" where in a 3 year period different plant species are introduced to restore areas following successional patterns (i.e. mainly annual during the first year and perennials after second year).

The WCT land offers an excellent opportunity to perform these evaluations and comparisons due to the existence of several restored areas with different ages added to recently restored areas (i.e. Dippel Wetland Restoration) and the need to continue restoration efforts throughout the Platte River Valley.

Funding in the amount of \$65,734 is sought from the Environmental Trust, while the Platte River Whooping Crane Maintenance Trust will provide \$22,400 (in-kind) for a 34% match, to restore 75 acres of wet meadow, and monitoring and evaluation of ~1000 acres of restored sites. A SIMILAR PROJECT WAS SUBMITTED IN 1999 BUT NOT FUNDED.

PROJECT #06-138 FUNDED THE RESTORATION AT THE DIPPEL WETLANDS (\$165,000) WHICH IS REFERRED TO IN THIS PROJECT.

**Sponsor Name:** PrairieLand RC&D Council **Nearest Town:** Lindsay, Newman Grov  
**Project Name:** Shell Creek Watershed Improvement Project **Project No:** 07-109-2  
**Amount Requested:** \$150,000 **Term of Project Request:** 2 **Review Group:** Statement of Intent

The Shell Creek Watershed Improvement Project's (SCWIP) goal is to increase the use of resource conservation practices and to restore a conservation ethic within the Shell Creek Watershed. A very dedicated volunteer watershed board, which received a World Herald Master Conservationist award in 2005, partners with public and private entities to educate land users and the public about conservation practices and to offer incentives for implementing best practices. Renewed funding of this aggressive informational/educational and conservation-practice-incentive program will generate significant positive contributions to surface and groundwater quality, waste management, soil management, habitat and air quality, both within and beyond the Shell Creek Watershed.

The education component of the SCWIP consists of land user and public education, and water quality. NET funds, in conjunction with grant funds from the Nebraska Department of Environmental Quality, support educational meetings and field tours, led by UNL Extension and Natural Resources Conservation Service personnel, to educate landowners about the watershed project. Over 1800 land users receive the quarterly SCWIP Newsletter.

Water Quality Teams, students at Newman Grove and Schuyler High Schools, complete comprehensive water testing throughout Shell Creek and report findings to project stakeholders. The Newman Grove Water Quality Team has received the World Herald Master Conservationist Award and recognition from the Nebraska State and the Western RC&D Associations. The monitoring program encourages community buy-in for the project and commitment to environmental issues.

In conjunction with support from other sources, NET funds provide conservation incentives to stimulate increased landowner participation in several conservation programs on thousands of acres in the Shell Creek watershed. Increased no-till crop management will decrease soil erosion and stream contamination by nutrients and pesticides. Newly established vegetative buffers will provide filtering of sediment and pollutants and increase wildlife habitats.

THIS PROJECT HAS BEEN FUNDED \$255,000 FROM 2004-2006. THIS PROJECT WAS FUNDED \$150,000 IN 2007 WITH THE INTENT TO FUND UP TO \$150,000 IN YEAR TWO AND \$150,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** PrairieLand RC&D Council **Nearest Town:** Madison  
**Project Name:** Nebraska Continuous No-Till Project **Project No:** 07-160-2  
**Amount Requested:** \$110,000 **Term of Project Request:** 2 **Review Group:** Statement of Intent

This is a state-wide project that will organize and coordinate more than 4 public and 7 private partners to build upon and expand existing efforts in order to increase the adoption and sustainable use of Continuous No-Till (CNT) by 1 million acres. At this time, CNT is THE single best cropland practice to implement. It will result in tremendous positive improvements to Soil, Water, Air, Plants, Animals, and Humans. It will provide an economic benefit to individual farmers of as much as \$50/acre or more. It will be extremely cost-effective at less than \$1/acre. The practice of Continuous No-Till (CNT) works across the entire state of Nebraska. Soil erosion can be reduced by an average of 4 to 14 tons/acre or more, bringing erosion down to less than 1 ton/acre. CNT can sequester high amounts of Carbon. CNT can reduce pesticide runoff by an average of 70%, water runoff by 69%, and soil erosion by 93%. As much as 10-15 inches per acre or more of irrigation water can be saved each year. CNT can increase wildlife numbers and crop yields. Fossil fuel use can be cut by up to 50% or more. NET funds will be used to fund all or part of the following: a UNL Extension No-Till Specialist, a Western Nebraska No-Till Specialist, a project Coordinator-Administrator-Marketer, host a website, host state-wide/regional/local CNT events, provide opportunity for participants to attend key in-state and out-of-state CNT events, develop and distribute I&E materials, & other. THIS PROJECT WAS FUNDED \$110,000 IN 2007 WITH THE INTENT TO FUND UP TO \$110,000 IN YEAR TWO AND \$110,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Prescribed Burn Task Force **Nearest Town:** Kearney, Broken Bow,  
**Project Name:** Prescribed Burn Task Force Education and Expansion Project **Project No:** 08-107  
**Amount Requested:** \$119,579 **Term of Project Request:** 3 **Review Group:** Rural Habitat

In 1996, interest in prescribed fire among land users was increasing. The need for safe uses of fire as a management tool became evident. Out of that need a group of volunteer fireman, federal and state agency personnel and private organizations partnered together to form the first of it's kind in Nebraska: The Prescribed Burn Task Force (PBTF). The PBTF encompassed four counties in south central Nebraska: Buffalo, Custer, Dawson and Lincoln. The partnership has grown over the years and new members have joined or moved on, but the focus of the group remains the same: To facilitate cooperation among landowners/land managers to enhance grassland resources through education, demonstration and application of prescribed burning and related management techniques. The health and productivity of Nebraska's rangelands, the largest land use in the state, is jeopardized by encroaching Eastern Red Cedar trees. Prescribed fire is an effective, economical tool to be used in the management of grasslands; restoring native prairie and grassland bird habitat. In eleven years the PBTF has successfully taught 1255 people at our spring burn schools and completed demonstration burns on 28,780 acres. The PBTF Tool Caches that were purchased with previous grants and donations have helped immensely, but there are not enough Tool Caches to meet the needs. Interest has increased so much that more Tool Caches are needed for use by the 4 county's producers and those land owners in nearby counties. With the help of the Environmental Trust Fund grant, PBTF hopes to continue quality schools and the purchasing of 5 additional Tool Caches. The fact that PBTF's influence and success has gone from four counties to 34 Nebraska counties and 9 in Iowa and South Dakota (see Area of Influence Map in the Narrative section) speaks for the cooperation between public and private entities. THIS PROJECT WAS FUNDED \$5,300 IN 1997, AND \$130,000 FROM 2004-2006 UNDER CENTRAL PLATTE NRD. THIS REQUEST IS FOR A CONTINUATION OF THIS PROJECT.

**Sponsor Name:** Quail Forever **Nearest Town:** N/A  
**Project Name:** Connecting Water Quantity, Wildlife Habitat, and Public Access in the Platte and Republican Basins **Project No:** 08-163  
**Amount Requested:** \$415,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Platte-Republican Resources Area CREP is a cooperative effort that began in spring of 2005 between the USDA and State of Nebraska to reduce the use of irrigation water and protect streamflows in the Platte and Republican Rivers. Initial interest in the CREP was high, with approximately 40,000 acres enrolled within the first 6 months. Landowners have voluntarily agreed to convert irrigated croplands to wildlife habitat in exchange for a 10-year rental agreement. Recently, new enrollments have come to a near standstill. The economies of the Platte and Republican basins primarily depend upon agriculture production. In the face of limited, or reduced irrigation, one way to diversify economic activity is to promote eco-tourism and hunting by providing public access to wildlife habitat on private lands. Converting additional land from agricultural use to native habitat through CREP can improve wildlife populations, improve streamflows, and provide additional hunting and wildlife watching opportunities. Because of the focused nature of CREP, enrolled public access lands will provide high quality recreational opportunities for many wildlife species. Maintaining those habitat benefits also requires periodic management of activities. With nearly 60,000 acres still available to be enrolled in the Platte-Republican CREP, Quail Forever wants to partner with the Trust, Nebraska Game and Parks Commission, and USDA to promote enrollment in conservation programs (like CREP and EQIP) that restore and maintain wildlife habitat and reduce water consumption, while simultaneously providing additional incentives for landowners voluntarily allowing walk-in public access. The incentive payment to landowners will not only allow public access, but also will help offset landowners costs for completing the required management on CRP/CREP to maintain the wildlife benefits on enrolled lands. With partial funding for this project in 2007 from NET (\$50,000), project partners have obligated funds for over 2,300 acres of new walk-in public access areas with 30 landowners in the project area, including 300+ acres in the Platte-Republican CREP, 1,600+ acres of CRP, and 300+ acres of EQIP special initiative enrollments. Clearly the initial effort was successful, especially so with limited time to enroll landowners from May to July (CRP-MAP contracts with landowners must be finalized by July in order to be published in the Atlas before fall hunting seasons). Staff were concerned with the limited timeline for promotion and outreach to landowners, indicating the need for multiple years of funding to successfully undertake an initiative to promote CREP and public access. We request \$415,000 from NET over the next 3 years to develop a program that can assist in developing a win-win-win

**Sponsor Name:** Rainwater Basin Joint Venture **Nearest Town:** Multiple  
**Project Name:** Wetland Habitat Restoration, Protection, Enhancement **Project No:** 06-120-3  
**Amount Requested:** \$300,000 **Term of Project Request:** 1 **Review Group:** Statement of Intent

The Wetland Restoration and Management Project will restore, enhance and protect wetland and associated upland habitat within the Rainwater Basin landscape in south-central Nebraska. The project includes wetland acquisition and restoration on land acquired from willing sellers and also projects on privately owned land. The project will increase the amount and quality of habitat through restoration of hydrology, vegetation and wetland functions. Incentive programs assist landowners in water and vegetation management in wetlands they own. Partnerships with federal, state and local government and non-governmental conservation organizations will facilitate long term protection and restoration of wetland resources. Ten-year land use and transition payments will assure sustainable changes in the use of the land. Lands acquired for wetland restoration and protection will be restored and managed for wildlife habitat and recreational activities associated with upland and waterfowl birds. The Joint Venture Management Board will allocate grant funds between the private lands and public lands programs.

THIS IS A CONTINUATION OF WORK DONE BY THE RAINWATER BASIN OVER THE LAST 11 YEARS - THEY HAVE BEEN FUNDED A TOTAL OF \$3,735,000 THROUGH THE 2004 CYCLE. THIS PROJECT WAS FUNDED \$500,000 IN 2006 WITH THE INTENT TO FUND UP TO \$300,000 IN YEAR TWO AND \$300,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

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**Sponsor Name:** Rainwater Basin Joint Venture **Nearest Town:** Exeter  
**Project Name:** Hiebner Working Landscape Easement **Project No:** 08-134  
**Amount Requested:** \$346,474 **Term of Project Request:** 2 **Review Group:** Rural Habitat

The Hiebner Working Landscape Easement proposal will permanently restore 318.4 acres of wetlands and grasslands within the Rainwater Basin in south-central Nebraska. This project is an extension of the "working landscape" proposal approved by the Nebraska Environmental Trust in April 2007. The proposal offers several significant benefits, including: restoration of important wildlife habitat, including habitat that will benefit rare and at-risk species, the conservation of both ground water and surface water, soil conservation, the improvement of air quality, and an increase in wildlife-dependent recreation. In addition, the proposal focuses on the conservation of habitat as part of a "working landscape", ensuring that rural economies remain an important component of the project. The conservation easement will require the restoration of native grasslands and wetlands, providing significant benefits to migratory birds, resident wildlife and many other wildlife species.

Unlike many "retirement" programs, landowners continue to utilize properties as part of the "working landscape" program. In this case, 318 acres of irrigated farmland will be restored to non-irrigated grasslands and wetlands. The property will be managed by haying and/or grazing in the future. As part of the proposed easement, the landowner will retain the rights of grazing and haying on the property. The restoration of this property, and retirement of two center pivot irrigation systems, will eliminate groundwater use, recharge groundwater supplies, reduce soil loss and improve water quality in Indian Creek, a tributary to the West Fork of the Big Blue River. Several partners have been identified who are willing to hold this conservation easement, including the Upper Big Blue Natural Resource District, Ducks Unlimited, Inc. and the U.S. Fish and Wildlife Service. Funds from the Nebraska Environmental Trust Fund are requested to assist with the purchase of the conservation easement and the implementation of habitat restoration plans. Partners will provide approximately 50% of the overall project costs.

**Sponsor Name:** Rainwater Basin Joint Venture **Nearest Town:** Hastings, York, Clay Ce  
**Project Name:** South-Central Nebraska LiDAR Project **Project No:** 08-148  
**Amount Requested:** \$588,000 **Term of Project Request:** 2 **Review Group:** Rural Habitat

The Rainwater Basin Joint Venture (RWBJV), in cooperation with multiple state and federal partners is applying for Nebraska Environmental Trust funding to acquire Light Detection and Ranging (LIDAR) data for the Rainwater Basin, Platte River, and Republican River areas of South-Central Nebraska (Figure 2). LIDAR is a proven technology that has been used extensively in natural resource applications. Several states have acquired LIDAR for their entire range, and Iowa is currently acquiring LIDAR across the entire state. The LIDAR process develops extremely accurate topographic elevations by precisely measuring the time it takes for a laser pulse transmitted from an aircraft to be reflected from the ground surface. The LIDAR data will be used to create a highly-detailed 1-2 foot resolution Digital Elevation Model (DEM) which will replace the outdated and inaccurate 10-meter DEMs currently available. The more detailed elevation data will allow conservation planners to integrate the detailed topographic information with existing GIS layers to create accurate spatial models, conservation plans, and provide strategic and targeted decision support tools to partner field staff. Partner conservation program delivery staff such as: NRCS, Nebraska Game & Parks, US Fish and Wildlife Service, Nebraska DNR, and Ducks Unlimited among others, can then also incorporate the detailed elevation data into the project design process resulting in greatly improved accuracy, staff efficiency, and budget savings. For the Rainwater Basin region, LIDAR-elevation data will be integrated with the wealth of GIS data currently assembled to improve spatial habitat modeling and decision support tools for protecting and restoring wetland habitats. The RWBJV is developing a Wetland Restoration Index (WRI) for every historic Rainwater Basin wetland to calculate the cost to restore the wetland's natural function. Without detailed elevation data, completion of this tool is not possible. This tool will be used to prioritize protection and restoration efforts by partners to maximize restoration dollars to achieve the greatest biological bang for the conservation dollar. LIDAR-derived elevation data would be of incalculable benefit to numerous conservation agencies and disciplines in the order of staff time, field visits, and engineering costs including but not limited to: engineering of conservation practices, soils mapping, flood plain mapping, surface water to groundwater hydrologic modeling, among many others. A NRCS-Conservation Innovation Grant awarded to the RWBJV in June 2007 requires \$500,000 in nonfederal match. The Joint Venture plans to use the requested NET Funds as the nonfederal match to the NRCS-CIG grant. The proposed USGS contribution, \$300,000, does not require any specific match. SUMMARY TRUNCATED FOR SPACE. THIS PROJECT WAS SUBMITTED IN 2007 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST.

**Sponsor Name:** Rocky Mountain Bird Observatory **Nearest Town:** Multiple  
**Project Name:** A Comprehensive approach to shortgrass prairie education in the panhandle of Nebraska **Project No:** 07-115-2  
**Amount Requested:** \$68,277 **Term of Project Request:** 2 **Review Group:** Statement of Intent

Rocky Mountain Bird Observatory (RMBO), in partnership with the Nebraska Game and Parks Commission (NGPC) have outlined conservation and educational activities and actions that will inform and educate students, teachers, landowners, and resource professionals about the shortgrass prairie and ponderosa pine ecosystems of the panhandle of Nebraska. We will hire a full time Nebraska Shortgrass Prairie Education Coordinator to design, implement, and coordinate education and outreach activities that will focus on wildlife habitat and water conservation needs critical for the long-term viability of the panhandle and address at-risk species conservation. We will take a bottom-up and top-down approach working at the individual, classroom, and workshop levels for conservation and coordinate to develop a team of educators that can help inform and educate the different publics in the panhandle about the target habitats. We will use successful education models from Colorado (Education and Bird Banding Stations) and Saskatchewan (Eco-X) to promote use of our shortgrass prairie education trunks, schoolyard habitat projects, and demonstration sites at Riverside Zoo. We will build on the successful Nebraska Prairie Partners effort to continue outreach to landowners and resource professionals for conservation and integrate this with youth education to create consensus within the region. With support from the Nebraska Environmental Trust we anticipate reaching at least 7,500 students and an additional 500 landowners, resource professionals, and educators in western Nebraska. Efforts will promote experiential and place-base education for all learners. Proposed actions will make significant strides toward priority strategies outlined in the Nebraska Environmental Trust, the Nebraska Natural Legacy Project, and the Nebraska Environmental Education Master Plan. THIS PROJECT WAS FUNDED \$72,140 IN 2007 WITH THE INTENT TO FUND UP TO \$68,277 IN YEAR TWO AND \$73,236 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Rocky Mountain Bird Observatory **Nearest Town:** Scottsbluff  
**Project Name:** Bird Conservation in western Nebraska: Habitat Improvement and Landowner Outreach **Project No:** 08-172  
**Amount Requested:** \$104,775 **Term of Project Request:** 1 **Review Group:** Rural Habitat

Grassland bird communities, as well as many other prairie species, in North America have been declining for decades. The Nebraska Prairie Partners (NPP), a cooperative partnership between the Rocky Mountain Bird Observatory (RMBO) and Nebraska Game and Parks Commission, has conducted research and monitoring on several Tier 1 and Tier 2 bird species in western Nebraska to determine their current population status and habitat requirements. With core data already collected and analyzed for these species, there is an opportunity and urgent need to strengthen bird conservation efforts in western Nebraska through the implementation of habitat improvement projects, coupled with landowner education and outreach. The NPP is in a unique position to implement the objectives outlined in this proposal, having built professional bridges with many landowners while conducting bird research, monitoring, and education in the panhandle since 2001, where over 95% of the land is privately owned.

The NPP Coordinator and NPP Project Assistant will be responsible for the development and implementation of all components outlined in the grant. We will promote the recovery of at-risk bird species in western Nebraska through habitat enhancement projects that address current limiting habitat features. We will continue to increase landowner awareness and support for at-risk species conservation through workshops, publications, and follow-up visits. In addition, we will develop and test a state-wide monitoring protocol to apply to habitat enhancement projects to help ensure projects are meeting objectives for wildlife population recovery. This proposal is part of a larger effort to help Tier 1 and Tier 2 bird conservation in western Nebraska, with additional funds coming from a proposed State Wildlife Grant, Landowner Incentive Program funding, and a grant awarded to RMBO through the U.S. Fish & Wildlife Service.

**Sponsor Name:** Sandhills Task Force **Nearest Town:** Multiple  
**Project Name:** Sandhills Native Grassland, Wetland and Stream Project **Project No:** 08-103  
**Amount Requested:** \$312,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Sandhills Task Force is a locally driven, non-profit organization whose goal is to use environmental solutions to resource problems on privately owned lands in the Sandhills. This project will assist in the restoration of streams and wetlands degraded by ditching, channelization, stream erosion, and to improve management of surrounding grasslands. Restoration will be done using two primary methods: construction of low-level water control structures and improving livestock grazing adjacent to wetlands and streams.

Approximately 30 projects will be identified involving voluntary landowners. Each project will be field inspected and addressed according to its resource value and feasibility. About 25 projects are expected to qualify for assistance. Qualifying projects will be surveyed, designed, and installed using matching partnership funds from landowners, Federal, State, and non-profit organizations. Each project will have a 10-year agreement or contract with the landowner. Monitoring and follow-up will be conducted by the Sandhills Task Force and its partners. One unusually large project will be addressing stream erosion problems on the headwaters of the Elkhorn River.

A second component of the project is education. Formal training and technical assistance will be provided to help livestock producers better manage grazing, especially during drought.

Total area of wetlands and wet meadows affected is expected to be near 5,100 acres. Approximately 12 miles of stream and 48,000 acres of native grassland are expected to be improved.

The justification for this project is based on the tremendous water resource of the Sandhills. Each year, approximately 2.4 million acre-feet of spring-fed water is discharged from the sand dunes and flows into the major rivers of Nebraska. Land use practices, such as ditching, channelization, and agricultural conversion have increased erosion-lowering water quality and quantity. This project will reduce the rate of erosion and improve water quality, quantity, and wildlife habitat.

THIS PROJECT WAS SUBMITTED IN 2007 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST. SIMILAR RESTORATION PROJECTS WERE FUNDED IN 2000-2002 AND 2004-2006 FOR \$535,500.

**Sponsor Name:** South Sioux City, City of **Nearest Town:** South Sioux City  
**Project Name:** Crystal Lake Aquatic Habitat Project **Project No:** 08-108  
**Amount Requested:** \$240,000 **Term of Project Request:** 3 **Review Group:** Lake Rehabilitation

The Crystal Lake Restoration project would be a partnership between the City of South Sioux City, Corp of Engineers and Nebraska Environmental Trust to return Crystal Lake (a.k.a. Gateway Lake) back into a thriving ecosystem for wildlife and native vegetation as it was in the early 1900's. Due to many factors such as channeling and degradation of the Missouri River and silting from a 1952 flood the oxbow lake has undergone many negative changes. We hope to reverse those negative results and bring Crystal Lake back to its form of 1923 when Crystal Lake was recognized by Field and Stream Magazine as the best largemouth bass lake in the United States.

A restoration project could include the following:

- Increased depth diversity around the existing lake's margins.
- Excavation of 15-20 acres of new lake area to form a larger lake. Water depths could be 10 to 12 feet, to ensure fish survival in winter or dry summers.
- Channels of open water winding through shallow emergent and submergent wetlands to increase edge effect for fish and for waterfowl feeding and rearing.
- Abundant snags for fish shelter, for sunning turtles and perching birds.
- Renovation of fishery in order to reestablish a balanced fishery. Tall plantings or other goose deterrent measures.
- Jetties or offshore wind protection with rip-rap or vegetation to discourage use of these areas by Canada geese.
- Topographic diversification to establish a range of conditions for wetland plants.
- Removal of non-native plant species and replacement with other native plants of scrub shrub or wet meadow/emergent wetlands.
- Buffer habitat zone at least 100 feet wide outside the lake and wetland, with native grass, shrubs, and trees.

THE TRUST FUNDED \$225,000 FOR DREDGING IN 2004 AT THIS SITE. SIMILAR PROJECTS WERE SUBMITTED IN 2003 AND 2007 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST.

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**Sponsor Name:** Spencer Area Development Corporation **Nearest Town:** Spencer  
**Project Name:** Spencer Pond Renovation Project **Project No:** 08-123  
**Amount Requested:** \$468,750 **Term of Project Request:** 1 **Review Group:** Lake Rehabilitation

The Spencer Pond was a WPA project which was constructed in the 1930's. In the 1950's a flood caused extensive sediment washing into the lake which has contributed to its demise. The capacity for useful recreation has diminished. In 2004 after several years of an extensive drought the pond was completely dry. Currently the lake which covers about 7 acres is approximately 3 ft. deep at its deepest point and has provided little recently in the way of wildlife habitat. The property in which it is situated was privately owned for many years but in 2004 was acquired by a private group which formed the Spencer Area Development Corporation, a non-profit entity. This group purchased approximately 79 acres of which this pond or lake is situated on the South side. The property is immediately adjacent to and to the West of the city limits of Spencer, Nebraska. The entire 79 acres could provide the potential for extensive recreational and economic opportunities. In addition to the proposed lake renovation future plans including walking trails, park amenities and greenery, as well as access to the fair grounds and athletic fields immediately to the east of the property. The additional land could provide room for expansion for the fair grounds and athletic fields including much needed parking.

Other long term opportunities could include the potential for additional housing on the North side of the lake. The Lake Renovation is estimated to cost approximately \$533,750 for construction which is exclusive of land, master plan development and plants and wildlife. An amount of \$80,000 of cash and in kind contribution would be provided by the development group. Renovation operations would include site preparation, additional engineering and design work, lake draining, staking and layout, sediment removal, construction of a lake level control system, installation of lake liner, installation of fish habitat, an aeration system, shoreline armoring, lake vegetation seeding and planting, lake management plans, and a handicapped accessible earthen fishing pier. Fish and wildlife would be added. Funds would be received and all work would be done during the construction season of 2008.

Long term benefits include: Recreational opportunities for local residents as well as visitors to the area. The town is located on the Hwy. 281 and Hwy. 12 corridor in North central Nebraska which is the gateway to the Sandhills area. Many canoeists, hunters, campers and fisherman travel through this area on their way to recreational areas on the Niobrara River. This project would provide another recreational amenity along the way. Other obvious benefits include the plant, fish and wildlife which would be preserved by a newly revitalized lake environment.

**Sponsor Name:** The Nature Conservancy **Nearest Town:** unknown  
**Project Name:** Right Restorations, Right Places: Restoring Native Plants on the Missouri River **Project No:** 08-145R  
**Amount Requested:** \$15,000 **Term of Project Request:** 2 **Review Group:** Rural Habitat

Restoration and reintroduction of lowland tallgrass prairie communities will be conducted on the Nebraska portion of the Missouri River floodplain. This project will restore and monitor the progress of 40 acres of native floodplain grassland habitat on approximately 13 separate plots, located on three or four separate properties. The specific plant communities to be restored include Eastern Cordgrass Wet Prairie and Eastern Sedge Wet Meadow, both of which are considered critically imperiled by the Nebraska Natural Heritage Program due to extreme rarity. To accomplish this, we will reintroduce more than 80 native plant species, currently missing from the landscape, to underrepresented habitats. Because the activities outlined in this proposal will be conducted on a Wetlands Reserve Enhancement Program project, the long-term effect of promotion of advanced restoration practices (with the potential to influence restoration and management practices on over 9,000 acres in the Missouri Rive Valley) is anticipated. This new endeavor complements and adds value to WREP funds provided by partners, including the Nebraska Environmental Trust Fund.

**Sponsor Name:** The Nebraska Land Trust Incorporated **Nearest Town:** Springfield/Gretna  
**Project Name:** Schramm Bluffs Preservation Project **Project No:** 08-152  
**Amount Requested:** \$1,100,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Lower Platte River Valley is a natural gem, one that provides recreation, beauty, and exceptional biological diversity, recognized as a "Biologically Unique Landscape" in the Nebraska Natural Legacy Plan. Below the I-80 bridge, the river cuts through limestone hills creating scenic bluffs, covered with eastern oak-hickory forest at the western edge of its range. At the heart of the bluffs in Sarpy County is 331-acre Schramm Park. Designated as an Important Bird Area by the National Audubon Society, the wooded hills and ravines attract a diverse assortment of migrating songbirds, including species of concern. Endangered least terns and threatened piping plovers nest on sand bars offshore, while endangered pallid sturgeons use the river itself. Like most healthy eco-systems, habitat, wildlife, and watersheds are not confined to park boundaries. The future of this area lies in private hands. The Nebraska Land Trust requests a grant of \$1,100,000, to establish conservation easements on private land surrounding Schramm Park, to protect this highly imperiled and unique landscape. Given existing development pressure and the proposed construction of a new interstate exit near the bluffs, the time for conservation is limited. Fortunately, many landowners have expressed an interest in permanent protection of these resources through conservation easements on their land. The Nebraska Land Trust and its partners will assess the conservation value of proposed easement properties and use these assessments to help determine purchase order. To assure that landowners are an important partner in preservation, the NLT will only purchase easements where landowners are willing to donate at least 25% of the easement's value. Other funding partners have also been secured. The resulting land protection will preserve wildlife habitat, mature oak-hickory woodlands, prairies, scenic views, soil and water resources for generations to come, in the midst of nearly one million Nebraskans.

**Sponsor Name:** The Platte River Habitat Partnership **Nearest Town:** Columbus, Gothenburg,  
**Project Name:** Evaluation, Enhancement, and Expansion of Private Lands Conservation **Project No:** 07-117-2  
**Amount Requested:** \$141,261 **Term of Project Request:** 2 **Review Group:** Statement of Intent

The Nature Conservancy and the Nebraska Game and Parks Commission are currently cooperating on the Platte River Habitat Partnership (PRHP). The PRHP is working on a community-scale habitat restoration project within the Big Bend Reach of the Platte River (from Gothenburg to Columbus), with a focus on grassland and wetland habitats on private lands. The goals of the PRHP are to encourage sound land stewardship, conserve and enhance existing native grasslands, restore functional native grassland systems, and emphasize long-term sustainability.

After five years of successful private lands projects, with 49 signed agreements on over 6,500 acres, the PRHP has come to a point where evaluation and innovation are critical for its long-term growth. The PRHP requests support to: establish a "rent for rest" program (potentially on publicly owned lands that are not in conservation ownership) to offer landowners high-value forage while they rest overgrazed pastures and meadows -expand program capacity by adding a Platte River Partnership Conservation Assistant to assist with development and implementation of private lands agreements, to conduct landowner workshops, and to coordinate evaluation components -engage a third-party contractor to assess and report on the experiences and beliefs of participating landowners (who have signed agreements) and those who have declined to enroll, to determine what is working and what can be improved-information that will benefit ALL community-based private lands endeavors in the valley - develop outreach materials, including printing copies of the popular "Guide to Native Grassland Management in Nebraska", improving the website, and other materials.

The Platte River Habitat Partnership is confident that these activities will add value to an already highly successful project. The NETF has supported the PRHP in the past, and continued confidence will ensure that the Partnership moves forward in innovative ways that balance ecological, economic, and social values. THIS PROJECT WAS FUNDED \$141,261 IN 2007 WITH THE INTENT TO FUND UP TO \$141,261 IN YEAR TWO AND \$131,261 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** University of Nebraska - Cooperative Extension **Nearest Town:** Statewide  
**Project Name:** Livestock Producer Environmental Assistance Project **Project No:** 06-162-3  
**Amount Requested:** \$200,000 **Term of Project Request:** 1 **Review Group:** Statement of Intent

A significant environmental challenge currently facing Nebraska is how to properly utilize and dispose of livestock manures. This project will provide financial and technical assistance to small livestock producers who are concerned about preserving the environment but are exempt from current regulatory requirements. The purpose of this project is to construct on-farm demonstration sites that minimize environmental risk using new concepts and technologies. Completed projects include constructed wetlands, clean water diversions, vegetative treatment areas, low water stream crossings for cattle, lagoon abandonment, cost effective pumping stations, sprinkler treatment areas, side roll treatment areas, infiltration treatment areas, tree filters, fresh water lagoon conversions, and manure marketing projects.

This proposal requests continued support for the demonstration and further development of alternative technologies for eventual mainstream use. This project provides for cost share for small livestock producers across Nebraska, the only source of funding, for these voluntary best management practices. An adequate number and diversity of projects is needed to make these common, economical, and mainstream practices. The project provides practical and innovative solutions to small livestock producers in rural Nebraska.

THIS PROJECT HAS BEEN FUNDED \$923,310 FROM 2001-2004. THIS PROJECT WAS FUNDED \$200,000 IN 2006 WITH THE INTENT TO FUND UP TO \$200,000 IN YEAR TWO AND \$200,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** University of Nebraska - Cooperative Fish & Wildlife Research Unit      **Nearest Town:** Statewide  
**Project Name:** Monitoring, Mapping, Risk and Management of Invasive Species in Nebraska      **Project No:** 06-142-3  
**Amount Requested:** \$109,379      **Term of Project Request:** 1      **Review Group:** Statement of Intent

Biological invasions are a growing threat to both human enterprise and ecological systems. The proposed project will provide resources to the public and private sector on: 1) The potential spread and impact of non-indigenous species in Nebraska, 2) Actual and potential maps of non-indigenous species range (habitat specific maps at high resolution), 3) Information regarding identification and management of potential invaders, 4) Centralized information on management and impacts and potential spread of currently established non-indigenous species (a web portal), 5) Outreach within Nebraska, to county-level governments and individual stakeholders regarding the management, surveillance and control of non-indigenous species, and 6) An organizational and informational Nebraska conference on non-indigenous species impacts, spread and management, focusing on state-of-our-knowledge and coordination of disparate management and information-provisioning efforts with a goal towards unification of disparate efforts.

This project is meant to build momentum towards a cohesive non-indigenous species biosecurity and management system in Nebraska that is integrated and relatively seamless across institutional boundaries. We are initiating spatially - based risk assessments that focus on non-indigenous invasive species impacts on at-risk native species and communities in Nebraska. Funding for that is from the United States Geological Survey and the Nebraska Game and Parks Commission. To help translate the results and predictive models from that project to policy makers, management practitioners and landowners in Nebraska, we need to make our analyses widely available, and general information regarding potential invasive species and their impacts easily accessible. Most of the goals listed above will produce and disseminate products that are dynamic, with interactive elements for the public and managers, including mapping of habitat-specific current and potential distributions of invasive species as well as a portal through which the public can inform the entities responsible for management of invasive species occurrence and spread - and vice versa. THIS PROJECT WAS FUNDED \$110,060 IN 2006 WITH THE INTENT TO FUND UP TO \$105,642 IN YEAR TWO AND \$109,379 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** University of Nebraska - Lincoln      **Nearest Town:** Lincoln  
**Project Name:** Odor Footprint Tool Demonstration: Assisting Rural Communities in Maintaining Air Quality      **Project No:** 06-166-3  
**Amount Requested:** \$35,100      **Term of Project Request:** 1      **Review Group:** Statement of Intent

Rural residents are very concerned about the potential impacts of nearby animal production facilities on the local environment, having fears that air quality will be degraded and that neighbors will have to frequently endure annoying odors. The Odor Footprint Tool is a science-based setback-estimation tool that has been developed at the University of Nebraska. It uses Nebraska weather information to project minimum setback distances in differing directions from the site. The Odor Footprint Tool allows visualization of both the projected impact of odors on the area surrounding a (proposed) livestock facility and the reduction in odor impact that can be achieved by implementing a proven odor control technology. In the proposed project, we will demonstrate to local community officials and other targeted audiences the odor footprints and other visual resources that can be produced using the tool and describe the applications and benefits of utilizing them in local planning and plan evaluation. We will collaborate with county officials to pilot-test the use of Odor Footprint Tool resources in local planning and evaluation of proposed livestock facilities. We will incorporate practical changes into the Odor Footprint Tool to facilitate use of local weather data and to make the computer-based tool user-friendlier. And lastly, we will demonstrate the air quality benefits of implementing selected odor control practices on livestock farms. Resulting beneficial impacts should include well-informed local decision-making and improved air quality. THIS PROJECT WAS FUNDED \$75,500 IN 2006 WITH THE INTENT TO FUND UP TO \$48,100 IN YEAR TWO AND \$35,100 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** University of Nebraska - Lincoln **Nearest Town:** Multiple  
**Project Name:** Advancing Tern and Plover Common Sense Conservation into the Future **Project No:** 08-104  
**Amount Requested:** \$295,380 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Tern and Plover Conservation Partnership (TPCP) is recognized, nationally and internationally, as the model for proactively resolving endangered and threatened species controversies and conflicts. The TPCP has demonstrated that by working cooperatively with commercial interests, local communities, and government agencies, effective conservation and management measures can be implemented. This strategy can work in situations well beyond the TPCP's stated mission to protect and secure the future of endangered interior least terns (*Sterna antillarum athalassos*) and threatened piping plovers (*Charadrius melodus*) in Nebraska. In addition to their federal Endangered Species Act status, least terns and piping plovers are identified by the Nebraska Legacy Project as Tier 1 At-Risk Species, indicating the critical need to increase their reproductive success and population size. The least terns and piping plovers nesting along the Platte, Loup and Elkhorn rivers are utilizing several of Nebraska's Unique Biological Landscapes, as identified by the Nebraska Legacy Project. By working in these areas, the TPCP has the additional opportunity to protect those habitats that multiple species depend on while we are protecting the terns and plovers.

The TPCP has four principal goals. 1) Continue our primary mission of effective, responsive on-the-ground conservation and management of least terns and piping plovers. 2) Develop and implement an adaptive management framework to make the TPCP's activities as scientifically sound, effective and cost-efficient as possible. 3) Develop and implement an educational program appropriate for a range of audiences. 4) Develop and implement sustainable management solutions for least terns, piping plovers and other species along the lower Platte, Loup and Elkhorn rivers, which include protecting their habitat.

We believe we can build upon our past successes. To do this, we must broaden and develop our Partner community, expand our education program, build a scientifically sound adaptive management framework and become more cost-efficient. Our greatest success will be having secure populations of interior least terns and piping plovers, so they will no longer be state or federally endangered or threatened anywhere throughout their ranges.

THIS PROJECT WAS FUNDED \$166,000 FROM 1999-2001 FOR THE NEBRASKA GAME & PARKS COMMISSION: \$105,000 FROM 2002-2004 AND \$222,513 FROM 2005-2007 UNDER THE TERN AND PLOVER CONSERVATION PARTNERSHIP. THIS REQUEST IS FOR A CONTINUATION OF THIS PROJECT.

**Sponsor Name:** University of Nebraska - Lincoln **Nearest Town:** Statewide  
**Project Name:** Water and Environment-based Education for Nebraska's Educators, Youth and Families **Project No:** 08-113  
**Amount Requested:** \$183,170 **Term of Project Request:** 3 **Review Group:** Education

The University of Nebraska Extension seeks funding to 1) Increase capacity for environment-based education in Nebraska through hands-on training for formal and nonformal educators so they can better integrate water conservation, wildlife habitat and environment-based lessons into their classrooms and programs; 2) Inform parents and educators about the need for children to experience unstructured time in nature and develop a "nature club" model that facilitates access to nature; 3) Design, develop and distribute Nebraska-specific water-based curricula that will help educators integrate important principles about water into school programs. These objectives will be accomplished by using the successful Project WET and Project Learning Tree programs and their award-winning activity guides. During the next three years, sixty themed workshops will be conducted, training over nine hundred educators and pre-service students (college students) in water conservation, wildlife habitat and other environmental topics. Participants will learn how to integrate water and the environment into their classroom curricula and nonformal programs in a fun and experiential way. Teachers and administrators at Lincoln's McPhee Elementary School (Title 1) will be mentored so they can better integrate water concepts and the environment into their school-wide curricula. A marketing plan will be developed and implemented to raise awareness about the benefits of outside unstructured play and fifty Lincoln families will be trained and mentored to use nature experiences to improve physical and mental health. In partnership with the National Drought Mitigation Center, a 32-page color magazine will be designed, published and distributed to 50,000 school-aged children as an aid to improve learning about Nebraska's water resources in a kid-friendly and informative manner. The purpose of these initiatives is to increase understanding and awareness about Nebraska's environment in a balanced and scientific manner based on the context that kids should be taught how to think not what to think.

**Sponsor Name:** University of Nebraska - Lincoln **Nearest Town:** Lincoln  
**Project Name:** Environmentally-benign Laser Drying Technology for Substantial IPA Pollution Reduction **Project No:** 08-135  
**Amount Requested:** \$244,495 **Term of Project Request:** 3 **Review Group:** Air Quality

Surface drying is a critical process in microelectronics wafer fabrication, and is accomplished mostly through isopropyl alcohol (IPA)-vapor drying. For the about 3,000 foundries in the United States, the annual consumption of IPA for wafer drying is estimated to be three billion liters. This amount of IPA is released into the environment, imposing a significant source of pollution. Furthermore, production of electronic grade high-purity IPA also causes additional burdens to the environment by consuming raw materials and energy. The long-term goal of this application is to solve this critical environmental problem by developing a new environmentally-benign laser wafer drying technology for environmental protection and energy savings. The proposed innovative laser drying technology employs a nanosecond pulsed excimer laser to irradiate the wafer surface to raise its temperature to about -200 degrees C. Consequently, the water in the near-wafer surface region will be heated to result in a local high pressure, which will lead to intense water evaporation and explosion to effectively remove water from the wafer surface. Employing both experiment and molecular dynamics simulation, the objectives of this project are to (1) develop a laser drying technology, as well as explore and understand its mechanisms, and (2) identify the optimum conditions to achieve desired surface drying in terms of drying efficiency and environmental protection. The research team has a strong research background in laser surface processing. The existing experimental and computational resources at the University of Nebraska-Lincoln ensure successful implementation of the proposed research. The proposed laser drying technology will significantly benefit the environment by reducing IPA consumption and the associated pollution. In addition, the proposed laser surface drying technology is expected to impact environment more by eliminating the use of IPA in the manufacturing of flat panel displays, hard disk drives, printed-circuit boards, precision mechanics, and optics.

THIS PROJECT WAS SUBMITTED IN 2007 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST.

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**Sponsor Name:** Upper Big Blue Natural Resources District **Nearest Town:** Multiple  
**Project Name:** Irrigation Water Management Improvement Project **Project No:** 06-116-3  
**Amount Requested:** \$300,000 **Term of Project Request:** 1 **Review Group:** Statement of Intent

Cost-share is needed from the Environmental Trust Funds to provide incentives to approximately 3,000 owners of irrigated land in the Upper Big Blue NRD to install a water meter on at least one of their wells. The UBBNRD includes parts of nine counties in Southeast, and South Central Nebraska, including over 2,800 square miles of some of the most productive cropland in Nebraska. One million acres are irrigated by over 11,500 high capacity wells. All of the thirty-two communities and all rural residents in the district depend on ground water for their domestic water supply. The average ground water level in the Upper Big Blue NRD (UBBNRD) has declined over ten feet during the last five years. Drier than "normal" conditions have prompted new irrigation development. The UBBNRD estimates that nearly 100,000 new acres have been developed for irrigation since January of 2000. Quantifying the amount of ground water used for irrigation is essential for good water management. Knowing how much water is being pumped is necessary so the irrigator is aware of the large amount of water needed to grow irrigated crops. This will aid the irrigator in making management decisions to improve water use efficiency. Development of good public policy also depends on good information for policy makers. Better information on the amount of water withdrawn from the aquifer will help the UBBNRD board of directors and other policy makers with a key piece of information when considering what the next step in ground water management should be. The project also incorporates other UBBNRD programs, such as other irrigation water management cost-share programs, technical assistance and information and education programs to encourage irrigators to adopt the use of practices that will reduce ground water use. THIS PROJECT WAS SUBMITTED IN 2005 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST. THIS PROJECT WAS FUNDED \$350,000 IN 2006 WITH THE INTENT TO FUND UP TO \$250,000 IN YEAR TWO AND \$300,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Upper Elkhorn Natural Resources District **Nearest Town:** Royal  
**Project Name:** East Branch Verdigris Creek Watershed Management Project **Project No:** 06-150-3  
**Amount Requested:** \$43,290 **Term of Project Request:** 1 **Review Group:** Statement of Intent

The East Branch Verdigris Creek (EBVC) above Grove Lake near Royal is a "Class A" Coldwater stream in Northeast Nebraska. As such, it has been identified as a high priority watershed under the Nebraska Non-point Source Management Program. Federal, state, and local agencies along with local stakeholders have an interest in this area of the East Branch Verdigris Creek because of the importance of the Class "A" Coldwater trout stream and the high nitrate-nitrogen and phosphorus levels. It has been identified as a high priority watershed under the Nebraska Non-point Source Management Program.

Current and past management has been detrimental to the groundwater water, wildlife, and other natural resources. Financial incentives are needed to encourage land users to change their current practices and adopt the best management practices recommended by the watershed advisory council and their technical advisory committee. Those practices are: Non-Point Source Pollutants - Integrated Nutrient and Irrigation Management; Point Source Pollutants - Proper sealing of 100 abandoned/illegal wells; Inspection of 25 septic systems and proper redesign of 50 systems. Nebraska Environmental Trust Funds (NETF) would be used to cover 30% of the cost of the Integrated Nutrient & Irrigation Water Management, 40% of the well sealing. NETF priorities addressed include ground and surface water quality, habitat protection, and public benefits.

THIS PROJECT WAS FUNDED \$20,000 IN 2005 FOR WELL CLOSURE ONLY. THIS PROJECT WAS FUNDED \$14,430 IN 2006 WITH THE INTENT TO FUND UP TO \$14,430 IN YEAR TWO AND \$43,290 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Upper Elkhorn Natural Resources District **Nearest Town:** Multiple  
**Project Name:** Irrigation Water Management Monitoring Program **Project No:** 08-112  
**Amount Requested:** \$120,000 **Term of Project Request:** 3 **Review Group:** Water

Funding is being sought from the Environmental Trust fund to provide flowmeters for interested landowners participating in any monitoring programs within the Upper Elkhorn Natural Resource District (UENRD). A flowmeter, depending on model and brand costs roughly \$1,200 with installation. The UENRD would be using the Trust funds to purchase flowmeters and cover the installation cost with NRD funds to a maximum of \$1,500 per approved site. The UENRD includes parts of four counties in Northern Nebraska, and encompasses approximately 3,000 square miles consisting primarily of agricultural land. Around 515,786 acres are irrigated by 4,047 high capacity wells with an average well irrigating 133 acres. Each of the seventeen communities and all rural residents in the District depend on groundwater for their water supply. Groundwater levels in the UENRD have fluctuated around five feet on average during the last five years. Drier than "normal" conditions in combination with a newly developed water law, LB962 has prompted a large amount of new irrigation well development. The UENRD estimates nearly 60,000 new acres have been developed for irrigation since January of 2000. Quantifying the amount of groundwater utilized for irrigation is essential for water and nitrate management. Having a better understanding of total amount of water irrigated along with pumping rates gives the landowner an ability to keep up with crop water requirements. Better information on the amount of water withdrawn from the aquifer used in combination with changes in static water levels will provide the UENRD board of directors and other policy makers with a key piece of information when updating a quantity management section to the Groundwater Management Plan (GWMP). Information from this project will also be submitted for use in the Elkhorn-Loup Modeling (ELM) Project of which the UENRD is an active participant.



**Sponsor Name:** WasteCap Nebraska**Nearest Town:** Lincoln**Project Name:** Universal Waste Recycling Outreach Program**Project No:** 08-136**Amount Requested:** \$174,875**Term of Project Request:** 3**Review Group:** Waste Management

WasteCap Nebraska has worked with electronics recycling issues for 8 years and is considered an educational authority on electronics in Nebraska. Over the last three years, WasteCap Nebraska has utilized a NET grant to fund electronics and universal waste collections and educational seminars statewide. WasteCap has planned and executed 16 collection events serving 1,444 households and businesses in 9 communities and collected 205,437 pounds of recyclables since 2001. We have also educated over 200 businesses regarding electronics waste management. The next step in the process is giving local communities and organizations the tools to promote and host successful computer collection events based on our proven experience.

The proposed project will be a 3-year grant to develop electronics recycling infrastructure. The main objectives of the grant are to increase electronics recycling awareness, increase access to environmentally safe recycling options, and provide a funding mechanism for local communities to host collection events. We will do this through 1) developing a statewide educational and marketing program to create a consistent message regarding Nebraska electronics recycling 2) developing minimum performance standards for electronics recyclers, and 3) administering a small grants program that would give money to local communities wishing to hold electronics collection events. Our intent is to develop two committees of Nebraska stakeholders. One will assist WasteCap in developing educational and marketing materials for electronics recycling. These materials will be used in all collections funded through the proposed small grants program and will also be available as local PSAs. The second committee would consist of recyclers and regulatory agencies and would be responsible for developing minimum performance standards. These standards would be used in selecting recyclers for collection events and would be shared with the Nebraska business community for their information when soliciting electronic recyclers. THE TRUST HAS FUNDED WASTECAP \$120,000 IN 2005, 2006 AND 2007 FOR UNIVERSAL WASTE RECYCLING. THIS APPLICATION PROPOSES A NEW PHASE OF COLLECTION EVENTS AND EDUCATION.

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**Sponsor Name:** Willa Cather Pioneer Memorial and Educational Foundation**Nearest Town:** Red Cloud**Project Name:** Restoration of the Willa Cather Memorial Prairie**Project No:** 08-168**Amount Requested:** \$19,559**Term of Project Request:** 3**Review Group:** Rural Habitat

The Willa Cather Memorial Prairie is a botanical treasure consisting of 608 acres of never-been-plowed native prairie. We strive to return this land to its pre-1900 conditions, a time before overgrazing and the encroachment of man and foreign plant species. To complete the restoration, we are asking for help from the Nebraska Environmental Trust to continue removal of non-native Chinese Elm and Red Cedar trees; cut walking paths for education; re-establish the ecosystem; restore flowing water to the prairie; plan controlled burn areas; build additional solar fences; and control growth through moderate grazing. The Cather Foundation's committee of biologists, agriculturists, and ecologists oversees the restoration process, which focuses on plant and animal habitat, as well as surface and ground water management. The area is classified as loess, mixed-grass prairie, which marks several transition points that bring together species at the southern edge of their range as well as those at the northern edge of their range. We estimate the existence of 250 reliant plant species, including the rare Fremont's evening primrose and Fendler's aster - both potential candidates for "threatened" status by the Nebraska Natural Heritage Program. Also, this transitional location affects the species of birds, mammals, reptiles and amphibians as well as invertebrates. This restoration project is integral in fostering the mission statement of the Cather Foundation. We see the preservation of the prairie as part of a holistic approach to the study of America's art, history, and culture through the works of Willa Cather, who was a great champion of prairie lands. As John Bergson observes in *O! Pioneers*, "the land wanted to be left alone, to preserve its own fierce strength, its peculiar, savage kind of beauty, its uninterrupted mournfulness;" we strive to be a part of the land's struggle back to itself.