



# The Nebraska Environmental Trust

*preserving NATURAL NEBRASKA™ for future generations*

## ***2016 PRELIMINARY SUMMARY OF APPLICATIONS***

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**Pete Ricketts, Governor**

*Mark A. Brohman, Director*

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September 22, 2015

The Nebraska Environmental Trust entered the 2016 grant cycle receiving 127 applications. Applications were either emailed or postmarked on September 8th to meet the deadline. Requests in this twenty-third year of grants totaled \$58,039,630. The Trust will announce recommendations for funding these applications in February, 2016 and will award grants in April, 2016.

A summary overview of each proposal, as composed by the applicant, is provided for you. Very few editorial changes were made in this information, which was submitted in the application form in response to the question, “Provide an overview of the project for which you seek funding.” Project names were assigned by the applicants. Project numbers are assigned by the Trust to facilitate record keeping.

The summaries are presented in alphabetical order by project sponsor name. The nearest town is also shown to indicate the approximate location of each project in the state.

The amount requested and the proposed term of each project is also noted in each summary. The Trust is authorized to fund a project for up to three years under one application review. The review group to which the application has been assigned is also noted in each summary.

In 2015 the Trust issued statements of intent to 49 projects, indicating continued funding for these projects on the basis of the 2014 and 2015 applications. Those projects are included in these descriptions. The project numbers of these applications begin “14” or “15” and end with a dash 2 (15-101-2) or dash 3 (14-101-3) to indicate the second or third year request.

An index of applications by project number is also included with the materials presented in this booklet.

**Sponsor Name:** Alliance, City of

**Nearest Town:** Alliance

**Project Name:** Recycling Collections Feasibility Study

**Project No:** 16-226

**Amount Requested:** \$52,318

**Term of Project Request:** 1

**Review** Recycling

The City of Alliance is working in Partnership with Keep Alliance Beautiful (non-profit organization) and WasteCap Nebraska to perform a feasibility study during 2016. The feasibility study will identify if the City of Alliance will recognize benefits if recycling operations are provided to the community and divert recyclable materials from going into the local landfill. The City of Alliance operates the local landfill and waste collection services for residents of the community. The feasibility study will consider the following things:

1. Should the City of Alliance consider adding Recycling collection and processing services?
2. Can the City of Alliance acquire a building to house the recycling collection and processing operations?
3. Can the City of Alliance establish commodity markets for recyclable materials and project to generate revenue?
4. What is the estimated volume of recyclable materials that can be collected?
5. What benefits will the landfill operations see from the addition of recycling collection and processing services?
6. Is there opportunity to establish "Hub & Spoke" recycling collection services that will reach out to communities outside of Alliance and Box Butte County within the Nebraska Panhandle region?

Consulting services provided by WasteCap Nebraska will provide the City of Alliance with guidance and recommendations for establishing recycling collection services. Through the direction of the City Council, the City of Alliance will establish a community Task Force that will aid in the development of the Feasibility Study. The City of Alliance will work in Partnership with Keep Alliance Beautiful organization to provide education outreach programs to community residents for Recycling services and collection operations. Findings for the Feasibility study will be carried out through tours and research of existing recycling programs operated by Municipal Governments, consulting services and waste collection studies performed by WasteCap Nebraska, and evaluations performed by a community Task Force.

**Sponsor Name:** Angels on Wheels, Inc

**Nearest Town:** Omaha

**Project Name:** Electronic Collections Events

**Project No:** 16-166

**Amount Requested:** \$86,400

**Term of Project Request:** 1

**Review** Recycling

Angels on Wheels Inc. is a non-profit corporation that operates the Cross Training Center (CTC). CTC provides vocational training and job experience for men and women who are undereducated and live in poverty. Our recycling and refurbishing program provides direct hands-on job experience for these students. We collect out-of-service products that contain metals including computers, consumer electronics, large appliances, automobiles and other out-of-service household or industrial equipment. Personal computers that have useful life are refurbished and sold for nominal prices to the needy. Everything else is demanufactured by hand and the materials are sorted into like commodities and sold to local scrap purchasers. Our program assures that these items do not reach landfills and toxic materials such as mercury, lead, copper and other hazardous substances do not contaminate our ground. The funds from this grant will be used towards the cost of managing 33 collection events and processing the collected electronics allowing us to increase the amount of items we collect for recycling and refurbishing and preventing them from entering the landfills.

**Sponsor Name:** Aqua Systems of Nebraska

**Nearest Town:** Multiple

**Project Name:** Mobile Hydration Services

**Project No:** 16-174

**Amount Requested:** \$137,738

**Term of Project Request:** 1

**Review**

Waste Management

Aqua Systems has established itself as the Mobile Hydration experts. As the current pace of bottle water consumption in the US market continues to grow at an unsustainable pace, the proven need for free and clean water alternatives in the public and private event space continues to grow. As the public becomes more aware of water shortages, the lasting impacts of plastic waste, safe hydration alternatives and a free choice for water, the new normal is becoming mobile hydration. We propose a Mobile Hydration solution that allows both large and small events to have the convenience they desire, the quality and service their customers expect and all without the bottle and the waste. We have designed and built a small scale model on a bicycle based platform (the Aqua Trike) and 2 large scale Aqua Trailers to test our theories. In two short years we have served clean water to thousands and diverted over 50,000 bottles from the landfill. It is our proposal to facilitate the purchase and final manufacturing of cabinet style hydration stations that are capable of easier mobility, expanded visibility, larger volume distribution and providing a perfect educational platform for a wider audience. These water cabinets will become a resource that allows many more Nebraskan's free alternatives to single use plastics.

**Sponsor Name:** Auburn Public Schools

**Nearest Town:** Auburn

**Project Name:** Auburn Public Schools Greenhouse and Outreach Center

**Project No:** 16-168

**Amount Requested:** \$220,021

**Term of Project Request:** 1

**Review**

Education

The APS Greenhouse Educational Facility is the next step in the creation of an agriculture/natural resources program that touches the lives of our community, state, and nation. The grant funds will be used to build a greenhouse educational facility that will serve as a hands-on experience for the students of Auburn Public Schools and our community at large. The greenhouse educational facility will become a core piece within the Auburn Public Schools Agriculture/Natural Resources program. The overarching goal for Auburn Public Schools Agriculture/natural resources program is to provide an instructionally sound, rigorous agriculture/natural resources curriculum available to ALL regular education, special needs students (i.e., those who are bound for college, community college, technical schools, industry certificated programs, and the world of work) and community members. All students interested in agriculture/natural resources will have opportunities to complete multiple agriculture/natural resources pathways that culminate in capstone courses in several areas including natural resources, environmental service systems, and agribusiness. Community partnerships and courses will be developed with the greenhouse as an adult educational setting. Continuing education courses through Southeast Community College and the University of Nebraska Extension Office as well as other community entities will be taught in the classroom and greenhouse educational facility. These courses will allow Auburn Public Schools to extend the reach of the greenhouse educational facility beyond our elementary, middle, and high school students.

**Sponsor Name:** Bird Conservancy of the Rockies formerly RMBO **Nearest Town:** Kimball  
**Project Name:** Grassland Bird and Habitat Conservation in Western Nebraska **Project No:** 16-207  
**Amount Requested:** \$419,191 **Term of Project Request:** 3 **Review** Rural Habitat

Nebraska Prairie Partners (NPP), a partnership of Bird Conservancy of the Rockies (formerly Rocky Mountain Bird Observatory) and Nebraska Game and Parks Commission has worked to conserve grassland and cropland bird species in western Nebraska and foster community support for the past 15 years. Pro-active private landowner involvement has been vital to our successful conservation efforts. In some areas of the U.S., conservation has halted, due to differences among landowner and land-managers. However, NPP and landowners have cooperated from day one to implement conservation for Mountain Plover and many other grassland species, resulting in conservation outcomes on private lands. Collaborative efforts have included; Mountain Plover (Tier 1, at-risk species) nest-protection on croplands, Ferruginous Hawk (Tier 1, at-risk species) nest-platform construction, 1,000 stock tank ladders distributed to prevent wildlife drowning, and development of the Kimball County Conservation Cooperative and community events. Mountain Plover conservation will continue to be the core of our work though we will expand efforts with partners to address additional shortgrass prairie species and playa conservation affecting Ogallala aquifer recharge, NPP proposes to; 1) Sustain the investment by private landowners in Mountain Plover conservation through nest-marking, population assessment and community engagement, 2) Assess Ferruginous Hawk conservation efforts and examine productivity of natural and artificial nests, 3) Initiate landowner-led playa outreach with partners leading to protection of water resources. Support from the Nebraska Environmental Trust will prolong 15 years of conservation investments by Nebraskans, resulting in; 175 Mountain Plover hatchlings, 300 Kimball residents, visitors and school children reached, 2-4 new landowners/yr. enrolled in plover nest-marking, 500 acres improved, assessment of 25 raptor nest platforms and 10 playas identified with high conservation value to protect water quality. We will continue to conserve, enhance and restore the natural environments of Nebraska, as a prosperous future requires a sound natural environment.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Lincoln  
**Project Name:** Surface Parking Lot Green Infrastructure Retrofit **Project No:** 16-199  
**Amount Requested:** \$312,470 **Term of Project Request:** 3 **Review** Water

The University of Nebraska-Lincoln (UNL) requests funding support for a portion of the design and retrofit of three parking lots into living laboratories for education and replication of effective storm water pollution prevention and runoff reduction. A critical element of this project will be significant leadership in education and public outreach. UNL has established partnerships with multiple state agencies as well as faculty and students. UNL is the flagship institution for the State of Nebraska. Therefore, commitments have been made for a substantial educational component between the design consultant and multiple academic departments that will allow student involvement in the design, implementation, and long-term evaluation of these living laboratories- giving students invaluable real-world education and skills to carry forward into their careers. Public outreach will be implemented across many platforms for maximum exposure to students, visitors, industry, and public and private organizations. Methods of outreach will include: deliberate highly visible placement of a variety of treatment measures, state-of-the-art educational features created by students, incorporation into local and regional workshops, presentation at professional and educational conferences, and focused media attention. UNL is in the unique position to reach and educate thousands of people at a time. On a typical game day, City Campus will have more than 90,000 people walking past parking lots on their way to Memorial Stadium. More importantly, there are more than 20,000 students, faculty, staff, and visitors on City or East Campus each day of the school year. The laboratories on display will be designed for replication in future parking lot retrofits and can demonstrate design possibilities for others, including our project partners at the City of Lincoln, LPSNRD, and NOOR. UNL's leadership position in the development and integration of storm water management infrastructure and curriculum presents incomparable opportunities for growth and recognition for the entire state of Nebraska.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Alliance  
**Project Name:** Working with rural students to document swift fox on Nebraska Ranches **Project No:** 15-202-2  
**Amount Requested:** \$60,670 **Term of Project Request:** 3 **Review** Rural Habitat

The loss and alteration of native grasslands has resulted in significant reductions in habitat availability for grassland obligate species such as the swift fox (*Vulpes velox*). Identified as a Tier 1 at-risk species, swift fox are estimated to occupy 21% of their historic range, but the exact distribution and relative health of swift fox populations in Nebraska remains in question. The Nebraska Game and Parks Commission (NGPC), the Nebraska Department of Roads (NDOR), and the U.S. Forest Service (USFS), in collaboration with the University of Nebraska-Lincoln (UNL) and Chadron State College (CSC) have begun an effort to document the occurrence of swift fox and identify the anthropogenic and ecological factors that limit their distribution. However, in a state which is 97% privately owned, such an endeavor is extremely challenging because access to land ultimately limits inference about swift fox populations and thereby management efficacy. Using a unique approach which incorporates landowners in the conservation process we will send undergraduate students back to their family ranches to survey for swift fox. Many students in range management, wildlife biology, and similar conservation majors at CSC and UNL are from working ranches in Western Nebraska, which presents us with a unique opportunity to allow students to realize their conservation interests on their family lands and assist NGPC, NDOR, and USFS in facilitating the conservation of a Tier I species. Our project will train students and work with them to set camera 'traps' on their family lands each spring and fall. By surveying for swift fox on private lands we will add significantly to our understanding of what is limiting this rare species in Nebraska; moreover, because camera traps attract a multitude of species, we document and thereby aid in the management of other species of conservation concern here in Nebraska. THIS PROJECT WAS FUNDED \$87,810 IN 2015 WITH THE INTENT TO FUND UP TO \$60,670 IN YEAR TWO AND \$62,277 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Multiple  
**Project Name:** Fostering Resilience in Nebraska Communities **Project No:** 16-161  
**Amount Requested:** \$111,891 **Term of Project Request:** 3 **Review** Rural Habitat

Rural Nebraska is rapidly transitioning as a result of human demographic changes, economic trends, biological invasions, and emerging energy sources, among others. Developing landscapes that are resilient to economic and ecological challenges can support the continued success of rural communities and the conservation of biodiversity. Such landscapes must integrate and sustain human populations and natural processes and require planning to achieve. We will explore the effects of potential changes in natural and social resources in north central Nebraska, driven by renewable energy, tourism, biological invasions, climate, and other forces with spatial models and the development of stakeholder driven scenarios of potential future change. Working with local and regional stakeholders we will incorporate Nebraskan's issues of concern for the future through scenario planning. The decision support tools we will develop will enable rural communities to: 1) evaluate the potential impacts of economic development options and a spectrum of environmental changes on natural and social resources in their area; and, 2) plan for the future they desire.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Statewide  
**Project Name:** Nebraska Master Naturalist Program: Statewide expansion and specialized training in habitat management **Project No:** 14-158-3  
**Amount Requested:** \$91,947 **Term of Project Request:** 3 **Review** Education

Conservation agencies and organizations manage tens of thousands of acres of land in Nebraska and are tasked with preserving and restoring native habitats, waters, and critical areas while balancing the interests of many stakeholders. They are understaffed and have a significant need for specialized, dedicated volunteers to help them meet the demands of managing publicly and privately owned natural resources. The Nebraska Master Naturalist Program has recruited, trained, and managed 191 certified volunteers in Nebraska, who have educated 300,000 individuals, and saved over \$300,000 in professional staff salaries through our 25 partner organizations. However, most of the benefits have been realized in eastern Nebraska, and we recognize that specialized training is necessary to meet the needs of our conservation partners. In the next phase of our program, we will significantly expand the existing Nebraska Master Naturalist Program by engaging and empowering people statewide to conserve native habitat, critical areas, and waters, with a particular emphasis on the North Central region. Over the next three years we will 1) certify 200 new volunteers throughout Nebraska, 2) provide specialized training to 300 certified volunteers, expand service opportunities, and retain 85% of all volunteers, and 3) impact 30,000 acres, save \$300,000, and educate 300,000 people through volunteer conservation actions throughout Nebraska. We will continue certifying Master Naturalist volunteers through primary trainings, and develop a new online delivery format that supplements components of the primary curriculum. In addition, we will conduct specialized skills trainings in habitat management, conservation outreach, citizen science, and outdoor skills. We will evaluate the impacts of the Nebraska Master Naturalist Program, including extended benefits to the general public. Through on-the-ground volunteer service, Master Naturalists will provide hundreds of thousands of dollars in salary savings through habitat management in Nebraska. THIS PROJECT WAS FUNDED \$87,433 IN 2014 WITH THE INTENT TO FUND UP TO \$89,656 IN YEAR TWO AND \$91,947 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Statewide  
**Project Name:** Spatial Index for the Leachability of Chemicals in Nebraska **Project No:** 15-128-2  
**Amount Requested:** \$90,348 **Term of Project Request:** 2 **Review** Water

A Tier-1 (screening-level) tool is proposed for all of Nebraska to assess the leaching potential of volatile and non-volatile chemicals. The tool will run on a GIS platform and account for soil and chemical properties as well as amount of recharge. Variabilities in data will be accounted for in the tool and determination on a likely or unlikely "leacher" will be made by comparing the predicted behavior of the chemical within the spatial tool to historical monitoring data in the state. Complex vadose zone models (i.e., Tier-2 models or higher level models) best describe fate and transport of chemicals in soils at plot scale, providing better understanding of leaching behavior of contaminants released to soils by human activity. However, Tier-2 models have certain practical limitations on large-scale (e.g., regional) applications due to high data demand, convergence problems, large uncertainties associated with parameters, etc. Other Tier-1 screening tools, e.g., the USEPA's SCI-GROW and the USDA/NRCS' WIN-PST, are designed to assess leaching potential of chemicals through soils to ground water based on simple benchmark properties of soils and pesticides. These models are intentionally conservative by neglecting certain processes. They do not account for some important processes occurring in soils and/or natural variability of benchmark properties. More importantly, these tools neglect the mass loss (i.e., volatilization) of chemicals from soil surface thus limiting wide-spread application. The proposed tool will overcome these limitations by incorporating spatial variabilities in soil/hydrogeologic information and adding mean values and variances to various chemical properties and recharge. The model's development is known to regulatory agencies (USEPA) as well as pesticide manufacturers and both have shown interest in its use. We hope the model can serve both producers and regulatory decision makers. THIS PROJECT WAS FUNDED \$90,318 IN 2015 WITH THE INTENT TO FUND UP TO \$90,348 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Lincoln Mead  
**Project Name:** Improving air quality by reducing methane emissions from cattle **Project No:** 15-116-2  
**Amount Requested:** \$110,074 **Term of Project Request:** 3 **Review** Air Quality

The ability of methane to capture heat in the atmosphere 21 times more efficiently than CO2 has made methane a more potent greenhouse gas (GHG). Among the major sources of methane production, ruminants account for a considerable fraction of the human related methane produced, where, enteric fermentation by ruminants is considered the single largest source of methane production worldwide. At the heart of methane production is a microbial food chain. The microscale processes of these microbes are greatly influenced by the diet. Therefore understanding the interactions between diet, methane released and the microbial community structure in different cattle production systems is critical towards the mitigation of methane production. In addition, the release of energy as methane from the ruminant animal is an energy loss to the animal. Therefore methane mitigation in ruminant can help retain more energy within the animal towards increasing animal performance while decreasing GHG emissions. Therefore, our goals are to develop and demonstrate science-based dietary intervention strategies to reduce greenhouse gas emission from cattle in ruminant production systems. The technical milestones of this proposal address the practical aspects involved in developing dietary intervention strategies to reduce GHG emissions while increasing animal performance. These include: identification and characterization of complex microbial populations in the rumen; evaluating animal performance; and measuring methane emission in beef and dairy cattle production systems under different dietary treatments to achieve maximally efficient production. As such, this project will discover ways a beef or dairy cow can convert or save some of the energy lost as methane and convert that into weight gain, milk production, etc. allowing the producer to improve the profitability of their operation. Additionally, outreach attempts will result in science-based producer friendly extension curricula, which will help translate the results of this project into the statewide production systems.

THIS PROJECT WAS FUNDED \$168,424 IN 2015 WITH THE INTENT TO FUND UP TO \$101,074 IN YEAR TWO AND \$69,800 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Statewide  
**Project Name:** Improving Access to Social & Environmental Sustainability Resources for Nebraska Farmers **Project No:** 15-157-2  
**Amount Requested:** \$50,000 **Term of Project Request:** 3 **Review** Waste Management

A recent report from the University of Nebraska-Lincoln outlined the potential for significant expansion of the livestock industry in Nebraska in the coming decade, a concept strongly supported by the Nebraska Department of Agriculture. With the exciting prospect of substantial economic and employment growth in our state that would accompany increased agricultural production comes a necessity to provide producers with knowledge and capabilities to expand and establish agricultural production operations in an environmentally and socially responsible manner. Three basic needs exist when considering establishment or expansion of crop and livestock production systems: environmentally and socially responsible site selection; knowledge and ability to assess and manage potential environmental risks; and ability to identify and satisfy applicable local and state regulatory requirements. This project is intended to develop and deliver products and educational programming to Nebraska producers that will enable them to assess potential environmental and social risks on their operations, identify relevant practices to address their potential risks, and successfully comply with regulatory requirements. The primary expected outcomes are a significant increase in the number of agricultural producers and associated stakeholders who understand and are equipped to manage environmental and social risks associated with agricultural production systems, a significant improvement in the ability of producers to navigate and comply with required state and local regulations for construction and operation of animal feeding operations in Nebraska, and more efficient delivery of the required land application training required by NDEQ for personnel working on permitted livestock production operations in the state. THIS PROJECT WAS FUNDED \$100,000 IN 2015 WITH THE INTENT TO FUND UP TO \$50,000 IN YEAR TWO AND \$50,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.



**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Brule  
**Project Name:** Grazing Cover Crops Study **Project No:** 16-188  
**Amount Requested:** \$379,102 **Term of Project Request:** 3 **Review** Soil Management

Cover crops have been grown in the eastern Corn Belt and Nebraska for many years. It is widely thought that cover crops have the potential to provide many benefits in a cropping system. These include preventing erosion, improving soil's physical and biological properties, supplying nutrients, suppressing weeds, improving availability of soil water, enhancing deep percolation of precipitation and aquifer recharge, and increasing beneficial insects while breaking pest cycles. This multi-disciplinary study will examine the effects of growing and grazing cover crops in a continuous corn rotation relating to operational costs (input, logistical, and water supply) and benefits (marginal profit, beef production, forage production, water supply, water quality, soil management) over the short term (3 years). Yearling cattle will be grazed on large plots to determine average daily gain and carrying capacity of the fall seeded cover crops/forages. Small plot research will determine the production and quality of 10 species/mixtures of cover crops at two locations. Soil moisture will be measured and the water balance of growing cover crops will be determined to investigate possible water quantity and quality impacts on surface and groundwater resources. The fundamental goal of this project is to enable producers in water limited areas to make informed decisions in their financial, soil, and water management relating to the use and grazing of cover crops. Additionally, we hope to generate additional forage resources as cattlemen rebuild their cow numbers. This will be accomplished by combining existing and developing technologies to demonstrate improved water quantity and water quality management to effectively manage limited water supplies for the benefits of crop and forage production and soil health, and to illustrate best management practices regarding soil and plant health. The knowledge gained by this study is leveraged by developing and sharing information and providing educational opportunities in west central Nebraska.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Statewide  
**Project Name:** Integrating the vadose zone for improved management of Nebraska's ground water quality **Project No:** 16-200  
**Amount Requested:** \$512,304 **Term of Project Request:** 3 **Review** Water

In Nebraska, most of the rural population on farms, cities and towns, rely on ground water for drinking. Unfortunately, nitrate concentrations in ground water in many parts of the state are rising. In addition to nitrate, some pesticides and even uranium and other metals may be found to be increasing across the state. While the state and local agencies have conducted regular ground water monitoring, very little work has been done to characterize the vadose (unsaturated) zone. The vadose zone acts like a "skin" of the earth, regulating recharge and chemical movement. Contaminants present in the vadose zone may eventually appear in the underlying aquifers. If found in public water supplies, a utility must either treat the water or find an alternative supply should these contaminants exceed the maximum contaminant levels. While there have been ad hoc approaches to characterize nitrate in shallow soils and even in deeper vadose zone, little has been done to coordinate contaminants occurrence and movement in the vadose zone, which can be hundreds of feet thick. We propose here an integrated and on-line program using GIS mapping and database of quality assessed data from past and ongoing studies of Nebraska's vadose zone. This publicly assessed database will be used by numerous state and local entities for decision making and preparation for future changes in water quality. The quality assessed data will contain chemical and hydraulic properties of the cores taken from the vadose zone. Linkages to existing databases, such as the quality-assessed agricultural chemical database, will permit water managers and others to make correlations with occurrence with what is present in the vadose zone. We have leveraged resources from various entities and the NET funding help put individual efforts to a robust product for wide use in Nebraska.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Lincoln  
**Project Name:** Engaging Community Towards Smart and Sustainable Practices **Project No:** 16-204  
**Amount Requested:** \$274,606 **Term of Project Request:** 2 **Review** Education

Each year, upwards of 31,000 faculty, staff, students converge on the University of Nebraska-Lincoln campus. The goal of this grant is to educate and engage university community such that they begin to develop strong values, habits and beliefs around conservation and efficient use of natural resources. Such training on building stewardship will continue as students graduate and they will model and promote such practices in their respective families and communities. With this in mind, the UNL Office of Sustainability (OS) seeks to use systematic peer-to-peer engagement and research-based behavior change methodology to promote conservation best practices among the diverse populations extant in the UNL community. These programs would dovetail with existing sustainability initiatives in creating social norms supporting conservation ethics and behaviors. This grant supports 1) the development of educational and training materials on conservation best practices related to water, energy, transportation and waste management, 2) expansion of existing feedback platforms for energy, water and other resource use, and 3) the development and administration of two systematic peer-to-peer education programs for faculty, staff and students. The OS proposes the creation of the Eco-Huskies and Sustainability Ambassador programs that utilize organic social relationships, robust communities and unique collective identities to engage members of the UNL community on issues of conservation. The OS believes that by combining education with strong motivators like goal setting, feedback, competition and social expectation, these programs are the most effective strategies for encouraging pro-environmental behavior, campus-wide. The grant fund will allow the OS to hire two graduate assistants, 25 Eco-Huskies and coordinate 50 Sustainability Ambassadors. It will also allow UNL to expand its building energy, water and waste management monitoring capacity to additional buildings on campus and promote higher level of engagement from UNL community.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Statewide  
**Project Name:** Water Information for Nebraska: A Statewide Infrastructure for Water Data and Education **Project No:** 16-195  
**Amount Requested:** \$253,694 **Term of Project Request:** 3 **Review** Water

Water sustainability and groundwater quality protection result from the daily choices made by water managers, water users, well drillers, and the public. Their actions affect all Nebraskans, so it is essential that their decisions are guided by relevant scientific information and a solid understanding of water issues. Despite the necessity and high demand for information to address far-reaching issues related to water use, Nebraska lacks an easy-to-access, common portal for the delivery of water information to stakeholders. Although Nebraska is rich with hydrogeologic data, access to this information is hindered by various media formats and multiple databases and libraries. Data is collected by multiple organizations, including the Conservation and Survey Division of the University of Nebraska-Lincoln, Department of Natural Resources, Department of Environmental Quality, Nebraska's 23 Natural Resources Districts, and well drilling companies. These agencies are partnering in this proposal to develop a centralized infrastructure for statewide hydrogeologic information and to provide educational programs that advance public understanding of groundwater. This collaborative project, which addresses the Trust Board Funding Category in Surface and Ground Water, will integrate hydrogeologic databases with information on rules and regulations related to groundwater management. These data will be connected with existing data networks for agricultural contaminants and water supply, use, and demand, which will result in a single, comprehensive hub of information for all Nebraskans. Specifically, this three-year project will provide 1) a digital archive of existing water data, 2) an integrated database infrastructure for future water data, 3) a statewide web portal with interactive GIS tools, and 4) educational materials and workshops focused on the collection, management, and use of water information. Collectively, these activities will provide information that benefits all users, from basic to advanced levels, by vastly improving data accessibility and understanding of water issues in Nebraska.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Multiple  
**Project Name:** Improving the Adoption of Soil Moisture Monitoring Equipment for Irrigation and Nitrogen Management in West Central Nebraska **Project No:** 16-192  
**Amount Requested:** \$678,767 **Term of Project Request:** 3 **Review** Water

Inefficient irrigation and nitrogen (N) management can have a negative impact on the quality and quantity of water resources as well as the environmental and financial sustainability of an area. To minimize the degradation of water resources it is imperative that best management practices (BMPs) are adopted to improve irrigation and N use efficiency. Current BMPs require the adoption of new sensor technologies and success is often contingent upon the accuracy of the sensors to justify the cost, installation, and maintenance of the equipment. Furthermore, improper selection, installation, maintenance, calibration, and interpretation of data collected from different sensor technologies can result in agricultural producers not trusting and even abandoning these tools. Therefore, strong partnerships between local, state, university, and nonprofit organizations are needed to help guide producers in selecting, installing, and managing the right technology for their operation and intended use. In partnership with the University of Nebraska-Lincoln, Twin Platte and Upper Republican Natural Resource Districts, and the Nebraska Water Balance Alliance, a water and N management program is proposed for west central Nebraska to improve the adoption and management of soil moisture monitoring equipment to enhance the efficiency of irrigation and N fertilizer use, and consequently, reduce ground and surface water withdrawal, decrease nitrate leaching, and increase economic return for producers. The program will evaluate the performance of commercially available soil moisture sensors at five sites, which range in soil type and climatic conditions, as well as evaluate various irrigation scheduling methods using soil moisture sensors for corn, wheat, and soybean. Sensor adoption and implementation methodologies will be developed and administered through field days, workshops, symposiums, and other activities jointly held among the partnering organizations, so that area producers have the necessary information and proper training to effectively implement soil moisture monitoring technology into their existing operation.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Statewide  
**Project Name:** Know Your Well: A Program for Agricultural Education and FFA Students **Project No:** 16-190  
**Amount Requested:** \$398,880 **Term of Project Request:** 3 **Review** Education

“Know Your Well” is a program designed for assessing the quality of drinking water derived from rural domestic wells. We propose a “crowd sourced” study utilizing this program, in which four high school Agricultural Education programs and FFA (previously known as Future Farmers of America) chapters will be selected to conduct a water sampling program for rural domestic wells in the first year and covering all 12 districts (16 schools in total) during the three years of the project. Each of the chapters will be given a test kit for measuring water parameters and will be trained on how to use them. The students and teachers also will be trained on collecting information about the well and various anthropogenic parameters that might influence the quality of water from those wells. Some of these parameters include type of well, status of the seal of well at land surface, topographic position of the well, distance of the well from cropland, types of crops grown and chemicals applied, and presence of animals within the property, etc. A customized mobile app will be developed for ease of data entry and visualization. The information will be stored and analyzed at a University of Nebraska-Lincoln (UNL) secure server. The collected water samples will be analyzed for Nebraska specific pesticides, nitrate and coliform bacteria by faculty and staff at UNL collaborating laboratories. The researchers will analyze the gathered data and the well testing results to determine parameters that seem to have most effects on well water quality. Annual workshops will be conducted at UNL to provide FFA students and teachers with feedback, updates, interaction with UNL faculty and staff, and project results. Once the project is finalized, the potential application of the method to other school districts with verification sampling will be explored in the next phase.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Lincoln  
**Project Name:** Enhancing Soil Ecosystem Services with Cover Crops **Project No:** 16-189  
**Amount Requested:** \$252,471 **Term of Project Request:** 3 **Review** Soil Management

Enhancing soil ecosystem services is becoming more important than before to meet the increasing demands for food, feed, fiber, and fuel production. One of the strategies to enhance such services could be the use of cover crops. Yet, the potential multi-functionality of cover crops under different cropping systems and soil types, particularly in Nebraska has not been widely studied. Thus, the objectives of this project are to quantify soil ecosystem services of cover crops and determine whether or not cover crops ameliorate negative effects of crop residue removal for livestock or biofuel on soil services in rainfed and irrigated croplands in Nebraska. We will conduct this project at two UNL research sites and one farmer’s field in eastern, southeastern, and south central Nebraska. Two sites are rainfed and one is sprinkler irrigated. Treatments at the research sites include 5 corn residue removal rates (0, 25, 50, 75, and 100%) and three rye cover crop treatments (control, early and late termination dates) under no-till continuous corn. The treatments at the on-farm site are control and winter rye, oats, radish, and turnip cover crops under no-till corn-soybean-winter wheat rotation. We will measure wind and water erosion potential, water quality parameters, compaction, soil structural quality, hydraulic properties, soil temperature, soil biological and chemical quality and fertility, gas fluxes, soil carbon sequestration, cover crop biomass, and crop yields, We will also analyze economics of cover crop use. This project will contribute to a better understanding of cover crop benefits on soil ecosystem services in both rainfed and irrigated systems in Nebraska. It will benefit farmers, livestock producers, researchers, environmental agencies, and others because it has agronomic, environmental, social, and economic implications. We will also monitor and evaluate the impacts of the project and disseminate results through conferences, field days, extension publications, and journal articles.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Statewide  
**Project Name:** Field to Market - Nebraska Field Sustainability Assessment **Project No:** 16-187  
**Amount Requested:** \$46,282 **Term of Project Request:** 3 **Review** Education

National Ag Statistics Service lists Nebraska farms accounting for 91% of Nebraska’s land with farms covering 43.2 million acres. With such a large amount of land controlled by farmers the sustainability on these acres is critical to overall sustainability. A first step toward a more sustainable agriculture sector is to quantify the sustainability of the supply chain. A diverse group of 80 private and public stakeholders have cooperated to develop the Field to Market sustainability initiative for commodity crop production including a tool to aid in quantifying sustainability from crop fields. From this effort came the Fieldprint calculator tool. We want to work with farmers to use the tool with a goal of increased sustainability. We will use the tool with farmers, individually and in groups. The tool will enable farmers to quantify and visualize the sustainability of their fields. The Fieldprint Calculator assesses sustainability in the areas of land use, conservation, soil carbon, irrigation water use, water quality, energy use, and greenhouse gas emissions. We will use this information to help farmers enact change in farming practices which reduce inputs and increase sustainability. The tool enables farmers to compare their sustainability metrics with peers using local, state and national averages. Farmers have noted value in completing this tool as a way to visualize the abstract idea of sustainability. This grant will provide funding for three undergraduate interns (one per year for three years) who will work directly with producers in data acquisition and then follow through with data processing and communication of results. The results will be presented to farmers at a one day workshop as well as in personal communication. Our previous work with the Fieldprint Calculator has provided excellent results with 45-85% of participating farmers planning to change their practices in the areas assessed to improve sustainability.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Lincoln  
**Project Name:** Improving soil health using biofertilizers **Project No:** 16-178  
**Amount Requested:** \$435,958 **Term of Project Request:** 3 **Review** Soil Management

Soil amendment with manure is a traditional agricultural practice. Such amendments lead to increased soil organic matter content, which increases microbial activity and fertility of the soil. However one factor we fail to consider is that soil amendment with manure also adds microbes to the soil. These microbes that are introduced to the soil through manure application can positively or negatively affect soil health. Therefore, the source of manure (cattle or swine) and type of microbes introduced can influence the soil microbial community and in turn soil health. Recent studies have demonstrated that inoculating soils and crops with probiotic cultures (biofertilizers) can increase soil health and crop yields. Additionally, biofertilizers are more environmentally sustainable for improving soil health and in turn crop yield as there is no fertilizer run-off that can disrupt surface and ground water systems. Therefore, the goal of this project is to identify soil microbial species in manure applied crop soils that increase soil health to use as a biofertilizer. The technical milestones of this proposal address the practical aspects involved in developing biofertilizers to improve soil health while reducing the environmental impacts of fertilizer runoff. These include: identification and characterization of complex microbial populations in soil; measuring soil physical and chemical properties to identify effective microbial communities to increase soil health; isolate and perform pilot experiments to evaluate the effective biofertilizers. As such, this project will discover new ways to improve soil health and nutrient availability leading to more sustainable agriculture and will prevent the contamination of surface and ground water systems.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Lincoln  
**Project Name:** Improving the efficiency of natural resource management with automated aerial technology **Project No:** 16-177  
**Amount Requested:** \$254,207 **Term of Project Request:** 2 **Review** Rural Habitat

Invasive species cost the state of Nebraska far in excess of \$10 million per year; costs are borne by state and federal management agencies (including the Nebraska Game and Parks Commission, the Nebraska Forest Service, Natural Resource Districts) and by private landowners who must control non-native and invasive species or witness reductions in profitability. Emerging technologies that simplify management activities can reduce the pressure on such resources and allow their more efficient utilization, and it also has the potential to provide economic opportunities. We propose to examine whether advances in micro-UAV technology can increase the cost-effectiveness of managing particular species that are costly to the state and that will benefit from the progress in this emerging technology. More specifically, we propose to investigate whether prototypes developed at the NIMBUS Lab at UNL in collaboration with faculty from the School of Natural Resources (SNR) can support two areas of great need for our state: 1) the ignition of fires with UAV-support to manage grasslands in general, and in particular help control invasive red cedar, 2) the sampling of water bodies from a UAV for early and cheaper detection of zebra mussel veligers and other aquatic invasive species. New technologies will also help identify, track, and eradicate incipient invasions. We will also investigate the potential for commercialization of these technologies. The proposed work brings together and leverages the expertise of researchers and practitioners at SNR, the NIMBUS Lab, fire managers, and Invasive Species Council members. The proposed work will result in a refinement of the technology prototypes to better serve the needs of the state in natural resource management, an assessment of whether this emerging technology is ready for deployment and dissemination, and a process to transfer successfully developed technologies to relevant management personnel through targeted training.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Lincoln  
**Project Name:** Recycling and Reuse of nylon in waste carpets **Project No:** 16-172  
**Amount Requested:** \$142,191 **Term of Project Request:** 2 **Review** Waste Management

About 9 billion pounds of carpets are consumed and about 4 billion pounds of carpets are disposed in landfills every year in the USA. Nylon is a critical and expensive synthetic polymer in carpets, and is derived from petroleum based resources. Nylon, mainly nylon 6 and nylon 6,6, have selling prices of \$1.20-1.25/lb and \$1.33- 1.37/lb, respectively, much higher than other synthetic polymers currently in use. In addition, nylon is non-biodegradable. Therefore, discarding nylon containing carpets in landfills results in the waste of a valuable resource and also causes environmental pollution. It has been estimated that 10,000,000 BTU of energy can be saved and about 4,500 lbs diverted from landfills for every 1,000 square yards of carpet that is recycled ( <http://www.brotex.com/carpetrecycling.aspx>). Recycling and reusing nylon in carpets will help to decrease the amount of carpets disposed in landfills, reduce the need for non-biodegradable synthetic polymer and therefore benefit the environment. In this research, we will study the potential of extraction high quality nylon from the disposed carpets for high value added applications such as production of fibers and plastics. Multiple aliphatic and aromatic alcohols and diols will be screened based on the solubility of nylon and other ingredients in carpets. There will be substantial value addition to discarded carpets if the extracted nylon can be reused for development of fibers and plastics.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Statewide  
**Project Name:** Community as Habitat: Nebraska Communities Supporting Pollinators and Landscape Diversity Through Native Waterwise Plant Habitats **Project No:** 15-150-2  
**Amount Requested:** \$215,577 **Term of Project Request:** 3 **Review** Urban Habitat

Community as Habitat is a three-year initiative with the primary goal of increasing the types and numbers of insect pollinators in targeted Nebraska communities. The ecological health of community landscapes will be improved via greater use of native plants, promotion and planting of pollinator-friendly and water-wise habitat, promotion of sustainable management techniques, and through extensive outreach and education. Specific objectives will include:

- Grant funds will be used to plan and implement up to 50 publicly-accessible pollinator-friendly landscape projects in partner communities at schools, parks, fairgrounds and other public places.
- The initiative will raise public awareness about the benefits of biodiverse and ecologically healthy community green spaces including the importance of pollinators and sound resource management practices.
- Project team members will partner with individuals and organizations across the state
- The Initiative will be implemented in 20 communities. All partner communities would achieve designation as "Greener Nebraska Towns" requiring ongoing outreach and activities related to ecologically-sound community greening.
- Evaluation activities will gauge effectiveness of the work and to inform others about how best to conduct future endeavors. Entomology partners will conduct research on education/outreach strategies for engaging communities in native habitat plantings and the effectiveness of habitats on pollinator diversity and abundance. Measured outcomes: 20 partner communities will be involved and over 8,000 of people of all ages will be reached via education and outreach efforts. Educational materials, including new websites, videos, and educational publications will be created
- Pollinator-oriented education and outreach partnership will be established with at least 20 key nurseries and landscape professionals across the state. Up to 50 demonstration landscape projects will be implemented utilizing thousands of native, pollinator-friendly plants.
- Strategies to improve the effectiveness of pollinator habitats to promote pollinator diversity and abundance.
- 100 volunteers will be identified, trained and utilized to help with local outreach and implementation.

THIS PROJECT WAS FUNDED \$149,943 IN 2015 WITH THE INTENT TO FUND UP TO \$215,577 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Lincoln  
**Project Name:** Natural Legacy Exhibits and Virtual Field Trip Outreach for Morrill Hall, Trailside, and Ashfall **Project No:** 16-114  
**Amount Requested:** \$999,000 **Term of Project Request:** 3 **Review** Education

The University of Nebraska-Lincoln requests \$425,000 to complete the \$11.4 million “Cherish Nebraska” project to redevelop the fourth floor of the University of Nebraska State Museum (UNSM)’s historic Morrill Hall. Funding is requested for the “Nebraska Natural Legacy Project (NNLP): Ecoregions and Biodiversity” exhibits which – coupled with other new science education galleries featuring weather and climate, water and soils, parasitology, and paleontology – will use state-of the-art interactive exhibit technology and visualizations to engage visitors in understanding Nebraska’s habitats, Biologically Unique Landscapes, and biodiversity through time. An additional \$574,000 is requested for related educational programming, including installation of new connectivity to link the UNSM’s branch museums at Ashfall and Trailside to Morrill Hall and to schools via the Network Nebraska-Education telecommunications network. The sites will serve as platforms for live two-way videoconferencing for Virtual Field Trips (VFTs) linking UNSM’s attractions and research collections to schools across Nebraska, and fiber optic connectivity at Ashfall will make possible streaming video feeds showing fossil excavation in real time. VFTs from the UNSM’s three locations will be offered on a fee basis through the Center for Interactive Learning and Collaboration, through which schools and providers worldwide can post and request distance learning content – further expanding educational audiences for Nebraska’s unique, world-class natural history attractions. Because the NNLP, Platte Basin Timelapse Project, and Cedar Point Biological Field Station will feature prominently in the Cherish Nebraska exhibits, this proposal offers an unprecedented opportunity to showcase products of previous Trust-funded projects in public museum exhibits designed to be of Smithsonian quality, and to have them incorporated in VFTs aligned with state education standards. The expected outcome is that by helping visitors appreciate our remarkable inheritance of ecosystems and biodiversity, we expect to encourage habitat stewardship today to ensure this legacy can be passed to the care of future generations.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** Grand Island  
**Project Name:** Living Soil: A New Exhibit at Raising Nebraska **Project No:** 16-156  
**Amount Requested:** \$250,000 **Term of Project Request:** 1 **Review** Soil Management

This application addresses the TRUST CATEGORY AREA IN SOIL MANAGEMENT by proposing the addition of a new exhibit focused around soil and environmental sustainability to Raising Nebraska – an interactive, hands-on learning experience located at the Nebraska State Fairgrounds in Grand Island that showcases Nebraska agriculture and the decision-making process used in food production. The new exhibit, Living Soil, will help to educate the average consumer that soil is fundamentally important to food production systems and must be preserved and improved in order to produce an adequate, high quality food supply while reducing the impacts of food production on the ecosystem. Raising Nebraska – with its broad reach throughout the state, interactive learning environment, and existing capabilities for delivering educational content beyond the facility – is an ideal platform to deliver this knowledge. Living Soil will illustrate what farmers are doing to improve soils and what consumers can do to protect and preserve them. The exhibit will be an above-ground walkable tunnel of the subterranean soil environment, which will allow visitors to see and experience the complex soil ecosystem in ways similar to the experience of walking through an aquarium (only below ground instead of in an ocean). Educational materials and programming corresponding to the Living Soil exhibit will be developed to help visitors implement simple soil protection and preservation techniques, including targeted lessons for teachers of 3rd – 5th grade classrooms to be taught prior to field trips to the exhibit. The new Living Soil exhibit and educational programming will complement Raising Nebraska’s current exhibits and thematic foci while strategically contributing to sustainability and stewardship.

**Sponsor Name:** Board of Regents, University of Nebraska **Nearest Town:** multiple  
**Project Name:** The People, Terns and Plovers of Nebraska: Sharing the Sand **Project No:** 16-106  
**Amount Requested:** \$197,892 **Term of Project Request:** 3 **Review** Rural Habitat

Habitat management and species protection for ESA threatened Piping Plovers (*Charadrius melodus*) and ESA endangered Interior Least Terns (*Sternula antillarum athalassos*) must often be done in areas used by people for jobs, housing and recreation. Balancing the competing needs for space between people and these endangered birds across Nebraska is an on-going challenge. Without having the expertise available to address both the wildlife and human elements, the challenge all too often results in disagreements between birds, property owners, recreationists, regulatory agencies, and individual agendas. Bridging the differences between endangered birds and human interests by engaging all stakeholders is what the Tern and Plover Conservation Partnership (TPCP) does best. The TPCP's mission is to, 1) protect terns and plovers in Nebraska, 2) proactively assist Nebraskans in addressing their T&E species concerns, 3) avoid and manage conflicts through research, engagement, and education, 4) reach out to Nebraskans through education and outreach on T&E and other conservation issues, and 5) do it as efficiently and cost-effectively as possible. The TPCP has matured into a valuable member of the conservation community in our state; there is a continuing need for the presence and success of the TPCP in protecting people, terns, plovers, and their habitats in Nebraska. In this proposal, we are asking the NET to let us continue our work by supporting our program coordinator and student interns. This will allow us to expand our education and outreach programs and continue our work with the birds and the people whose lives intersect with them.

**Sponsor Name:** Board of Regents, University of Nebraska - Omaha **Nearest Town:** Omaha  
**Project Name:** Glacier Creek North Tract Initiative **Project No:** 16-157  
**Amount Requested:** \$1,344,000 **Term of Project Request:** 3 **Review** Urban Habitat

The Glacier Creek North Tract Initiative is a three-year proposal for \$1,344,000 (\$448,000 per year) to assist in purchasing the 101 acres adjacent to Glacier Creek Preserve that incorporate the remaining upper drainage of Glacier and North Creeks. The North Tract would (1) ensure long-term, ecological sustainability of the preserve within a metropolitan area by protecting the upper watershed and by providing a critical buffer against surrounding development, (2) greatly expand future preserve habitat diversity, (3) improve general soil and water quality within the sub-watershed, (4) protect the sub-surface hydrology that maintains Glacier Creek, North Creek, and several slope wetlands, and (5) significantly expand the area available for use of the site for education and community outreach. Past contributors to efforts to protect the integrity of the preserve by land acquisition include the NET, the Papio-Missouri River Natural Resources District, the Audubon Society of Omaha, the University of Nebraska at Omaha, Creighton University, and private donations totaling over \$2 million. The purchase of the West Watershed in October 2015, supported by NET Grant No. 14-140, will be the most recent addition to the preserve leaving only the North Tract to complete protection of the upper Glacier and North Creek drainages. Critical to this proposal is a 3-year option purchased in 2015 by a \$350,000 contribution from a private donor giving until 1 December 2018 to complete the purchase. Importantly, the acquisition of the North Tract meets all five of the NET's Feature Program Point criteria. With the recently completed \$2 million educational facility, the acquisition of the remaining surrounding ground will create a unique, water-shed level preserve providing an important regional environmental resource that also reflects the significant contributions of the NET and others towards both habitat conservation and environmental education.



**Sponsor Name:** Board of Regents, University of Nebraska - Omaha      **Nearest Town:**  
**Project Name:** Nebraska Battle of the Buildings      **Project No:** 16-182  
**Amount Requested:** \$254,853      **Term of Project Request:** 2      **Review**      Air Quality

Nebraska lags the nation in energy efficiency and Nebraskans over-use renewable water resources. Money saving efficiency technologies and practices are available but unused. Businesses and large organizations spend money to create unnecessary waste. These wastes harm the environment, which costs even more. This project reduces waste through increased adoption of low-cost and no-cost efficiency products and practices using a ready-made promotion and education programs. Immediate and long-term outcomes include reduction of coal-fired energy use and its associated greenhouse gas emissions, increased water conservation and financial savings. The prominent feature of this cost-effective state-wide project is the use of Energy Star's Battle of the Buildings competition format customized to motivate changes in Nebraska buildings energy and water use. History shows competitions encourage greater participation than do education campaigns promoting reason and responsibility alone. Improving energy efficiency in businesses and industries reduces energy costs, creates jobs and delivers measurable environmental benefits. Adoption of efficiency technologies and practices is an underutilized resource; efficiency is the least-cost response to volatile fuel costs and water availability, to growing concerns about infrastructure system reliability, and to increasing calls for action to address climate change. NET funding will spur commercial and institutional adoption of efficient resource technologies and practices through: 1) Promotion and Education of building owners/operators, using the innovative Battle of the Buildings competition, 2) Technical Assistance to reduce costs of change for building owners, delivered through partnerships with numerous technical assistance providers (TAPs), and 3) Market Assessment to research existing and needed market incentives and disincentives for adopting efficiency products and practices. This project will initiate the long-term use of the Battle of the Buildings competition to deliver measurable reductions in building energy use intensity (kBtu/sf); greenhouse gas emissions (MtCO2e); water use intensity (gal/sf); and cost savings (\$).

**Sponsor Name:** Board of Regents, University of Nebraska - Omaha      **Nearest Town:** Bellevue  
**Project Name:** Missouri River Research Station UNO File #2016-051/MG#576.      **Project No:** 16-131  
**Amount Requested:** \$146,916      **Term of Project Request:** 1      **Review**      Education

The objective of this project is to complete construction of the Missouri River Research Station (MRRS) in American Heroes Park, Bellevue, Nebraska. The MRRS will consist of a small field station and an open-air Plaza, and this funding request is specifically for the Plaza, as the Station is already funded through other sources. The MRRS Station will provide opportunities for education and community outreach, while also providing a location for Missouri River research. River water quality will be collected continuously at the Station, and data made available to the public through an interactive web page. Data will also be available on-site through QR coded signs throughout the MRRS Plaza. The Plaza will also be planted with prairie plants consistent with those from the region at the time of the Lewis and Clark expedition. One of the primary functions of the MRRS will be to act as a focal point for community engagement. The Nebraska Watershed Network, a program of UNO, and the primary custodian of the MRRS, has extensive experience conducting civic engagement projects focused on water quality and environmental stewardship. The MRRS will act as a highly visible central location for the Network's programs, including "What's in your watershed day" and Lil' Miss Atrazine. Through these projects, the Network will use the MRRS to deliver educational material to students and other members of the community regarding the environmental health of the Missouri River. The MRRS is projected to become a Missouri River destination spot, similar to the Bob Kerrey Pedestrian Bridge and will allow the Omaha community a site where the environmental stewardship of the Missouri River can be highlighted.

**Sponsor Name:** Boy Scouts of America - Longs Peak Council**Nearest Town:** Chadron**Project Name:** Chadron State Park Tree Plant**Project No:** 16-163**Amount Requested:** \$45,000**Term of Project Request:** 3**Review**

Rural Habitat

The Boy Scouts of America, Longs Peak Council will provide the manpower and program to educate youth and volunteers in the replanting of trees to areas of Chadron State Park which sustained damage and loss to the trees due to a forest fire in the summer of 2012. Our goal is to plant 3000 trees each year for five years. We are looking at a better than expected turnout for this first year, so we are requesting funding for the remaining four years to meet our five year commitment.

**Sponsor Name:** Brownell Talbot School**Nearest Town:** Omaha**Project Name:** EAB Science and Sustainable Urban Forestry Landscape**Project No:** 16-225**Amount Requested:** \$21,030**Term of Project Request:** 1**Review**

Education

The Emerald Ash Borer, a highly invasive beetle, is slated to kill over 1 million Ash trees in Nebraska over a 15 year period, causing an economic impact in the state of \$883 million dollars, multiple safety issues and environmental devastation. The potential loss of Ash trees in NE will result in endangered bird, insects, mosses and lichen habitat species of nearly 1000 species. It is estimated over 13,000 Ash trees in Public Right of Way and City Parks will die in Omaha, NE. Ash tree counts in Omaha DO NOT include school grounds. Dead ash trees on school grounds will be unsafe for students/staff/public. Because the Ash dieback is non-stoppable, a proactive approach must be implemented at various grass root levels, including youth in schools who serve as the future stewards of NE land. Project EAB Science and Sustainable Urban Forestry Landscape will enlist EAB subject experts to train teachers at Brownell Talbot, a 12 acre, college preparatory school, about EAB and its environmental impact. Teachers will work with experts to broaden the understanding of EAB using current proven quality science curriculum tied to state and national standards. Students will participate in project-based classroom application, learn to identify ash trees, strategically select tree species and plant trees in the Ash tree understory and other areas on school grounds in order to begin replacing and establishing the vital tree canopy. Public awareness and education, along with preparedness planning will assist in EAB management for the community landscape environment. This project will enlist the collaborative efforts of various agencies and organizations as well as private citizens and public schools. Project EAB Science will be shared with other schools and community organizations in strategic and innovative ways including educational tree tours. The project will serve as a pilot and prototype for other schools to replicate if it proves to be successful and a public gain.

**Sponsor Name:** Buffalo County Historical Society- Trails & Rails Museum      **Nearest Town:** Kearney  
**Project Name:** Family History Center- Reaching Better Energy Efficiency      **Project No:** 16-150  
**Amount Requested:** \$27,878      **Term of Project Request:** 1      **Review**      Air Quality

In order to fulfill our mission to preserve irreplaceable documents and artifacts that reflect the rich history of our county for generations to come, the Buffalo County Historical Society is constructing a new facility, the Family History Center, on land that we currently own, and which is adjacent to the campus of the Trails and Rails Museum in Kearney. Specifically, we are applying for funding to upgrade lighting, plumbing and HVAC fixtures and systems to more expensive, energy efficient models that will lower the cost of utilities and extend the useful life of the facility and the sustainability of operations.

**Sponsor Name:** Cass County      **Nearest Town:** Plattsmouth  
**Project Name:** Cass County Compressed Natural Gas (CNG) Motor Vehicle Fuel Project      **Project No:** 15-139-2  
**Amount Requested:** \$150,000      **Term of Project Request:** 3      **Review**      Air Quality

The Cass County Compressed Natural Gas (CNG) Motor Vehicle Fuel Project will facilitate the use of Natural Gas Vehicles (NGVs) in the county, city of Plattsmouth and surrounding communities. CNG offers an immediately available fuel solution to make substantial reductions in air pollutants from commercial and personal vehicles. CNG is by far the most abundant and cost effective commercially viable fuel option on the market today. Cass County will sponsor this project. OFC / Schmidt Liquid Trucking will partner in funding the project. The two entities will focus on constructing a public CNG fuel facility on the OFC property that is located just off of Highway 75 north of Plattsmouth. This location is also just 6 miles southwest of the new I-29 bridge that will open in 2015. OFC successfully operates 14 NGVs to date with the intention of converting its entire fleet of 175 class 8 semi-trucks to NGVs over the course of the next several years. Cass County intends to purchase 10 NGVs as well. In addition to local vehicles, Cass County has gained commitments from several fleets across the country to use this facility regularly as they pass through the area on dedicated routes. The Nebraska Environmental Trust will provide a positive environmental impact with its support of this project. In addition to environmental benefits, all entities surrounding the county will be provided an opportunity to save fuel costs immediately following the completion of this project. Cass County is requesting \$750,000 from Nebraska Environmental Trust Fund to aid in the purchase of equipment necessary to build a CNG fueling facility that will be open to the public. The total costs for the project will be \$1,656,519. OFC will provide all additional funding necessary to complete and insure the success of the project. THIS PROJECT WAS FUNDED \$150,000 IN 2015 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:** Central City, City of **Nearest Town:** Central City  
**Project Name:** South Lake Excavation Project **Project No:** 16-137  
**Amount Requested:** \$165,000 **Term of Project Request:** 1 **Review** Lake Rehabilitation

In 2008 the City dug a new groundwater-fed lake as the centerpiece of our new South Recreation Complex. This included a new aquatic center, walking trails, soccer fields and open spaces. Unfortunately, the lake contractor went bankrupt during the project and did a poor job. As water levels fell during the drought, numerous islands and high spots emerged from the water. We also found that water depths were insufficient to support the fish that Game and Parks provided for us. This grant request would propose to dewater the pond, remove approximately 15,000 cubic yards of material to eliminate high points and increase depth, haul the material to another site and restore the damage done during project. This effort is one step of a multi-phase renovation of the lake. The other phases are being performed with City funds. Upon completion of this project the appearance of the lake will dramatically improve and the lake will support fish more successfully. We have worked with state officials and a local citizen group to develop the plan and advocate for implementation. With the nearest State Park being an hour drive away, our residents don't have easy access to fishing and outdoor recreation opportunities that are more readily available in other parts of the state. Our new lake has been heavily utilized, provides a recreational opportunity for residents in the region, and is in desperate need of rehabilitation.

**Sponsor Name:** Central Nebraska Public Power & Irrigation District **Nearest Town:** Lexington  
**Project Name:** Centralized Water Use Database for Irrigation Water Management in CNPPID **Project No:** 15-155-2  
**Amount Requested:** \$65,460 **Term of Project Request:** 3 **Review** Water

This project has the goal of gathering irrigation water use and environmental data to support the irrigation water management, water conservation and water quality goals of the Central Nebraska Public Power and Irrigation District. This will require education and promotion of on-farm precision management practices of irrigation water with producers to sustain water availability and maintain or improve water quality. The project would collect irrigation water use data directly from irrigation flow meters and weather monitoring sensors crucial to irrigation management. Data will be collected using UHF radio technology and be delivered to the Central district offices and individual irrigators through digital means including e-mail, text messaging or cell phone applications which will help water users make sound irrigation management decisions. Irrigation management software will be used by cooperating producers to manage plant available soil moisture and match irrigation water application to crop water use (ETc). The project will partner with UNL Extension to deliver a portion of the educational component and the McCrometer Company for the technical expertise to train equipment installers and accomplish data collection. This project fits in the Trust Board funding categories of Surface and Groundwater and Habitat. It will foster best management practices; efficient and effective management of water use. As the demand for irrigation water is reduced; aquatic and shoreline habitat is enhanced at Lake McConaughy. Many native species inhabit the waters or shores of the lake and water conservation is beneficial to recovery efforts for the threatened piping plovers and endangered interior least terns nesting on the sand beaches. THIS PROJECT WAS FUNDED \$61,380 IN 2015 WITH THE INTENT TO FUND UP TO \$65,460 IN YEAR TWO AND \$67,260 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Central Nebraska Public Power & Irrigation District      **Nearest Town:** Brady  
**Project Name:** Jeffrey Lake Dredging & Aquatic Habitat Restoration Project      **Project No:** 16-118  
**Amount Requested:** \$131,340      **Term of Project Request:** 1      **Review**      Lake Rehabilitation

Jeffrey Lake is a regulating reservoir for the Jeffrey Hydroplant, which is located immediately downstream from the lake. The lake is located on CNPPID’s Supply Canal ten miles south of Brady. It covers approximately 575 acres and has 25 miles of shoreline. About 135 cabins owned by members of the public are located on District property on the east side of the lake. The lake is part of CNPPID’s hydro-irrigation project which began operation in 1941. Over the past 75 years, sediment carried into the lake via the Supply Canal, as well as some contributions from bank erosion, has accumulated in the northern part of the lake, primarily between the inlet and outlet. As a result, water depths in a large portion of the lake is less than three feet deep. The silt bar limits or prohibits travel by boat from the north end to the south end, except for a narrow channel. The reduced depth in the lake results in a reduction of available fish habitat for open water species like walleye, white bass and others. The shallow water also contains less available oxygen due to higher daytime temperatures during the summer as well as under the ice in the winter. Nutrients within the sediment can also result in late-summer algae blooms. CNPPID proposes to remove a large portion of this accumulated sediment with a dredging project in the spring of 2016. Plans are to lease a dredge to remove sediment over the course of a three-month project. Engineers estimate that approximately 149,000 cubic yards of material will be removed during the project, resulting in a vast improvement of aquatic habitat and recreational opportunities at the lake.

**Sponsor Name:** Central Platte Natural Resources District      **Nearest Town:** Cozad  
**Project Name:** Central Platte Grassland Conservation Project      **Project No:** 15-107-2  
**Amount Requested:** \$259,245      **Term of Project Request:** 3      **Review**      Rural Habitat

The Loess Canyons grassland ecosystem is being wiped out by a coniferous Eastern Red Cedar forest. We have the opportunity to prevent ecosystem loss, and to protect against a devastating wildfire. This project is based on an innovative concept: removing seed source from a large area in a short period of time to double the practical and cost effectiveness of the project. The project will reclaim, and preserve up to 12,000 acres of crucial habitat in three years. This is an excellent example of a project involving landowners, local, state and federal partners to accomplish a necessary goal. Trust funding is essential for this project to move forward. We are seeking funding from the Trust to facilitate the mechanical tree clearing and prescribed burn technical assistance, while partners will provide resources for tree clearing, grazing deferment, prescribed burning, coordination, meetings and training. We believe a collaborative project like this is the only way to create a lasting impact and help save this landscape from economic hardship and devastating wildfire. THIS PROJECT WAS FUNDED \$259,245 IN 2015 WITH THE INTENT TO FUND UP TO \$259,245 IN YEAR TWO AND \$259,245 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Central Platte Natural Resources District

**Nearest Town:** Multiple

**Project Name:** Advanced Hydrogeologic Frameworks for Aquifer Management in Critical Sections of the Platte River Basin **Project No:** 16-167

**Amount Requested:** \$670,000 **Term of Project Request:** 2 **Review** Water

Water management in the Platte and Republican River basins continues to be a difficult task for water managers and users alike. Recent drought conditions and management needs within the Twin Platte and Central Platte Natural Resources Districts (NRDs) require new information and understanding of the natural system for determining the proper course for utilization of infrastructure and revenue. NRDs need detailed information of the aquifer conditions and the subsurface hydrogeologic framework to effectively design and apply integrated management plans. In particular, they need to understand the aquifer geometry, characteristics, inter-connection with surface water, impacts of new and existing infrastructure and interaction with adjacent aquifers. Currently, NRDs rely on the traditional method of geologic test hole drilling for information regarding the subsurface geology. This approach is vital to the understanding of the area, but alone cannot provide enough spatially distributed information to complete a detailed hydrogeologic framework of a NRDs aquifer resources. Often, these test holes are spaced on 6 mile centers, a distance that does not provide the detail to be useful in developing a local hydrogeologic framework upon which new infrastructure and future sub-regional groundwater model investigations can be developed for evaluation of the proposed management practices. The total project cost is \$966,000. The applicants are requesting \$670,000 (70%) in funding from the Environmental Trust to pay for developing the tool for optimizing the collection of data with the realization limited funds. A total of \$296,000 (30%) in match funds will be provided by the NRDs and Exploration Resources International in the form of cash and/or in-kind services for aerial collection and subsequent data interpretation, databases, map production, data reports and improvements to the AEM process.

**Sponsor Name:** Clean Energy

**Nearest Town:** Omaha

**Project Name:** Clean Energy Gretna Public-Access CNG Fueling Station

**Project No:** 16-202

**Amount Requested:** \$500,000 **Term of Project Request:** 1 **Review** Air Quality

Sarpy County and Clean Energy have partnered to submit an application for funding from The Nebraska Environmental Trust to partially offset the cost of building a public-access compressed natural gas (CNG) fueling station at an existing liquid natural gas (LNG) fueling station co-located at a Flying-J Travel Center in the City of Gretna. The vision of this project is to create a corridor of natural gas fueling stations in Nebraska to serve all types of natural gas vehicles (NGVs) traveling throughout Nebraska. The Gretna Flying-J CNG station project's objectives reduce the harmful effects of diesel exhaust on the environment, create new markets for natural gas in Nebraska and enhance the nation's energy independence and security. This project is an investment in alternative fuels and in the development of alternative fuel infrastructure. In the first ten years of operation, this station will directly reduce 495,020 pounds of criteria pollutant and greenhouse gas emissions, displace 766,187 gallons of diesel with clean-burning natural gas, and save Nebraska fleet operators over \$1.4 million in fuel costs. This project is shovel-ready and will commence immediately upon receipt of grant award contract.

**Sponsor Name:** CLEAR Team **Nearest Town:** statewide  
**Project Name:** Community Lakes Enhancement and Restoration (CLEAR) Team **Project No:** 15-189-2  
**Amount Requested:** \$255,000 **Term of Project Request:** 3 **Review** Lake Rehabilitation

The CLEAR program has received three previous grants from NETF for community lake rehabilitation and enhancement projects. Thirty-five community lakes have already been rehabilitated under the CLEAR program. Currently, numerous communities are seeking funding and technical assistance to complete lake improvement projects. The CLEAR program, comprised of individuals representing NDEQ and NGPC is seeking funding for three years to complete four additional lake improvement projects in Nebraska communities. NDEQ has identified 3 potential communities that would be ready to start as soon as funds are available with at least one additional project that could start within 2 years. Additional projects will be considered if funds are available. THIS PROJECT WAS FUNDED \$510,000 IN 2015 WITH THE INTENT TO FUND UP TO \$255,000 IN YEAR TWO AND \$255,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Community CROPS **Nearest Town:** Lincoln  
**Project Name:** Regenerative Agriculture Education Program **Project No:** 16-164  
**Amount Requested:** \$67,060 **Term of Project Request:** 1 **Review** Soil Management

Regenerative agriculture focuses strongly on building soil and restoring the ecosystem through carbon sequestration. When we remove carbon from the atmosphere by way of regenerative agricultural practices, we sequester carbon into the soil, expand the soil's water-holding capacity and build more organic matter into our soils. Rebuilding carbon-rich agricultural soils is a permanent solution for removing excess carbon dioxide from the atmosphere. There are many methods that could be deployed to both reduce farming's negative impact and simultaneously rebuild natural ecosystem services that have previously been degraded. Community Crops will promote these multi-functional methods of regenerative forms of agriculture such as organic growing, conservation tillage systems, and cover crops to small scale growers. By bringing together gardeners, farmers, and consumers, we will create awareness of how regenerative agriculture can mitigate climate change through carbon sequestration, improve human and environmental health, and provide long-term agricultural productivity and resilience to small family farmers. NET will provide 59% of the proposed cost of the project, covering necessary costs including staff time to work with beginning farmers, workshop supplies and farm supplies. We project that 100 people will learn about and adapt regenerative agriculture practices during the grant. An additional 5,000 people will learn about these soil conservation methods through workshops, media promotion and through outreach events.

**Sponsor Name:** Community Investments Opportunities, LLC      **Nearest Town:** Omaha  
**Project Name:** Environmental Improvement Demonstration Project      **Project No:** 16-130  
**Amount Requested:** \$37,500      **Term of Project Request:** 1      **Review**      Air Quality

We are seeking funding for the planning phase of an Environmental Improvement Demonstration Project. The site of this project is a former cold storage building in an industrial zone in South Omaha. The building is located in a blighted area that is part of the South Neighborhood Revitalization Area. The goal is to demonstrate the possibilities and potential use of environmentally sustainable practices to limit contamination of soil, air, and water. The construction of this project will permit students and the general public to be educated about the viability and importance of green technology including solar energy, rainwater capture and re-use and responsible use of natural resources. Planning of the project must include engineering and structural studies regarding the construction of a solar panel array on the flat roof of this building. The solar panel array will produce 800 kilowatts of electrical power at maximum to power the lighting of the building and other electrical uses. This amount of electrical power will require the solar array to include 32 racks of panels. Each single array is a 25 kilowatt rack. The racks are 140 feet long and 15 feet wide. These racks will cover the roof and be about the area of a football field. This would be one of the largest solar arrays in the state of Nebraska, so the planning phase is critical. It is estimated that the final cost of the project would approach \$2,000,000.00 and transmission of excess energy back into the electrical grid is important to the viability of the project. The planning phase of the project will pay for the funding of the studies to create a step by step process necessary to properly implement the project. These studies will allow for the construction of a sustainable correctly engineered solar energy project.

**Sponsor Name:** Ducks Unlimited, Inc.      **Nearest Town:** Bridgeport  
**Project Name:** North Platte River Habitat Protection for Public Use      **Project No:** 16-203  
**Amount Requested:** \$595,000      **Term of Project Request:** 1      **Review**      Rural Habitat

Ducks Unlimited, Inc. (DU) is requesting funding from the Nebraska Environmental Trust (NET) to assist with the acquisition of the a 313-acre property near Bridgeport, Nebraska. The property (hereafter, the property) is a 313-acre tract located northwest of Bridgeport and will add to the one mile of Platte River frontage to DU and Platte River Basin Environments-managed, wetland complexes. DU, NET, PRBE, and other partners recently made a \$230,000 investment in restoration on the property that has yielded excellent results in bird use. The acquisition of the property is urgently needed as the owner wishes to retire and move to a location off site using proceeds of the sale. He and his wife are primarily interested in selling to a conservation organization, namely DU. They wish to see the property's important wildlife habitat managed efficiently and available to the public, especially youth, for various public recreational activities including: hiking, bird watching, wildlife photography, hunting, and fishing. The property offers a wonderful opportunity to manage restored wetlands, backwater sloughs, and native grasslands, and DU's goal would be for this property to be made public in perpetuity. This reach of the Platte River has very few properties that are open to public use. The acquisition of this property will help address that need.



**Sponsor Name:** Ducks Unlimited, Inc. **Nearest Town:** McGrew  
**Project Name:** Platte River Ranch Protection and Restoration **Project No:** 16-194  
**Amount Requested:** \$130,000 **Term of Project Request:** 1 **Review** Rural Habitat

Ducks Unlimited, Inc. (DU) protects, restores, and manages wetlands and its associated habitats for waterfowl and wetland dependent wildlife in North America. Given that nearly 99% of land is in private ownership in Nebraska, we must work with private landowners in order to achieve our goals and benefit wildlife and the environment. The Platte River Ranch property is a prime example of protecting and restoring habitat on private land for the benefit of all. No Nebraska Environmental Trust funds will be used for working lands conservation easement acquisition, but DU is requesting funding from NET to assist with the restoration of the degraded river and alkaline wetland habitat located on the property. Located in Western Nebraska, the first 698 acres of the property were acquired as a bargain sale conservation easement in 2013. Additionally, DU will acquire an adjoining 262 bargain sale easement from Platte River Ranch LLC (Glen Summers) by December 31, 2015. The value of protecting these properties and over 2.33 miles of North Platte River frontage in perpetuity cannot be understated since during migration and wintering periods the property is used by numerous species of migrating birds and is easily enjoyed by the public from the nearby county roads. The proposed restoration project will increase the capacity of this property to provide wildlife habitat benefits with nearly one mile of Platte River sloughs and approximately 40 acres of emergent wetland habitat restored via excavation, strategically placed water control structures, and Russian olive removal. Additional values of the project include increased water quality, groundwater recharge, and local economic benefits such as use of local contractors.

**Sponsor Name:** Ducks Unlimited, Inc. **Nearest Town:** Maxwell  
**Project Name:** Maxwell South Channel Wetland Restoration **Project No:** 16-159  
**Amount Requested:** \$137,000 **Term of Project Request:** 1 **Review** Rural Habitat

Ducks Unlimited (DU) and its partners will conduct a habitat restoration project on a property acquired by DU consisting of over 164 acres of Platte River accretion and wet meadow habitat in Lincoln County, Nebraska as well as another 40 acres of wetland accretion habitat on an adjoining private property known as the Gosnell tract. The goal of restoration will be to restore important Platte River habitat in support of migrating waterfowl and other wildlife. The parcels consist of degraded riparian sloughs and wet meadow habitat that is currently being farmed or is badly invaded by undesirable trees, particularly dense eastern red cedars. There is also a channel of the Platte River that is badly invaded by undesirable vegetation including phragmites and cattail. To restore the property, the wetlands will be made functional by shallow excavations, the planting of native upland buffers, and tree removal to promote wetlands with desirable plant species on a total of 204 acres. Livestock fencing and watering facilities will be installed around the DU project. While being highly beneficial to wildlife on the property itself, conservation activities on the Maxwell properties will add further benefit to the large and contiguous Platte River habitat complex composed of both public and private landholdings.

**Sponsor Name:** Ducks Unlimited, Inc.**Nearest Town:** Lexington**Project Name:** Dawson County Wetland Revival**Project No:** 16-184**Amount Requested:** \$41,750**Term of Project Request:** 1**Review**

Rural Habitat

The Dawson County Wetland Revival proposal aims to restore vital wetland and wet meadow habitat along the central Platte River. The central Platte River is a critically important landscape, providing needed resources to millions of waterbirds every year in order for them to successfully complete their annual cycle. Numerous threatened and endangered species rely on wetlands along the central Platte River, including whooping cranes, least terns, and piping plovers. Furthermore, 80% of the world's sandhill crane population congregates along the central Platte River every spring during migration. The natural habitats along the river have been greatly altered, with as much as a 90% reduction in the quantity of shallow water habitat available to migratory birds and other wildlife. Development pressures (i.e. housing and gravel mining) along the river are slowly altering the landscape in ways that cannot be reversed. Loss of open, shallow channels, sandbars, backwater sloughs and wet meadow habitat along the Platte River have severely reduced the availability of moist-soil seeds and invertebrates, a necessary component of waterbirds diets, especially in the spring. The need to restore habitat along this stretch of the river is extremely important and the Dawson County Wetland Revival project does just that by elevating the water table and restoring the hydrology in approximately 40 acres of riparian ephemeral wetlands and 30 acres of wet meadow habitat adjacent to the Platte River. Furthermore, all wetlands and wet meadow habitat that will be restored is on properties that are permanently protected, thus protecting NET's investment into the future.

**Sponsor Name:** Ducks Unlimited, Inc.**Nearest Town:** North Bend**Project Name:** North Bend Protected Land Restoration**Project No:** 16-181**Amount Requested:** \$57,294**Term of Project Request:** 1**Review**

Rural Habitat

The Platte River provides unique habitat to a suite of flora and fauna, many of which are of conservation concern, and is of continental importance to migratory birds. The shallow riverine wetlands and sandbars provide habitat to millions of shorebirds, waterfowl and wading birds. However, extensive habitat loss has occurred along the Platte River due to water diversions, flood control efforts, wetland drainage activities, extensive invasive species problems, and also due to on river gravel pits and residential developments. The North Bend Protected Land tract is a prime example of human's ever encroaching tendency to tame and alter native habitats. Protecting this parcel of land with a conservation easement will forever sustain some natural habitats along this stretch of the Platte River for future generations to view and enjoy. This property will protect vital wildlife corridor habitat along the Platte River. Nebraska Environmental Trust funds will be used to restore historic wetlands on this property allowing the North Bend Protected Land parcel to help sustain the vulnerable flora and fauna of the Platte River. Trees surrounding the remnant wetlands have already been cleared and we are seeking assistance in order to complete 1,323 linear feet of shallow excavations of these areas to once again provide ephemeral wetlands to waterbirds and other wildlife. Protecting parcels of land adjacent to the Platte River not only provides valuable habitat for wildlife, but also provides future generations with outdoor recreation and viewing opportunities. In a landscape where wildlife habitat is continually becoming more fragmented and isolated, applying permanent protection on remaining habitat is the best method for maintaining connectivity of habitat along the fauna rich Platte River. Ducks Unlimited is providing 1.6 to 1 ratio of match in this proposal demonstrating a cost effective use of matching funds that result in conservation success for future generations to enjoy.

**Sponsor Name:** Ducks Unlimited, Inc.**Nearest Town:** Scottsbluff**Project Name:** Tub Springs Protection and Restoration**Project No:** 16-196**Amount Requested:** \$46,458**Term of Project Request:** 1**Review**

Rural Habitat

Ducks Unlimited, Inc. (DU) protects, restores, and manages wetlands and its associated habitats for waterfowl and wetland dependent wildlife in North America. Given that nearly 99% of land is in private ownership in Nebraska, we must work with private landowners in order to achieve our goals and benefit wildlife and the environment. The Jim Reinhardt property is a prime example of protecting and restoring habitat on private land for the benefit of all. No Nebraska Environmental Trust funds will be used for conservation easement acquisition, but DU is requesting funding from NET to assist with the restoration of the degraded emergent marsh wetland habitat located on the property. DU will acquire an 82 acre bargain sale easement from Jim Reinhardt by December 31, 2015, of which over 50 acres is emergent marsh fed by Tubs Springs. Given the proximity to Scottsbluff, this property was under threat of drainage for development if it were to ever change hands from Mr. Reinhardt. This property once received substantial waterbird use according to past accounts, but it is now cattail-choked with numerous Russian olive thickets on the property since water levels are stagnant and the area has received excessive sediment from the surrounding crop fields. Our project would involve excavation and herbicide use to remove cattail while also installing a sediment trap to prevent future sedimentation into the wetlands. Additional values of the project include increased water quality, groundwater recharge, and local economic benefits such as use of local contractors.

**Sponsor Name:** Ducks Unlimited, Inc.**Nearest Town:** Lewellen**Project Name:** North Platte River Invasive Species Removal and Wetland Restoration**Project No:** 16-183**Amount Requested:** \$242,040**Term of Project Request:** 1**Review**

Rural Habitat

The North Platte River Invasive Species Removal and Wetland Restoration project is a concerted effort of conservation partners to protect and restore two parcels of land that will provide additional sensitive wetland environments along the North Platte River. The North Platte River landscape is included as a priority area in all four major bird plans, North American Waterfowl Management Plan, U.S. Shorebird Conservation Plan, Partners in Flight bird plan and the North American Waterbird Conservation Plan, signifying the clear importance of the North Platte River to a variety of migratory birds. Nebraska Environmental Trust funds will be used to restore large tracts of critical habitat types along the North Platte River floodplain. The project will restore 4,272 linear feet of backwater sloughs, 3 acres of emergent marsh, and 68 acres of riparian habitat through the removal of invasive tree species. While restoring diverse wetlands, the proposal also protects that investment long-term with working land conservation easements on the two properties. The projects focus on properties that address terrestrial communities of concern for the Nebraska Game and Parks Commission and the U.S. Fish and Wildlife Service. The two working land conservation easements will permanently protect 583 acres of North Platte River habitat, including 1 3/4 miles of the North Platte River. The North Platte River Invasive Species Removal and Wetland Restoration proposal is leveraging NAWCA, state, private landowner and U.S. Fish and Wildlife Service Partners funds. For every NET dollar requested in this proposal, Ducks Unlimited and partners are matching more than three dollars, with a request of \$242,040 and matching funds equal to \$804,411. From a project standpoint, the proposal is cost effective, does an excellent job at utilizing matching resources, protects and restores critical habitat, and provides ecosystem services to western Nebraska citizens and visitors.

**Sponsor Name:** EcoStores Nebraska **Nearest Town:** Lincoln  
**Project Name:** On-Site gypsum Drywall Recycling **Project No:** 16-151  
**Amount Requested:** \$241,718 **Term of Project Request:** 2 **Review** Waste Management

The EcoStores Nebraska (a "dba" division of the Joslyn Institute for Sustainable Communities) is seeking NET funding for the purchase of equipment to establish construction-site grinding, transportation equipment for the grinding equipment and materials, storage containers for both scrap and bulk processed gypsum drywall, and personnel costs to operate and manage the case study. JISC case studies of Construction and Demolition (C&D) waste in 2015 confirm that approximately 3.89 lbs. of waste per sq. ft. comes from commercial construction, while residential new construction generates approximately 4.38 lbs. per sq. ft. Wood, drywall, cardboard, and scrap metals account for approximately 80% of the new construction waste (wood @ 39%, drywall @ 20%, cardboard @ 11%, and scrap metals @ 10%). Locally, and in most Nebraska communities there are viable, options for diversion of a high percentage of these materials from the landfill and back into the local economy. Drywall is the primary exception. At present, there is no industrial or commercial deposit or repurposing option in Nebraska to keep this considerable volume of material from an end location in the local landfill. In a continuing partnership with four commercial general contractors, plus the addition of two contractors specializing in residential construction, and one pre-fab construction enterprise, the EcoStore proposes to establish a year-around service for on-site grinding and repurposing drywall construction waste. We estimate an additional diversion in 2016 and 2017 of drywall C&D waste of approximately 500 tons from the L/LC landfill. After 2017 the repurposing operation will be self-supporting from commercial, consumer, and contractor income, and the opportunities for expansion to other locations in Nebraska, during 2017 will be planned as a result of this grant. The clean drywall waste from seven designated case-study sites will be process ground, bagged, and resold to retail and wholesale customers for agricultural soil additive of the gypsum calcium and sulfur, as well as for other miscellaneous commercial applications. Volumes, markets, pricing and fees will be established through the management of alternatives during the two-year case studies.

**Sponsor Name:** Elster American Meter Company LLC **Nearest Town:** Nebraska City  
**Project Name:** Cork Rubber Gasket Recycling **Project No:** 16-170  
**Amount Requested:** \$47,736 **Term of Project Request:** 3 **Review** Waste Management

Elster American Meter Company LLC is using a cork rubber gasket to create a mechanical seal which fills the space between two metal surfaces: to prevent leakage into and outside the gas meter/regulator. Elster American Meter Company LLC already maximized the use of the cork by creating a unique pattern limiting the number of scrap. Nevertheless, around 75 tons a year of unwanted material are still sent to the landfill. Recently, Elster supplier agreed to take back the scrap in order to regrind it and use it in another product. Unfortunately, the cost of the freight to bring back the scrap is too high compare to the cost of the landfill. This grant will be used to pay the freight in order for the scrap to be reused.

**Sponsor Name:** Ericson Lake Corporation **Nearest Town:**  
**Project Name:** Aquatic Ecosystem Enhancement **Project No:** 16-121  
**Amount Requested:** \$359,000 **Term of Project Request:** 1 **Review** Lake Rehabilitation

The proposed Aquatic Ecosystem Enhancement project will implement concepts from the Ericson Lake Preliminary Restoration Plan" developed by the U.S. Army Corps of Engineers in 2002. Among the goals are to increase the open water area in a dense mono-culture wetland to improve aquatic habitat values: enhance Monarch butterfly habitat: enhance wading and migrating bird habitat: enhance reservoir fisheries with spawning and rearing habitat: increase native vegetation in disturbed areas: protect previously restored lake: inform and educate about habitats and nature. The key components of the proposed wetland enhancement project include: 1) Excavating wetland sediments to create hemi -marsh conditions of 30% open water. 2) Excavating wetland ponds with open water depths to as much as twelve feet with permanent waterway channel connections to the 80 acre lake. 3) Using the excavated sediment to raise low sections and widen narrow sections of the existing berm, build and reinforce a new 1,000 foot long extension of the fishing jetty to further protect previously restored lake depths and the herein proposed enhancements from river borne sediment. 4) Using excavated sediment to augment bank stabilization efforts on the Cedar River. 5) Replanting native plant species (i.e. milkweed) on disturbed areas for Monarch butterfly, waterfowl and bird nesting, and terrestrial community benefits. 6) Constructing an ADA boardwalk with bridge over the channel to an observation deck. 7) Working with Community College Entomologist to conduct youth day camps to learn about various insects, habitats, and the importance of conservation - specifically regarding the Monarch butterfly.

**Sponsor Name:** Firstar Fiber, Inc. **Nearest Town:** Omaha  
**Project Name:** Nebraska Energy Bag (NEB) Program **Project No:** 16-198  
**Amount Requested:** \$124,650 **Term of Project Request:** 1 **Review** Recycling

The first objective targets wastes like plastic bread wrappers, sandwich bags, juice pouches, candy wrappers, plastic dinnerware and similar packaging that, although hard if not impossible to recycle, nevertheless have significant embedded energy value. Simultaneous to promoting the recovery of these materials, we will draw attention to a wide variety of recyclables people typically don't recognize as being recyclable, e.g., baby powder and shampoo bottles and other packages not used in the kitchen. The Energy Bag, in conjunction with an educational effort touting the many items that can be recycled, undercuts those arguments that recycling cannot significantly reduce the need for landfills. Lastly, the amalgamation of diverse interests joined in this effort itself is extremely noteworthy. Few examples exist anywhere for packaging manufacturers, brand companies, processors and communities to join forces to establish such a well thought out recovery effort. The lessons from this NET supported Nebraska based effort will be the envy of the country.

**Sponsor Name:** Five Rivers Resource Conservation and Development, Inc. (RC&D)

**Nearest Town:** Tecumseh

**Project Name:** Native Grassland Protection Against Invasive Weeds III

**Project No:** 16-223

**Amount Requested:** \$169,738

**Term of Project Request:** 3

**Review**

Rural Habitat

Native prairies are the most threatened ecosystem in North America. Losing native prairies, oak woodlands, and plant diversity is resulting in significant impacts to our valuable native wildlife habitat, soil quality, water quality, and economic sustainability. Today less than one percent of tall-grass prairie remains in the continental United States. Approximately two percent of Nebraska's tall-grass prairie remains mostly as remnants less than eighty acres in size. With the increase of invasive species present in the area we see its negative impacts on these remaining landscapes and losses to our other grazing lands and native habitat. The lack of control reduces the production, profitability and sustainability of grasslands and causes economic hardships. This has resulted in some grasslands being converted to row crop production because of difficulties and costs of controlling invasive weeds. Invasive species are severely threatening the ecoregion's biological diversity. Smooth brome, Kentucky bluegrass, reed canary grass, purple loosestrife, Eurasian phragmites, Sericea lespedeza, garlic mustard, Caucasian bluestem, and other species have competitively excluded native plants and degraded habitat for fish and wildlife. The introduction of carp, zebra mussels, emerald ash borer, and other species have altered habitats and increased competition for native species. In the past three years, the WMA has assisted in combatting troublesome weed species on approximately 3,000 acres and educated over 300 landowners through workshops, conferences, and weed walks. The WMA continues to educate landowners and managers and continually receives inquiries along with new applicants seeking aid in controlling troublesome weed species. Extending the program for an additional three years will allow the WMA to continue providing additional educational workshops, conferences, and weed walks further educating the general public on the importance of protecting our native prairies.

**Sponsor Name:** Five Rivers Resource Conservation and Development, Inc. (RC&D)

**Nearest Town:** Multiples

**Project Name:** Southeast Nebraska Household Hazardous Waste Collections

**Project No:** 16-222

**Amount Requested:** \$163,338

**Term of Project Request:** 3

**Review**

Waste Management

According to the EPA, each person in the United States produces an average of 4 pounds of household hazardous waste each year for a total of about 530,000 tons/year. The average U.S. household generates more than 20 pounds of household hazardous waste per year. As much as 100 pounds can accumulate in the home, often remaining there until the residents move out or do an extensive cleanout. Reduction and recycling of HHW conserves resources and energy that would be expended in the production of more products. Proper disposal prevents pollution that could endanger human health and the environment (EPA, 2014). The Nemaha NRD, Five Rivers RC&D, the Lower Big Blue NRD, as well as the cities and counties located in the southeastern Nebraska region have received numerous requests for additional household hazardous waste collections from concerned residents. The events will be conducted in each county in the Five Rivers eight-county area and will give all citizens an opportunity to help protect the environment and their own families from possible exposure to toxic materials once a year over the course of three years. We expect our participation to be similar to other regional collection events. For example, the NRD partnered with Five Rivers RC&D and collected and recycled 61,490 pounds of HHW and 30,600 pounds of batteries in 2007 and Five Rivers RC&D collected and recycled over twelve tons of household hazardous waste materials and an additional 804 pounds of batteries in 2010 as well as over thirteen tons of hazardous materials and 960 florescent light bulbs in 2015. The events will not only provide citizens with a safe disposal site, but will educate residents on the hazards of improper disposal and the negative effects of that waste entering our soil, water, and air.

**Sponsor Name:** Fontenelle Forest Association **Nearest Town:** Bellevue  
**Project Name:** Oak Woodland and Wildlife Habitat Restoration **Project No:** 15-168-2  
**Amount Requested:** \$99,000 **Term of Project Request:** 3 **Review** Rural Habitat

The lands owned and managed by Fontenelle Forest include Neale Woods, Fontenelle Forest, and the Andrews tract, in all totaling approximately 2,053 acres. These parcels are comprised of three ecological communities including oak-hickory-basswood uplands, deciduous wooded floodplain, and wetlands. Oak woodlands and prairies support a variety of unique biodiversity. These lands are crucial habitats for migratory birds, small mammals, invertebrates, and a range of woodland-dependent plant species, as well as several species in need of conservation. Fontenelle Forest, Neal Woods, and our Andrews tract, three of the unique remaining oak woodlands within the Missouri Valley, are being severely degraded by an increasing shade-tolerant canopy, sub-canopy and understory, invasion by exotic plants, such as garlic mustard, autumn olive and honeysuckle, lack of fire, and no natural oak regeneration. Fontenelle Forest has created a strategic oak woodland and wildlife restoration plan to restore and enhance approximately 1160 acres of oak woodland/floodplain forest, and prairie, by conducting prescribed fire, controlling invasive species, and thinning shade-tolerant shrubs and trees. We plan to enhance and expand recreational opportunities within our borders and with our neighbors, as well as create a public awareness campaign highlighting the importance and relevance to the community of sustaining a healthy, fully functioning oak woodland/prairie ecosystem. We will conduct our planning, preparation (constructing fire breaks, thinning), and burning using contractors, seasonal and permanent staff. We will partner with the Bellevue City Fire Department to reduce our fuel load and plan our fire breaks. Partner funds from FWS and NGPC will be used for on-the-ground habitat management and manipulation. This restoration project will reduce soil erosion in woodlands and riparian areas and enhance groundwater quantity and quality. This project will fulfill several Nebraska Natural Legacy conservation objectives within the Missouri River Biologically Unique Landscape. THIS PROJECT WAS FUNDED \$121,000 IN 2015 WITH THE INTENT TO FUND UP TO \$99,000 IN YEAR TWO AND \$108,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Fontenelle Forest Association **Nearest Town:** Bellevue  
**Project Name:** Raptor Woodland Refuge **Project No:** 16-212  
**Amount Requested:** \$300,000 **Term of Project Request:** 1 **Review** Education

Raptor Woodland Refuge is an outdoor, year-round exhibit at Fontenelle Forest showcasing native birds of prey. It is part of our effort to provide for the health and wellbeing of raptors throughout our entire state by educating people about the role of raptors in nature; promoting conservation of raptor populations; and teaching about how this natural resource is threatened by human activities.

**Sponsor Name:** Food Bank of Lincoln **Nearest Town:** Multiple  
**Project Name:** Food for the Needy with Cleaner Natural Gas **Project No:** 16-180  
**Amount Requested:** \$269,550 **Term of Project Request:** 2 **Review** Air Quality

Food Bank of Lincoln, Inc. (FBL), a nonprofit corporation, is submitting this grant application to seek funds to purchase two CNG fueled delivery trucks over the next 2 years. We know that CNG is a clean and abundant fuel alternative that over a sustained period will be much cheaper to operate. Those savings will translate to dramatically lower overhead and allow us to buy more food stuffs to serve our clients. FBL's mission is to alleviate hunger in Southeast Nebraska but the fact we rely totally on donations to operate we must be fiscally prudent and use as much of our capital to meet our goal of nourishing our communities to end hunger. However, one of our core values is responsibility to our community, clients, donors, volunteers, staff, and board. To that end, providing a clean environment in the areas we serve is important to us as the money we save. The adoption of CNG by our fleet will dramatically reduce the adverse emissions to our service area. Having two CNG trucks in our fleet over the next two years will springboard the total conversion of our fleet to CNG by using the savings realized from the first two trucks will help to provide the capital to offset the up fit necessary to purchase CNG equipment for the additional trucks we will require, all the while not utilizing funds earmarked for our clients.

**Sponsor Name:** Friends of Heron Haven, Inc. **Nearest Town:** Omaha  
**Project Name:** Environmental Education at Heron Haven Wetland Sanctuary **Project No:** 16-218R  
**Amount Requested:** \$12,690 **Term of Project Request:** 3 **Review** Education

Friends of Heron Haven requests three years of funding to maintain and strengthen two environmental education programs presently supported by the Trust (13-175-3). The first of these programs consists of Guided Nature Study programs that primarily involve walking nature trails and observing natural phenomena of various kinds in the company of one or more experienced volunteer naturalists or, during inclement weather, that may involve watching educational shows, listening to talks, or engaging in activities related to natural history. These programs are tailored to meet the needs of several different target audiences. The second environmental education program is the annual Heron Haven Wetland Festival, a one day event that provides visitors of all ages with an opportunity to learn about local wildlife, including mammals, birds (especially raptors), butterflies, aquatic organisms and plants, as well as a variety of exotic mammalian and reptilian species. The goals of these two basic environmental education programs are to acquaint interested members of the public and their families with the freely accessible natural assets of the Heron Haven Wetland Sanctuary and with the enjoyment and restorative effects that even brief immersion in natural environment can produce. It is hoped that such positive experiences would cause our visitors to appreciate this natural site and perhaps, to make donations to, or to become members of, Friends of Heron Haven, which provides essential support for our organization.



**Sponsor Name:** Grand Island Area Clean Community System**Nearest Town:** Grand Island**Project Name:** Household Hazardous Waste Facility**Project No:** 16-101**Amount Requested:** \$483,500**Term of Project Request:** 3**Review**

Waste Management

The Grand Island Area Clean Community system (CCS) is seeking a grant for the continued operation of the Household Hazardous Waste (HHW) facility for proper and safe disposal of HHW and recyclable products. CCS is a regional facility serving approximately 114,607 residents of Hall, Adams, Howard, Hamilton and Merrick counties as well as other citizens living in out-state Nebraska. It contains an education area and two employees to teach children and adults about HHW, the environment and recycling. Another part of our facility is designated to what we call our "Swop Shop" or reusable products area. Swop Shop collects large quantities of materials which we offer at no charge, for reuse. By doing so, we reduce the amount of waste. According to numerous studies, permanent facilities tend to collect more HHW than other collection methods. We currently are accepting large volumes of HHW, bulk liquids, paint, insecticides, fertilizer, and household cleaning items. Over the next grant period, we are anticipating having a hazardous waste disposal service at our facility no less than seven times annually at an estimated cost of \$8,000/load. Over the past few years, CCS has had multiple directors. Most recently, Denise McGovern-Gallagher was hired as the Executive Director. She has over 35 years of office management with 12+years of grant writing. Denise is a Grand Island native with a passion for her community and the area. Many changes have taken place in the relatively short time since her hiring. Most of the changes are in handling HHW including the acceptable of household paint. She is well known, respected, and sits on numerous boards in the community. CCS staff consist of a Certified Hazardous Waste Technician, Keep America Beautiful Coordinator and the Executive Director. We are a 501C3 corporation. Our board consists of six members who are devoted to CCS and the community.

**Sponsor Name:** Grand Island Area Clean Community System**Nearest Town:** Grand Island**Project Name:** Household Hazardous Waste Collection Facility**Project No:** 14-102-3**Amount Requested:** \$55,000**Term of Project Request:** 3**Review**

Waste Management

The Grand Island Area Clean Community System (CCS) is seeking this grant from the Nebraska Environmental Trust for continued operation of a Household Hazardous Waste (HHW) Facility for one stop proper and safe disposal of household hazardous waste, unwanted pharmaceuticals and recyclable products. This is a regional facility serving the 85,000 residents of Hall, Hamilton, Howard and Merrick counties as well as other citizens of out-state Nebraska. The building is leased (reused) from the Central Nebraska Regional Airport Authority. It contains an education area used to teach children and adults about HHW, the environment and recycling. In addition it has a "reusable products area" which has/will provide a large quantity of free materials to residents for reuse. This reduces the amount of waste that would otherwise require disposal fees and go into regional landfills. Also computers, televisions, lead-acid batteries and all other electronics are accepted and recycled. According to numerous studies, permanent facilities tend to collect more HHW than other collection methods and are at a lower cost per participant, but only if the site is operated appropriately. Savings come if the facility can efficiently handle large volumes of HHW, bulks liquids, have long HHW storage ability and ships full truckloads of waste. ALL of these are done at the CCS HHW Facility! We are only in our second year of collecting HHW and are becoming more efficient and knowledgeable as time passes. This facility also houses the offices of the Grand Island Area Clean Community System. THIS PROJECT WAS FUNDED \$55,000 IN 2014 WITH THE INTENT TO FUND UP TO \$55,000 IN YEAR TWO AND \$55,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Green Recycling Enterprises, LLC dba Second Nature  
Public Recycling

**Nearest Town:** Omaha

**Project Name:** Recycling on the Go!

**Project No:** 15-217-2

**Amount Requested:** \$147,275

**Term of Project Request:** 3

**Review** Recycling

Second Nature Public Recycling, Inc. is a newly formed non-profit providing recycling containers at public events throughout Nebraska. During the four years Green Recycling has been providing recycling for events, municipalities and other locations in Nebraska. We have concluded this business model is better served as a non-profit and have created Second Nature as a non-profit. We have proven the demand for public recycling containers at over 90 events in 2013 and we should hit 100 in 2014 with multi event locations. Some events we conducted include: 1) College World Series; 2) State Fair; (3) Lincoln marathon and the (4) Apple Jack and Arbor Day. Second Nature wants to continue providing events for Recycling on the Go campaign for years to come as a Non-profit with support from Green Recycling Enterprises, LLC. Second Nature will secure additional funding from sponsors as a non-profit for the Recycling on the Go campaign by providing a promotional opportunity via a full-color graphic display located on each side of the recycling containers. The program was extremely successful in 2011 through 2014. People were aware of the containers from previous years and used them to recycle more products. The event coordinators, staff and patrons were expecting the containers this year and were more open to our program. NET's financial support will provide the stimulus to ensure the successful continuation of our campaign. These messages will educate over 1.5 million event participants about recycling. The NET can use these displays to promote its' mission and accomplishments. The support of the NET will enable Second Nature to provide a turnkey recycling campaign for the State of Nebraska. Without the NET and private sponsors, Second Nature would not be able to provide this successful and proven program.

THIS PROJECT WAS FUNDED \$150,800 IN 2015 WITH THE INTENT TO FUND UP TO \$147,275 IN YEAR TWO AND \$142,800 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Groundwater Foundation, The

**Nearest Town:** Statewide

**Project Name:** Recharging Groundwater: Tools for Engagement and Action

**Project No:** 16-179

**Amount Requested:** \$325,500

**Term of Project Request:** 3

**Review** Education

Protection and conservation of Nebraska's most precious natural resource, groundwater, needs to be an ongoing effort since the threats and demands on it are ever-increasing. With business as usual it is predicted that by 2050 there will be a 40% deficit in meeting the global demand for water. The Groundwater Foundation's (GF) project, Recharging Groundwater: Tools for Engagement and Action, will change the business as usual model. The project will bring together a coalition of organizations in the water sector with education and marketing experts to develop a unified voice about the value of groundwater, enhance educational opportunities for youth and share information about ways for Nebraskans to get involved in protection and conservation efforts. This will include: development and distribution of cohesive messages about groundwater and its role in sustaining life, creation and population of a central online location for the general public to find information about events and activities, career-building mentoring opportunities for up to 60 youth, up to 30 training sessions (plus downloadable versions online) for educators to learn how to use groundwater education tools in classrooms across the state, distribution of up to 100 toolkits to educators at no cost, updated online tools and resources specifically for educators, utilization of mobile apps to incentivize individuals and businesses to get involved in protection and conservation activities. The project is particularly interesting since it will utilize existing educational tools (many which were developed with previous funding from NET), enhance their features and expand their usage, further increasing previous NET investments. In addition, the project will be matched by funding secured from the Robert B. Daugherty Foundation and project partners. This project effectively fulfills the Trust's priority of actions to inform and educate about preserving our state's primary water supply, groundwater, from degradation or depletion.

**Sponsor Name:** Habitat for Humanity of Omaha, Inc.

**Nearest Town:** Omaha

**Project Name:** Pilot Deconstruction Program

**Project No:** 16-149

**Amount Requested:** \$160,000

**Term of Project Request:** 1

**Review**

Waste Management

HFHO demolishes 50 blighted houses annually in an effort to “fight-the-blight” and stabilize neighborhoods. HFHO provides the expertise to acquire properties, many with complex title issues. HFHO’s project management team coordinates the demolitions utilizing a competitive bid process to ensure an effective use of our funds. Our success is extremely gratifying through the numerous benefits realized by the removal of blighted houses within our community’s neighborhoods; however, we believe that more can be done to improve the outcomes. Each demolition produces an average of about 10,000 cubic feet of debris to local landfills. HFHO is disheartened to recognize that much of those materials can be recycled or repurposed; however, the additional costs to fully deconstruct a house and divert salvageable materials away from the landfills, versus a typical demolition, have stymied efforts to enhance our demolition program. HFHO seeks to implement a Pilot Deconstruction Program to perform whole house deconstruction on 10 blighted houses that would otherwise be slated for demolition and “softstrip” deconstruction for an additional 20 houses in our current demolition program. Deconstruction is the process of selectively dismantling a house and reusing, recycling, or upcycling the maximum materials possible, thereby diverting them from the landfill. Typically, 60% of a house can be salvaged, in some cases over 75%. Materials that can be recycled or repurposed include: plywood, dimensional lumber, hardwood flooring, bricks, windows, concrete, fixtures, doors and knobs, hinges, paneling, insulation, stairs and railings, trim, lathe and countertops. In addition to the environmental benefit of decreasing landfill use, a second goal is to reduce the need for raw materials by making salvaged materials available for use in new and rehabilitation construction projects, specifically old growth lumber. A peripheral benefit of the program is to facilitate the marketability for salvaged dimensional and old growth lumber and other reusable building materials, thereby decreasing the future subsidies HFHO’s demolition funding partners will provide base funds for the cost of a typical demolition. We request that NET fund the delta between the cost of demolition and cost to deconstruct.

**Sponsor Name:** Hastings, City of - Utilities Department

**Nearest Town:** Hastings

**Project Name:** Vadose Zone Nitrate Study for the City of Hastings, NE

**Project No:** 16-113

**Amount Requested:** \$100,000

**Term of Project Request:** 1

**Review**

Water

Hastings Utilities operates the water system for the City of Hastings, NE (pop. 25,000). The water system also serves the Village of Trumbull, NE (pop. 200) and a private water system serving the Hastings East Industrial Park. The City of Hastings has been facing increasing nitrate and uranium concentrations in the groundwater supplying their municipal wells. Selenium and pH levels also are increasing. Traces of atrazine also occur in the groundwater. City wells pump from multiple locations directly into its distribution system without treatment or storage facilities. To provide conventional water treatment it is estimated to cost the city \$75,000,000. An innovative Aquifer Storage and Restoration (ASR) project is being developed at an estimated cost of \$46,000,000. This ASR project is being developed with the anticipation that nitrate control can be accomplished by continued implementation of the Hastings Nitrate Management Plan. In order to better understand how to manage these problems, the city would like to sample and estimate the amount of nitrate, and other agrichemicals stored in the vadose zone within the Hastings Wellhead Protection Area. This information will be used to better predict the time for the stored nitrate mass to reach the water table and eventually impact their public water supply. The objectives of the proposed Vadose Zone Nitrate Study for the city of Hastings are the following: Improve estimates of the current masses nitrate and pesticide in the vadose zone from the same locations as previously sampled in 2011, Project jointly funded by NRDs, and Hastings Utilities/City of Hastings, estimation of travel time from land surface to ground water for various scenarios, and estimate the potential for de-nitrification in the vadose zone and associated groundwater.

**Sponsor Name:** Iain Nicolson Audubon Center at Rowe Sanctuary

**Nearest Town:** Kearney

**Project Name:** Integrating new core habitat

**Project No:** 16-144

**Amount Requested:** \$87,456

**Term of Project Request:** 2

**Review**

Rural Habitat

Iain Nicolson Audubon Center at Rowe Sanctuary (Rowe Sanctuary) is dedicated to the conservation of Sandhill Cranes, Whooping Cranes and other migratory birds and their habitat along the Platte River in southcentral Nebraska. Rowe Sanctuary seeks funds to integrate new core habitat and restore essential interconnectedness between grasslands and the Platte River through execution of the following Nebraska Natural Legacy Project strategies: 1) Restore additional grassland habitat in the valley through high-diversity, local ecotype restorations, 2) Undertake tree clearing to maintain open meadow habitat for Sandhill Cranes, Whooping Cranes, and grassland birds, and 3) Implement planned grazing strategies to reduce exotic cool-season grasses and improve native plant diversity and vigor. Additionally, Rowe Sanctuary will use its unique ability to gather people as an opportunity to highlight the resulting habitat and provide nature-based interpretation and education focusing on the annual crane migration and central Platte River ecosystem. This work will take place at the core of the contiguous, protected complex at Rowe Sanctuary. Work will focus on restoring agricultural land to native upland prairie and wet meadow habitat, increasing native plant diversity, reducing habitat fragmentation and removing hazards to at-risk species. Work will also improve our ability to manage habitat more effectively and by a variety of means for the benefit of at-risk and other target wildlife species. The activities outlined in the following proposal are critical to our ability to adequately ensure protection of important bird species which currently do or might use the Sanctuary. We intend to make our work replicable, and have tools in place to assess the impact and success of the project. We currently have additional, confirmed funding to support this project, and will work within the scope of the existing cooperative efforts to restore and enhance habitat within the Central Platte River Valley.

**Sponsor Name:** Joslyn Castle Institute for Sustainable Communities

**Nearest Town:** Statewide

**Project Name:** Sustaining the Conservation of Nebraska Environmental Resources (SCNER)

**Project No:** 15-126-2

**Amount Requested:** \$125,000

**Term of Project Request:** 2

**Review**

Education

The Joslyn Institute for Sustainable Communities proposes to develop an annual series of public lectures, workshops, conferences, and distributed information on applied practices with emphases on the following priority categories of the NET: Habitat, Surface and Ground Water, Waste Management, Air Quality, and Soil Management. This “strategic communications design for conservation and sustainable development” can be applied throughout Nebraska on any and all environmental issues. By “communications” we mean the complex processes of human interaction(s) necessary to address a problem-opportunity that is embedded in the interdependent systems of nature, public policy, economics, technology and local culture. By “design” we mean intentional and creative intervention and innovation in the making of something that was once problematic, needing conservation, or underutilized into something that efficiently and effectively serves the public good. The proposed annual events will focus on the following objectives: 1) Scheduling of at least two public lectures by national and Internationally recognized specialists, in partnership with an existing endowed lecture series at the University of Nebraska-Lincoln (Hyde Lecture Series, College of Architecture); 2) Partnership collaboration with Central Community College and Metropolitan Community College, Omaha, for annual statewide broadcasts of web-based presentations on “The Sustainability Leadership Presentation Series (SLPS)” (the already planned 2014-2015 series will schedule nine presentations); 3) Production Design of one annual “Nebraska Ecospheres Conference” to focus on barriers, issues, and potential progress across the state with a focus on conservation and sustainable development; 4) Establishment of an annual public awards and recognition program for successful applications of conservation and sustainable development practices; 5) Production Design of a web-based, and hard copy library of transformative and transferable information on statewide resources for conservation and sustainable development. THIS PROJECT WAS FUNDED \$125,000 IN 2015 WITH THE INTENT TO FUND UP TO \$125,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Kansas State University **Nearest Town:** Statewide  
**Project Name:** Identifying critical habitat needs for the state threatened southern flying squirrel **Project No:** 16-158  
**Amount Requested:** \$179,005 **Term of Project Request:** 3 **Review** Education

Forest habitat loss and fragmentation is an ongoing threat for many species. This is especially true for species requiring large contiguous tracts of forest for dispersal and population persistence. The southern flying squirrel (*Glaucomys volans*; hereafter SFS) is a habitat specialist that requires large blocks of forest habitat comprised of diverse populations of mast-producing trees. Historic landscape conversions from forest to agriculture, however, have likely constrained the current distribution of SFS in Nebraska to only four counties along the Missouri River. Commercial logging and home building in this region is a continuing threat that will likely further reduce the amount of remaining good-quality habitat for this (and other) species. Although SFS are considered threatened (Tier I) in Nebraska, we know very little about their current distribution or population abundances. To better inform management and conservation efforts for this species, we need a clearer understanding of how forest management affects population growth and persistence. Our objectives are to 1) empirically assess the current distribution of SFS in Nebraska, 2) obtain robust estimates of relative population densities, and 3) identify forest-management or restoration practices that will benefit SFS populations in Nebraska. Because our current understanding of these factors is surprisingly limited, our data will provide critical baseline measurements to assess the effectiveness of future forest-management practices for this threatened species.

**Sponsor Name:** Keep Alliance Beautiful **Nearest Town:** Alliance  
**Project Name:** Recycling Center Operations and Education Program **Project No:** 16-206  
**Amount Requested:** \$81,189 **Term of Project Request:** 1 **Review** Recycling

Keep Alliance Beautiful Board of Directors and Staff wish to continue recycling in Box Butte County, Nebraska. We will continue to accept recyclables at the Recycling Center as well as convey from collection trailer sites in Alliance and Hemingford, Nebraska. KAB sends the bulk of our gathered and baled commodities to Western Resource Group in Ogallala, Nebraska via a local transportation company (NTC) with trucking operations located in Alliance, Nebraska to minimize transportation costs and maximize rebate values. Grant funding is necessary to sustain local recycling operations, maintenance and staff wages. The City of Alliance is planning a feasibility study of a regional recycling center, as well as the City assuming recycling responsibility and providing curbside recycling service in our community. KAB supports the City of Alliance in this endeavor and the community as a whole will benefit from continued collaboration of both entities. Keep Alliance Beautiful will continue to educate, empower and inspire Box Butte County Residents to take greater responsibility for their community and the environment through activities, programs and education in area schools and in the community. KAB has access to materials from Keep America Beautiful and uses their "Waste in Place" curriculum as well as other programs, activities and games to engage students and individuals of all ages. KAB will implement a new after school art program that brings adult and older student volunteers together with younger children to create things from used materials. There is no age limit for participants of this program for creating or assisting. KAB will accomplish our mission by partnering with area businesses, community leaders and neighbors to work together to create a clean and safe place to live and work for future generations.

**Sponsor Name:** Laurel Regional Recycling **Nearest Town:** Laurel  
**Project Name:** Hub & Spoke Regional Recycling **Project No:** 16-211  
**Amount Requested:** \$126,949 **Term of Project Request:** 1 **Review** Recycling

This project will institute the "Hub and Spoke" system to create regional recycling in Northeast Nebraska and result in 1,031 tons being diverted from the landfill. The Laurel Regional Recycling Center will serve as the processing "hub" and three smaller communities will serve as the "mini-hubs/spokes" along with three other community "spokes". Forty (40) rolling 10-yard galvanized carts will be fabricated and a used truck tractor and semi-trailer will be purchased. The carts will be delivered to the "mini-hub" communities to put recyclables in and then, as scheduled, Laurel Regional Recycling will pick up the full carts and drop off empty ones. Educational events will be held in each town so citizens are well aware of what to do, why to do it, and how they're benefitting in this recycling process.

**Sponsor Name:** Lied Lodge and Conference Center **Nearest Town:** Nebraska City  
**Project Name:** Biomass Absorption Chiller and Fuel-wood Gallery **Project No:** 16-145  
**Amount Requested:** \$65,000 **Term of Project Request:** 1 **Review** Education

The project for which funding is sought is an innovative, educational exhibit located in the Visitor Gallery of the Fuel-wood Energy Plant located on the grounds of Lied Lodge & Conference Center at Arbor Day Farm. Visitors will be able to watch as woodchips are moved through the Fuel-wood Energy Plant and converted to steam that provides hot water (for lodging rooms, kitchen and indoor pool) and room heating and air conditioning for 120,000 square feet at Lied Lodge Conference Center. The exhibits within the Visitor Gallery will explain and interpret the process used in the plant for turning trees into energy. The system will demonstrate and educate all visitors how the heat of burning wood chips will cool through the biomass absorption system. Visitors will experience audio-visual presentations, interactive computer kiosks and animated lighting to highlight various equipment and system features. The gallery is designed to facilitate self-guided as well as assisted tours. For many visitors, Lied Lodge serves as a first impression of our state. The improvements to this plant will positively impact the visitor experience and continue to educate and inspire sustainability for the next 20 years and beyond. Tens of thousands of industry leaders, families, students, decision-makers and professional organizations will continue to tour this educational fuel-wood gallery and return home with a newfound enthusiasm for the environment.

**Sponsor Name:** Lincoln, City of **Nearest Town:** Lincoln  
**Project Name:** Community-Driven Toxics Reduction: A Proposal to Construct a Household Hazardous Waste (HHW) and Small Business (CESQG) Hazardous Waste Facility **Project No:** 16-117  
**Amount Requested:** \$300,000 **Term of Project Request:** 1 **Review** Waste Management

The Lincoln-Lancaster County Health Department (LLCHD), in cooperation with the City's Public Works and Utilities (PWU) Department is seeking \$300,000 to construct a facility that will offer year-round collection of hazardous waste from households and small businesses. The City of Lincoln will match \$300,000. The goal of this project is to construct a Household Hazardous Waste (HHW) and Small Business (CESQG) Hazardous Waste Facility at the North 48" Street Transfer Station. The HHW/CESQG Facility will give year-round access to safe and legal hazardous waste disposal for 300,000 plus residents and upwards of 4,000 small business/agencies that are exempt from State and Federal hazardous waste regulations. A facility will reduce health risks and the risk of environmental contamination of water, land and air caused by improper management and disposal of HHW and CESQG wastes. It will also help to support the growth and prosperity of small businesses in Lincoln and Lancaster County by offering a lower cost option for hazardous waste disposal. The Lincoln-Lancaster County Solid Waste Plan 2040 process revealed that 69% of residents surveyed believe a building should be constructed to accept hazardous waste year round. The plan also noted a HHW/CESQG Facility would likely result in: increased accessibility to hazardous/toxic waste disposal and increased opportunities for toxics-reduction education. Through past Trust (NET) funding, the City's contractor, SCS Aquaterra, confirmed the transfer station would work well as a HHW/CESQG Facility site. Additionally, the NET funded UNL-Public Policy Center community engagement effort revealed strong community support for a facility at the transfer station. LLCHD will also request \$300,000 from the Nebraska Department of Environmental Quality (NDEQ) in February 2016, and the City will provide 100% match. LLCHD has also confirmed strategic community partners that will provide important technical assistance in support of the facility development process.

**Sponsor Name:** Lincoln, City of **Nearest Town:** Lincoln  
**Project Name:** Eastern Saline Wetlands Project- 2016 **Project No:** 16-116  
**Amount Requested:** \$975,000 **Term of Project Request:** 3 **Review** Rural Habitat

The Eastern Saline Wetlands Project 2016 will conserve the most imperiled natural community in Nebraska. The eastern saline wetlands ecosystem is located primarily in the Salt Creek watershed in northern Lancaster and southern Saunders counties. Conserving these wetlands protects the fauna and flora which survive in these saline wetlands unique to this limited area of the state including the Salt Creek tiger beetle and saltwort plant. Approximately 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 restoration and management work on the saline wetlands. 2. By acquiring the wetlands and adjoining buffer and connective tracts in fee simple or purchase of permanent conservation easements from willing sellers. 3. Implementing activities identified in Upper Little Salt Creek Saline Wetlands Planning Project (2015) 4. By continuing to retain a full-time Saline Wetlands Coordinator. Future wetland restoration projects were identified through the Upper Little Salt Creek Saline Wetlands Planning Project (2015), which was funded through the City of Lincoln 2012 NET grant. The plan developed a spatial analysis tool to evaluate existing conditions of the saline wetlands to assist the Partnership in prioritizing future conservation projects. Land acquired or conserved is largely left in its natural state or used for limited agricultural purposes. The saline wetlands exist in the flood plains of the streams. The conservation of them provides a permanent measure of flood control along the waterways and protects the quality of water from typical urban and agricultural pollutants. With the Saline Wetlands Conservation Partnership and a Coordinator focused on the project, the partners will implement the Planning Project; a framework for effective and higher-leverage conservation of the eastern saline wetlands. We feel the Eastern Saline Wetlands Project 2016 qualifies for the feature program bonus.

**Sponsor Name:** Lincoln, City of - Parks and Recreation Department (LPRD)      **Nearest Town:** Lincoln  
**Project Name:** Prairie Corridor Phase II      **Project No:** 16-122  
**Amount Requested:** \$950,000      **Term of Project Request:** 3      **Review:** Rural Habitat

Vision: To manage and enhance tallgrass prairie, riparian habitat and wetland areas, linking two premier environmental education centers, Pioneers Park Nature Center and Spring Creek Prairie Audubon Center, with a 10-mile trail traversing the length of the corridor, and trail segment connecting to Conestoga Lake State Recreation Area. Visitors will be able to experience and learn from the Prairie Corridor, exploring a diversity of habitats and species. Since the initiation of Phase I, the project has protected an additional 492 acres of prairie and other natural resources through the purchase of land and conservation easements for a total of 5,020 acres of conserved prairie, and has reestablished 38 acres of tallgrass prairie. Phase II Components: Conservation- Purchase of fee simple and conservation easements from willing property owners. Habitat- Prairie land management, enhance existing native seeding, manage saline wetlands, replant riparian areas, and tree removal. Research- To increase the knowledge regarding tallgrass prairie management and investigate the rapid decline of pollinators, UNL's School of Natural Resources will partner with LPRD to investigate the following: Pollinators: Research will look at how to increase pollinator species in design and management of prairie reconstruction, or conduct monitoring to document trends in species abundance and richness to help identify potential causes of change. Habitat Diversity within the Urban/Rural Nexus: Research will look at how composition, size and shape of various prairie areas from virgin prairie to Conservation Reserve Program (CRP) grasslands, to reconstructed prairie on agricultural ground, to the rough in the Pioneers Park golf course contribute to diversity, resiliency and species richness, and how the Prairie Corridor can best be designed and managed to further this diversity. Trail/Economic Development will increase recreational opportunities and tourism, enhancing the economies of the City of Lincoln and the Village of Denton.

**Sponsor Name:** Little Blue Natural Resources District      **Nearest Town:** Edgar  
**Project Name:** Skinner Wetland Enhancement and Protection Project      **Project No:** 16-152  
**Amount Requested:** \$291,000      **Term of Project Request:** 2      **Review:** Rural Habitat

The land on which the proposed Skinner Wetland Enhancement and Protection Project lies is within the Rainwater Basin of Nebraska, two miles west of Edgar, Nebraska. Under this project proposal, approximately 35 acres of upland irrigated and dry cropland will be retired and restored to diverse upland prairie grasslands, while an additional 25 acre wetland basin will be protected and enhanced. The plan calls for seeding existing cropland to native grasses and forbs, permanent perimeter fencing of the entire area, and establishing a pipeline from an existing water well to the wetland for the purpose of supplemental water in dry periods and providing a livestock water supply for controlled flash grazing of the wetland. This proposed easement will protect the 60 acres of wetlands and associated upland grasslands for the 30-year term of the easement. The proposal will have many benefits, including: protection of an important wildlife habitat for migratory birds and resident wildlife, retirement of an odd-shaped field of irrigated cropland and subsequent groundwater use reduction, improvement of water quality, soil conservation, improvement of air quality, and a potential increase in wildlife-dependent recreation. The tract will remain in private ownership and will be used for haying and grazing purposes, thus continuing to provide positive tax resources and economic activity for the area. Funds from the Nebraska Environmental Trust Fund are requested to assist with the land appraisal, the purchase of the conservation easement and establishment of an escrow fund for future defense of the easement if necessary, and the implementation of the habitat enhancement plans.



**Sponsor Name:** Little Blue Natural Resources District **Nearest Town:** Hebron  
**Project Name:** Little Blue River Environmental Restoration and Riparian Habitat Enhancement Project **Project No:** 16-107  
**Amount Requested:** \$550,000 **Term of Project Request:** 2 **Review** Bank Stabilization

The Little Blue Natural Resources District (LBNRD) is requesting funding support from the NET for Environmental Restoration and Riparian Habitat Enhancements on the Little Blue River. This Project is the first step in implementing the Little Blue River Basin Water Management Plan (Plan) and addresses other downstream priorities identified by the State of Kansas, Nebraska's State Nonpoint Source Plan and Nebraska's 303(d) impaired water list. The Plan identified target areas along the Little Blue River that are in need of environmental restoration as a result of lost riparian habitat and excessive bank erosion. The Project's purpose is to enhance the environmental integrity of the Little Blue River by stabilizing highly erosive stream banks and establishing buffers. The use of bendway weirs provides a unique approach to streambank protection that will also result in improved aquatic and riparian habitat and a reduction in impacts from sediment and nutrient loads. In addition to weir construction, streambanks will also be re-shaped and stabilized with willow, dogwood, and grass. Private ground surrounding the site will be established as a grass buffer to enhance project performance and reduce future maintenance costs. LBNRD is modeling the Project from a highly successful downstream effort by Kansas in Washington County. Two sites have been selected for this project, both of which will be used as demonstrations for other interested stakeholders. Pre-project and post-project biological monitoring will be conducted by NDEQ to quantify changes in the biological communities and document project benefits. This will be a two year project with design and engineering being completed in year one and construction starting in year one and being finished in year two. This project will be accomplished through a public/private partnership between the Nebraska Department of Environmental Quality, property owners, LBNRD, and NET.

**Sponsor Name:** Little Blue Natural Resources District **Nearest Town:** Minden  
**Project Name:** Puddles under the Pivots **Project No:** 16-111  
**Amount Requested:** \$626,600 **Term of Project Request:** 3 **Review** Rural Habitat

Activities outlined in this proposal will restore wetlands and provide compatible solutions that will compliment agriculture operations. Grant funds will be leveraged with significant funding from a Natural Resources Conservation Service's (NRCS) Wetlands Reserve Easement Partnership (WREP) grant. Annually, NRCS requests proposals to develop WREP Special Initiatives. These Special Initiatives focus on innovative approaches that enable tracts, enrolled in the Wetlands Reserve Program, to "fit" into local agriculture operations. This year the Rainwater Basin Joint Venture (RWBJV) submitted a 1,200 acre proposal focusing on programmatic flexibility necessary to ensure producers could retain the right to pass the pivot over enrolled acres. In the past, landowners were hesitant to enroll because it would inhibit their ability to complete full rotations if the pivot had to travel over program acres. The \$626,600 of Nebraska Environmental Trust funding will be used for wetland restoration, pivot modification, and establishment of grazing infrastructure. A variety of pivot modifications could be utilized, like moving the pivot point, integration of track systems, and/or low pressure tires to name a few. These modifications will eliminate any impact to the restored wetlands and ensure the pivot can pass over the enrolled acres. Grazing infrastructure (perimeter fence, pivot gates, livestock well, etc.) will be established to ensure the restored acres can be seamlessly transitioned from flood prone cropland to forage production. Grazing will maintain the working nature of the lands and maximize habitat conditions. Three of Nebraska's largest pivot manufactures (Lindsay, Reinke, and Valmont) have signed on as corporate partners. These companies have committed to develop a cost-share program for pivot modifications and assist with outreach and marketing through their diverse pivot dealer network. These dealers will be able to identify a multiple producers that will be a good fit for this program and ensure implementation success.

**Sponsor Name:** Live Well Omaha

**Nearest Town:** Omaha

**Project Name:** Omaha B-cycle Expansion

**Project No:** 14-169-3

**Amount Requested:** \$30,000

**Term of Project Request:** 3

**Review** Air Quality

Live Well Omaha is respectfully requesting philanthropic investment from the Nebraska Environmental Trust for the expansion of its Omaha B-cycle program. Omaha B-cycle is a public bike sharing program currently operating in the greater Omaha metro area. Similar to other programs in cities such as New York City, Madison, and Denver, the public at large can check out a bike from any station, ride it, and return it to that station or any other station in the area. Currently, we have 8 stations and 43 B-cycles concentrated in Aksarben Village, the University of Nebraska-Omaha campus, and Downtown Omaha. Starting in late 2013, we are launching a silent fundraising campaign to cultivate financial support for an additional 60 stations and 300 B-cycles to be placed throughout the Omaha metro area. A system this size acts successfully as a useful alternative transportation option for residents and visitors, effectively reducing vehicle miles travelled as well as increasing the physical fitness of the population. By reducing vehicle miles travelled and increasing the use of alternative modes Omaha B-cycle will help reduce the emissions of harmful pollutants into the atmosphere and assist the Omaha metro area in remaining within attainment goals for air quality. Live Well Omaha is seeking \$600,000 over three years to purchase stations in year one, and support operations and evaluation in years one, two, and three. THIS PROJECT WAS FUNDED \$275,000 IN 2014 WITH THE INTENT TO FUND UP TO \$45,000 IN YEAR TWO AND \$30,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Live Well Omaha

**Nearest Town:** Omaha

**Project Name:** Heartland B-cycle Transit Oriented Expansion

**Project No:** 16-219

**Amount Requested:** \$439,000

**Term of Project Request:** 3

**Review** Air Quality

Heartland B-cycle, a program of Live Well Omaha, is the recent receipt of a \$930,327 federal grant to fund 80% of an expansion of 36 stations and 152 bikes and is seeking matching funds for these dollars. With this funding, Heartland B-cycle is positioned to expand the system by adding bikes and stations in spring of 2017, 2018, and 2019. The goal of this expansion is to increase the bike share system’s ability to function as a transit extender and last-mile solution for bus commuters. By making alternative modes of transportation easier for commuters, we seek to increase the number of commuters using bike sharing as an active mode of transportation, thus decreasing car use, and improving air quality. Large-scale bike sharing systems are a viable, accessible, and sustainable transportation option that improves air quality and public health by reducing the vehicle miles travelled (VMT) among existing car users. A widely available network of stations allows users to use a bike instead of a car for all or part of their trip. Even with tremendous use to date Heartland B-cycle’s 31 station system needs a larger footprint to help drive more ridership and adequately benefit all willing users in the metro area. Nebraska Environmental Trust (NET)’s financial support and public partnership helps make this vision a reality by providing critical matching funds for the expansion grant received in partnership with Metropolitan Area Planning Agency (MAPA). With NET’s investment, MAPA estimates this equipment could reduce 609,790 kg of pollution over the equipment’s 10-year useful life. As a critical funder of this project the Trust would be recognized prominently on the 36 stations and 152 bikes that are part of this grant, helping to educate the public on air quality issues, and providing a visible and lasting legacy for our state.

**Sponsor Name:** Lower Big Blue Natural Resources District      **Nearest Town:** Jansen  
**Project Name:** Cub Creek 12A Reservoir Water Quality Project      **Project No:** 16-105  
**Amount Requested:** \$305,000      **Term of Project Request:** 2      **Review**      Lake Rehabilitation

This shovel ready water quality improvement project will be conducted on Cub Creek 12A Reservoir, located in Jefferson County, Nebraska. The reservoir is owned and operated by the Lower Big Blue Natural Resources District (LBBNRD). Cub Creek 12A Reservoir is listed as "impaired" from E. coli bacteria on Nebraska's 2014 Section 303(d) List and has been on this list since high concentrations were documented in 2005. In 2011, the LBBNRD concentrated efforts to improve watershed conditions with a goal of reducing bacteria and nutrient loading by 30 percent. Increased cost-share and incentives were provided through a combination of funding from the USDA, NDEQ, and the LBBNRD. Landowner participation in land treatment program has been tremendous resulting in a bacteria loading reduction of 47 percent. With the accomplishment of major watershed improvements the LBBNRD will now focus on improving reservoir conditions. Reservoir alternative selection and project design was based on results and conclusions from watershed and reservoir assessments. Final design and construction cost estimates, funded by the LBBNRD and NDEQ, are completed. This project is identified as a "high priority" in the Nonpoint Source Watershed Plan for the Lower Big Blue River Basin and is listed as an Impaired Lake Identified for Restorative Actions in the Nebraska Nonpoint Source Pollution Management Plan - 2015. The LBBNRD proposes to utilize a combination of funding sources including NET for reservoir deepening, installation of jetties, the creation of wetlands, and shoreline stabilization.

**Sponsor Name:** Lower Loup Natural Resources District      **Nearest Town:** Multiple  
**Project Name:** Irrigation Monitoring Program      **Project No:** 14-150-3  
**Amount Requested:** \$57,050      **Term of Project Request:** 3      **Review**      Water

Funding is being sought from the Environmental Trust Fund to cost-share flowmeters for irrigation wells in order to increase awareness of pumping totals occurring in the Lower Loup Natural Resources District (LLNRD). The LLNRD would continue to match Environmental Trust funds with NRD funds towards the purchase of flowmeters to a maximum of \$1,500 per approved site. Installation of purchased flowmeters would be paid for by the cooperating landowners. Additionally, the LLNRD would also use Trust funds to assist with the purchasing for soil moisture probes for the cooperating landowners and acquiring pressure transducers and data loggers for deployment at some of the cost-shared flowmeter sites in order to continue to expand the District's monitoring program. Pressure transducers would be used to determine the long-term impact of pumping on the water level in each of the well casings. Previously deployed transducers have proven to be invaluable when monitoring the impact of irrigation on static water levels. Data loggers would be used to further clarify exact irrigation amounts throughout the season and compare data to the pressure transducers. The addition of soil moisture sensors to this study will allow irrigators to track available moisture at varying root depths in their fields and to help justify irrigation at the flowmeter sites. This is a continuation of a project originally funded by the Environmental Trust which has been considered extremely successful. There is interest in this program and, with the modification, will provide better data and give irrigators a better perspective on their irrigation program. Additionally, data on the amount of water withdrawn from the aquifer used in combination with changes in static water levels will continue to provide the LLNRD Board of Directors and other management entities with a key piece of information when developing groundwater management policy. THIS PROJECT WAS FUNDED \$49,400 IN 2014 WITH THE INTENT TO FUND UP TO \$48,050 IN YEAR TWO AND \$57,050 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Lower Platte North Natural Resources District      **Nearest Town:** Wahoo  
**Project Name:** Implementation of the Wahoo Creek Watershed Plan- Phase II      **Project No:** 16-125  
**Amount Requested:** \$106,000      **Term of Project Request:** 1      **Review**      Rural Habitat

Nebraska Environmental Trust Funds, combined with NDEQ Section 319 and project sponsors' monies, will be used to continue the work of implementing the 2013 Wahoo Creek Watershed Water Quality Management Plan (WQMP), which has the ultimate goal of removing Wahoo Creek from the NDEQ "Impaired Waters" List. This project focuses on the first four (4) priority sub-watersheds (Cottonwood Creek, North Fork of Wahoo Creek, Dunlop Creek, and Miller Branch) of the Wahoo Creek Watershed. Other sub-watersheds that may be added to the USDA National Water Quality Initiative in Wahoo Creek will be included in this project as well. The specific activities prioritized for implementation during this phase will involve:

-Design and permitting of one (1) in-stream grade control structure and one (1) Wet Detention Basin structure to address stream instability and aquatic habitat issues, and

-Assist landowners with implementation of structural and agricultural Best Management Practices (BMPs) that reduce or prevents the runoff of nonpoint source pollution which contributes to the impairment of surface water and groundwater quality, instability of streams, and degradation of aquatic habitat.

The Wahoo Creek Watershed WQMP was prepared to guide development and implementation of future projects in sub-watersheds throughout the Wahoo Creek watershed through comprehensive implementation of structural and non-structural BMPs. These BMPs were prioritized to reduce pollution and pollutant loads to levels that will allow attainment of water quality standards and the improvement of the ecological integrity in affected waterbodies. In 2014 a supplemental implementation strategy document was completed to further identify critical areas within the priority sub-watersheds where BMPs should be directed. Both of these documents will be used in conjunction for this project to ensure the structures and BMPs are sited in locations to maximize cost-effectiveness and environmental benefits.

**Sponsor Name:** Lower Platte River Corridor Alliance      **Nearest Town:** Gretna  
**Project Name:** Agriculture BMP Effectiveness and Assessment Tool      **Project No:** 16-160  
**Amount Requested:** \$311,266      **Term of Project Request:** 2      **Review**      Rural Habitat

The goal of this project, supports the LPRCA mission, by adapting an existing tool to Nebraska with information on ag BMPs for agriculture producers and conservationists to use to address local nonpoint source pollution and water quality issues. Objective 1 under this goal will identify pollutant removal effectiveness research on ag BMPs that has been completed in Nebraska or surrounding states with similar ecoregions. The outcome will be a database or handbook which houses information on ag BMPs including: the associated NRCS Practice Code, expected life span, limitations and potential hindrances to applying the practice. Additionally, the database will contain comprehensive information that quantifies ag BMP effectiveness at reducing surface water loading. The information in the database would be used to identify research gaps in Nebraska, guide funding and inform different stakeholders on BMP effectiveness to set priorities for future research. Objective 2 will adapt an existing tool to Nebraska watersheds and conservation practice design standards that can be used to aid in surface water quality implementation plans and evaluation. The Prioritization, Targeting and Measuring Application (PTMApp) uses water quality related products derived from high resolution topographic data collected to inform the prioritization of resource concerns and target specific fields for the implementation of nonpoint source best management practices (BMPs) and conservation practices (CPs). The PTMApp will also "measure" the effectiveness of BMPs and CPs by cost and expected load reduction benefits at the resource of concern within the watershed. This project helps fulfill the next steps of the LPRCA Management Plan Implementation by inventorying existing BMPs, identify future BMPs, determine the existing loads of the parameters of concern, and measure the reduction in loading of the parameter of concern that would result from implementing a BMP at the resource being protected in order to make sound management decision.

**Sponsor Name:** Lower Platte River Corridor Alliance **Nearest Town:** Multiple  
**Project Name:** Community Awareness, Monitoring and Action for Water Quality Improvement **Project No:** 16-162  
**Amount Requested:** \$515,427 **Term of Project Request:** 3 **Review** Education

In the proposed project, the Lower Platte River Corridor Alliance (LPRCA), with support from the Center for Rural Affairs (CFRA), UNL's National Drought Mitigation Center (NDMC), the United States Geological Survey Nebraska Water Science Center (USGS-NEWSC), and Upstream Weeds (UW) will bring together farmers, community members, students, and scientists to raise awareness of, monitor, and take steps to improve water quality. We will work in three target communities whose water quality is at risk, promoting preventative measures and monitoring that will keep water quality from deteriorating and lead to eventual improvement in water quality. This project addresses the Trust's Surface and Ground Water priority. We aim to engage the public to improve water quality in their local environment through awareness, improved practices, and monitoring. The project will be led locally by community advisory boards, which ensure community support and local ownership. We will engage each community through regular community meetings, addressing the water quality issues that resonate and helping them preserve their water not only for drinking water and public health, but also for swimming, boating, fishing, and industrial uses. We will train citizen scientists and engage local high schools involve student scientists in monitoring water quality. We will make available and widely publish citizen scientist, student, and USGS water quality data . We will recruit and train farmers in best practices for water quality and help them access programs to assist in their efforts. We will bring the conversation on water quality to the public eye, changing attitudes and behaviors and laying the foundation for better water. Trust funding will be used to fund the majority of the project, aside from specific tools already in place that will be used for this project.

**Sponsor Name:** Middle Niobrara Natural Resources District **Nearest Town:** Ainsworth  
**Project Name:** Long Pine Creek Watershed- Phase I Implementation Project **Project No:** 15-216-2  
**Amount Requested:** \$62,600 **Term of Project Request:** 2 **Review** Rural Habitat

NET, Section 319, and project sponsors' monies will be used to establish the Long Pine Creek Watershed - Phase I Implementation Project for the priority sub watersheds. The specific activities will involve: design and permitting of eight grade control structures to address stream instability and aquatic habitat issues; identify specific location for implementing up to 12 Best Management Practices (BMPs) to manage irrigation and surface water runoff; hire a watershed coordinator to work closely with the landowners to implement BMPs; and implement numerous structural and agricultural BMPs (e.g., 8000 LF of stream bank stabilization, 160 acres of cover crop, 8,000 LF of fencing, 10,000 SF of composting/chips/manure; 75 acres of mulching) to correct land use deficiencies contributing to pollution of surface water and groundwater, instability of streams and degradation of aquatic and terrestrial habitat. The Long Pine Creek Watershed Water Quality Management Plan (WQMP) and associated Sand Draw Stream Restoration Plan evaluated 13 sub-watersheds to identify and prioritize management actions to address water quality and aquatic habitat issues throughout the area. Four of those watersheds: Sand Draw, Middle Bone Creek, Lower Bone Creek, and Lower Long Pine Creek were identified as high priority. The structural and agricultural BMPs will be implemented in these four priority watershed. The WQMP also outlines the restoration plan for lower reach of the Sand Draw Creek and identifies over 25 BMPs (grade control structures and other management actions) to stream bank stability, down cutting, and erosion problems. Approximately six to eight grade control structures will be designed and permitted as part of this project. Project sponsors will implement these structures after the design and permitting is completed and appropriate funding is secured. The ultimate goal of this Phase I Implementation Project is to remove the Long Pine Creek Watershed from the 303(d) list of impaired watersheds.

THIS PROJECT WAS FUNDED \$187,400 IN 2015 WITH THE INTENT TO FUND UP TO \$62,600 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Mid-Nebraska Disposal

**Nearest Town:** Grand Island

**Project Name:** Regional Solid Waste Recyclables Sorting Hub

**Project No:** 16-155

**Amount Requested:** \$400,000

**Term of Project Request:** 1

**Review** Recycling

Due to limited prices for recyclable materials and the success in encouraging and enabling recycling of waste materials, those entities involved in the marketing of recyclable across the state are seeking ways to reduce operating costs and many such entities are operating at near the capacity of the existing facilities and equipment. For these reasons the entities to which recyclables generated in eastern Nebraska are sold are now requiring that the recyclable materials be sorted and shipped separately. This requirement is resulting in situations where smaller communities, counties and private sector solid waste collection and disposal companies are limiting the amount of materials being recycled due to the inability and/or the cost of sorting the so they can be marketed. In the past, such recyclables were shipped as co-mingled bales. It is no longer possible to market co-mingled recyclables and there is thus a critical regional need in south-central Nebraska to establish a facility that can serve as a 20 county regional hub where such materials can sorted, baled and shipped as efficiently as possible. Mid-Nebraska Disposal, with its 15,000+ customers in 5 south-central Nebraska counties, has been collecting approximately 120 tons of recyclable material per month which will have to be landfilled instead of recycled if a recyclables sorting facility is not available This quantity is in addition to the over 800 tons of co-mingled recyclable material being temporarily stored by Mid-Nebraska Disposal due to lack of markets. This grant application is submitted to provide funding for purchase, installation and on-going operation of automated sorting equipment to enable such recyclables to be sorted as efficiently and cost effectively as possible so that recyclable materials generated in the region can continue to be marketed instead of landfilled.

**Sponsor Name:** Nebraska Academy of Sciences, Inc., The

**Nearest Town:** Lincoln

**Project Name:** Nebraska Environmental Public Information and Education MiniGrant Program

**Project No:** 14-101-3

**Amount Requested:** \$57,200

**Term of Project Request:** 3

**Review** Education

The Nebraska Environmental Public Information and Education MiniGrant Program will award a total of \$51,000 each year for the next three years, in MiniGrants of up to \$3,000 each, to support the presentation and dissemination of information and perspectives that will stimulate enhanced environmental stewardship in any category eligible for Nebraska Environmental Trust (NET) funding. These categories are habitat, surface and ground water, waste management, air quality, and soil management. The grants seek to expand dialogue on important current conservation topics and to provide information on emerging or highly useful conservation methods. All Nebraska individuals, private organizations, and public entities are eligible to apply for these funds. This program will be administered by the Nebraska Academy of Sciences. THIS PROJECT WAS FUNDED \$57,200 IN 2014 WITH THE INTENT TO FUND UP TO \$57,200 IN YEAR TWO AND \$57,200 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST..

**Sponsor Name:** Nebraska Association of Resources Districts**Nearest Town:** Minden**Project Name:** Divots in the Pivots**Project No:** 15-208-2**Amount Requested:** \$183,750**Term of Project Request:** 3**Review** Water

The project elements outlined in this grant will maximize irrigation inputs, restore wetlands, and recharge the aquifer, while being compatible with landowners' agriculture operations. Grant funds will provide critical non-federal match to support a Regional Conservation Partnership Program (RCPP) Initiative in the Rainwater Basin Wetland Complex. As part of the 2014 Farm Bill the RCPP was introduced. The goal of this program is to support locally led, public-private partnerships that implement innovative approaches to address pressing resource concerns. This year the Rainwater Basin Joint Venture (RWBJV) was awarded a RCPP. The broad goals of this RCPP are to implement field management solutions to optimize irrigation inputs and facilitate groundwater recharge. These objectives will be achieved through enhanced irrigation practices (variable rate pivot irrigation and/or subsurface drip), increased soil water capacity (non-till farming practices, soil water monitoring, implementation of a water budget), and increased groundwater recharge (restoration of playa wetlands) in 11 fields, thereby positively impacting 1,760 acres (11 fields @ 160 acres). The funds requested through this application will be leveraged with \$4.2 million in partner match to complete these projects, an 8:1 leverage of Nebraska Environmental Trust funds. The traditional RWBJV partners will support this project with both technical and financial contributions. In addition, landowner contributions and match from non-traditional partners including pivot manufactures (Lindsay, Reinke, and Valmont) and precision agriculture companies (Lindsay, Cropmetrics) has been committed to support this project. THIS PROJECT WAS FUNDED \$157,500 IN 2015 WITH THE INTENT TO FUND UP TO \$183,750 IN YEAR TWO AND \$183,750 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Nebraska Association of Resources Districts**Nearest Town:** Multiple**Project Name:** Platte River Management and Enhancement**Project No:** 16-129**Amount Requested:** \$1,290,450**Term of Project Request:** 3**Review** Rural Habitat

The Platte River is world famous for its diverse assemblage of flora and fauna and is home to many species of conservation concern. In addition to wildlife habitat, its braided channels convey water from upstream reservoirs to irrigation diversions and ultimately provides drinking water for several cities including Kearney, Grand Island and Lincoln. Consequently, maintenance of Platte River water supply and channel conveyance is critically important both from a conservation and civic perspective. The emergence and proliferation of invasive riparian plant species like phragmites over the past decade poses a serious threat to Platte River water supply and conveyance. To date, this threat has been managed through a massive collaborative invasive vegetation control effort led by Weed Management Associations. This effort has been highly effective but is quickly becoming resource-limited. The objective of this project is to protect habitat and water supply by maintaining and further improving channel conveyance along 336 miles of the North Platte, South Platte, and Platte rivers extending downstream from the Colorado border on the South Platte and Lake McConaughy on the North to the Platte - Loup confluence at Columbus. Herbicide will be used to control new infestations and maintain existing channel conveyance. Mechanical clearing of islands and choke points will be used to reverse narrowing and thereby improve conveyance. A coordinator will be hired to manage project communication and implementation activities, which will involve multiple entities and hundreds of private landowners. The coordinator position is vital to the success of this effort as it will allow partners to leverage resources and maximize impact. The project will also place a strong emphasis on communication, planning, and measurement of outcomes. Rigorous monitoring will be used to identify and evaluate the success of management actions. This information will be distributed to partners and landowners.

**Sponsor Name:** Nebraska Cattlemen **Nearest Town:** n/a  
**Project Name:** Leopold Conservation Award Video Project **Project No:** 16-134  
**Amount Requested:** \$30,000 **Term of Project Request:** 3 **Review** Education

In his influential book, A Sand County Almanac, Aldo Leopold called for an ethical relationship between people and the land they own and manage. This land ethic lives on in farmers and ranchers across Nebraska and nationwide who are committed to the enhancement of the land, water and wildlife in their care. Since 2006, Nebraska Cattlemen and Sand County Foundation have presented the Leopold Conservation Award (LCA) to families who internalize this land ethic and are dedicated to leaving their land better than they found it. Since 2010, the LCA Program has benefited from the announcement of the award recipient by the Nebraska Governor at the State Capitol on Earth Day. The governor's involvement has increased media interest in the award, including three Nebraska television stations, both major Nebraska newspapers, and numerous other print and online publications. The Associated Press picked up the Omaha World Herald's story for the past several years, expanding its reach to media outlets as far away as The Connecticut Post. The LCA Video Project seeks to capture the landowners' ethic in their own words, giving recipients an opportunity to share their story. Visual media are essential for not only archival purposes, but also for educating the general public on conservation practices occurring every day in Nebraska. Aside from actually setting foot on these operations, these videos are the best way to experience the exceptional efforts of these agricultural families. The project involves a full day of crew time interviewing the landowner and filming their conservation practices. The video will be professionally produced first as a stand-alone piece to be shown during speaking engagements, conventions, the Nebraska State Fair and trade shows, and second as a piece to be placed on the Foundation's YouTube channel, award partner and sponsor websites, and other online video outlets.

**Sponsor Name:** Nebraska Community Energy Alliance **Nearest Town:** Gothenburg  
**Project Name:** Nebraska Flyway Community Solar **Project No:** 16-124  
**Amount Requested:** \$349,000 **Term of Project Request:** 1 **Review** Air Quality

Community-based solar generation protects municipalities against the rising cost of conventionally-powered electricity (5.6% annual increases), reduces CO2 emissions, and benefits the community from local solar generation from Day 1. The Nebraska Community Energy Alliance is requesting \$361,325 from the Trust to seed fund \$150,000 to Central City and Gothenburg to reduce the price per kilowatt of each of the 500 kW solar projects of the Nebraska Flyway Community Solar Project to a price lower than conventional power. There exists until December 31, 2016 a 30% federal tax credit that, if captured by private investors, can reduce the cost to cities to build and own community-based solar generation. To qualify for the federal tax credits, the private investor group must build and own the property for the five-year credit capture period. The city agrees, during this time, to purchase solar electricity at a locked-in price for 25 years, manage the property and derive benefit from electricity sales. After five years, when the city exercises its option to purchase the property, the purchase price is steeply discounted from fair market value because the project is tied into the city's system. The cost per city is \$1.1 million, a match of 7:1. The environmental benefits of each 500 kW projects alone over 25 years offset CO2 emissions by 26,973,940.0 pounds, and generate electricity from Day 1 by 2167 kWh daily, 66,103 kWh monthly and 791,605 kWh annually for each community. Put another way, 500 kW solar panels would provide enough electricity to power electric vehicles 2.25 million miles annually for 25 years without any carbon emissions. Grant administration request of \$49,000 includes evaluation of the project's output and public access to the ongoing economic and air quality benefits of each project, high impact community dedications and outreach to other Nebraska communities who seek to replicate the project.



**Sponsor Name:** Nebraska Community Energy Alliance **Nearest Town:** Lincoln  
**Project Name:** Connecting Nebraska Communities Driving America's Fuel-II **Project No:** 16-123  
**Amount Requested:** \$490,030 **Term of Project Request:** 1 **Review:** Air Quality

In 2014, the Trust provided a fifty percent match to nine community members of the Nebraska Community Energy Alliance (NCEA) to fund the first phase of a statewide initiative to demonstrate that advanced technology vehicles, such as those fueled by electricity (EV) and compressed natural gas (CNG) significantly reduce CO2 emissions and cost less to own and operate than comparable gas-powered vehicles. The 2014 project effectively began building a community-based refueling infrastructure for electric vehicles using the ChargePoint™ Network charging stations in order to capture the economic and air quality data of EVs. The environmental impact, as extrapolated from the research, estimates that EVs cut in half the CO2 emissions of comparable gasoline-powered vehicles. Gas-powered vehicles emit 19.6 lbs. of CO2 per gallon at 21.6 mpg, emitting 0.91 lbs. of CO2 per mile, and 10,900 lbs. of CO2 per year. By comparison, preliminary findings ([www.engineering.unl.edu/e-vehicle/](http://www.engineering.unl.edu/e-vehicle/)) indicate on average that each EV reduced CO2 by 6000 lbs. totaling over 50,000 lbs. of CO2 saved this year for the entire project. Each community is estimated to save about \$900 annually per vehicle in fuel and maintenance costs when compared to a comparable gas vehicle. NCEA is requesting \$490,030 in 2016 NET funding to expand this effective carbon reduction and energy savings transportation project to nine new government locations and three returning cities. Each governmental entity commits 50 percent in local match to purchase eleven EVs, five CNG pickups, 21 ChargePoints™ at 19 installations, and hold 12 high impact community dedications, continuing research to demonstrate the economic and air quality benefits of the advanced technology vehicles. NCEA grant partners are South Sioux City, Dakota County, Allen Consolidated Schools, Wayne, Valley, Gretna, Ashland, OPPD, Nebraska City, Lincoln, Hastings, Kearney, ETP the University of Nebraska Lincoln.

**Sponsor Name:** Nebraska Department of Education **Nearest Town:** Statewide  
**Project Name:** Educating the Next Generation of Nebraskans About Soil Conservation **Project No:** 14-153-3  
 Using the Power Of Geographic Information Systems (GIS)  
**Amount Requested:** \$29,627 **Term of Project Request:** 3 **Review:** Education

The Dust Bowl was a tragic and difficult time for people living in Nebraska and large parts of the Great Plains. Mental images of great clouds of dust that destroyed crops and bankrupted families are part of our national memory of the Dust Bowl. What is often missing in the classroom are the changes in land use practices that utilized soil and water conservation techniques to restore the productivity of the land. Understanding how people can positively impact the environment is an important part of the Dust Bowl story that needs to be taught to the next generation of young people in order for them to understand the need for sustainable land use practices. The purpose of this grant application is to help sponsor a series of workshops across the state that will train teachers to teach about soil conservation practices. During three consecutive summers, teachers at five locations across the state will attend two-day workshops where they will learn about soil conservation and will visit rural and urban sites that employ successful soil conservation techniques. The teachers will take photos and gather information first-hand about soil conservation. The workshop will teach teachers how to take the information from the field and utilize Geographic Information Systems (GIS) software to create a computer document called a story map. Each story map will link photos of soil conservation to an interactive map and narrative about conservation practices. During the next school year, the process of creating story maps will then be taught by the workshop's teachers in classrooms across the state. The end result will be classrooms visiting sites in their local community and creating story maps that help young people to understand the successful soil conservation practices that are used to safeguard one of the nation's most valuable resources-soil. THIS PROJECT WAS FUNDED \$29,672 IN 2014 WITH THE INTENT TO FUND UP TO \$29,627 IN YEAR TWO AND \$29,627 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Nebraska Department of Natural Resources **Nearest Town:** Multiple  
**Project Name:** Platte Basin Water Management Action Initiative **Project No:** 15-138-2  
**Amount Requested:** \$3,300,000 **Term of Project Request:** 3 **Review** Water

The project is three year's allocation of funding for the Water Resources Cash Fund (WRCF) pursuant to the legislative mandate of LB 229, 2011, and as required by Neb. Rev. Stat. § 61-218(7)(a). All funds obtained through the allocation will be used for the purposes of the WRCF as set out in Neb. Rev. Stat. § 61-218(7)(b). The WRCF was established to fund the State's contingent water resources remediation needs in fully and over appropriated river basins. The WRCF has funded various projects since its inception in 2007. One project is the Platte Basin Habitat Enhancement Project (PBHEP), which has also been funded with NET dollars. The "Platte Basin Water Management Action Initiative" (Initiative) described below is an evolution of the PBHEP, expanding on other methods and water projects, and shifting the focus from the purchase of easements to other projects that achieve the same goal. The purpose of the Initiative is to plan, implement, and monitor activities that result in more effective water management and remediation for current depletions caused by past actions. The Initiative will assist the Department and the Platte Basin Natural Resources Districts (NRDs), in cooperation with other partners, to provide clear and direct benefits to habitat and surface and groundwater resources by: optimizing timing and efficiency of water uses, enhancing stream flows, reducing water consumption and enhancing wildlife habitat in fully and over appropriated areas. The Initiative described in this application is a portion of the currently intended uses for the WRCF. Other projects will be carried out under the auspices of the WRCF with available funds as well. Projects include both in-progress and new projects such as: surface water storage projects, groundwater retiming, leasing or purchasing water, conjunctive management of water, conservation easements, and other water use efficiency measures that would optimize water use in the basin. THIS PROJECT WAS FUNDED \$3,300,000 IN 2015 WITH THE INTENT TO FUND UP TO \$3,300,000 IN YEAR TWO AND \$3,300,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Nebraska Energy Office **Nearest Town:** Statewide  
**Project Name:** Enhancing Access to Renewable Biofuels and Air Quality in Nebraska Project **Project No:** 16-205  
**Amount Requested:** \$1,500,000 **Term of Project Request:** 2 **Review** Air Quality

Enhancing Access to Renewable Biofuels and Air Quality in Nebraska Project (EARBAQNP), is a collaborative effort of the Nebraska Department of Agriculture, Com Board, Ethanol Board and the Energy Office which will also serve as the lead agency. EARBAQNP's goal is to place 65 new ethanol blender pumps and 20 new ethanol fuel storage tanks during the grant period of 10/1/15 to 12/31/16 in fuel stations throughout Nebraska. These pumps will be placed in the state's two largest metropolitan areas: Omaha and Lincoln, and along Interstate-80 out to the western part of the state. EARBAQNP will assign blender pump preference to facilities with high potential usage on major transportation corridors. We believe promotion of greater availability of these clean burning fuels and encouragement of their use by the driving public will enhance the general air quality in Nebraska. The funding we seek from the Trust will be used to fulfill a matching requirement for the –BIP Federal Funds to be used to purchase the ethanol blender pumps and where necessary new biofuel storage tanks. The Energy Office filed the BIP application on behalf of the state of Nebraska and each state was only allowed one application submission.

**Sponsor Name:** Nebraska Farmers Union **Nearest Town:** Lincoln  
**Project Name:** Landfill Food Waste Reduction through Vermicomposting **Project No:** 16-201  
**Amount Requested:** \$656,804 **Term of Project Request:** 2 **Review** Waste Management

The Nebraska Farmers Union is seeking funds to enhance the capacity and efficiency of our vermicomposting operation through improved equipment and the construction of a larger warehouse. Based off of our experience to date, we need to grow the volume of our vermicomposting operation to become financially and commercially viable. The project is currently diverting landfill based food waste from Lincoln Public Schools, Food Bank of Lincoln and Ploughshare Brewery and animal manures from the Lincoln Children's Zoo and local horse stables. Our composting system is the closest facility available to handle large volumes of food waste generated in Lincoln. While we cannot accept all of the 150 tons of organic food waste going into the landfill, we have goals to divert 44,000 pounds of waste per month from the landfill by the end of 2016, increasing to 88,000 pounds per month by the end of 2017. Educational opportunities focused on soil health and composting will be available to the community, students and others that are interested in composting and vermicomposting. Our partners in this project are Lincoln Public Schools, UNL, Lincoln Airport Authority, the Food Bank of Lincoln, Community Crops and People's City Mission.

**Sponsor Name:** Nebraska Forest Service **Nearest Town:** Valentine, Chadron  
**Project Name:** Protecting, Rehabilitating and Restoring Nebraska's Pine Forest **Project No:** 14-111-3  
**Amount Requested:** \$344,834 **Term of Project Request:** 3 **Review** Rural Habitat

This NET grant will provide critical emergency funding to treat at least 2,000 strategically located acres of severely burned forest land to protect the surviving green trees and thus the regenerative potential of the ponderosa pine ecosystems in the Niobrara Valley and Pine Ridge. Repeated, increasingly frequent, uncharacteristic megafires are rapidly eradicating these forests across vast watersheds. Since 1989, the iconic Pine Ridge of northwest Nebraska has lost 66% of its forest cover to repeated, unprecedented megafires, reducing forest acres from 250,000 in 1989 to approximately 80,000 acres today. Thousands of acres of forest that burned in 2006 burned again in the catastrophic fires of 2012, completely eliminating the surviving scattered islands of green pine forest, sterilizing the soil, and destroying for centuries the natural capacity for forest regeneration across vast watersheds. The fires of 2006 and 2012 left enormous numbers of dead trees remaining on nearly 160,000 acres of forest lands in the Niobrara Valley and the Pine Ridge, putting these lands at grave risk of reburning over the next few years. At this point, the very existence of Nebraska's pine forest ecosystems is at risk. Repeated, unnaturally intense wildfire wipes out the social, ecological and economic services and benefits that forest ecosystems provide. Recent megafires have decimated prime habitat of the at-risk pygmy nuthatch and Lewis's woodpecker, along with the habitat of many other wildlife species, severely damaged the ability of entire watersheds to absorb water, and created a huge risk of massive soil erosion. This project will provide cost-share incentives for thinning and removal of dead burned trees around surviving islands of green trees to protect their long-term capacity to regenerate. This targeted, strategic effort will deter future crown fires, help restore pine forest health and sustain the flora and fauna that depend on this unique ecosystem. THIS PROJECT WAS FUNDED \$300,000 IN 2014 WITH THE INTENT TO FUND UP TO \$344,833 IN YEAR TWO AND \$344,834 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Nebraska Game and Parks Commission      **Nearest Town:** Geneva  
**Project Name:** Restoration of Our Public Marshes      **Project No:** 16-139  
**Amount Requested:** \$287,000      **Term of Project Request:** 1      **Review** Rural Habitat

The "Restoration of Our Public Marshes" proposal being submitted to the Nebraska Environmental Trust (NET) involves a request for grant funding to complete three expansive wetland restoration and enhancement projects in the Rainwater Basin (RWB) on lands owned by the Nebraska Game and Parks Commission (NGPC). These Wildlife Management Areas (WMAs) include Sandpiper WMA and Sacramento Wilcox WMA. These properties will be receiving various wetland restoration treatments to restore vital habitat in the RWB for migratory wildlife and to provide the public with improved outdoor opportunities. The project at Sandpiper includes the removal of sediment from both the WMA and adjacent private lands and removal of artificial berms on the neighbor to restore natural runoff from reaching the WMA. Finally, the Sacramento includes removal of fill material, pit fills, and updating the pumping infrastructure. NET funding will be combined with contributions from NGPC, the US Fish and Wildlife Service, and Ducks Unlimited including North American Wetlands Conservation Act funding. Respectively, wetland acres that will be restored or enhanced by this project at Sandpiper includes 85 acres and Sacramento includes 1,100 acres, which total 1,185 acres overall. The two properties are all open to a variety of public uses, including bird watching, wildlife photography, fishing, and hunting and offer Nebraskans and tourists a tremendous amount of outdoor opportunities every year as well as critical habitat to millions of wildlife.

**Sponsor Name:** Nebraska Game and Parks Commission      **Nearest Town:** Louisville  
**Project Name:** Outdoor Venture Parks- Interactive Exploration Center      **Project No:** 16-126  
**Amount Requested:** \$2,400,000      **Term of Project Request:** 3      **Review** Education

The Outdoor Venture Parks concept is a four-park complex that reaches over a million residents in Nebraska within 60 miles of their homes. This concept will encourage people to venture outdoors and discover the wonders of Nebraska. Venture parks' interactive activities will provide hands-on, exciting opportunities to discover and experience the outdoors in ways that appeal to many types of park goers. The Interactive Exploration Center is one component of a larger project and will be developed at Schramm State Recreation Area (SRA). The goal at Schramm SRA is to create a premier learning center in Eastern Nebraska that showcases natural resources including water, wildlife and ecology- in an experiential atmosphere. The focus will be to create an interactive setting that caters to multiple age groups. The Interactive Exploration Center will re-invent the existing Ak-Sar-Ben Aquarium and dramatically expand the nature center at the Aquarium. The updated aquarium will feature 3 distinct aquatic ecosystems; river, lake and stream where the river component spills into the lake component, which then spills into the stream component. Most of the fish will be together (by ecosystem) and additional special tanks will be dedicated to unique Nebraska fish species and Nebraska's many at-risk species. The nature center area will be entirely renovated to include interactive features such as live animals, touch stations, interactive technology and significantly improved learning for all ages and abilities. The Interactive Exploration Center will provide families and visitors an inspirational environmental educational experience that engages all of the senses.

**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Multiple  
**Project Name:** Nebraska Oak Woodland Alliance **Project No:** 14-224-3  
**Amount Requested:** \$95,000 **Term of Project Request:** 3 **Review** Rural Habitat

Eastern Nebraska oak woodlands are one of our state's most threatened ecosystems. Remaining oak woodlands are being degraded by lack of fire, proliferation of shade-tolerant shrubs and trees, lack of oak regeneration, and invasion by exotic plants. Fortunately, through active management we can ensure the survival and enhancement of our state's oak woodlands and the unique biodiversity they support. The Nebraska Oak Woodland Alliance (NOWA), an affiliation of organizations dedicated to restoring and managing our state's oak woodlands, has been formed to facilitate implementation of this project. Also, the Nebraska Game and Parks Commission (NGPC) recently dedicated \$600,000 in Pittman Robertson funds (over a 4-year period) towards this project. Over the 3-year duration of this NET grant, we will implement (on conservation lands and private lands) prescribed fire on 2,000 acres of oak woodland annually, thin shade-tolerant trees on 3,200 acres, and control invasive plants on over 4,000 acres. Demonstration sites where conservationists, landowners and the public can learn about oak woodland management will be established. This project will also enhance recreational opportunities in oak woodlands. Detailed monitoring and evaluation programs are in place or will be developed for this project. This project will fulfill several Nebraska Legacy Project objectives within at least five Legacy biologically unique landscapes. We are requesting \$650,000 in NET funds for this 3-year project. The project partners will provide \$550,000 in cash match and \$227,000 of in-kind match. Committed partners and NOWA members include the NGPC, National Wild Turkey Federation, Northern Prairies Land Trust, US Fish and Wildlife Service, Fontenelle Forest, Lauritzen Gardens, Nebraska Forest Service, The Nature Conservancy, Girl Scouts Spirit of Nebraska, and three Natural Resource Districts. The NGPC will be the project sponsor and its Wildlife Division will administer the grant. THIS PROJECT WAS FUNDED \$200,000 IN 2014 WITH THE INTENT TO FUND UP TO \$200,000 IN YEAR TWO AND \$95,000 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 Natural Legacy Plan: Terrestrial and Aquatic Implementation for Biodiversity Conservation **Project No:** 16-140  
**Amount Requested:** \$950,000 **Term of Project Request:** 3 **Review** Rural Habitat

The Nebraska Natural Legacy Project (Legacy Project), the state's first comprehensive Wildlife Action Plan, was federally approved in 2005 and revised in 2011. The habitat-based plan identified at-risk species, threats to those species, conservation actions to address threats, and 39 Biological Unique Landscapes (BULs) for effectively conserving Nebraska's biological diversity. Legacy partners have worked with hundreds of private landowners to implement conservation in 21 BULs that enhanced over 300,000 acres of at-risk species habitat. The primary goal of "Nebraska's Natural Legacy Project: Terrestrial and Aquatic Implementation for Biodiversity Conservation" is to continue and expand implementation of our ongoing conservation actions throughout the state by improving over 100,000 acres of habitat over the next three years. These actions, on both private lands and conservation lands will improve the ecological condition of Nebraska's native plant communities thus benefitting at-risk and other native species. Habitat projects are delivered collaboratively with partners, using voluntary, incentive-based strategies when working on private lands. Project ranking, monitoring, and evaluation procedures are established. Our project provides economic benefits to farmers and ranchers, promotes sustainable land and water management, and enhances outdoor recreational opportunities for Nebraskans. This project also includes a biodiversity education and outreach component. The primary Legacy Project partners for this grant include the Nebraska Game and Parks Commission, US Fish and Wildlife Service, Natural Resources Conservation Service, Northern Prairies Land Trust, Pheasants Forever and the Bird Conservancy of the Rockies. We are requesting \$950,000 of NET funds for this three-year project. The project partners will provide \$1,425,000 in match. Participating private landowners will provide additional cash or in-kind match. We believe this project qualifies for the Feature Program Bonus Points for the reasons listed in the narrative section.

**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Minden  
**Project Name:** Rainwater Basin Wetland Management **Project No:** 16-141  
**Amount Requested:** \$250,000 **Term of Project Request:** 3 **Review** Rural Habitat

The Rainwater Basin Joint Venture (RWBN) rigorously pursues opportunities to maximize wildlife habitat in the Rainwater Basin (RWB), which is a privately owned and row-crop dominated landscape in south-central Nebraska. This landscape provides habitat for ~8.6 million waterfowl, 500,000 shorebirds, and the federally endangered whooping Crane. Grant funds will be used to implement 10,000 acres of intensive management over the next three years. Herbicide applications and mechanical disturbance will be targeted at dense, monotypic stands of reed canary grass, river bulrush, cattail, trees, and common reed. These vegetation communities provide limited habitat for wetland dependent migratory birds and outcompete desired vegetation. Grant and partner funds will be used to hire contractors to disk, apply herbicide, complete prescribed burns, and conduct mechanical tree removal. The RWBN has a solid record of implementing these projects. Over the last five years, the RWBN partners have bundled treatments to maximize impact and reduce cost. To complete the project, both private and public lands treatments are bundled into a single bid package. Numerous contractors are provided the opportunity to bid on these projects. This bundling approach has resulted in herbicide application costs going from \$65/acre to \$13/acre. Over 20,000 acres have been treated using this approach. As a result, waterfowl carrying capacity has increased by ~ 1.5 million duck-use-days, or in other words, sufficient habitat to provide ~7% of the needed foraging resources based on the RWBJV Implementation Plan objectives. The RWBN Implementation Plan, approved by the Management Board, recognizes the social and economic issues associated with conservation. Therefore, the Board identified intensive management as a key strategy to achieve RWBN Implementation Plan objectives, especially on public lands and private lands enrolled in conservation programs. If habitat values are maximized on these lands, fewer acres will need to be targeted for future enrollment to achieve habitat objectives.

**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** n/a  
**Project Name:** Wildlife Habitat Improvement Through Prescribed Grazing: A Private/Public Partnership **Project No:** 16-142  
**Amount Requested:** \$300,000 **Term of Project Request:** 3 **Review** 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 5,230 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. This project received Nebraska Environmental Trust in the past (04-169, 05-176, 08-144, and 12-142). The first three grants have all been successfully completed, and a summary of the results is provided in the narrative. Grant 12-142 is on track and will close in June 2016.

**Sponsor Name:** Nebraska Game and Parks Commission**Nearest Town:** n/a**Project Name:** Pollinators, Quail and Pheasants- The Bees and The Birds**Project No:** 16-143**Amount Requested:** \$729,388**Term of Project Request:** 3**Review**

Rural Habitat

The Nebraska Game and Parks Commission (NGPC), Quail Forever (QF), private producers, USDA, and other partners will work together to improve habitat for pollinators, upland game birds and other grassland dependent wildlife. The wintering population of monarch butterflies in Mexico is down from a high of 44.93 acres of occupied butterfly habitat in the winter of 1996-1997 to 2.79 acres of habitat in 2014-2015. Bobwhite abundance is down 20.2% and pheasant abundance is down 41.5% over the last 10 years, based on annual surveys. The objective of this project is to complete pollinator and wildlife habitat improvements, restoration, and technical assistance on 50,000 acres over the next three years. We will be offering incentives to producers to encourage them to participate in pollinator and upland game bird management and restoration activities. Along with private lands work we will be conducting the same type of activities on public land as a demonstration to producers and resource professionals using habitat tours and workshops. Outreach and education with local schools and other civic groups will be used to bring the awareness of the importance of pollinators and to help with citizen science efforts. The connection of the bees and birds is easy; both need a variety of flowering plants. These plants provide nectar and pollen to our pollinators and nesting and brood rearing cover to our upland and grassland birds. With the loss of grasslands, the quantity and quality of available habitat has decreased, reducing plant diversity and decreasing the amount of suitable habitats for, pollinators, upland game birds, and other grassland dependent wildlife. Managed grasslands and croplands can restore diversity and productivity for a wide variety of wildlife, especially for pollinators. The additional acres of pollinator and grassland wildlife habitat that will be enhanced and restored with Nebraska Environmental Trust funding through this initiative will generate many direct and indirect benefits not only to pollinators and upland game birds, but also to producers, hunters, wildlife viewers, and local economies for years after the enhancements are completed.

**Sponsor Name:** Nebraska Game and Parks Commission**Nearest Town:** Gretna**Project Name:** Trout in the Classroom**Project No:** 14-110-3**Amount Requested:** \$45,108**Term of Project Request:** 3**Review**

Education

Trout in the Classroom (TIC) is an environmental education program in which students have the opportunity to raise trout from eggs to juveniles, monitor water quality, engage in habitat study, learn about ecosystem interactions and water resources, and begin to foster a conservation ethic. TIC has interdisciplinary applications in science, social studies, mathematics, language arts, fine arts, and physical education. Thirty-five states are involved in more than 500 TIC projects, and TIC has been successfully implemented in the United States, Canada, and the United Kingdom for more than 20 years. In addition to receiving fertilized trout eggs from a state fish hatchery, classrooms enrolled in the program receive all necessary equipment and materials to hatch and raise rainbow trout, award winning curriculum tailored to address trout in Nebraska, hands-on teacher training, technical support, opportunities for classroom visits from fisheries biologists and trout conservationists, and opportunities for field trips to release trout, go fishing, and visit the Aksarben Aquarium or a state fish hatchery. Trout in the Classroom is being piloted in 2013 with three schools in eastern Nebraska, and NGPC plans to increase enrollment to at least 50 4th-5th grade classrooms statewide by 2016. We are seeking funding to supply 50 classrooms with the necessary equipment and materials to raise cold water fish species, and to fund a temporary staff position to assist the coordinator of the program. THIS PROJECT WAS FUNDED \$37,034 IN 2014 WITH THE INTENT TO FUND UP TO \$45,108 IN YEAR TWO AND \$45,108 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Nebraska Game and Parks Commission**Nearest Town:** North Central**Project Name:** The Assessment and Demonstrated Management of Cold Water Streams  
in North Central Nebraska**Project No:** 15-211-2**Amount Requested:** \$100,000**Term of Project Request:** 3**Review**

Water

This public/private lands project is being developed in cooperation with private landowners, other state and federal agencies and private non-governmental organizations to assess and demonstrate the successful management of cold water streams in North Central Nebraska. This program will demonstrate how the integration of wise stewardship practices within watersheds and riparian zones, combined with site specific in-stream enhancements can provide long-term benefits to both landowners and sensitive aquatic communities. We will identify candidate cold water stream reaches throughout the north central part of the state to install long-term temperature monitoring stations to complement the Nebraska Department of Environmental Quality (NDEQ) ecoregion monitoring data. We will include streams that are publically and privately owned, those with trout and those with at-risk species. Any work on private lands will be with willing landowners. Additionally, we will select several stream reaches in north central Nebraska to serve as project demonstration sites. At these sites, additional riparian and in-stream information will be collected prior to and subsequent to the installation of habitat enhancement features to evaluate the effectiveness of management practices on a local scale. This program will further the Nebraska Environmental Trust objectives in several ways; by enhancing native cold water stream habitats which are home to several at-risk fish species (such as, Northern Redbelly Dace, Pearl Dace, Finescale Dace, and Blacknose Shiner). We also plan to work in other streams to enhance habitat for Rainbow, Brook, and Brown trout and provide angling opportunities. By implementing best management practices within and adjacent to streams, surface water quality may be improved. These management practices should also conserve soil by reducing erosion in the riparian areas. Demonstration and assessment sites will be included in habitat tours to show both strategies and sources of assistance to further make improvements to stream and streamside habitats.

THIS PROJECT WAS FUNDED \$100,000 IN 2015 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 SECOND YEAR REQUEST.

**Sponsor Name:** Nebraska Game and Parks Commission**Nearest Town:** Denton**Project Name:** Conestoga Reservoir WMA Wetland and Water Quality Enhancement  
Project**Project No:** 15-135-2**Amount Requested:** \$300,000**Term of Project Request:** 3**Review**

Lake Rehabilitation

The goal of this project is to enhance wetland and water quality by constructing sediment retention structures, expanding and improving wetland complexes, creating off-channel wetlands, and improving wetland functions at Conestoga Wildlife Management Area while providing educational and interpretive opportunities. A community based water quality management plan (WQMP) for Conestoga Reservoir (and watershed) has been completed. Soil management BMP's are being implemented in the watershed. The large quantities of deposited sediments and associated nutrients, eroded shorelines, shallow silt laden coves, the rough fish community, sparse rooted aquatic vegetation and high algal densities are all prescriptive of poor biotic conditions and the reason why Conestoga Reservoir is on the NDEQ 2010 Section 303(d) list of impaired waters. This wetland and water quality enhancement project will complement the ongoing BMP activities within the watershed and provide additional protection to the water quality improvement investment of excavating deposited sediment from the reservoir and by controlling future sediment influx. This project will address the water quality and aquatic habitat conditions within the reservoir, with goals of installing protective sediment control structures and wetland basins and establishing sustainable and healthy stands of beneficial rooted aquatic vegetation and functional littoral zones replete with a diverse fish and invertebrate community. The requested grant funds will facilitate the construction of in-lake sediment control structure/wetland areas, directly addressing the Trust's priorities to improve water quality, conserve water and improve habitats, which are identified within the WQMP. In addition, this project includes a component to inform and educate the public on ways to manage water and wetland resources. This project will provide protection for the future of Conestoga Reservoir while a previous project (2013 NET project) addresses remediating past sedimentation by an expansive excavation plan. THIS PROJECT WAS FUNDED \$300,000 IN 2015 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 SECOND YEAR REQUEST.



**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** statewide  
**Project Name:** Statewide Grassland Enhancement Project **Project No:** 15-209-2  
**Amount Requested:** \$300,000 **Term of Project Request:** 3 **Review** Rural Habitat

The objective of this project is to complete grassland habitat improvements on 25,000 acres of public and private lands across Nebraska over the next three years. Nebraska has been a leader in conducting grassland management activities to improve the wildlife habitat benefits. With time and an absence of management, plant diversity of grasslands has decreased and many tracts have become monocultures of grass. This loss of plant diversity has decreased the amount of suitable nesting and brood-rearing habitat for grassland birds. Grassland management activities on these acres can restore diversity and productivity for wildlife, especially for grassland songbirds, greater prairie chicken, bobwhite quail and pheasants. The Nebraska Game and Parks Commission (NGPC), Pheasants Forever (PF), private landowners, USDA, and other partners have worked together to improve habitat and provide public access on grasslands. Programs such as Open Fields and Waters (OFW) and Focus On Pheasants (FOP) specifically address important grassland habitat enhancement and public access needs across the state. With CRP expirations this fall Nebraska is poised to drop below the 800,000 acre mark for the first time since CRP was introduced in 1985. Recent high commodity prices, rising land prices, and higher taxes have also put pressure on Nebraska's remaining grasslands. In 2012 alone Nebraska saw more than 50,000 acres of native prairie converted to agriculture. Active grassland management is as important as ever to maintaining wildlife habitats and populations. This grant will assist in making habitat improvements and evaluating success of those efforts, and it is our intent to use other funds for making access payments. The additional acres of grassland habitat enhanced with Nebraska Environmental Trust funding for these programs will generate many direct and indirect benefits not only to wildlife, but also to landowners, hunters, wildlife viewers and local economies for years after the enhancements are completed. THIS PROJECT WAS FUNDED \$300,000 IN 2015 WITH THE INTENT TO FUND UP TO \$300,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Statewide  
**Project Name:** WILD Nebraska Program **Project No:** 14-223-3  
**Amount Requested:** \$90,000 **Term of Project Request:** 3 **Review** 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 \$100,000 towards WILD Nebraska and requests for these funds far exceed the annual allocation. With approval of this NET 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 2 main objectives: 1) To increase quantity and quality of wildlife habitat in Nebraska to meet program and doctrine goals of the agency's strategic plan; and 2) To evaluate current Nebraska Game and Parks Commission and non-commission habitat programs and their impacts on regional habitat needs in Nebraska. The NET grant request of \$300,000 (\$100,000 per year) will be distributed among habitat projects in approximately the following proportions: 40% to grassland/prairie projects; 50% to wetland projects; and 10% 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 NET funding are estimated at 750-1200 grassland acres, 300-420 wetland acres, and 75-150 woodland acres. With partner contributions, the noted acreage estimates should be considered as minimum habitat benefits. THIS PROJECT WAS FUNDED \$75,000 IN 2014 WITH THE INTENT TO FUND UP TO \$90,000 IN YEAR TWO AND \$90,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

**Sponsor Name:** Nebraska Game and Parks Commission **Nearest Town:** Omaha  
**Project Name:** Pollinator and Monarch Butterfly Habitat Restoration on the Cowboy Trail & State Park Areas **Project No:** 16-127  
**Amount Requested:** \$150,000 **Term of Project Request:** 3 **Review** Rural Habitat

A 4000 acre stretch of grassland adjacent to the cowboy trail has potential to provide habitat for at-risk species while providing Nebraskans the unique opportunity to appreciate and contribute to conservation in multiple biologically unique landscapes(BULs). This corridor of grassland and on lands in 13 State Parks is in need of restoration and/or enhancement to provide the needed resources to a variety of wildlife species with special attention directed toward pollinators and the Monarch Butterfly. Conversion of low quality grasslands to high diversity prairie plantings will be tailored to pollinators using ecotype seed to produce nectar plantings along the trail and in the state park areas over a three year period. Local community volunteer groups will be guided by educators from the Nebraska Game and Parks Commission and the University of Nebraska, Department of Entomology to participate in the restoration process by both planting specific plants and evaluating the restoration and species response. The habitat quality is significantly improved with the Nebraska Department of Roads as a partner on this project to restore and enhance 200 miles of Highway right-of way adjacent to the CBT to high quality pollinator habitat. The Prairie Plains Resource Institute (PPRI) will also partner in the project and participate in the teaching and monitoring efforts with the local community volunteers. Many at risk upland terrestrial wildlife and plant species listed in the Nebraska Natural Legacy Plan including the Monarch Butterfly are expected to benefit from these proposed improvements to more than 1,600 acres of ROW grasslands and parklands.

**Sponsor Name:** Nebraska Grazing Lands Coalition **Nearest Town:** Statewide  
**Project Name:** Soil Health and Water Conservation Through Grazing Cover Crops **Project No:** 16-103  
**Amount Requested:** \$297,198 **Term of Project Request:** 3 **Review** Soil Management

Based on the theory of “Teach a man to fish,” this project focuses on grazing cover crops on highly erosive row crop acres that are part of routine row crop plant rotations and/or targeted for reseeding to pasture and range grasses for grazing purposes. On row crop acres that are part of routine crop rotations, grazing cover crops enhances soil health and conserves water through reduced wind and rain erosion. On row crop acres targeted for cool season or native grass reestablishment, the use of cover crops is a logical first step to enhance soil health. This is a three-year project, with the goal of conducting a cover crop grazing demonstration each year in each of the eight NGLC districts statewide. However, the scope of the Soil Health and Water Conservation Through Grazing Cover Crops Project has potential for greater awareness of the importance of soil health and water conservation throughout Nebraska.

**Sponsor Name:** Nebraska Grazing Lands Coalition **Nearest Town:** Statewide  
**Project Name:** Rangeland Monitoring Program Enhancement of Soil Health and Water Conservation **Project No:** 15-142-2  
**Amount Requested:** \$100,000 **Term of Project Request:** 3 **Review** Rural Habitat

The Rangeland Monitoring Program Enhancement of Soil Health and Water Conservation Project (henceforth abbreviated as Rangeland Monitoring Program (RMP) is a cooperative program among local rancher working groups and Nebraska Grazing Lands Coalition (NGLC) technicians that will provide Nebraska landowners with technical assistance and equipment to effectively monitor plant communities and soil resources on their lands. Most landowners are aware of existing systems designed to monitor land health. However, the application of these programs is often unpractical, cost-prohibitive and complicated, and they are not utilized. The RMP provides the next step for ranchers — on-site technical assistance and data analysis — so they can implement a scientific monitoring program. The innovative and unique approach of this project is in the design of a simple range and soil quality monitoring program that ranchers can replicate and utilize to make informed grazing management decisions, which will improve ecosystem processes as well as economic stability of their enterprises. Based on the theory of "Teach a man to fish," the RMP will provide, for a reasonable fee, an initial training session and assistance in establishing one monitoring site. This session will include: Complete monitoring equipment kit/On-site assistance of a trained technician/Potential assistance from a local rancher working group/Scientific data analysis of plant and soil samples. The goal of this training session is to provide the landowner with the equipment and skills to replicate monitoring on additional sites, and eventually train other landowners through their local working group. This is a three-year project, with the goal of conducting 60 training sessions each year. However, the scope of the RMP is exponential — with potential for establishing continual, practical plant and soil monitoring programs throughout Nebraska through simplification and sharing. In addition, this grant is requesting continued funding of two NGLC "signature" events- the Summer Grazing Tour and the Traveling Road Show as well as continued financial support for the SRM Youth Range Camp. THIS PROJECT WAS FUNDED \$100,000 IN 2015 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 SECOND YEAR REQUEST.

**Sponsor Name:** Nebraska Humane Society **Nearest Town:** Omaha  
**Project Name:** Sustaining Animals and the Environment **Project No:** 16-191  
**Amount Requested:** \$1,107,582 **Term of Project Request:** 3 **Review** Urban Habitat

Sustaining and protecting life is at the heart of the mission of the Nebraska Humane Society where each year more than 25,000 homeless animals, including our native wildlife, find shelter. We don't ask why they have been brought here. We work to protect them and find them permanent homes. The regular cycle of wear and tear over the past 15 years has damaged our parking and entry plaza to the extent that it needs to be completely replaced. A 3 Phase project is underway and Phase 1 (\$200,000), Entry Plaza Paving and Redesign, is underway. Phase 2, for which we are requesting funding from the Nebraska Environmental Trust, will involve a complete renovation of the parking structure where, true to our mission of sustaining and protecting life, we will construct a parking facility that displays and celebrates our native plant heritage, educates our visitors to the beauty of our native landscape, provides a safe habitat for our native wildlife, and demonstrates effective and efficient storm water management through the installation of 10,000 sq. ft. of pervious concrete, a system of 4 interconnected bioswales (12,148 sq. ft.) leading to a 2,100 sq. ft. bioretention pond that will naturally purify storm water runoff from our 13 acre campus before it can reach the neighboring and environmentally important Papillion Creek, a major water source for almost 450,000 people. Prominent Interpretive signage will alert and educate visitors to the shelter that our native biological heritage, like our homeless animals, needs to be nurtured and understood. This project innovatively conflates animals and nature as we believe that those committed to the welfare of the former are predisposed to cherish the latter. Dog runs will be constructed to the front of the main building accommodating canopied runs for both large and small dogs to facilitate adoptions.

**Sponsor Name:** Nebraska Pharmacists Association **Nearest Town:** Statewide  
**Project Name:** Preventing Poisoning, Pollution and Prescription Drug Overdose for a Healthier Nebraska! **Project No:** 16-173  
**Amount Requested:** \$280,000 **Term of Project Request:** 1 **Review** Waste Management

The Nebraska Medication Education for Disposal Strategies (MEDS) Coalition and the Nebraska Pharmacists Association (NPA) have been addressing the safety concerns of unused medication for over 7 years. Increasing deaths due to drug overdose and environmental impacts are the driving forces for this Coalition. Collection of unused medication diverts the waste from landfills and water sources by offering an alternative to flushing or trashing unused medications and removes medications from patients' homes as a potential source of poisoning or overdose. This project is an expansion of the 2012 pilot program currently supported by NET in Lancaster County. The NPA, along with the Nebraska MEDS Coalition, continues to advocate for strong educational approaches along with simple, cost effective options that allow for the safe and legal disposal of unused medications across all Nebraska communities. The NPA continues to support the Nebraska MEDS Coalition Partner, the Lincoln-Lancaster County Health Department (LLCHD), in implementing the pilot medication disposal project in Lancaster County to manage growing quantities of unused consumer medications, including controlled substances. Currently, the NPA is supplying 217 pharmacies outside of Lancaster County with containers to collect unused, non-controlled substance medications funded by a grant from the Nebraska Department of Environmental Quality. Funding from NET will support collection containers, shipping, and disposal costs to expand the current pilot and statewide efforts to address collection of both non-controlled and controlled medications in 2016. A legislative appropriation with matching cash donations will fund the remainder of this project, including a robust marketing and educational program to reach as many residents of Nebraska as possible. The consistent message will be to take unused medications to participating pharmacies. On July 1, 2016, the NPA will add the responsibility of supplying disposal options and outreach for the Lancaster County pharmacies to this project.

**Sponsor Name:** Nebraska State Irrigation Association **Nearest Town:** Lincoln  
**Project Name:** Water Leaders Academy **Project No:** 15-195-2  
**Amount Requested:** \$61,665 **Term of Project Request:** 3 **Review** Education

In the spring of 2011, the Nebraska State Irrigation Association assembled the first class of participants in the Nebraska Water Leaders Academy. Designed to offer an educational experience for early to mid-career professionals, the Academy curriculum explores the increasingly complex matter of managing water in Nebraska. The curriculum draws upon experts from technical and social disciplines and includes a strong leadership development component. The goal of the Academy is simple: "teach future water resources decision makers to work together to solve problems." The NSIA selected academy participants from statewide geographic locations and with a wide range of water and natural resources interests. Support from the School of Natural Resources at the University of Nebraska- Lincoln has been critical in the initial planning as well as ongoing faculty support of the Academy. In addition, the Water Futures Partnership-Nebraska, a 501©(3) organization was formed in 2013 to accept grants and tax-deductible donations to extend support of the Academy. The Academy offers participants six one and a half day sessions at locations across the State. Sessions include field trips and discussions ranging from urban water systems that provide water, waste water and flood control works, to irrigation development, management and integrated operations used in crop production, to fish, wildlife, ecotourism and recreation activities. We are grateful that The Nebraska Environmental Trust has been an active partner in the preparation of tomorrow's leaders in Nebraska water and environmental policy decisions. This grant request for the continuation and growth of the Academy is an opportunity for the NET to aid in good water resources decision-making into the future.

THIS PROJECT WAS FUNDED \$61,165 IN 2015 WITH THE INTENT TO FUND UP TO \$61,665 IN YEAR TWO AND \$68,886 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Nebraska State Recycling Association **Nearest Town:** Statewide  
**Project Name:** Recycling Equipment Grant **Project No:** 16-210  
**Amount Requested:** \$585,600 **Term of Project Request:** 2 **Review** Recycling

This recycling equipment grant will help NET build recycling infrastructure across Nebraska by continuing the "smaller grants" program we have done through NET for 14 out of the last 17 years. Eligible applicants are municipalities, other government entities, non-profits, and for-profit organizations such as waste haulers who do or will handle recycling as part of their regular business. Eligible new or used equipment includes pickup-towable recycling trailers with compartments, trailers, balers, carts, forklifts, skid loaders, trucks, lift-gates, dumpsters and more. Sometimes we can refurbish applicant's existing equipment rather than replacement, which can be very economical. While there are recycling programs across Nebraska there are still many communities who have no recycling program or have a limited program they wish to expand. Municipalities and recycling processors across Nebraska tell us regularly that without grants they would have no recycling program, or it would be limited. They have aging equipment for handling recyclables that is inefficient, worn out and can no longer be fixed or used safely. Budget constraints often make it difficult or impossible to buy needed recycling equipment. Ours is a quick-turnaround grant program where application-to approval can be accomplished in under a month. Past grantees have told us how much they like our program and getting grant approval so quickly. Now we will also offer Recycling Consulting & Development to assist communities and organizations in comprehensive reviews of their recycling programs with recommendations for improvement. Over the years of providing this grant we've observed many communities & organizations who need more than equipment. They need assistance seeking end markets for recyclables, recycling process training, educating the public how to recycle and general recycling operating assistance. Many small communities where the recycling is handled by volunteers or city workers have limited time to spend on recycling operations.

**Sponsor Name:** Nebraska Statewide Arboretum **Nearest Town:** Statewide  
**Project Name:** Greener Nebraska Towns: Resilient, Sustainable, Biodiverse and **Project No:** 15-132-2  
**Amount Requested:** \$277,081 **Term of Project Request:** 2 **Review** Urban Habitat

Greener Nebraska Towns (GNT) is a multi-partner, statewide initiative that will improve the resiliency and environmental sustainability of community green spaces. The initiative will address several key environmental issues now impacting communities including high landscape water use, storm water mismanagement, a lack of biodiversity, fossil-fuel intensive maintenance, invasive plant species, degraded soils, a changing climate and looming insect threats. The Nebraska Statewide Arboretum is requesting NET funds to help make Nebraska communities greener and more resilient through the implementation of sustainable landscape projects that demonstrate water conservation, storm water bioretention, greater use of native plants, improved habitat and better soil management. In addition, the initiative will educate and inform Nebraskans about landscape stewardship and how sustainable practices can be implemented at the homeowner scale. The initiative will advance NET's priority of Habitat by greatly expanding the use of native and ecologically appropriate plantings that provide food and shelter for important insects, birds and other community wildlife. The initiative will also advance the Trust's priority of Surface and Ground Water by demonstrating and promoting horticultural practices that measurably conserve water, reduce storm water runoff and which help keep lawn and landscape pollutants out of local water supplies. The initiative will also advance the NET priorities of waste management, air quality and soil management.

THIS PROJECT WAS FUNDED \$247,035 IN 2015 WITH THE INTENT TO FUND UP TO \$277,081 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Nebraska Weed Management Area Coalition **Nearest Town:** Kearney  
**Project Name:** NEWMAC Counties Work Together on Invasive Species Control **Project No:** 16-133  
**Amount Requested:** \$341,000 **Term of Project Request:** 3 **Review** Rural Habitat

Nebraskans have an opportunity right now—we still have the chance to continue to preserve our state's natural resources and keep new invasive plant species at bay. The Nebraska Weed Management Area Coalition (NEWMAC) is seeking funding to control newly identified invasive species before they create environmental and economic impacts. Invasive species such as common and cutleaf teasel, garlic mustard, houndstongue, yellow flag iris and absinth wormwood have been identified in Nebraska. Prevention, early detection and rapid response will keep these new infestations from costing homeowners, landowners and land managers thousands of dollars to control in the future. NEWMAC is made up of 9 Weed Management Areas (WMA's) that bring together landowners, agencies and organizations in a geographical area to coordinate efforts and expertise against newly recognized invasive weed species. Members of NEWMAC who are participating in this grant include: Panhandle Research Integration for Discovery Education (PRIDE), Middle Niobrara Weed Awareness Group (MNW AG), and the Northeast, Middle Missouri, Lower Platte, Platte Valley, and West Central WMA 's. This covers 50 Nebraska counties, and covers 28,156,800 acres. (See Attachment I) In an effort to be proactive rather than reactive, NEWMAC implements Early Detection Rapid Response (EDRR) to fight invasive weeds before they become established and therefore more difficult and expensive to control. When infestations are small, fewer funds for control are needed, and there is a much greater success of control and eradication. Native rangelands and riparian areas can recover, providing quality habitat for local wildlife species. The PRIDE Weed Watch Publication provides over 100,000 homeowners in 4H counties information pertaining to noxious and invasive weeds and the importance of prevention and control. Education and awareness within each of the seven participating WMA's reaches local as well as statewide audiences. This awareness allows landowners and counties to be on the lookout for "new" invasive and noxious weeds. Through education and management efforts, we hope to create awareness of these and other species and how they alter our environment.

**Sponsor Name:** Nebraska Wildlife Federation **Nearest Town:** Multiple  
**Project Name:** Urban Monarch and Pollinator Habitat Pilot Project **Project No:** 16-138R  
**Amount Requested:** \$14,358 **Term of Project Request:** 1 **Review** Urban Habitat

Nebraska Wildlife Federation is working with other agencies and organizations to protect and restore habitat important for the monarch butterfly (*Danaus plexippus*) and that benefits bees and other pollinators. As part of that broader work, the Federation plans to organize five schoolyard habitat workshops and at least 16 backyard habitat workshops in at least eight eastern Nebraska communities focused on creating and improving monarch and pollinator habitat in urban areas. The monarch's long migration makes it a unique butterfly, and one that has captured the public attention. Federation staff and volunteers will organize and hold workshops, provide habitat kits, provide follow-up, and track and evaluate success. Workshops will be held beginning in April 2016. Attendees will receive information needed to create, improve, evaluate and maintain monarch butterfly and pollinator habitat. We will draw on local experts like Extension Educators, Master Gardeners, and Master Naturalists to help and to provide schools with site-specific advice. The University of Minnesota's Monarch Breeding Habitat Assessment Tool will be used as a guide to habitat quality and to evaluate the benefit of the habitats established or improved. We hope to reach at least 240 individuals through backyard wildlife workshops and 25 schools through schoolyard habitat workshops. We estimate that will result in the creation or improvement of monarch habitat at 80 backyard and 5 schoolyard habitat areas, although testing that success rate is one of the purposes of the pilot project. Participants will also be asked to take part in existing programs like National Wildlife Federation's Wildlife Watch, UNL's online Milkweed Watch database, and Monarch Watch. If this pilot program is successful it will provide a model that can be replicated in other parts of Nebraska and elsewhere.

**Sponsor Name:** Nebraskans for Civic Reform **Nearest Town:** Lincoln  
**Project Name:** Grassroots for Grasslands: A Field Guide for Native Nebraska Prairies **Project No:** 16-132  
**Amount Requested:** \$92,373 **Term of Project Request:** 3 **Review** Education

This project combines old-school practicality with cutting edge science, technology, and best practices. The Grassroots for Grasslands guide will include materials for three grade configurations and two natural sites. It will have on-site activities for two field experiences per year, through which students identify, collect, and analyze soil, plants, water, air, and insects. Students will observe and compare data from one season to the next, then from one year to the next. Students will write, draw, calculate, manipulate, and return to their classrooms with a treasure of data. They will employ technology, social media, physical examination, lab work, literacy, and the arts. The program uniquely employs service learning, peer-to-peer learning, and field experience. It connects students directly to their environment, provides all materials downloadable at no cost, expands to all Nebraska Native Legacy Landscapes reaching 450 students per year, directly impacting approximately 1600 students who will ultimately reach thousands more students in Nebraska. Nebraskans for Civic Reform (NCR) will create a field guide for native prairies that can be customized for any ecoregion. The guides help teachers address science standards through experiential learning and give urban students an authentic experience with a service learning outcome to raise awareness in schools and communities. The Field Guide is made from an Avery "Protect & Store" binder. It is 8.5" X 5.5", easily carried in small hands, durable, water-resistant, made from 36% post-consumer recycled materials, with plastic pockets and an expandable envelope for tools. Students will visit prairies in both spring and fall, make observations, collect samples, reflect, compare, and participate in activities. The program accommodates all learning styles, infuses critical thinking, utilizes recycled materials, and promotes best practices in science education. NCR commissions art and content for elementary and secondary editions. The guide will be promoted through Educational Service Units and conferences.

**Sponsor Name:** Nebraskans for Peace **Nearest Town:** statewide  
**Project Name:** Nebraska Food System Coalition: A Healthy Future for Nebraska's People and Environment **Project No:** 16-110  
**Amount Requested:** \$118,000 **Term of Project Request:** 2 **Review** Education

This project will work toward a healthier food system in Nebraska that benefits our environment and the people in it. Our food system is incredibly complex, governed at multiple levels and influenced by the marketplace as well as a wide variety of stakeholders. Our food system can be hard to understand or seem hard to change, but we must change it. The way we produce food has important effects, many of them negative, on the environment (in all five Trust priority areas), farming, hunger, public health, the local economy, and more. But food systems have the potential to work in concert with and even provide benefits in these areas. This project will develop a Nebraska Food System Coalition, a planning group comprising stakeholders from across all food system and environment sectors. The Coalition will undertake discussion, information gathering, and planning as a first step in Nebraska's food system organization efforts. We will develop recommendations for future action to improve how our food system functions and impacts our environment. At the end of this 2-year planning project, the Coalition will have gained a solid foundation from which to move forward into enacting their recommendations and improving our food system, through formalized food system coordination and more. Trust funding will be used to fund the majority of the project, aside from specific tools and in-kind contributions already in place that will be used for this project.

**Sponsor Name:** Nemaha Natural Resources District

**Nearest Town:** Tecumseh

**Project Name:** No-Till Grassland Drill

**Project No:** 16-128

**Amount Requested:** \$22,500

**Term of Project Request:** 1

**Review** Equipment

Funding is being sought from the Nebraska Environmental Trust to provide 75% funding (\$22,500) towards the purchase of a new no-till grassland drill. There are many benefits of using a no-till technique such as the reduction of soil erosion, increase of soil moisture and organic matter retention, protection of ground and surface water quality, reduction of chemical runoff and the reduction of soil compaction. In 1997, with the help of the Nebraska Environmental Trust, the Nemaha NRD purchased a 7-foot no-till grassland drill and since 1997 approximately 3,750 acres of grassland have been planted in the NRD's eight county service area. Due to the age of our current no-till drill and the demand for this valuable conservation practice, the Nemaha NRD is looking to replace the no-till drill that was purchased in 1997 with a new one.

**Sponsor Name:** NET Foundation for Television, Inc.

**Nearest Town:** Lincoln

**Project Name:** Imagining the Platte

**Project No:** 14-117-3

**Amount Requested:** \$40,868

**Term of Project Request:** 3

**Review** Education

The NET Foundation for Television requests Nebraska Environmental Trust support of \$100,000 for the development of Imagining the Platte. This visually compelling new environmental education effort will use media learning objects to increase Nebraska students' and the public's understanding of what is at stake today in the Platte Basin. The comprehensive environmental educational effort to be developed by this project will reach middle through high school learners through targeted STEM (Science-Technology-Engineering-Math) curriculum development that will create lesson plans and accompanying material available free of charge for use in Nebraska schools and after school programs. Project outputs will also be available to the general public via the web, and the partners will raise awareness of the project through direct community engagement. Educational efforts will conform to Nebraska science curriculum standards. This project will offer an opportunity to highlight the work of Nebraska environmentalists, scientists, and researchers, and to incorporate information about conservation projects supported by the Nebraska Environmental Trust into the state's science curriculum. This application is for support of the STEM related curriculum development and production often electronically delivered learning objects. Planning for this project has been informed by the needs outlined in the Nebraska Natural Legacy Project State Wildlife Action Plan. THIS PROJECT WAS FUNDED \$19,868 IN 2014 WITH THE INTENT TO FUND UP TO \$31,264 IN YEAR TWO AND \$40,868 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST



**Sponsor Name:** North Platte Natural Resources District

**Nearest Town:** Multiple

**Project Name:** DAMP Project

**Project No:** 16-176

**Amount Requested:** \$750,000

**Term of Project Request:** 3

**Review** Water

The North Platte Natural Resources District (NRD) has always striven to collect the best available data to inform water management decisions. Similarly, the NRD has seen from past projects that landowners make demonstrably better farm-management decisions when they have their actual water-use data available to them. Because of time and distance to wells, both NRD staff and producers must expend considerable resources to gather this information manually. The telemetry project would expand the Data Access and Monitoring Partnership (DAMP), a partnership between the District and the Nebraska Department of Natural Resources, which incorporated a telemetry pilot project to determine the viability of telemetry as both a water management and data gathering tool. The AMCi MeterEye telemetry units offer to all parties a technology that will provide a reliable, accurate way to receive crop water use data while eliminating the man hours and resource expenditures previously needed to retrieve the data. The data will in turn be used by the NRD to improve the Western Water Use and Management Model (WWUMM). WWUMM is used by the District in evaluating if water management decisions in comparison to its Integrated Management Plan (IMP).

**Sponsor Name:** Northeast Nebraska RC&D

**Nearest Town:** Plainview

**Project Name:** Proper Recycling of HHW and E-Waste

**Project No:** 15-133-2

**Amount Requested:** \$20,705

**Term of Project Request:** 3

**Review** Waste Management

This project will properly dispose of and/or recycle approximately 22,500 pounds of household hazardous waste and another 45,000 pounds of electronic waste (E-waste) over a 3-year period. Citizens are continually asking for help with proper disposal and recycling of these types of materials. Keeping hazardous materials out of landfills, road ditches, and from being burned is a priority. From three to six collection events will be held annually with in the Northeast Nebraska Resource Conservation and Development (RC&D) Council's area of Antelope, Cedar, Dixon, Knox, Pierce and Wayne counties. Targeted groups are individual citizens, tribal members, businesses, local governments, and agencies. THIS PROJECT WAS FUNDED \$20,292 IN 2015 WITH THE INTENT TO FUND UP TO \$20,705 IN YEAR TWO AND \$22,410 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Northern Prairies Land Trust **Nearest Town:** n/a  
**Project Name:** Expanding the Tallgrass Prairie Partnership **Project No:** 16-115  
**Amount Requested:** \$723,000 **Term of Project Request:** 3 **Review** Rural Habitat

Prairies are among the most threatened ecosystems in North America. Most remaining prairies are privately owned, making cooperation between landowners and conservationists essential for their conservation. In 2002, Northern Prairies Land Trust (NPLT) entered into a cooperative relationship with the Nebraska Game & Parks Commission (NGPC) to implement habitat improvement projects on privately owned prairies. Our initial work was focused in areas that are now called the Sandstone Prairies Biologically Unique Landscape (BUL) and Southeast Prairies BUL in southeast Nebraska. We subsequently extended our prairie-focused work to the Verdigris-Bazile, the Middle Niobrara River Valley, and Keya Paha Watershed BULs in northeast Nebraska. Over the past thirteen years, using primarily NET, USFWS Landowner Incentive Program (LIP) and State Wildlife Grant (SWG) funds, NPLT worked with 273 landowners to enhance nearly 70,000 acres of grassland, primarily through implementation of invasive tree clearing, prescribed fire, planned grazing and reseeding prairie. Additional NET funds are critical to continued success of our now well-developed initiative. This project directly fulfills the objectives of the Nebraska Natural Legacy Project for the BULs listed above. We are seeking \$723,000 from NET for this three-year project. Participating landowners will provide approximately \$300,000 in match, and the project partners will provide \$490,000 in cash match. The project partners include NPLT, NGPC, and USFWS. Northern Prairies Land Trust will lead the project and NGPC will conduct funds management and reporting. NET funds will be used to enhance 20,000 acres of prairie on private lands through tree clearing, prescribed fire, etc. Through matching Pittman-Robertson funds we will also enhance prairie quality on NGPC Wildlife Management Areas which will improve public hunting and other recreational opportunities. We will also continue our Annual Tallgrass Prairie Management Seminar where nearly 100 landowners and conservationists learn innovative prairie and rangeland management methods each year.

**Sponsor Name:** No-till on the Plains **Nearest Town:** n/a  
**Project Name:** Beginning and New No-till Farmer Education Program **Project No:** 16-154  
**Amount Requested:** \$238,000 **Term of Project Request:** 3 **Review** Soil Management

This is a program for beginning no-till farmers to provide educational materials, on farm assistance and first-hand experiences with producers currently implementing or planning to implement no-till/soil health management. The program will use three avenues to reach producers interested in continuous no-till management. 1) No-till on the Plains will develop and publish a beginning no-till producer’s handbook for those interested in having a resource guide for reference. Information in the guide will focus on a systems management approach, emphasizing diversity of crops grown, minimizing soil disturbance, use of cover crops, integration of livestock and minimization of chemical use. The publication will be available in both print and electronic formats to participating producers. 2) Workshops will also be held in 7 locations across the State to allow interaction between beginning no-tillers and more experienced producers. These daylong workshops will combine field and classroom sessions. 3) No-till on the Plains will hire a part-time educator to work directly with producers. The Nebraska Environmental Trust would be a partner with partial funding of the position if this proposal is funded.

**Sponsor Name:** Omaha Bikes **Nearest Town:** Omaha  
**Project Name:** Omaha Metro Major Events Bike Parking **Project No:** 16-224  
**Amount Requested:** \$28,900 **Term of Project Request:** 1 **Review** Air Quality

Omaha Bikes' core objective of this project is to address air quality in the Omaha Metropolitan (Metro) area by providing free bike parking at major events throughout the community. The monies requested would be utilized to purchase high quality modular bike racks, rent fencing and storage for our bike parking equipment, acquire additional materials to support bike parking, and fund a portion of a position to promote, coordinate, and execute free bike parking for 35 days at twelve major events in 2016. By doing so we hope to reduce greenhouse gas emission by encouraging individuals in the Omaha rather than drive to major events. By expanding bike parking from our current selection of three events to over twelve major events annually with the intention of increasing this further in the future Omaha Bikes is poised to make a real difference in our community and the investment in the bike racks will have a lasting impact at major events for years to come.

**Sponsor Name:** Omaha by Design **Nearest Town:** Omaha  
**Project Name:** Environmental Collaboration Project **Project No:** 16-197  
**Amount Requested:** \$150,000 **Term of Project Request:** 3 **Review** Education

After over 4,000 volunteer hours and over two years of research, community meetings, interactive efforts, and consensus building, a team of several hundred stakeholders and citizens developed the Environment Element, a planning tool that establishes a comprehensive new environmental vision for the city of Omaha. It consists of over 600 recommendations and was approved by the City Council and appended to the Master Plan in December 2010. A herculean effort is represented by the recommendations and goals of the Environmental Element and much has been achieved in intervening four years, but a great deal is yet to be accomplished. The recommendations cover the natural environment, building construction, community health, urban form, urban transportation, and resource conservation. Omaha by Design requests support for its ongoing and unique, Collaborative Environmental Project to facilitate and monitor achievement of the recommendations and goals of the Environmental Element. The potential impact of these recommendations on the economic, social, and public health of the residents of the metro area and its natural environment is enormous and will be felt for decades. Omaha by Design has over 14 years of successful experience in planning and implementation efforts to improve the greater metro Omaha area and has earned the reputation as an effective, unbiased convener and proponent of the highest standards in urban design and policy. Funds requested will be used to convene, direct, and monitor efforts of the Environment Omaha Implementation Team and its 6 Task Force groups, support an annual demonstration project that illustrates the benefits of environmental management in the urban setting, garner community engagement regarding the metro environment, continue public education and outreach campaigns regarding stewardship of the metro environment, and evaluate and share project successes through the Environment Omaha Dashboard and other avenues.

**Sponsor Name:** Omaha, City of - Department of Parks, Recreation and Public Property

**Nearest Town:** Omaha

**Project Name:** Adams Park Wetlands and Educational Facility

**Project No:** 16-165

**Amount Requested:** \$2,005,000

**Term of Project Request:** 2

**Review**

Urban Habitat

The Adams Park Wetlands and Education Facility is an outgrowth of the community-based Adams Park Master Plan, developed in 2012. This undertaking is not a single project or facility, but is a collaborative effort that includes constructed wetlands, an indoor educational facility, and an interpretive trail. The constructed wetlands are part of a larger Combined Sewer Overflow (CSO) project designed to improve the water quality in the Missouri River. The wetlands will receive flow from storm sewers at the south end of the park. They will consist of permanent pools and emergent and upland wetlands providing habitat for diverse flora and fauna. The indoor educational facility will feature greenhouse demonstration wetlands, providing a setting for a wide variety of premier educational activities. Through display, presentation, interpretive signage and tours, visitors to the center will learn about environmentally responsible stormwater management and water reclamation. The Facility will become a dynamic, living and breathing demonstration of how interconnected we all are with the communities and environments in which we live. Visitors to the Wetlands Facility will be able to explore the outdoor constructed wetlands firsthand. A 3/4-mile interpretive trail will provide connectivity from the Facility down to the constructed wetlands and will wind throughout the area. A series of interpretive exhibits along the trail will feature wetland-related subjects. Locating the facility in northeast Omaha, one of the most impoverished minority communities in the country, will improve the economic growth potential of the surrounding community. The City of Omaha and its partners request funding for the design of site improvements, construction of a wetlands educational facility and installation of an interpretive trail connecting the educational facility to the constructed wetlands.

**Sponsor Name:** Omaha, The Transit Authority of the City of Omaha d/b/a Metro

**Nearest Town:** Omaha

**Project Name:** Upgrade of BRT Vehicles

**Project No:** 16-220

**Amount Requested:** \$900,000

**Term of Project Request:** 2

**Review**

Air Quality

Metro intends to upgrade the vehicles in the ongoing Dodge Street Bus Rapid Transit (BRT) project to larger, 60 foot articulated buses powered by Compressed Natural Gas (CNG). This upgrade represents a significant augmentation of the ongoing BRT project which mimics the performance, reliability, and comfort of a rail project for a fraction of the cost. The BRT includes innovative design, infrastructure, technology, marketing and operational strategies to provide significantly better service than traditional bus service. The Dodge Street BRT project will service as a frequent, reliable, and convenient spine to Omaha’s transit network. The BRT vehicle upgrade project represents a significant investment in the vehicle acquisition beyond what was originally anticipated for this project. These larger, greener vehicles will offer significantly increased capacity to carry more passengers, further enhancing existing investments in Nebraska’s first BRT project. Significant reductions in emissions contributing to the deterioration of air quality in the greater Omaha region are anticipated including over 1,700 metric tons of CO2 emissions annually (as a result of only the incremental benefits of the vehicle upgrade). Additionally, the incorporation of alternative fuel technology in Metro’s fleet will be leveraged to facilitate the development of a CNG fueling station providing additional benefits to the larger community.

**Sponsor Name:** Omaha, The Transit Authority of the City of Omaha d/b/a Metro

**Nearest Town:** Omaha

**Project Name:** Central Omaha Bus Rapid Transit: Connecting the Dots

**Project No:** 15-177-2

**Amount Requested:** \$200,000

**Term of Project Request:** 3

**Review**

Air Quality

Funding is requested to help design and construct a bus rapid transit (BRT) project in Omaha, Nebraska. This project is nearly 8 miles in length and will provide a valuable east/west connection through the City. A BRT mimics the convenience, frequency and reliability of a rail transit system for a fraction of the cost and will serve as the central spine of the transit network. The Central Omaha BRT will provide 2,740 daily trips on opening day and will continue to grow, providing many benefits to the region including improvements to air quality, reduced damage to water quality, community development, job creation, and public health. This project has been developed through an extensive community involvement process and enjoys widespread public and political support. For the first year of the project, funding is requested for engineering/design. The request for years 2 and 3 are for construction costs. Funding amounts are scalable.

THIS PROJECT WAS FUNDED \$200,000 IN 2015 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.

**Sponsor Name:** Omaha, The Transit Authority of the City of Omaha d/b/a Metro

**Nearest Town:** Omaha

**Project Name:** Integration of CNG Transit Vehicles

**Project No:** 16-221

**Amount Requested:** \$1,252,000

**Term of Project Request:** 1

**Review**

Air Quality

Metro intends to procure (6) Compressed Natural Gas (CNG) 35' to 40' fixed route buses and (4) CNG paratransit vans. These vehicles will replace aging vehicles with newer fuel-efficient vehicles that will provide quality, environmentally friendly service to Metro's clients. Following Metro's 2015 award of a grant from The Nebraska Environmental Trust for the introduction of CNG paratransit vehicles in its fleet, Metro conducted research and an in depth analysis of its fleet and the benefits that could be achieved from converting more of our fleet to CNG. With associated undisputed benefits such as environmental friendliness, public awareness and community support, reduced emissions which improve air quality, significant savings on fuel costs and the extension of the life of the vehicles, Metro made a commitment to expand its CNG fleet. Training was identified as a critical factor for the success of conversion to CNG programs. Metro intends to provide extensive training as well as ancillary equipment and tools to ensure its service technicians have the knowledge and tools to maintain its expanding CNG fleet. This gradual integration and expansion of greener CNG transit vehicles into Metro's fleet will provide significant reductions in emissions of pollutants and greenhouse gases in the Omaha area. Currently, each fixed route bus is driven approximately 30,000 miles per year, and each paratransit van is driven approximately 40,000 miles per year. This project will be jointly funded with formula capital grant funds from the Federal Transit Administration (FTA).

**Sponsor Name:** Omaha's Henry Doorly Zoo **Nearest Town:** Omaha  
**Project Name:** Impact 1.7 Million: Zoo Produces Solar Electricity for the Public to **Project No:** 16-136  
**Amount Requested:** \$140,614 **Term of Project Request:** 1 **Review** Air Quality

Omaha's Henry Doorly Zoo & Aquarium proposes to install a solar photovoltaic (PV) system to demonstrate renewable electricity production for its 1.7 million visitors per year. Solar PV replaces energy sources that produce significant greenhouse gas emissions, and using renewable energy improves air, habitat, water, and soil quality while reducing waste. This project would provide air quality benefits by reducing local particulate matter, mercury emissions, and other pollutants from current power sources. Encouraging replacement of coal-powered electricity protects Nebraska's water by reducing water used for steam and cooling at power plants and toxins released into surface water. With two locations for visitors to experience, solar PV at the north entrance will shade a prominent sidewalk. Most visitors will park or drive by this solar PV, and many families will use this soon to be redeveloped entrance as the children's zone develops nearby. With solar PV common in Africa, the planned PV panels in this exhibit will help visitors not only learn about the benefits solar PV itself, but about how other countries are using the technology. The Zoo's envisioned solar PV system will be unique because it will provide a hands-on interactive kiosk for the 1.7 million visitors to better understand its extensive environmental, health and financial benefits. With sound planning and design from engineers, an expected useful life of 25-40 years, and a falling price for solar PV, this project is a cost effective investment for both NET grant dollars and the Zoo. Your assistance in providing funding for slightly less than 50% of the total project would be much appreciated. Installing solar PV will help both the Zoo and NET achieve their conservation missions more fully and demonstrate the many environmental benefits solar PV provides locally and globally for our people, plants and animals alike.

**Sponsor Name:** Panhandle No-till Partnership **Nearest Town:** Statewide  
**Project Name:** Conservation Agriculture and Soil Health **Project No:** 16-186  
**Amount Requested:** \$300,000 **Term of Project Request:** 3 **Review** Soil Management

This statewide educational project will build on and expand the efforts of the existing PrairieLand RC&D NET grant, Continuous No-till and Soil Health Education, to increase the adoption and sustainable use of conservation agricultural practices to improve soil health. Too often people treat the soil like dirt, ignoring soil health rather than treating the soil as a valuable resource that needs protecting for future generations. More than a dozen partners will combine and coordinate their efforts to deliver educational programs to inform producers and the public about the benefits of continuous no-till (CNT), cover crops, and improved soil health. CNT is the single best practice for producers to reduce risks to the environment and improve profitability. Adding cover crops helps protect the soil, builds soil structure, feeds soil biological life, provides wildlife habitat, improves water quality and management, and can provide livestock grazing. Improved crop rotations, cover crops, and biological diversity improve the soil system and minimize pest problems, greatly reducing pesticide use and nutrient losses. Five to 12 inches of water can be saved per acre, reducing irrigation needs and greatly improving dryland yields. Soil erosion by wind and water are greatly decreased, reducing blowing dirt, surface water pollution, and erosion below the allowable soil loss level. CNT can sequester large amounts of carbon, especially when used with cover crops and livestock manure management. CNT, residue cover, and cover crops increase wildlife habitat, numbers, and diversity. This project will use continuous no-till producers as field day hosts, presenters, and mentors. This project will also establish demonstration farms in critical areas of the state to show conservation practices that improve soil health. With improved soil health, the soil becomes more resilient, crop production becomes more sustainable, and the resulting crops are healthier.

**Sponsor Name:** Papio-Missouri River Natural Resources District      **Nearest Town:** Millard  
**Project Name:** Solar Installation Demonstration and Public Awareness Project      **Project No:** 16-104  
**Amount Requested:** \$88,500      **Term of Project Request:** 1      **Review**      Air Quality

A principal detriment to the personal, business or government agency usage of solar systems is lack of awareness of their benefits. This 'unique to the state' solar project addresses those concerns by installing a minimum 25 kW solar array (approximately 100 panels) at a highly visible location and concurrently establishing a physical monitoring and information kiosk for visitors or via website to remotely access and observe the system's performance. With combined offices of the FSA, NRCS, DEQ and COE at the P-MRNRD headquarters, visitors interfacing with the installed system are estimated at more than 400,000/year. On-line interest will add to the educational value of this project. Nebraskans for Solar (NFS), a public-interest 501(c)(3) nonprofit corporation will partner with the P-MRNRD to provide expertise on the installation of both the system-monitoring Information and Education component and the solar array. By maximizing net-metering capability, it is estimated that approximately 10% of current electrical needs would be provided by this 25 year (minimum) installation. We are proposing that the NET provide 75% (\$88,500) of the total \$118,000 cost and the NRD would contribute 25% (29,500). Once completed, the NRD will realize immediate reductions of its carbon footprint and provide decades of real-time monitoring data to anyone desiring information on the positive aspects of solar. Benefits to the P-MRNRD's taxpayers will continue with financial savings increasing as electrical rates escalate. More importantly, immediate benefits to the environment will accrue with annual reductions of toxic particulates, multiple tons of CO2 and tens of thousands of gallons of fresh water withdrawals no longer needed for power plant cooling. This information will be communicated to the general public, encouraging them to consider a local, less costly, environmentally friendly source of renewable energy production. Other NRDs, businesses and the private community should benefit from such a model.

**Sponsor Name:** Papio-Missouri River Natural Resources District      **Nearest Town:** Valley  
**Project Name:** Elkhorn Crossing Recreation Area Enhancements      **Project No:** 16-108  
**Amount Requested:** \$152,000      **Term of Project Request:** 2      **Review**      Education

Elkhorn Crossing, a 27 acre public recreation area, is owned and operated by the Papio-Missouri River Natural Resources District. The recreation area is situated along the Elkhorn River near 216th and Bennington Road providing river access, overnight camping and outdoor day use facilities. The site has undergone extensive renovation in the last 8 years including new campsites, RV sites, and restrooms. The proposed enhancements are the next phase to further involve families in the outdoors and to promote the heritage of the site. This project includes two parts, first, modernizing the outdated and limited outdoor play equipment with a playground that would enhance the historical and environmental benefits of the area and secondly to create full-color, educational signage sharing those benefits with the public. The name for the recreation area, Elkhorn Crossing, was chosen because of the site's proximity to the location where the Mormons crossed the Elkhorn River as they travelled west. Since this recreation area is receiving higher numbers of visitors each year due to the renovation and the popularity of tubing and tanking in the Elkhorn River, the Papio NRD wishes to implement this project to increase awareness of this site's historical significance. Along with the opportunity to educate the public of the culture and history of the area, another major benefit of this project is bringing children to outdoor play and creating an atmosphere for families to enjoy the outdoors. In keeping with the mission of the District, recycled products will be used where appropriate, specifically making an investment in recycled playground surfacing. Educational signage will provide historical information as well as information on recycling and sustainability. The outcome and measure of achievement will undoubtedly be seen by the numbers of families visiting the park and utilizing the play equipment.

**Sponsor Name:** Papio-Missouri River Natural Resources District      **Nearest Town:** Bellevue  
**Project Name:** Platte/Missouri River Confluence Ecosystem Project      **Project No:** 14-107-3  
**Amount Requested:** \$300,000      **Term of Project Request:** 3      **Review**      Rural Habitat

This application seeks funding support to acquire an estimated 750 acres of floodplain bottomlands, wetlands and riverine habitat at the historic confluence of the Platte and Missouri Rivers. Once acquired, a restoration plan will be initiated. The historic Missouri River below Sioux City has 'lost' over 522,000 acres of habitat as a result of the federal "Bank Stabilization and Navigation Project". Confluences of large rivers such as these are rare and the Platte River at this site, with the presence of the endangered pallid sturgeon, is considered one of the most significant ecological tributaries in the region. Fish, furbearers and avian species would all benefit from the acquisition and restoration of this unique area. Currently, the site is predominantly a natural landscape and as yet not surrounded by the inevitable urban development as pressures grow from the expanding Omaha metropolitan area. The project is supported by virtually all parties involved including local, state, federal and environmental organizations. In addition to the site's unique environmental aspects, (touched upon in Phase 1 of a site Master Plan that has been finalized by the Back to the River, Inc.), once Phase 2 of the site's Master Plan is completed, an overall strategy for the site will be available. This could include identification and interpretation of the notable cultural and historical aspects from Lewis and Clark's encampment and travels up the Platte River at this confluence location to Native American usage; low impact recreation such as trails, wildlife viewing and photography blinds; hunting and fishing opportunities; research and environmental education; or "simple" open space are all possibilities. The Papio-Missouri River Natural Resources District has been focused for over two decades in long term efforts to revitalize riverine habitat along the Missouri River. With this site, a true habitat corridor is beginning to emerge. THIS PROJECT WAS FUNDED \$800,000 IN 2014 WITH THE INTENT TO FUND UP TO \$500,000 IN YEAR TWO AND \$300,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Pheasants Forever - Lewis & Clark Chapter      **Nearest Town:** Hartington  
**Project Name:** No-Till Grass Drill      **Project No:** 16-216  
**Amount Requested:** \$27,500      **Term of Project Request:** 1      **Review**      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 area 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, Open Fields and Waters, Environmental Quality Incentives Program, etc., have greatly increased the need for this type of specialized equipment. Matching NET moneys with that of the Lewis and Clark Pheasants Forever chapter would purchase the no-till drill. The purchase price of a no-till grass drill is approximately \$38,400. Paul Goeden of Hartington, 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 or efficiently planted with conventional drills. By increasing the amount of habitat and enhancing the quality of habitat provided by these seed mixtures, wildlife will benefit.



**Sponsor Name:** Pheasants Forever - Loup/Ringnecks Chapter

**Nearest Town:** Grand Island

**Project Name:** No Till Drill

**Project No:** 16-214

**Amount Requested:** \$27,500

**Term of Project Request:** 1

**Review** 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 area 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, Open Fields and Waters, Environmental Quality Incentives Program, etc., have greatly increased the need for this type of specialized equipment. Matching NET moneys with that of the Loup/Platte Ringnecks Pheasants Forever chapter would purchase the no-till drill. The purchase price of a no-till grass drill is approximately \$38,400. Aurora CO-OP of Grand Island, 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 or efficiently planted with conventional drills. By increasing the amount of habitat and enhancing the quality of habitat provided by these seed mixtures, wildlife will benefit.

**Sponsor Name:** Pheasants Forever, Inc.

**Nearest Town:** Multiple

**Project Name:** Grassland Improvement Program

**Project No:** 16-217

**Amount Requested:** \$900,000

**Term of Project Request:** 3

**Review** Rural Habitat

Nearly every wildlife partnership and management plan in the state calls for the increased use of prescribed fire to reach their management and partnership goals. Despite those management plans, prescribed burning continues to be a challenging and difficult management option to apply on private lands in the state. Four primary factors are 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) Adequate fuel loads to conduct proper prescribed burns. This application seeks to continue a unique, proven and successful partnership called the Grassland Improvement Program that has changed the culture of prescribed burning on private lands in the regions it has been offered in the past. The program works to improve grassland health and vigor by creating a synergy that overcomes these limiting factors and increases the use of prescribed burning on the landscape of Nebraska. A lynch pin to being able to conduct prescribed burns on grasslands that is capable of controlling invasive tree and cool-season grasses is the ability to have a high enough fuel load. Adequate fuel loads are only attainable if the grassland is deferred from grazing for at least one full season. The Grassland Improvement Program will offer landowner grazing deferment incentives, access to prescribed burn equipment, biologists to write burn plans, landowner prescribed burn training, guide the formation of local prescribed burn associations, help provide assistance to conduct prescribed burns, experience conducting prescribed burns and follow-up with a monitor and evaluation program on projects. The unique synergy created through this partnership will help develop additional biologically important regions of the state where prescribed burning is increasingly used on the landscape, significant environmental benefits are obtained and the objectives of the Nebraska Natural Legacy Project are implemented.

**Sponsor Name:** Pheasants Forever, Inc.

**Nearest Town:** Statewide

**Project Name:** Habitat Share Partnership

**Project No:** 16-215

**Amount Requested:** \$200,000

**Term of Project Request:** 1

**Review**

Rural Habitat

This application seeks funding to continue and expand a successful partnership between Pheasants Forever and the Nebraska Game & Parks Commission (NGPC). The 'Habitat Share Partnership' successfully works to improve the wildlife habitat components on public lands throughout the state by hiring contractors to perform specific habitat improvements on selected Wildlife Management Areas (WMA). All of the projects completed in the Habitat Share partnership are an addition to the number of projects completed by NGPC staff on an annual basis. Most state agencies find it challenging to manage public lands to the degree they would like due to limitations associated with man-power, funding, habitat equipment and available days during specific seasons. NGPC manages 289 Wildlife Management Areas throughout the state totaling 182,826 acres. They have 32 full time staff in charge of completing these management activities. That calculates out to nearly 5,700 acres per year for one full time person to manage with invasive species control being top priority. This partnership has successfully bridged many of those limitations by hiring contractors to perform specific management tasks that NGPC staff are not able to complete with the time, personnel and resource constraints. By assigning specific management activities to contractors for completion, the NGPC staff can accomplish the day to day activities such as invasive species control, depredation calls, and public interest activities as well as complete habitat management and focused wildlife objectives on an increased number of WMA's across the state. Formed in 2010, the Habitat Share partnership has already performed habitat improvement activities on 101 different WMA's impacting 17,886.8 acres. The management activities typically contracted through the Habitat Share Partnership include tree clearing, disking, planting grass mixtures, planting food plots, and spraying. The advantages of using contractors for these services include: completing more habitat projects within a year, impacting more WMA's than could be impacted otherwise, completing habitat projects without the investment in expensive machinery and completing the habitat projects in a more cost-effective manner.

**Sponsor Name:** Pheasants Forever, Inc.

**Nearest Town:** Statewide

**Project Name:** Corners for Wildlife

**Project No:** 15-181-2

**Amount Requested:** \$300,000

**Term of Project Request:** 3

**Review**

Rural Habitat

This application continues a partnership funded by the Trust from 1995 to 2014. The program successfully partners money from the Trust, Pheasants Forever, Inc., Pheasants Forever (PF) and Quail Forever (QF) chapters, Natural Resource Districts, Nebraska Game & Parks Commission and landowners throughout the state to establish permanent wildlife habitat. In the 19 years the program has been offered, Trust funds have been partnered with over \$1.7 million for materials from 45 Pheasants Forever chapters, 15 Natural Resource Districts, the Nebraska Game & Parks Commission and private landowners on 1,572 projects throughout the state. With "in-kind" contributions included, the level of financial partnership being combined with Trust funds currently exceeds \$6.5 million. Landowners receive a rental payment for a five-year contract to establish and maintain high diversity wildlife habitat on center pivot field corners. Materials to establish cover practices are cost-shared 75% by PF and QF chapters with landowners responsible for 25% of the material costs. In some cases, the cover practices are established with a 100% cost share by the participating Natural Resource Districts. This program is very successful at establishing permanent wildlife habitat as landowners have averaged 435 wildlife shrubs and/or trees per corner. Every year the program has been offered, there has been more interest in enrollment than the program can fund. Projects are established to cover practices that promote high quality nesting, brood-rearing and/or pollinator habitat for native wildlife species of concern. The habitat established on projects is specifically designed to meet the goals of the Nebraska Natural Legacy Project and many of the species and habitat types of concern identified in the statewide wildlife plan. By establishing and managing for highly diverse native habitat, the needs of native wildlife that are imperiled by the loss of diverse and undisturbed grasslands is being addressed. THIS PROJECT WAS FUNDED \$300,000 IN 2015 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 SECOND YEAR REQUEST.

**Sponsor Name:** Pheasants Forever, Inc.

**Nearest Town:** Statewide

**Project Name:** Pollinator Habitat Program

**Project No:** 14-185-3

**Amount Requested:** \$39,815

**Term of Project Request:** 3

**Review**

Education

Pheasants Forever (PF) seeks funding from the Nebraska Environmental Trust (NET) to develop a statewide Pollinator Habitat Program. The Pollinator Habitat Program aims to educate and engage youth, families and communities across Nebraska in establishing, maintaining and monitoring pollinator habitat projects. As populations of native and managed pollinating insects continue to decline, more must be done to provide habitat for these important species as well as educating the general public on their value to agriculture and the global food supply. Working with the Nebraska Game and Parks Commission (NGPC), Prairie Plains Resource Institute and local community partners, PF will use their expertise, equipment and networks to create pollinator habitat projects on public and private property. PF chapters will enlist the help of classrooms and youth groups (i.e. 4H, FFA, Boy Scouts, and Girl Scouts) in every aspect of the project (establishment, maintenance, & monitoring). The University of Nebraska will work with PF to design a monitoring program to evaluate the success of the program. Project sites will also serve as outdoor classrooms for many schools where students can assist with monitoring activities and learn about various life science topics. The results of this program will benefit many species of pollinator insects and ground nesting birds by providing much needed foraging and nesting habitat. In addition, the program will serve as a model for land managers and others interested in providing habitat for native pollinators. While these projects sites will provide quality habitat for many species of wildlife, the larger benefit comes in making communities and youth groups more aware of conservation issues like the plight of the pollinators and educating Nebraskans on the importance and value of sound conservation practices. THIS PROJECT WAS FUNDED \$24,496 IN 2014 WITH THE INTENT TO FUND UP TO \$35,024 IN YEAR TWO AND \$39,815 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Prairieland Gold LLC

**Nearest Town:** Firth

**Project Name:** Prairieland Wastewater Treatment & Nutrient Recovery Project

**Project No:** 16-175

**Amount Requested:** \$700,000

**Term of Project Request:** 1

**Review**

Waste Management

Prairie land Gold LLC of Firth, Nebraska is the waste to energy company of Prairieland Dairy LLC which is a 1,500-cow dairy that has been in existence since 1998. They have been innovative in their approach to managing waste streams and are planning the installation of a liquid waste treatment system which will process 50 million gallons of liquid animal and food waste and transform it into separate high-value components. The three end products are potable water, concentrated nitrogen and phosphorus fertilizer which is superior to traditional fertilizers. In the past Prairieland has developed a composting operation that takes in food waste from area food processors, grocery stores, area businesses and the Lincoln Public Schools system. This proposed system will allow more liquid waste from these businesses as well as additional entities. These suppliers have not been able to find an outlet for liquid waste. The system will process approximately 50 million gallons of liquid dairy waste and organic consumer waste per year. The partner food processors who supply food waste which was previously placed in a landfill include Nestle, Mars Companies, Con-Agra and area schools. This process yields 65% or approximately 32 million gallons of clean, potable water and two highly desirable concentrated nitrogen and phosphorus fertilizers. This process yields fertilizer in more concentrated forms which substantially reduce transportation and handling costs. Entities such as Waste Cap Nebraska will help them publicize this demonstration technology. Their innovation has also been shown through the award of the 2013 Sustainability Award from the Innovation Center for U.S. Dairy. The project is estimated to cost \$1.36 million and the request to NET is for \$700,000. Match funding is also \$680,000 along with some in-kind administrative and educational work.

**Sponsor Name:** Pyrtle Elementary PTO **Nearest Town:** Lincoln  
**Project Name:** Outdoor Enhancement Project **Project No:** 16-146  
**Amount Requested:** \$17,769 **Term of Project Request:** 1 **Review** Education

Pyrtle Elementary School in Lincoln, Nebraska sits on 12.58 acres of property and serves 415 students grades kindergarten through fifth. The majority of the outdoor space of the school grounds has been left undeveloped since the school opened in 1964. To increase the use and environmental benefit of the outdoor school grounds, the Pyrtle Elementary School Parent Teacher Organization is facilitating the enhancement of this space. A site survey was completed by University of Nebraska Lincoln students in the Landscape Architecture program which identified several existing obstacles including excessive water runoff, soil erosion, bind weeds, as well as lack of water supply to any area away from the building. Through planting native Nebraska prairie grasses, establishing a rain garden and constructing a shade structure with the ability to collect rainwater, many of these issues will be corrected. The outdoor enhancement project aims to foster the students' education on environment preservation and promote a deeper respect and appreciation of Nebraska's ecosystem. Through rain water collection and raised garden beds students and the community will learn about soil management as well as pollination and its important part of the cycle. The grasses and plants will provide habitat to local wildlife as well as assist in attracting bees and butterflies for pollination. Structures, vegetation, design layout, and building materials have all been chosen in keeping with our core educational focus, renewable resources, sustainability, water conservation, and Nebraska culture. Maintenance of the completed property will be achieved through a service learning concept, which will involve the students to further support a sense of teamwork, accomplishment, agricultural awareness, and community-before-self attitude. Outcomes will be evaluated by satisfaction and usage surveys sent to school neighbors, student parents, and staff in addition to objective observation of rain water accumulation and plant health.

**Sponsor Name:** Quail Forever **Nearest Town:** Statewide  
**Project Name:** Mobile Prescribed Burn Unit & Education Outreach **Project No:** 16-213  
**Amount Requested:** \$136,400 **Term of Project Request:** 1 **Review** Equipment

This application seeks to continue the process of supporting prescribed burning on private lands in the state, forming prescribed burn associations, conducting landowner education outreach events, producing landowner education materials, promoting habitat management techniques and increasing the use of prescribed burning on the landscape. Nearly every wildlife partnership and management plan in the state calls for the increased use of prescribed burns and expanded education regarding conservation programs to reach management and partnership goals. Despite those management plans, prescribed burning continues to be a difficult management option to apply. Quail Forever is working closely with the Nebraska Natural Legacy Project (NNLP) to implement its management goals and employs 20 Biologists in the state with Pheasants Forever that are working directly with the plan. The creation of Mobile Prescribed Burn Units (MPBU) and expanding educational outreach is directly benefiting the NNLP by creating a set of tools and events that can be quickly directed to whichever NNLP Biologically Unique Landscape was the focus. The unique aspect of MPBU's is that the necessary prescribed burn equipment could be available in any region of the state in less than a day. Quail Forever has begun the process of identifying the limitations of prescribed burning on private lands and is working to overcome them. Six different scenarios are outlined in this continuing partnership that are specifically working to expand outreach education to private landowners and increase the use of prescribed burning on the landscape. The requested funds will be matched with those of Quail Forever, Pheasants Forever, Nebraska Game & Parks Commission, Natural Resources Conservation Service, Farm Service Agency and the US Fish & Wildlife Service to purchase, maintain and administer MPBU's and Continuing Education equipment in strategic locations, develop prescribed burn associations and provide expanded landowner educational events and materials across the state.

**Sponsor Name:** Rainwater Basin Joint Venture**Nearest Town:** Minden**Project Name:** Development of Grazing Infrastructure to Support the Rainwater Basin Working Lands Initiative**Project No:** 15-149-2**Amount Requested:** \$102,480**Term of Project Request:** 3**Review**

Rural Habitat

If funded, this grant will provide financial assistance to continue the successful Rainwater Basin Joint Venture Working Lands Initiative. These funds will be leveraged with partner funds, including landowner contributions, to work with local producers to develop infrastructure that will facilitate grazing on abandoned wetlands throughout the Rainwater Basin Landscape. As agriculture production increased throughout the Rainwater Basin, many of the remaining wetlands under private ownership were abandoned. With the lack of disturbance these sites transitioned to monocultures of invasive/exotic vegetation (reed canary grass, river bulrush, and hybrid cattail). Once these vegetation communities are established, waterfowl, waterbird, and shorebird use is negligible. Successful implementation of this project will require four stages: 1) producers with abandoned wetlands will be contacted about integrating grazing back into their operation, 2) grant funds will be matched with partner and landowner dollars to construct necessary infrastructure (perimeter fence, cross fence, and livestock watering), 3) University of Nebraska Lincoln Extension will evaluate forage production and generate fact sheets describing economics of grazing wetlands, and 4) landowner tours will be conducted at several demonstration sites. These tours will be coordinated by Nebraska Cattlemen, Sand County Foundation, University of Nebraska Lincoln, and Natural Resource Conservation Service to ensure an open dialogue between landowners and natural resource professionals. This dialogue will help both natural resource professionals and producers develop better projects, and understand the win-win for production agriculture and wildlife. Developing infrastructure at these sites will ensure cost effective long-term management of these sites through prescribed grazing. This management will significantly increase the habitat value of these wetlands for the estimated 8.6 million waterfowl that depend on these wetlands during spring migration, as well as provide optimal habitat for Whooping Cranes, Buff-breasted Sandpipers, King Rails, and nearly 20 other priority species identified in Nebraska's Natural Legacy Plan. THIS PROJECT WAS FUNDED \$51,240 IN 2015 WITH THE INTENT TO FUND UP TO \$102,480 IN YEAR TWO AND \$102,480 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Rainwater Basin Joint Venture**Nearest Town:** Ord**Project Name:** Central Loess Hills Prescribed Fire Training Exchange Program**Project No:** 14-145-3**Amount Requested:** \$84,500**Term of Project Request:** 3**Review**

Rural Habitat

Within the past century and a half, strong sentiments regarding wildfires led to the suppression and prevention of naturally occurring fires across Nebraska. The consequent absence of fire as a regular part of Nebraska's grassland ecosystems has significantly altered habitat for native wildlife and has undermined the productivity of the livestock economy in Nebraska. At 1.4 million acres, the Central Loess Hills Biologically Unique Landscape is the largest BUL in the Mixedgrass Prairie Ecoregion. Currently, over 11 percent of the Central Loess Hills BUL grasslands are currently invaded by eastern red cedar and without intervention, this invasion is expected to grow exponentially. Even though prescribed fire has been one of the most rapidly adopted contemporary grassland management tools in Nebraska, most prescribed fires are less than one hundred acres in size. Larger prescribed fires will be needed to mitigate tree invasion and limit future tree encroachment in order to secure grassland habitat for at-risk wildlife and a strong livestock economy in the Central Loess Hills BUL. The Fire Learning Network's Prescribed Fire Training Exchange Program has been operating in the Central Loess Hills BUL since 2010 and provides training to wildland firefighters during live prescribed fire scenarios on private land. With professional wildland firefighters, prescribed fires can be held on a more ecologically relevant scale. Since 2010, we have performed 15,000 acres of prescribed fire in the Central Loess Hills BUL. Up to this point, our program has operated without funds to augment the costs for grazing deferment and mechanical tree removal. As a result, even though we have successfully delivered prescribed fire to thousands of acres, the ecological potential and habitat response of these prescribed fires has not been fully realized. We will deliver 12,000 acres of large-scale prescribed fires within three years. With the assistance of the Nebraska Environmental Trust, the Central Loess Hills Prescribed Fire Training Exchange program will be able to assist in compensating landowners to rest their pasture prior to the prescribed fire in order to economically increase the effectiveness of our fires. NET assistance will also augment our equipment for our prescribed fires by providing a UTV equipped for prescribed fire, fireline equipment, and an enclosed trailer to house and transport the equipment. THIS PROJECT WAS FUNDED \$133,500 IN 2014 WITH THE INTENT TO FUND UP TO \$84,500 IN YEAR TWO AND \$84,500 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Rainwater Basin Joint Venture **Nearest Town:** Holdrege  
**Project Name:** Watershed Restoration of Atlanta Waterfowl Production Area **Project No:** 14-143-3  
**Amount Requested:** \$60,375 **Term of Project Request:** 3 **Review** Rural Habitat

The Rainwater Basin Joint Venture Partnership is applying for this Nebraska Environmental Trust grant to restore watershed function to Atlanta Waterfowl Production Area located in south-central Nebraska. The primary objective is to fill at least 20 irrigation reuse pits in this priority wetland’s watershed. Atlanta Waterfowl Production Area was selected for restoration since this wetland contains both the local and landscape features selected for by the endangered whooping crane. Decision Support Tools designed by the Rainwater Basin Joint Venture will be used to guide conservation actions to those irrigation reuse pits that are most negatively impacting wetland function. These pits are generally closer to the wetland and have a large volumetric storage capacity. Filling pits provides a “win-win” situation for the producer and wetland dependent wildlife. Recently many fields have been converted from gravity irrigation to more efficient center pivot irrigation systems. As a result many of the irrigation reuse pits in the watersheds of priority wetlands are no longer needed. This grant will enable producers to eliminate irrigation reuse pits thereby acquiring additional farmable acres while allowing natural runoff to flow to the wetlands on a more regular basis. These activities will not only increase wetland function and provide reliable wildlife habitat, but will also benefit local residents and area producers as a result of the groundwater recharge that naturally occurs through Rainwater Basin wetlands. The RWBJV is a conservation partnership of state, federal, and local agencies, conservation organizations, and private landowners who have joined together to direct wetland habitat conservation in Nebraska’s 6,100 square mile Rainwater Basin landscape. THIS PROJECT WAS FUNDED \$50,375 IN 2014 WITH THE INTENT TO FUND UP TO \$60,375 IN YEAR TWO AND \$60,375 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Rainwater Basin Joint Venture **Nearest Town:** Minden  
**Project Name:** Strategic Conservation of Rainwater Basin Wetlands and Upland Buffers **Project No:** 16-112  
**Amount Requested:** \$900,000 **Term of Project Request:** 3 **Review** Rural Habitat

The grant provides an opportunity for Rainwater Basin Joint Venture partners to find the win-win opportunities that integrate Rainwater Basin Wetlands into farm operations and maximize habitat on publically owned wetlands. On private lands, this project will implement programs that will integrate restored wetlands into local operations for haying/grazing. The 2012 drought highlighted the importance reliable forage resources to maintain Nebraska’s cattle industry. Grazing is also beneficial for the millions migratory birds and resident species by promoting desired habitat conditions. Public lands make up less than 1% of the landscape, but they can contribute to over 50% of the available habitat for migratory birds, if intensively managed. To facilitate desired habitat conditions on-site restoration and active management against invasive species will be implemented. In addition, supplemental water infrastructure (groundwater wells, pipelines, etc.) and watershed restoration actions will also be pursued to increase flooded acres. Beyond habitat for wetland dependent birds, a recent University of Nebraska – Lincoln study highlighted that public lands in the Rainwater Basin are some of the most used, in the state, by hunters and other outdoor recreation enthusiasts. Rainwater Basin wetlands are also important to a suite of at-risk, threatened, and endangered species. Whooping Cranes, Buff-breasted Sandpipers, King Rails, and nearly 20 other priority species identified in Nebraska’s Natural Legacy Plan are found here. The Rainwater Basin wetlands and associated uplands do not just provide habitat and recreational opportunities. These wetlands benefit all Nebraskans through the ecosystem services provided by playa wetlands. Research by University of Nebraska - Lincoln has documented groundwater recharge, nutrient cycling, carbon sequestration, and flood storage. Actions funded through this grant will help ensure that we will continue to have reliable groundwater for both agriculture and municipal uses. To successfully implement this project, Joint Venture partners have leveraged \$900,000 in matching funds.

**Sponsor Name:** Sandhills Journey Scenic Byway Visitor/Interpretive **Nearest Town:** Mullen  
**Project Name:** Sandhills Journey Scenic Byway Birding Trail **Project No:** 14-181-3  
**Amount Requested:** \$20,300 **Term of Project Request:** 3 **Review** Education

This project will provide for the development of a comprehensive and educational source of birding opportunities along the 272 miles of the Sandhills Journey Scenic Byway – Nebraska Highway 2 between Alliance and Grand Island. This will be accomplished through a byway specific website similar to the southwest Nebraska “Chicken Dance Trail” website including educational information on the unique natural qualities of this area; monthly email newsletters; bird identification sound clips and guides; a blog with current sightings, birding opportunities and educational content; development of a birding trail guide; educational birding workshops; and landowner meetings to encourage the development of birding sites on private lands. With over 400 bird species, Nebraska has long been known as one of the top birding states in North America. Birding trails are scattered across the state, but none specifically designed for this wonderfully unique region home to a rich variety of birds and waterfowl. According to Bill Shepard (from an article that appeared in the October 2001 issue of Birding), birding trails create ‘gateways to conservation and adventure’. The Sandhills Journey Scenic Byway is exceptional in that four unique attractions form the ‘backbone’ for the development of the birding trail. These four capstones are the Crescent Lake National Wildlife Refuge, the Valentine National Wildlife Refuge, the Nebraska National Forest, and the Platte River Valley, all within the corridor of the Sandhills Journey Scenic Byway. This grant application will educate visitors and locals alike on the importance of the natural ecological features that are so unique to this region and which provide the habitat for the wide diversity of bird species. THIS PROJECT WAS FUNDED \$35,300 IN 2014 WITH THE INTENT TO FUND UP TO \$20,300 IN YEAR TWO AND \$20,300 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Sandhills Resource Conservation and Development **Nearest Town:** Mullen  
**Project Name:** Cedar Control in the Sandhills Region **Project No:** 14-182-3  
**Amount Requested:** \$16,966 **Term of Project Request:** 3 **Review** Rural Habitat

The Sandhills Resource Conservation and Development Council (RC&D) is planning to work cooperatively with the Upper Loup Natural Resource District (Upper Loup NRD) on a three year project to provide landowners in the central Sandhills region with tools needed to control Eastern Red Cedar encroachment and restore the rangeland to productive grazing land acres. First year grant funds will be used to purchase a tree shear mounted on a skid loaded capable of mechanical removal of trees up to 20” in diameter as well as a small wheeled trailer to move the equipment from place to place. In addition to the purchase of this equipment, funds in all years will be used to host at least eight public meetings to provide landowners with information on options available to assist in cedar tree control. Second year funds will be used to purchase a tow behind chipper/shredder. This equipment will be available for rent to area landowners wishing to address the issue of cedar tree encroachment and loss of productive grazing lands. This grant application meets a critical need in this area as there are currently no local private businesses within a 200 mile radius providing this type of rental service. THIS PROJECT WAS FUNDED \$84,967 IN 2014 WITH THE INTENT TO FUND UP TO \$33,967 IN YEAR TWO AND \$16,966 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

**Sponsor Name:** Sandhills Task Force **Nearest Town:** Multiple  
**Project Name:** Sandhills Wetland/Grassland Conservation Partnerships **Project No:** 15-145-2  
**Amount Requested:** \$128,000 **Term of Project Request:** 3 **Review** Rural Habitat

Over the course of the last twenty years, the Sandhills Task Force (STF) has matured into a successful organization that models how a small group can think large and act locally. Peer organizations have studied the STF model and continue to emulate the STF on many levels. The STF is quick to point out the value of long lasting relationships with partner organizations such as NET. As a result of the STF's commitment to conservation, NET has been able to positively impact thousands of acres throughout the Sandhills and play a large role in this ongoing success story. Presently, the STF is uniquely positioned as an organization to provide a leadership role to find innovative solutions to complex ecological concerns. It appears future conservation opportunities will become increasingly complex and require a more proactive approach to address threats such as changes in land use and landscape fragmentation, energy development, and invasive species. The Sandhills Wetland/Grassland Conservation Partnership Project will assist private landowners in the restoration of streams, wetlands, and lakes degraded by ditching, channelization, stream erosion, invasive aquatic species, and excessive grazing. As part of our ecosystem approach, the STF will continue to support landowners whose goals include improving grassland health and diversity and controlling invasive trees. Work will be done to complete about 30 projects during the three year cycle of this grant. To accomplish this work, each project will be field inspected and evaluated according to its resource value and feasibility. Qualifying projects will be surveyed, designed, and completed using matching partnership funds from landowners, Federal and State agencies, and nonprofit organizations. Each project will have a 10-year contract with the landowner and other participating partners. In addition the STF and matching partners remain committed to monitoring the biological effects of each project. THIS PROJECT WAS FUNDED \$128,000 IN 2015 WITH THE INTENT TO FUND UP TO \$128,000 IN YEAR TWO AND \$64,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Sarpy County **Nearest Town:** Papillion  
**Project Name:** Fueling Sarpy County with Natural Gas **Project No:** 14-211-3  
**Amount Requested:** \$200,000 **Term of Project Request:** 3 **Review** Air Quality

This multi-partner project will focus on the construction of a compressed natural gas (CNG) fueling station near 96th Street and Portal Road. Additionally, the project will focus on the deployment of natural gas vehicles (NGVs) in Sarpy County, and the education of Nebraskans on the numerous health and environmental benefits of CNG and NGVs. The application seeks funding for the costs associated with converting fleet vehicles from Sarpy County, the City of LaVista, OFC-Schmidt Liquid Trucking, and an additional Sarpy County partner to NGVs. A compressed natural gas fueling station will be constructed which will open up the opportunity for Sarpy County, LaVista, and OFC-Schmidt Liquid Trucking to convert vehicles to compressed natural gas. The grant will request \$750,000 from Nebraska Environmental Trust for costs associated with converting county and city vehicles to NGVs and for the partial construction of a compressed natural gas (CNG) fueling station which will include the canopy, paving work, dispenser, and fuel management system. Depending on the cost of conversion kits, NET will fund the conversion of approximately fifty (50) vehicles to NGVs. Black Hills Energy will contribute up to \$800,000 for the costs associated with producing CNG, including, storage vessel(s), compressor(s), dryer, priority panel, and all gas main and service work. Sarpy County, LaVista, and an additional partner to be determined will contribute a combined total of \$100,000 toward civil site design work and will contribute the land for the CNG fueling station which is appraised at \$250,000. Additionally, the partners will provide fleet vehicles for conversion to NGVs. Natural gas is the cleanest commercially available fuel for transportation today, reducing greenhouse gas emissions by 20-30 percent when compared to diesel and gasoline fueled vehicles. Domestic reserves of natural gas are abundant, costs are affordable, and 98 percent of all natural gas consumed in America is produced in North America. This project will continue to expand the usage of natural gas vehicles in Nebraska by constructing a new natural gas fueling station and adding more natural gas vehicles to Nebraska's highways. THIS PROJECT WAS FUNDED \$200,000 IN 2014 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:** Save Our Monarchs Foundation **Nearest Town:** Multiple  
**Project Name:** NPPD Right-of-Way Pollinator Habitat Restoration Program **Project No:** 16-171  
**Amount Requested:** \$129,590 **Term of Project Request:** 2 **Review** Rural Habitat

Nebraska sits in the heart of the Monarch butterfly flyway, and is a significant reproductive and migratory area for these iconic insects. Monarchs and other indigenous invertebrates play a powerful role in the cycle of life that sustains us. These insects, as part of a balanced ecosystem, provide vital benefits to Nebraskans, from the clean water we drink to the clean air we breathe. An enormous amount of Monarch-supporting milkweed and other pollinator plants have been eradicated in Nebraska since 2008, with approximately one million acres of habitat lost. The Save Our Monarchs Foundation (SOM) seeks to reverse this trend, and introduce these plants back into the landscape. This project will create several viable pollinator habitats on Nebraska Public Power District (NPPD) right-of-ways that will encourage the propagation of many invertebrate species beneficial to human endeavors (crop production, hunting, etc.) and to the environment in general. It is the goal of SOM and NPPD that these restorations serve as positive examples of small actions that institutions can take to create a better Nebraska for all. The applicants will assess several parcels of land owned by NPPD in four distinct ecosystems throughout the state. On selected plots, SOM will provide intensive, high-density seeding of native pollinator plants to create models of habitat restorations that other right-of-way and public landholders in Nebraska can undertake. SOM will document its research findings from the monitoring of these sites, and will facilitate meetings with key stakeholders in the state, including the Department of Roads, the Game & Parks Commission, native American tribes, other public utilities, municipalities, and the Natural Resource Districts, to share with them the methods, means, results, economic savings and environmental benefits of this project, with the aim of securing their commitments to undertake similar restoration efforts of their own.

**Sponsor Name:** Schmidt Transportation **Nearest Town:** Bellevue  
**Project Name:** Schmidt Transportation CNG Truck Deployment & South Sioux City CNG Station **Project No:** 16-209  
**Amount Requested:** \$900,000 **Term of Project Request:** 1 **Review** Air Quality

Schmidt Transportation (Schmidt) (private partner), Clean Energy (CLNE)(private partner) and South Sioux City (public partner) South Sioux City have partnered to submit an application for funding from The Nebraska Environmental Trust Grant Program to partially offset the incremental cost of 20 dual fuel vehicles. and to build 1 public- access Compressed Natural Gas (CNG) fueling station at Schmidt Transportation distribution center in South Sioux City, NE. Clean Energy will build, own and operate the proposed CNG Station. Schmidt Transportation will deploy the dual fuel vehicles and the City of South Sioux City will utilize the CNG station to fuel their fleet. If awarded, this project will be successful due to the experience and strength of all project participants. The vision of this project is to create a corridor of natural gas fueling stations in Nebraska, serving all types of natural gas vehicles traveling around and through South Sioux City. The South Sioux City CNG station and dual fuel deployment project's objectives reduce the harmful effects of diesel exhaust on the environment, create new markets for natural gas in Nebraska and enhance the nation 's energy independence and security. This project is an investment in alternative fuels and in development of alternative fuel infrastructure. In the first ten years operation, this station and vehicles will directly reduce 1,743, 252 pounds of criteria pollutant and greenhouse gas emissions, displace 10,434,409 gallons of diesel with clean-burning natural gas, and save Nebraska fleet operators over \$17.9 million in fuel costs. This project is shovel-ready and will commence immediately upon receipt of grant award contract.

**Sponsor Name:** Scrap Central

**Nearest Town:** Lincoln

**Project Name:** Go Green Holidays

**Project No:** 16-193

**Amount Requested:** \$550,000

**Term of Project Request:** 1

**Review** Recycling

Scrap Central is a second generation, locally-owned family business that is a steward of recycling. Located in the heart of Omaha, Scrap Central provides metal recycling services. Owner Jennifer Jones is a young, driven community-focused entrepreneur and philanthropist. She believes that through collaborative efforts, our community and environment will benefit by advancing recycling awareness and increasing participation. Scrap Central prides itself on educating, supporting community partners and making recycling efforts more accessible and profitable for non-profit partners in our community. Over the past two years, we have worked with Eastridge Elementary School through their PTO in Lincoln, NE. This program promoted recycling awareness of holiday lights and electronic scrap. There were over 50 community drop-off locations, which resulted in diverting over 23,000 pounds of materials from the landfill. These efforts raised almost \$7,000 for PTO initiatives. We are eager to continue this partnership moving forward. Due to the overwhelming success in Lincoln, we held our first Holiday Lights Drive in Omaha last year. We would like to further expand the program. To expand this program, we need financial support to purchase a wire chopping machine. There is not a wire chopping line of this magnitude in our region. We could process holiday lights and insulated wire at our facility. This would eliminate the need to ship them out of state, lessening our carbon footprint and improving air and water quality. It would also conserve resources by lessening the need for new product development. We believe strongly in this program to simultaneously benefit our environment while supporting our local communities. This equipment would return as much as an additional ten cents per pound to the organizations partnering with Scrap Central Inc. We ask the Nebraska Environmental Trust to approve our grant proposal so we can expand our efforts on this project.

**Sponsor Name:** Sidney, City of

**Nearest Town:** Sidney

**Project Name:** Ranch Nature Area and Pond

**Project No:** 16-208

**Amount Requested:** \$2,433,867

**Term of Project Request:** 3

**Review** Urban Habitat

Since 1990, Sidney's population has grown from 5,959 to over 7,000 and 750± new housing units in 2014. Existing housing within the community is insufficient in attracting new employees, particularly those recruited by Cabela's. As a result, Cabela's purchased 500± acres on the eastern edge of the City to develop approximately 750 additional housing units. The proposed Ranch development is currently under construction and expected to reach build out in ten years. The City of Sidney and Cabela's seeks this opportunity to partner with the Nebraska Environmental Trust (NET) to develop a 95+ acre nature area and pond (The Ranch Nature Area and Pond) ensuring continued growth and development enriches the overall quality of life and is compatible with the existing habitats and natural environments. NET funds will be utilized to create a 10 surface acre lined pond with enhanced wetlands and natural areas. The agricultural wells historically used on the property will be repurposed to provide an economic raw water supply for common area irrigation and pond level management; incorporate water soil source reduction, water quality and water management efforts; and facilitate wildlife habitat creation. Other non-pond improvements are planned to improve the functional, accessible, educational and recreational utility of the nature area and pond. The proposed project is designed to:

- Conserve water and/or efficiently and effectively manage water use; and improve water quality/clarity.
- Create a lake, wetlands and waterways, while protecting ground water from degradation or depletion.
- Promote wildlife and enhance, preserve and/or restore habitats by emphasizing native and ecologically appropriate plantings, providing food and shelter.
- Promote/implement reuse and other disposal diversion actions.
- Design and foster best management strategies to showcase.
- Inform and educate the public on environmental issues. Improve health and wellness of the public through access to new natural environments and native habitats.

**Sponsor Name:** South Platte Natural Resources District**Nearest Town:** Multiple**Project Name:** Hydrogeology of Western Nebraska**Project No:** 14-172-3**Amount Requested:** \$200,000**Term of Project Request:** 3**Review** Water

The project digitally scans and processes existing oil and gas well geophysical logs to gather information about the aquifer. There are 20,814 oil and gas wells in Nebraska and we estimate that 2,300 wells have geologic and hydrogeologic data that is readily available to provide for a greater understanding of the aquifer configuration within the project area, especially in fully and overappropriated designated areas. This is approximately 10% of total oil and gas wells within Nebraska and represents a large amount of available data which when interpreted will greatly enhance the applicants' and NET's investment in the current geologic and hydrogeologic interpretation for use in ground water and surface water management. This scope of work will provide a significant amount of data that will benefit the regional modeling efforts of the Western Water Use Management Model and the COHYST model. Confidence in these models will be greatly enhanced by this additional geologic and hydrogeologic information contained in the oil and gas geophysical log data. The project method will analyze the information contained in the scanned oil and gas geophysical logs which will improve the current geologic and hydrogeologic interpretation that is based on available data collected and interpreted by project sponsors during previously completed work on the High Plains Aquifer system in the area. The total project cost is \$815,000. The applicants are requesting \$480,000 or 59% of the total cost from NET to pay for data interpretation. The project sponsors and their partners, the University of Nebraska-Lincoln Conservation and Survey Division (UNL CSD) and the Nebraska Oil and Gas Conservation Commission (NOGCC), will provide cash and in-kind services totaling \$335,000 or 41% of the total cost. The contribution by the partners will include the scanning of oil and gas logs, data interpretation, and production of maps. THIS PROJECT WAS APPROVED IN 2014 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:** Southwest Weed Management Area**Nearest Town:** McCook**Project Name:** Western Republican River Healthy Habitat Project**Project No:** 16-169**Amount Requested:** \$307,500**Term of Project Request:** 1**Review** Rural Habitat

This project will continue to build upon the current work of the Western Republican Riparian Improvement Project. It will also continue to compliment the work completed on eastern half of the Republican River by the Twin Valleys Weed Management Area. With the completion of the URRNRD and NCORPE Augmentation pipelines, as well as the continued use of Colorado's Republican River augmentation pipeline, preservation and restoration of our vital river corridors becomes even more important. SWWMA plans on continuing to restore the riparian corridor to a condition better suited for increased biologic diversity and water conservation. We feel that it is important for SWWMA to continue to demonstrate a leadership role in these areas. With increasing demands being made for dwindling water supplies, invasive species continue to place stress on our already fragile river systems. SWWMA plans to continue removing invasive species from the channel of the Republican River as well as its tributaries. Southwest Weed Management will continue to follow a top down approach with an eye towards solving problems before they can float downstream. As in previous years, SWWMA will continue to use best management practices including mechanical, chemical, and biological control methods where applicable. This year we are placing a special emphasis on the critical wet meadows in extreme southwest Nebraska and on Medicine Creek in Red Willow and Furnas counties. We will also continue to expand the scope of our efforts to include the Republican River flood plain. It is our belief that removing invasive vegetation in these vital areas results in increased water flows and a healthier riparian ecosystem. SWWMA was formed in 2006 and includes as members: county weed superintendents, the Upper and Middle Republican NRDs, NRCS field office personnel, and other agencies and private land owners. The group coordinates and assists efforts to identify and control noxious weeds and invasive plants.

**Sponsor Name:** Spencer Area Development Corporation**Nearest Town:** Spencer**Project Name:** Spencer Pond Renovation Project**Project No:** 15-130-2**Amount Requested:** \$222,894**Term of Project Request:** 2**Review**

Lake Rehabilitation

The goal of the project is to rejuvenate the wildlife habitat of a 9.7 acre lake by dredging to a depth that will increase the capacity to sustain fish and other aquatic wildlife and plant species. Grant funding of \$445,789 is sought over 2 years. Total future project costs are \$1,416,011 with significant contribution by Boyd County and Spencer Area Development Corporation. There has been \$212,915 invested by the various stakeholders to date including NET funds of \$33,050. The cost for dam and spillway repairs that are Boyd County's responsibility are \$878,376 based upon most recent cost estimates. An inter-local agreement between Boyd County, Spencer Area Development Corporation, and the Village of Spencer entered in 2012 affirms their agreement to work together. The lake renovation cost is \$537,635. The total project including lake renovation, dam and spillway repair is estimated to cost \$1,416,011 and will be completed in 2015 and 2016. Long term benefits include: Recreational opportunities for local residents as well as visitors to the area. Spencer is located on the Hwy 281 and Hwy 12 corridor in north central Nebraska which is the gateway to the Sandhills. Many canoeists, hunters, campers and fisherman travel through this area on their way to recreational areas on the Niobrara River. This project will provide another recreational amenity along the way. The Spencer Area Development Corporation transferred ownership of 45.4 acres to the Village of Spencer in September of 2013. In addition SADC through its fundraising efforts to date which includes an alumni mailing to Spencer High School graduates have raised \$31,590 which is being held by the Spencer Area Community Foundation. A letter is included in this submission. The total investment to date of Spencer Area Development Corporation is \$160,630. THIS PROJECT WAS FUNDED \$222,895 IN 2015 WITH THE INTENT TO FUND UP TO \$222,894 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** The Nature Conservancy**Nearest Town:** Johnstown**Project Name:** Building a Learning Community at the Niobrara Valley Preserve**Project No:** 15-129-2**Amount Requested:** \$164,277**Term of Project Request:** 3**Review**

Education

In the early 1980s, The Nature Conservancy purchased two ranches along a 25-mile stretch of the middle Niobrara River and established the Niobrara Valley Preserve (NVP). Our vision then was to forever protect this Sandhills gem ensuring its healthy prairies, abundant wildlife, and iconic streams, springs and seeps would endure. A lot has changed in thirty years. Grasslands continue to diminish at alarming rates. Wildfires are increasingly intense. Cedar encroachment has emerged as a huge threat to our state's ecological and economic values. Today, an intentional community of conservation-committed individuals and groups is coming together at the NVP that is unparalleled in the state. With a 60,000-acre mosaic of habitats to serve as the largest classroom in the Great Plains, our vision now is that together we can transform the NVP into the center for teaching and learning that today's challenges demand. The Conservancy's members have given us the opportunity to test ideas and practices (fire, rotational grazing, invasive species removal, and other techniques to care for habitat) and we are ready to share those lessons. For example, fire workers from all over the U.S. and as far away as Spain have come to the NVP for five years with such a strong desire to develop fire expertise they are willing to sleep in tents in the snow. This momentum must be supported by the citizens of Nebraska. That's why we will improve access to the Preserve's trails, historical and archeological artifacts, and the largest free-ranging bison herd in Nebraska. To meet demand - and to grow - we must be able to offer safe and functional workshop and lab space, more showers and restrooms, long-term housing, and the assistance of dedicated staff. We are asking the Trust to help us renovate and build for the future. THIS PROJECT WAS FUNDED \$253,977 IN 2015 WITH THE INTENT TO FUND UP TO \$164,277 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** The Nature Conservancy**Nearest Town:** Johnstown**Project Name:** Making a Place for Monarchs**Project No:** 16-148**Amount Requested:** \$141,934**Term of Project Request:** 3**Review**

Rural Habitat

Populations of monarch butterflies, honey bees, and other pollinators are declining at alarming rates. Pollinator conservation is critically important for both economic and ecological reasons. The key habitat attributes needed by pollinators (plant diversity and a wide range of habitat conditions) also cover the conservation needs for most wildlife species and for ecological health. The challenge is to figure out how to manage grasslands to meet those needs while still meeting the various objectives of landowners and land managers. The Nature Conservancy has broad expertise in grassland management for plant diversity, pollinators, and wildlife, and proposes to improve management on approximately 30,000 acres of its own land in the Platte and Niobrara River valleys. We will carefully evaluate the impacts of various management treatments to identify key management principles that can be applied elsewhere – within a variety of existing management regimes. In addition, we will use our data to create simple but effective metrics that private landowners can use to assess the habitat quality of their land. This proposal complements and strengthens two other programs funded by the Nebraska Environmental Trust: Learning from the 2012 Fire and the 2014 grant Building a Learning Community. These previously funded actions – to better understand the ecological impacts of the wildfire and to enhance our visitor and classroom facilities and to accommodate more field days and demonstration events – are important foundations from which the proposed activities work. This grant will allow us to continue to improve habitat conditions on TNC land, better evaluate and distill key principles from successful management actions, and then share those principles with interested landowners/managers who would like to improve pollinator and wildlife conditions on their land.

**Sponsor Name:** The Nature Conservancy**Nearest Town:** Johnstown**Project Name:** Fire Training Exchange in Nebraska**Project No:** 16-147**Amount Requested:** \$178,194**Term of Project Request:** 3**Review**

Rural Habitat

Millions of acres of land and thousands of communities are at risk from damaging wildfires and related threats. There, too, is a widespread and urgent need to improve Nebraska's grasslands, employing proactive tactics such as prescribed burning, tree thinning, controlling invasive species, and developing community plans. The Nature Conservancy requests three years of support for prescribed fire training exchanges at the Niobrara Valley Preserve (NVP). Fire training exchanges are collaborative, hands-on training experiences that build capacity for integrated fire management. We seek to advance the conservation of grasslands, forests and the human communities they support. Fire practitioners gain experience, learn about conservation, and receive position task book evaluations. Private contractors, ranchers, and landowner associations engage in events that meet national safety standards, gaining skills to work more safely and effectively. Landscapes get the management they need, resulting in improved habitats for wildlife, including threatened and endangered species. To conduct the kinds of burns that Niobrara valley needs – given its complex terrain and complex fuels – we need the size and efficiency gained at a training exchange scale. We will hold three spring exchanges, training roughly 120 personnel and burning approximately 21,000 acres, depending on weather conditions. TNC will also lead three 'partnership burns'. There is a need and desire to implement safe fire at other times of the year and the NVP is the perfect spot to complete late summer and fall burns. These partnership burns will focus on bringing together local partners – volunteer fire departments, U.S. Fish and Wildlife Service, National Forest Service, National Parks Service, and local landowners for single events. By hosting partnership burns we not only improve grasslands and remove invasive cedars, we also demonstrate how partners can accomplish a safe burn by working together. This approach can then be implemented by other private landowners.

**Sponsor Name:** The Nebraska Land Trust Incorporated

**Nearest Town:** Scottsbluff

**Project Name:** Pines and Buttes Preservation Project

**Project No:** 15-201-2

**Amount Requested:** \$270,000

**Term of Project Request:** 3

**Review**

Rural Habitat

Nebraska doesn't have mountains, but the Wildcat Hills and Pine Ridge come close. With ponderosa pines, towering buttes, deep canyons, clear streams and expansive grasslands, these are two of the most popular and scenic destinations in Nebraska. They are also two of our most Biologically Unique Landscapes with western wildlife on the edge of its range, from mountain bluebirds to bighorn sheep. Ranching has largely preserved the integrity of these ecosystems by maintaining wide-open spaces. Unfortunately, ranches are increasingly being sold for recreational use. When recreation replaces ranching, there can be immediate impacts to the land and long-term, the land may be viewed as just one more investment to be maximized which makes eventual development much more likely, especially with 4.5 million people in the Front Range Urban Corridor a half-day drive away. Fortunately, the new Farm Bill offers significant federal funding for conservation easements that preserve working ranches, wide-open spaces, and the ecosystem integrity that comes with it. NRCS programs can fund 50% or 75% of a qualifying easement's value, but only if the matching funds can be confirmed prior to application! This is a 180 degree change from the past and a challenging new requirement, creating a critical need for this grant. THIS PROJECT WAS FUNDED \$450,000 IN 2015 WITH THE INTENT TO FUND UP TO \$270,000 IN YEAR TWO AND \$180,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Tri-Basin Natural Resources District

**Nearest Town:** Holdrege

**Project Name:** Rainwater Basin Watershed Restoration Initiative

**Project No:** 16-120

**Amount Requested:** \$472,500

**Term of Project Request:** 3

**Review**

Water

Tri-Basin Natural Resources District, along with other Rainwater Basin Joint Venture partners, is applying for Nebraska Environmental Trust grant funds to restore watershed function for wetlands throughout the Rainwater Basin (RWB) region of south-central Nebraska. The primary objective is to fill at least 36 abandoned irrigation reuse pits, in priority watersheds. In 1975, Nebraska passed a law regulating groundwater discharge. This law requires producers to manage groundwater inputs so not to impact neighboring properties. More than 10,000 irrigation reuse pits were excavated throughout the Rainwater Basin. This was significant conservation achievement, which increased irrigation efficiency and reduced excessive groundwater pumping. Over the past two decades, many of these fields have been converted to center pivot irrigation systems, so the irrigation reuse pits are not needed; unfortunately these abandoned irrigation reuse pits still fill with water, preventing runoff from precipitation events can reach the wetlands. Filling abandoned irrigation reuse pits creates a "win-win" situation for producers and wildlife. When irrigation reuse pits are filled in producers eliminate obstacles in their fields and acquire additional farmable acres. Removing pits also improves wetland hydrology and watershed function by facilitating runoff to wetlands. Functional RWB wetlands are critical especially during spring migration when an estimated 8.6 million waterfowl, 500,000 shorebirds, and endangered whooping cranes stage in this area, resting and replenish nutrient reserves before continuing migration. To maximize effectiveness emphasis will be placed on irrigation reuse pits in close proximity to wetlands with large water storage capacity. Since Rainwater Basin wetlands are major groundwater recharge sites, grant activities will also improve the quality and quantity of groundwater supplies for local residents and area producers as a result of the groundwater recharge. A sustainable aquifer helps ensure that wildlife habitat and production agriculture can coexist for generations to come.

**Sponsor Name:** Twin Valley Weed Management Area      **Nearest Town:** Red Cloud  
**Project Name:** Eastern Republican and Little Blue Riparian Improvement Project      **Project No:** 16-119  
**Amount Requested:** \$178,200      **Term of Project Request:** 1      **Review**      Rural Habitat

The highly successful Eastern Republican and Little Blue Riparian Improvement Project continues ongoing efforts to eradicate invasive species, control vegetation in stream channels, and improve riparian habitat along the Republican and Little Blue Rivers and their tributaries within six of the Twin Valley Weed Management Area (TVWMA) counties. Control efforts are conducted in a holistic manner, utilizing a full range of mechanical, biological and chemical tools. TVWMA has undertaken this project over recent years to improve stream flow along the Republican and Little Blue Rivers to help enable Nebraska to meet its water delivery obligations to Kansas, to restore and maintain into the future a healthy river system and prevent wasteful degradation of water resources, to improve riparian habitat including re-planting beneficial species, and to increase public awareness of the best practices that can be used to properly manage riparian lands.

**Sponsor Name:** Upper Elkhorn Natural Resources District      **Nearest Town:** Creighton  
**Project Name:** Aerial Electromagnetic Survey of the Bazile Groundwater Management      **Project No:** 16-135  
**Amount Requested:** \$385,450      **Term of Project Request:** 1      **Review**      Water

The Bazile Groundwater Management Area (BGMA) is located in northeast Nebraska and encompasses twenty one townships or 756 square miles (Figure I). The BGMA lies within three counties: Antelope, Knox, and Pierce and parts of four Natural Resource Districts (NRDs): Lewis and Clark (LCNRD), Lower Elkhorn (LENRD), Lower Niobrara (LNNRD), and Upper Elkhorn (UENRD). Managing for nonpoint source pollution by the NRDs and NDEQ has been a priority activity for the project partners for 25+ years. The management plans are designed to adapt as new information becomes available and the current conditions of the area require a new source of information to support future management decisions. A new hydrogeologic framework is needed to better understand aquifer characteristics, flow paths and recharge areas in order to better understand past and future water quality information. This will then allow for improved management and related water quality for the area, which in turn means improved water supply and protection for the public.

**Sponsor Name:** Upper Loup Natural Resources District **Nearest Town:** Thedford  
**Project Name:** Investigating the spatial and temporal characteristics of groundwater discharge in the Loup River Basin **Project No:** 15-113-2  
**Amount Requested:** \$95,000 **Term of Project Request:** 3 **Review** Water

The Upper Loup and Lower Loup Natural Resources Districts are requesting funds in the amount of \$308,000 to facilitate the collection of airborne thermal infrared data, purchase of additional instrumentation to measure and record groundwater-levels and temperature, and to oversee a study to enhance the understanding of spatial and temporal characteristics of groundwater/surface-water interaction in the Loup River basin. Additional information is needed for the management and development of water resources to sustain supplies needed for agriculture, fish and wildlife, recreation, and domestic uses. Streams in the Loup River basin are sensitive to consumptive groundwater use because of the close hydrologic connection between groundwater and surface water. Four stream reaches, totaling approximately 320 river miles, have been identified by the project sponsors as priority streams where additional groundwater/surface-water interaction information is needed. Over these reaches airborne thermal imagery will be collected and used to map stream surface temperatures to identify thermal anomalies, which may be indicative of focused groundwater discharge. Airborne thermal data will be verified with continuous water-temperature logging at existing stream-gaging stations and with self-logging thermistors. Mapped thermal anomalies will be investigated with a variety of techniques including water temperature, potentiomanometer, and seepage meter measurements. Within the four stream reaches, four coupled groundwater/surface-water gages will be instrumented at existing stream-gaging stations. Coupled groundwater/surface-water gages consist of a stream gage coupled with an observation well that has been completed below the elevation of the streambed and instrumented with a water- level recorder. The information provided by a network of coupled gaging stations will allow scientists and managers to analyze streamflow and groundwater discharge patterns, both temporally and spatially. Future groundwater management actions must be tied to studies such as this in order to conserve, maintain and protect our water supplies, natural environments, and economic vitality for future generations. THIS PROJECT WAS FUNDED \$103,000 IN 2015 WITH THE INTENT TO FUND UP TO \$95,000 IN YEAR TWO AND \$110,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

**Sponsor Name:** Upper Loup Natural Resources District **Nearest Town:** Elsmere  
**Project Name:** Groundwater Monitoring to Assess Water Development in Brown County **Project No:** 16-102  
**Amount Requested:** \$90,000 **Term of Project Request:** 1 **Review** Water

The Sand Hills holds one of the most important aquifer systems in the state with sensitive and fragile ecosystems. Concerns about changes in water availability, groundwater-surface water relationships and water quality has prompted the Natural Resources District (NRD) to expand its data collection and analysis for its water management program. The Upper Loup NRD is requesting funds in the amount of \$90,000 to facilitate a collaborative project to drill test holes, conduct borehole geophysical surveys and to design and install groundwater monitoring wells with dedicated sampling and water level recording equipment in the upper Calamus and upper North Loup River watersheds. This work is needed to gather information on water quantity and water quality and to provide long term monitoring facilities in a portion of the NRD that does not have dedicated monitoring locations yet. The ULNRD has observed expanded development of irrigated acres served by groundwater wells in the east and northeast parts of their District and has a need for baseline data in this area. In 2014, in collaboration with the Nebraska Department of Environmental Quality, the NRD is implementing a program of water quality sampling which will be expanded with the help of this grant. Water quality data is an important function of the District and dedicated monitoring wells can provide the unaltered samples from distinct zones in the aquifer. Water quality data are reported to the Nebraska Department of Environmental Quality annually, and groundwater level data are used and published as part of the Conservation and Survey Division's Statewide Groundwater Level Monitoring Report, as well as shared with the US Geological Survey's Nebraska Water Science Center in Lincoln.



**Sponsor Name:** Upper Niobrara - White Natural Resources District      **Nearest Town:** Valentine  
**Project Name:** No Till Drill in Northwest Nebraska      **Project No:** 16-109  
**Amount Requested:** \$30,000      **Term of Project Request:** 1      **Review**      Equipment

The Upper Niobrara White NRD (UNWNRD) is as advocate of conservation practices that improve wildlife habitat, prevent erosion, prevent water quality degradation and improve soil quality. Included in these practices is the establishment of permanent cover, use of cover crops and no-till farming practices. Over the past 30 years, the UNWNRD has sold and assisted in planting on average approximately 241,000 trees per year many of these in conjunction with USDA programs such as the Conservation Reserve Program, Environmental Quality Incentive Program along with state and local programs including the Nebraska Soil and Water Conservation Program and Corners for Wildlife. Within production agriculture the UNWNRD is actively involved in no-till education and hosts annual field days and a winter conference along with other members of the Panhandle No-till Partnership. No-till farming is becoming more prevalent in Northwest Nebraska and the district is working with growers to adapt current operations. Budgeted funds support active no-till education programs. In 1999, the UNWNRD applied for and was awarded a NET grant to purchase a no-till drill. Over the past 15 years, the drill has been used on thousands of acres and is reaching its useful life. The purpose of this grant application is purchase a new no-till drill to keep up with the demand in the northern panhandle. While the demand is increasing, the availability of small sized ( 10 foot) drills is not keeping up. The UNWNRD would house the drill for use in Box Butte, Dawes, Sheridan and Sioux Counties.

**Sponsor Name:** Upper Republican Natural Resources District      **Nearest Town:** Imperial  
**Project Name:** URNRD Moisture Monitoring Program      **Project No:** 16-227  
**Amount Requested:** \$100,000      **Term of Project Request:** 1      **Review**      Water

Pervasive groundwater declines in Chase, Dundy and Perkins Counties will be addressed under the program by incentivizing the use of soil moisture probes that have been shown to reduce irrigation water usage by 2-4 inches per acre. There is very strong interest within the NRD among farmers to use moisture probes, illustrated by high demand for probes under previous programs similar to the one proposed in this application. Lacking such a cost-share program, use of probes within the District would be reduced significantly as evidenced by minimal implementation of the instruments before cost share was made available. The Upper Republican NRD has the most widespread and significant groundwater declines in Nebraska, making continued use of moisture probes imperative as farmers and the NRD try to slow the rate of decline. The grant requested in this application would pay for 45% of the cost of soil-moisture probes and related technology obtained by farmers in the URNRD. The URNRD and farmers who use the probes would pay the remaining costs. Approximately 90 probes could be leased or purchased under the program, reducing water use by approximately 782 million gallons or approximately 2,400 acre feet across the URNRD assuming use of the probes reduced water use by approximately 2 acre inches per acre. The cost-share program recognizes the growing array of soil-moisture probes and telemetry products so will not restrict what brands of probes would be eligible for cost-share reimbursement and allow for leasing of probes.

