

Sponsor Name: American Cullet Supply, LLC**Nearest Town:** Lincoln**Project Name:** Closed-Loop Glass Recycling Project**Project No:** 14-203**Amount Requested:** \$250,000**Term of Project Request:** 1**Review Group:** Waste Management

American Cullet Supply is seeking funding to expand its division of FilterPave products into Nebraska by providing mobile glass crushing services in the Lincoln-Omaha corridor. FilterPave Porous Pavement Systems (FPPS) is a unique product that is an ecologically friendly, cost effective, safe use for recycled glass. It is used to construct hard surfaces such as walkways, parking lots, and outdoor recreation spaces. Its advantage is that it is porous and rain water filters rapidly through it rather than running off and creating sediment or pollution from erosion. We are asking for a total of \$250,000 for purchase of a trailer-mounted mobile aggregate dryer and glass treatment applicator that is used to wash, treat and dry the ground cullet, to prepare it for installation in projects within the immediate area. Currently the City of Lincoln is considering the use of FilterPave in revamping the hard surfaces in the City's parks and the Zoo. We are also requesting establishment of an incentive program for customers that want to install this surface, which in the early stage of developing a market for it, may cost more than concrete. This differential cost incentive is expected to benefit local infrastructure projects, protect water quality and quantities and stimulate increased interest in recycling container glass that is going into landfills. The third need is assistance with marketing materials to promote the mobile units to other NE communities. Firstar Fiber is working with the applicant by helping with the aggregation of recycled glass in a location in Lincoln and another in West Omaha. They will assist with donating storage space to the applicant as an in-kind contribution. The total match for this request is \$616,000 or 2.5:1.

Sponsor Name: Angels on Wheels, Inc**Nearest Town:** Omaha**Project Name:** Cross Training Center Recycling Program**Project No:** 14-165**Amount Requested:** \$92,760**Term of Project Request:** 1**Review Group:** Waste Management

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 disadvantaged and undereducated. Our recycling program provides direct hands-on job experience for these students while keeping electronics from entering the landfills. 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 go to 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 marketing and managing collection sites and the recycling processes.

Sponsor Name: Bassett, City of **Nearest Town:** Bassett
Project Name: Bassett Fishing Ponds **Project No:** 14-125
Amount Requested: \$15,000 **Term of Project Request:** 1 **Review Group:** Lake Rehabilitation

Bassett is developing an area called the Bassett Recreation Area just west of the City of Bassett. The area consists of 80 acres owned by the City of Bassett. The majority of the land is low lying grassland that sat idle for many years. The Community decided in a Recreational Development Plan that the environment and wildlife preservation of the area could be improved if three ponds were dug in the low lying seasonal wetland. The goal of the project is to create a permanent wetland with three open water ponds. The ponds will have a shoreline and shallow water habitat that will grow more cattails, bulrushes, sedges etc. that attracts a larger host of wildlife species than the seasonal wetland that is currently hayed every year. The three ponds will total 4.5 acres of permanent wetlands. Approximately, a third of each pond will be constructed to a depth that will allow vegetation to establish and remain year-round. The ground immediately around the excavated ponds will be shaped to provide easy angler access and to prevent any material from washing back into the ponds during high-water events. The project will ultimately provide a better habitat for wildlife, provide a great observation area of plants and wildlife for visitors, citizens and students of the area. It will also be an easily accessible fishing area for visitors. Any areas that are disturbed during the project will be re-vegetated to prevent erosion. The Nebraska Game and Parks Commission agreed to stock the ponds with a variety of fish that can be sustained over time. Digging on one of the three ponds has begun and should be completed this fall 2013. The grant request is to provide funds to assist with developing the remaining two ponds in the designated area.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Multiple
Project Name: Tern and Plover Conservation Partnership: Protecting Imperiled Birds and their Habitat **Project No:** 12-127-3
Amount Requested: \$58,880 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The Tern and Plover Conservation Partnership protects state and federally threatened Piping Plovers (*Charadrius melodus*) and state and federally endangered Interior Least Terns (*Sternula antillarum athalassos*) in Nebraska. These imperiled birds nest in close proximity to people working at sand and gravel mines and living at lakeshore housing developments, situations where bird-people conflicts often develop, as on river sandbars. We work cooperatively with a diverse suite of partners to prevent and resolve these conflicts in ways that are successful for all parties, bird and human alike. The TPCP demonstrates that terns, plovers and people can share the sand productively--people generating income and jobs, with birds nesting successfully nearby. Our partners include the aggregate mining industry, businesses, local governments, property owners, NGOs, state and federal agencies and policy makers. We are now implementing our management strategy for the Lower Platte River--increase the amount of sandbar nesting habitat in the LPR, improve the LPR hydrograph through renovation of sandbars, integrate the LPR into range-wide efforts to protect terns and plovers and better integrate partners into our program. We are asking the NET to support our LPR sandbar renovation project which will increase the amount of safe nesting habitat available to the birds. Our outreach program works to improve our fellow Nebraskan's environmental literacy and commitment to conservation - providing benefits beyond terns and plovers. The TPCP is uniquely positioned to protect terns and plovers when they are in Nebraska. We believe that there is a need for the Tern and Plover Conservation Partnership to continue its mission of protecting terns, plovers and their habitats in Nebraska.

THIS PROJECT WAS FUNDED \$54,362 IN 2012 WITH THE INTENT TO FUND UP TO \$77,577 IN YEAR TWO AND \$58,880 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** McCook
Project Name: Centralized Water Use Database for Republican River Basin **Project No:** 12-153-3
Amount Requested: \$35,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

Currently ground water withdrawals in the Middle Republican Natural Resource District (MRNRD) are monitored from a network of about 200 metered irrigation wells. The MRNRD technicians read the meters once a year after irrigation season. The data are compiled and stored at the MRNRD offices. Manual recording of water meter readings is laborious, incurs significant driving expense, and is subject to human errors. In addition, taking readings only once a year after the irrigation season does not provide sufficient data on how water is used during the crop growing season in relation to crop water requirements. For effective irrigation water management, a more accurate and effective method for continuous data recording and documentation is needed. This project is requesting funds from the Nebraska Environmental Trust to implement a three-year pilot program on an automated water use data collection, documentation and analysis system. The project proposes to use a telemetry system for measuring and transferring irrigation water withdrawal data to a centralized database. The benefits of this project will be a significant savings in the cost of data collection and processing. When accurate and timely water withdrawal measurements are correlated with the crop water requirements, water usage by farmers can be reduced by as much as 20-40%. Ground water quality in the project area will also be improved through the reduction of deep percolation of irrigation water that carries nitrate nitrogen out of the root zone into the groundwater. Surface water quality will also benefit from this project as better water management will reduce irrigation water runoff that would impact streams with sediments laden with agricultural chemicals. These benefits will be achieved with training farmers in irrigation best management practices supported by data from this project.

THIS PROJECT WAS FUNDED \$110,000 IN 2012 WITH THE INTENT TO FUND UP TO \$80,000 IN YEAR TWO AND \$35,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Holdrege, Geneva
Project Name: Impact of Tillage Practices on Corn and Soybean Transpiration, Crop Water Productivity, Nutrient Dynamics, and Groundwater Recharge **Project No:** 12-167-3
Amount Requested: \$140,818 **Term of Project Request:** 3 **Review Group:** Statement of Intent

Tillage practices play an important role in water balance, plant physiological functions (i.e., stomatal resistance, transpiration) and soil evaporation. In our previous large scale and extensive field research (funded by the NE Environmental Trust), we found that the cumulative actual crop evapotranspiration (ET_c) in a corn/soybean rotation disk-till vs. no-till fields. The cumulative ET_c measured from July 9, 2008 to April 30, 2011 before the growing season started was 2,096 mm (82.5 in) in the no-till field and 2,260 mm (88.9 in) in the disk-till field with ET_c being 164 mm (6.4 in) greater in the disk-till field than the no-till field. The largest difference in daily ET_c was measured on April 1, 2010 when disk-till field had 2.7 mm (0.11 in) greater ET_c. The total difference (6.4 in) in ET_c is a large difference one would assume that most of the difference is due to greater soil evaporation in disk-till field. However, the important question -- is any of the difference in ET_c due to differences in plant transpiration between the two fields? This question has not been investigated and our research will deploy detailed instrumentation to measure hourly transpiration rates for corn and soybean throughout the season to quantify any potential differences in daytime as well as night time transpiration differences between the no-till and disk-till fields. Furthermore, there are other important questions related to the nitrogen and other nutrients dynamics and potential differences in their distribution and uptake rates in disk-till vs. no-till fields. Our project will measure the aforementioned components related to the transpiration and nutrient dynamic differences for three years in disk-till and no-till corn/soybean rotation fields and will provide scientifically-based research in formation to the growers, crop consultants, state agency personnel, and other interested parties through extensive education programs. The project will quantify field-scale recharge beneath irrigated and rainfed agriculture and will quantify the impact of no-till cropping and water management systems on recharge, return flows, and associated water quality (nitrates and phosphorus) in the semi-arid loess region of Nebraska. The project will result in good quality data and information that will help producers to better manage disk-till and no-till fields and will also enable Natural Resources Districts to better evaluate the impact of tillage practices on water resources and nitrogen management. THIS PROJECT WAS FUNDED \$187,316 IN 2012 WITH THE INTENT TO FUND UP TO \$210,675 IN YEAR TWO AND \$140,818 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Statewide
Project Name: Nebraska Invasive Species Project; Developing a Network for Outreach and Monitoring **Project No:** 13-126-2
Amount Requested: \$62,456 **Term of Project Request:** 3 **Review Group:** Education

As identified in Nebraska’s Natural Legacy Plan, invasive species represent a growing threat to Nebraska’s environment and economy, and can have widespread impacts for a variety of natural resource users, including: landowners, power industries, municipalities, and recreationalists. Species such as zebra mussels, leafy spurge, and common reed (Phragmites) are devastating ecosystems in Nebraska and neighboring states. To help mitigate these impacts, the Nebraska Invasive Species Projects seeks funding from the Nebraska Environmental Trust for a critical portion of several our projects that improve natural habitats in Nebraska and reduce stresses to native ecosystems. Our project objectives are to: 1) Decrease the risk of invasive species introduction and spread through volunteer training workshops and targeted messaging across multiple user groups; 2) Develop and implement a ‘next generation’ invasive species education strategy; 3) Evaluate the effectiveness of outreach in invasive species prevention through focused inventory and monitoring and through surveys designed to assess awareness; and 4) Increase local and regional collaboration in the prevention and control of invasive species. This grant supports our proposed projects by providing a portion of the funds for outreach materials and activities (including those to support volunteer training workshops and K-12 teaching kits), monitoring and prevention equipment, and a portion of the salary needed for seasonal staff and related travel. The specific projects outlined below will provide a broader capacity for the prevention of invasive species in Nebraska and will be achieved through the collaborative efforts of various agencies and organizations (federal, state, and local), as well as private citizens. Through this three-year project, we estimate that over 20,000 individuals will receive direct beneficial information about invasive species prevention (through workshops, educational tools, surveys, and websites), providing a tremendous effort towards maintaining the health of Nebraska’s natural resources. THIS PROJECT WAS FUNDED \$76,056 IN 2013 WITH THE INTENT TO FUND UP TO \$62,456 IN YEAR TWO AND \$60,456 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Lincoln
Project Name: Bat Movements Across Transforming Landscapes **Project No:** 13-138-2
Amount Requested: \$43,067 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The origin of energy resources in the United States are in a flux. Perennial biofuel feedstocks, solar and especially wind power production are transforming rural landscapes. Wind power is a renewable energy that has been used for more than 30 years in the United States, yet the impacts on wildlife and their habitats are not fully understood and vary greatly upon the location of the wind energy facility. Installed wind power capacity in the United States has increased over 1000% between 1999 and 2011 with an increase in Nebraska from 3 to 337 megawatts during the same period. Nebraska has enormous wind energy potential and is also used year-round or during migration by greater than 600 species of wildlife, several which are considered at-risk and may be sensitive to wind energy development. The Nebraska Natural Legacy Project State Wildlife Action Plan identifies wind energy development as a potential threat to wildlife and their habitats. Thirteen species of bats are found in Nebraska, five of which are classified as either Tier I or Tier II in the Legacy Plan. The seven most common bat species found dead near wind turbines are all either resident or migratory bats found in Nebraska. Potential negative impacts of wind energy development on bats can be avoided or minimized through siting and operation that take into consideration bat presence and activity. Identifying bat migration and movement patterns is necessary to guide recommendations to minimize impacts of wind energy development. Currently, little is known about bat movements within and across Nebraska. Through the deployment of 20+ ultrasonic acoustic detectors throughout eastern Nebraska for two years, we plan to record bat presence and identify migration timing. Information gathered from this project can be used to further sound resource management practices in regards to wind energy development. THIS PROJECT WAS FUNDED \$89,933 IN 2013 WITH THE INTENT TO FUND UP TO \$43,067 IN YEAR TWO AND \$38,715 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Lincoln
Project Name: Composites and Regenerated Protein Fibers and Discarded Household Textiles **Project No:** 13-142-2
Amount Requested: \$45,000 **Term of Project Request:** 2 **Review Group:** Waste Management

An average American discards about 40 kilograms of textiles and it is estimated that about 12 million tons of textile waste are generated every year in the United States. Of the total textile waste generated, only about 1% is recycled or reused and the rest ends up in landfills. Since a majority of textiles used today contain synthetic fibers such as polyester, acrylic, polypropylene and nylon, disposing the textiles in landfills creates environmental problems due to the slow degradation rates of the synthetic polymers. Textiles also contain dyes and chemicals that could be harmful if they contaminate soil and water. In addition, disposing the textiles in landfills is waste of valuable polymers that have been originally generated from the non-renewable petroleum resources and/or from natural resources requiring the use of land, water and energy. Nebraska has a population of about 1.8 million which means about 55,000 tons of textile waste potentially ends up in landfills in Nebraska every year. If a ton of textile waste is processed into composites, it means a sale value of at least \$2000 based on the price of raw materials currently used for making composites. Even if 50% of the textile waste generated in Nebraska is processed into composites, a sale value of at least \$55 million can be realized every year. Similarly, wool containing textiles will be used to develop regenerated protein fibers that can sell for \$8-\$15 per lb. THIS PROJECT WAS FUNDED \$45,000 IN 2013 WITH THE INTENT TO FUND UP TO \$45,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** McCook
Project Name: Continuous Evapotranspiration and Consumptive Water Use Measurements of Various Cropping Systems and Natural Ecosystems **Project No:** 13-146-2
Amount Requested: \$120,000 **Term of Project Request:** 3 **Review Group:** Water

Evapotranspiration (ETa) is one of the most critical variables in agriculture and crop water productivity and in assessing the sustainability of natural ecosystems and agro-ecosystems. With the recent drought conditions and extensive irrigation practices, the quantification of ETa rates of "ALL" vegetation surfaces not only for the growing season, but also for the entire calendar year even during the non-growing (dormant) season became a necessity for complete water balance analyses of watersheds, basins, and eventually for the entire state. Thus, continuous measurements/quantification of water use rates will need to be made for more robust demand-use-transfer-feasibility and sustainability analyses for Nebraska's water resources. Without accurate quantification of Eta for various cropping systems and other natural resources, any efforts to increase crop water productivity to meet ever increasing demand for food and fiber cannot be achieved. Eta is a crucial variable in every water resources-related topic, including agricultural crop water productivity; developing crop yield-water use relationships; assessment of land use impact on water resources availability; planning, development, management, and allocation of water resources on a field, farm, watershed, and regional scales, and many other hydrologic and agro-ecosystem settings. Despite of the important water resources-related challenges in Nebraska, USA, and around the world, a network of comprehensive Eta and plant water productivity measurement infrastructure to provide short and long-term and improved Eta data for water resources policy-makers, planners, regulators, and users on a continuous basis does not exist. With the espousal of the state agency partners, the PI of this proposal has already invested multi-million dollars and significant efforts and time and established the largest and most comprehensive water and energy flux measurement network in the country [Nebraska Water and Energy Flux Measurement, Modeling, and Research Network (NEBFLUX)] that is operated by a single university. With this proposal, the principal investigator is seeking additional funds to enhance personnel resources to maintain the Network and enhance the practical application and scientific capacity and capability of NEBFLUX to address various issues related to determining long-term (historical, e.g., >120 years) trends and magnitudes of crop water productivity, Eta, and consumptive water use of various cropping systems and natural resources in Nebraska. THIS PROJECT WAS FUNDED \$113,000 IN 2013 WITH THE INTENT TO FUND UP TO \$120,000 IN YEAR TWO AND \$123,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Statewide
Project Name: Excellence in Ag Sciences: Water Resource Education **Project No:** 13-166-2
Amount Requested: \$70,000 **Term of Project Request:** 2 **Review Group:** Education

Water is essential for life to exist; however we often take it for granted. In Nebraska, 8.2 million acres of irrigated lands are extremely vital to the state’s economy. With the expected increase in the global population to reach 9 billion people by 2050 with the same resources available today, natural resource conservation is essential. Teaching the leaders of tomorrow how to be efficient with resources such as water will be essential to ensure enough crops are produced to feed our rapidly growing population. Agricultural education instructors have an influential role in shaping the lives of students interested in agricultural production. UNL Extension coordinates Excellence in Ag Sciences Day which is a one day conference held in 2 locations across Nebraska which transfers research-based, cutting edge technology into the hands of Nebraska agricultural education instructors. This conference aims to assist agricultural instructors with not only the knowledge and skills needed to transfer that information to their students, but the equipment needed for experiential learning to occur. Specifically, agricultural education instructors will become familiar and able to implement sustainable water conservation practices through active participation in the Excellence in Ag Sciences Day annual conference. Instructors will become aware of UNL programs and cutting edge research related to water conservation and water quality in order to better teach their students on water management. Curriculum, web materials and other resources will be created to help instructors teach students about water conservation. Participation in this program will provide agricultural education instructors the tools needed to aide their students in various FFA contests and events related to effective and efficient water use practices. Teaching youth how to both effectively and responsibly manage water is important as we move forward in agriculture and strive to feed an ever increasing global population. THIS PROJECT WAS FUNDED \$75,000 IN 2013 WITH THE INTENT TO FUND UP TO \$70,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Scottsbluff
Project Name: Working with Rural Students to Document Swift Fox on Nebraska Ranches **Project No:** 14-134
Amount Requested: \$245,667 **Term of Project Request:** 3 **Review Group:** Education

The loss and alteration of native grass lands has resulted in significant reductions in habitat availability for grass land obligate species such as the swift fox (*Vulpes velox*). Identified as a Tier I 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) 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 our inference about swift fox populations and thereby our 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 the NGPC 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 will be able to document and thereby aid the management of other species of conservation concern here in Nebraska.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Wood River
Project Name: Developing adaptive prairie management using monitoring data **Project No:** 14-136
Amount Requested: \$248,035 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Prairies support a diverse collection of plants and animals, and protecting and restoring grasslands has been a major focus of conservation efforts in Nebraska. However, very little effort has been made to evaluate the success and cost effectiveness of different restoration and management techniques. In addition, sites differ strongly in productivity, species composition, land use history and soil type; we do not know how those factors affect management and restoration results. This lack of information makes it difficult to adapt and improve techniques, and also reduces our ability to know how effective conservation funding of prairie projects has been. Over the last three years, with funding from the Nebraska Environmental Trust, we have accumulated information on the site conditions for prairies along the Central Platte River by establishing 800 permanent plots in 38 fields. We now have data on the plant community, soil type and fertility, and management history for each of these plots. Our next step is to employ a variety of restoration and management techniques designed to increase habitat quality, and see what drives changes in plant diversity and composition under varying site conditions. The techniques we use to monitor vegetation changes will include simple, cost-effective protocols that can be used by others if they prove useful along the Central Platte River. Our results will help design effective prairie management and restoration strategies based on an adaptive management approach to implementation. That information will be disseminated to governmental agencies, non-profits, and private ranchers and farmers managing prairies in Nebraska.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Lincoln
Project Name: Nebraska Biodiversity Repository **Project No:** 14-137
Amount Requested: \$945,000 **Term of Project Request:** 2 **Review Group:** Education

The University of Nebraska State Museum (UNSM) requests funds to construct the Nebraska Biodiversity Repository, a facility on the University of Nebraska-Lincoln (UNL)'s East Campus that is urgently needed to house the state's archival collection of alcohol-preserved animal specimens from Nebraska and the Great Plains. Today the collection fills two fifth floor rooms in Nebraska Hall on UNL's City Campus. These rooms lack the safety features essential to maintain specimens in 3,650 gallons of 70% ethanol solution, and the shelves are so overcrowded that newly collected Nebraska specimens have had to be turned away and deposited in museums outside the state. To develop sound resource management practices for Nebraska natural habitats, it is first necessary to accurately identify the species that are present. Because the UNSM specimens are held by an accredited museum and available to qualified researchers, biologists can verify species documentation and thus prevent costly mistakes based on erroneous data. The specimens and their accompanying data (e.g., collection date/location) also provide key baselines for future comparisons and predictions of species distribution as Nebraska habitats change over time. With specimens collected over decades from 86 Nebraska counties, the new facility will have broad value across the state. This project is strengthened through the contributions of two longstanding partners of UNSM. The Friends of the UNSM will provide monetary cost share and continue to volunteer in UNSM public educational events about biodiversity, and the Nebraska Game and Parks Commission will provide an in-kind contribution of staff time to continue to collect and donate new specimens to UNSM. Key project activities will be to design and construct the facility and transfer the collection by June 2016. The project outcome will be to safeguard and extend the usefulness of this valuable biodiversity collection for current and future scientists, resource managers, and Nebraska citizens.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Multiple
Project Name: Identifying suitable and vulnerable habitats for bats across Nebraska **Project No:** 14-151
Amount Requested: \$164,408 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Transitioning from fossil fuel-based energy sources to renewable energy sources is being championed as a way to help minimize the impacts of climate change and save plant and wildlife species, but development of these renewable energy sources should proceed with caution. Perennial biofuel feedstocks, solar, and wind power production are transforming rural landscapes and may negatively impact natural amenities and wildlife. Wind power is a renewable energy that has been used for more than 30 years in the United States, yet the impacts on wildlife and their habitats are not fully understood and vary greatly with location. Installed wind power capacity in the United States has increased over 2000% between 1999 and 2012 with an increase in Nebraska from 3 to 459 megawatts during the same period. Nebraska has great wind energy potential; Nebraska also provides habitat year-round or during migration for hundreds species of wildlife, several which may be sensitive to wind energy development. The Nebraska Natural Legacy Project State Wildlife Action Plan (Legacy Plan) identifies wind energy development as a potential threat to wildlife and their habitats. Thirteen species of bats are found in Nebraska, seven of which are classified as either Tier I or Tier II in the Legacy Plan. Potential negative impacts of wind energy development on bats can be avoided or minimized through siting and operation that accounts for bat presence and activity, which needs to be identified in Nebraska. Through a network of technicians and citizen scientists equipped with ultrasonic acoustic detectors enabled with Global Positioning System units and set driving routes, we propose to record bat presence in Nebraska in order to understand habitat use and vulnerable habitats for bats and to further sound resource management practices in regards to wind energy development.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Lincoln
Project Name: Selection of enhanced Chlorella strains for bioremediation of agricultural wastes coupled to renewable energy production **Project No:** 14-152
Amount Requested: \$245,636 **Term of Project Request:** 3 **Review Group:** Waste Management

This proposal aims to apply classic methods of crop improvement (mutagenesis and selection of desirable traits) to algal strains, allowing us to modify and enhance the growth properties of algae for use in bioremediation of agricultural wastes which will be coupled to production of renewable fuels and other bioproducts. Chlorella sorokiniana is a species of green microalgae that has been identified by University of Nebraska algal researchers as having desirable traits: 1. It grows well on anaerobic digester effluent from manure treatment systems in use at many animal feeding operations, 2. It is tolerant to changing environmental conditions, and 3. It is capable of accumulating large amounts of lipid, the precursor of biodiesel, a renewable and clean-burning motor fuel. Our proposal aims to first use ultraviolet light as a mutagen to generate genetic variants of C. sorokiniana with enhanced growth and lipid accumulation profiles, and then to identify the genetic changes which caused the "enhanced" phenotypes. Our ultimate goal is 1. to gain a better understanding of the biology of growth regulation and energy storage in algae, and 2. to produce algae strains with properties which will optimize the productivity of aquaculture systems using animal feedlot waste as a nutrient source.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Lincoln
Project Name: Prairie Pine Wetland Program **Project No:** 14-155
Amount Requested: \$162,742 **Term of Project Request:** 3 **Review Group:** Rural Habitat

In 1989 Walt and Virginia Bagley gifted to the University of Nebraska Foundation their 145 acre farm located in the Steven's Creek watershed for the purpose of: "aesthetic, scientific, educational and ecological functions compatible with its current status as agricultural/and for tile production of food and fiber crops". The School of Natural Resources was charged with developing The Prairie Pines environmental Education Center. One of our goals is to offer place-based wetland education programs to school children at Title 1 schools and the general public. Wetlands are a critical part of agricultural ecosystems, often small in area but huge in impact with regard to water quality and biodiversity of both vegetation and wildlife. Prairie Pines currently lacks such a landscape feature but has an ideal location for a small wetland to enhance habitat and provide educational opportunities on wetland functions. The educational programs will be developed and run by UNL students, allowing them to gain valuable context-based learning and experience. The wetland at Prairie Pines will provide an opportunity to increase science literacy as students learn about wetland habitats and species. Opportunities to demonstrate environmental stewardship through an integrated synergistic approach to land and water management will be emphasized.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Statewide
Project Name: Nebraska Master Naturalist Program: Statewide expansion and specialized training in habitat management **Project No:** 14-158
Amount Requested: \$284,036 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Lincoln
Project Name: Environmentally Responsible Textile Sizing Agents from Poultry Feathers **Project No:** 14-159
Amount Requested: \$119,269 **Term of Project Request:** 2 **Review Group:** Waste Management

Poultry industry generates large amount of feathers (4 billion pounds in the US and 2.2 million pounds in Nebraska) as waste materials annually. Currently, most of feathers are disposed in landfills. This is a waste of land and valuable bio-based materials. On the other hand, utilization of petroleum-based polymers leads to serious environmental pollution. For example, polyvinyl alcohol (PVA) is a type of petroleum-derived non-biodegradable polymers that are widely used as sizes in textile industry. The US textile industry generates 1.04-1.31 billion tons of wastewater, in which PVA is responsible for 50-80% of the chemical oxygen demand (COD). High COD value directly relates to large quantity of pollutant in wastewater. It remains a major challenge to find an alternative with performance properties and cost effectiveness similar to PVA. In this project, we will process feather keratin into textile sizes, targeting replacing PVA. Preliminary results indicated that, keratin sized polyester/cotton and polyester rovings showed slightly lower strength than PVA sized ones. But keratin had much lower COD. It is very possible that the performance properties of keratin size can be improved substantially and become as good as that of PVA after treatments and sizing process are optimized. Considering that PVA size is currently sold at \$1.5-4.4 per kg, turning poultry feathers into textile sizes could mean annual value addition of \$1.5-4.4 million to poultry industry and farmers in Nebraska, In summary, industrial utilization of feathers can save land and protein resources, and add value to poultry industry. In addition, decreasing the amount of PVA sizes can substantially benefit the environment and enhance sustainability of textile industry by reducing its dependence on petroleum resources.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Multiple
Project Name: Collaborative groundwater noble gas demonstration and capacity-building project in the Elkhorn Basin **Project No:** 14-160
Amount Requested: \$173,738 **Term of Project Request:** 3 **Review Group:** Water

This project proposes a collaborative groundwater demonstration and capacity-building project in the Elkhorn Basin involving the Upper Elkhorn NRD, Lower Elkhorn NRD, and two units of the University of Nebraska. The project will remove persistent barriers to the use of noble gases, a cost-effective but underutilized aquifer characterization tool for local groundwater management. We seek Nebraska Environmental Trust funding for (1) a demonstration project on best practices using irrigation and monitoring wells in the Upper Elkhorn and Lower Elkhorn Natural Resources Districts (Project Year 1), (2) the creation of a new mobile web-based software platform to assist users with the collection and evaluation of dissolved gas information (Project Year 2), and (3) the development and delivery of a short-course for water managers about how this information can be used to test the performance of existing groundwater flow models (Project Year 3). Results of Objective 1 will be used to complete Objectives 2 and 3. Owing to a recent major equipment investment by the University of Nebraska, we are now in a position to make this powerful tool routinely accessible for local aquifer management applications. By doing so, the project activities will result in better water resource management capabilities statewide; new insights about the resilience of groundwater aquifers; and, in turn, better protection of Nebraska’s vital water resources. The project achieves cost effectiveness through collaboration, and offers a better than one to one match on NET’s investment. Importantly, the results will also have lasting environmental and economic impacts by improving low-cost options for groundwater management statewide.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Lincoln
Project Name: Climate Masters of Nebraska: Putting Science into Action **Project No:** 14-161
Amount Requested: \$69,013 **Term of Project Request:** 2 **Review Group:** Education

The purpose of Climate Masters of Nebraska is to help Nebraskans become well-informed and take appropriate actions to reduce greenhouse gas (GHG) emissions with a specific emphasis on water conservation and waste reduction. Specific measureable objectives to accomplish this goal are: 1: Educate 50 volunteers from communities across southeast Nebraska regarding carbon footprint reduction through two Climate Masters of Nebraska courses, 2: Facilitate and track volunteer activities corresponding to GHG emission reduction activities, 3: Evaluate the overall program impact by measuring the level of increased awareness and reduced GHG emissions by volunteers as a result of this program. In exchange for the free 10-week course, participants must make a commitment to volunteer at least 30 hours of their time educating others in the community about reducing their carbon footprint and giving them the tools in which to do so. During the Climate Masters of Nebraska two year pilot, 47 participants completed the course and over 900 volunteer hours were fulfilled. Volunteer projects included forming a Nebraska Citizen Climate Lobby chapter, 11 household consultations in which Climate Masters volunteers gave home owners ideas on how they can reduce their carbon footprint, litter pickups, hosting educational booths at outreach events such as Earth Day, teaching kids about water conservation at the Earth Wellness Festival, installing a drip irrigation system at Lancaster County's Youth Services center, and more. When asked if they made changes in their life to reduce GHG emissions as a result of the course, 92% of the program participants said they did. The impacts that the pilot project have made on the community are vital to sustainability in our State. We would like to continue the program and expand it into other areas of Nebraska thus reaching out to even more people.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Statewide
Project Name: LPEAP: Demonstrating Beef Calf Grazing Technology and Best Management Practices **Project No:** 14-163
Amount Requested: \$258,897 **Term of Project Request:** 3 **Review Group:** Water

The proposed project aims to foster development of new grazing systems for raising beef calves and enhance management of these systems, which will help protect water quality and improve soil health while supporting viable production of feeder calves by cattle operations throughout rural Nebraska. The Livestock Producer Environmental Assistance Project (LPEAP) will work with collaborating producers to implement new grazing systems, technology and practices in fencing, water supply, calf handling, forages, and irrigation scheduling. LPEAP will provide educational programs to livestock producers and to others having an interest in pasture/rangeland management - making extensive use of demonstration sites and field tours. In conducting this project, technical assistance and cost-share support will be provided to collaborating livestock producers - focusing on operations that would be considered 'small animal feeding operations' were the calves raised in confinement. Desired project outcomes are to establish a base set of highly functional grazing systems that will serve as demonstration sites for producers across the state; develop educational resources to support continued training of producers and industry advisors; and enhance the technical skills of NRCS staff and industry consultants concerning the design of modern grazing systems for Nebraska cattle operations.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Statewide
Project Name: A Spatial Index for the Leachability of Chemicals in Nebraska **Project No:** 14-168
Amount Requested: \$181,437 **Term of Project Request:** 2 **Review Group:** 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 "teacher" 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.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Grand Island
Project Name: Science of Nebraska Agriculture: Engaging consumers and learners about production agriculture, natural resource management and environmental stewardship **Project No:** 14-170
Amount Requested: \$500,000 **Term of Project Request:** 1 **Review Group:** Education

Consumers who are knowledgeable about agriculture and natural resources literacy and who know where their food comes from are critical to Nebraska. This understanding is key not only to improving the financial, social and environmental longevity of modern farming and livestock production, but also to continue the relationship between producers and consumers that is critical to the long-term success of our state. To meet this goal, the University of Nebraska-Lincoln Institute of Agriculture & Natural Resources and the Nebraska Department of Agriculture are committed to providing educational, research-based experiences to help consumers (especially youth) better understand their food supply and the sustainable practices employed by farmers and ranchers to produce food. Funding is being sought for the development of an interactive, engaging agriculture and natural resources educational experience to be housed in the Nebraska Building at the Nebraska State Fair (currently under construction). This 25,000 ft² interactive educational experience will be devoted to teaching agricultural and natural resource concepts including water, food, energy, crops, and the sustainable use of resources. In addition to being a showcase to over 300,000 fairgoers annually, UNL Extension is committed to providing year round educational programming in this space providing an important opportunity to engage and educate students, 4-H members, FFA Chapters, consumers, visitors, civic organizations, businesses leaders, as well as trade groups and others interested in learning more about agriculture, natural resources and environmental stewardship. This venue will provide an important opportunity to enhance the public's understanding of natural resource management in production agriculture with openness and transparency. The total cost of this project is \$5,000,000. To date, \$500,000 is committed by Nebraska's commodity groups and UNL Extension. Additional businesses, organizations and foundations are being approached for support. We request \$500,000 from the Nebraska Environmental Trust to help support construction of this educational experience.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Lincoln
Project Name: Changing Grasslands with changing climate in Nebraska **Project No:** 14-171
Amount Requested: \$32,897 **Term of Project Request:** 1 **Review Group:** Education

Predicting the potential effects of climate change on the habitats of Nebraska is important for the management of both wildlands and agriculture. This project will use the relatively recent fossil record of the Quaternary Period when climate fluctuated dramatically between cold glacial and warm interglacial periods, to evaluate changes in Nebraska grass lands. To accomplish this, stable carbon isotopes in the fossil teeth of mammals will be used to determine the percentage of C4 grasses that were present and oxygen isotopes to identify warm and cold intervals. The use of carbon isotopes in mammal teeth to determine past percentages of C3/C4 vegetation is well established. The teeth of mammalian grazers record the carbon isotope composition of their diet, which in turn reflects the C3/C4 composition of the underlying grassland. Preliminary data from fossil horse teeth show a strong correlation between climate (from oxygen isotopes) and compositional changes in Nebraska grasslands, implying that C4 grasses expanded northward with warming. For this project we will sample the fossil teeth of horses, camels, and mammoths, to test whether the composition of grasslands responded to warming and cooling in a predictable fashion. Funds will be used for lab expenses and to support a graduate student for one year who will make this project a part of his or her thesis. The outcome of this project will be to generate a large dataset of stable isotope values to estimate the percentages of C3 C4 grasses that were present in Nebraska during the Quaternary Period and test whether these percentages corresponded with changes in climate. Because the migration of grasses with climate change would be expected to cause fundamental changes in habitats as insects and other animals also shift their range boundaries, the results of this project should be of broad interest to the environmental community.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** North Platte
Project Name: North American Invasive Plant Short Course Web Course (WC) **Project No:** 14-175
Amount Requested: \$15,000 **Term of Project Request:** 1 **Review Group:** Education

EdMedia, a multimedia service unit within the University of Nebraska- Lincoln Department of Agricultural Leadership, Education and Communication, seeks \$15,000 for media services for a two-day web course by the North American Invasive Plant Short Course (NAIPSC) in January 2015. This online, live and interactive course (NAIPSC WC) will be for individuals interested in developing better management strategies for invasive and noxious weeds. The online format will give individuals from across Nebraska and the region the chance to participate in a simulated field course without the cost and inconvenience of travel. Registration costs will be charged to participants of the class to cover additional costs. EdMedia services will include: streaming from the UNL West Central Research and Extension Center (WCREC) in North Platte, Neb.; video editing; web/podcast preparation and posting; website updates and maintenance; preparation of online course materials (writing, editing, design); and design and printing of a brochure advertising the online course. Six instructors will join remotely to provide training on the following topics: 1) mapping and spatial analysis - Lisa Rew, Montana State University; 2) database management and real-time usage - Chuck Barger, University of Georgia; 3) herbicide mode of action and use in natural areas- Roger Becker, University of Minnesota; 4) invasive plant ecology and restoration - Jane Mangold, Montana State University; 5) controlling invasive plants and opportunities for eradication - Stephen Enloe, Auburn University; and 6) plant identification - John Kartesz, BONAP. Stephen Young, University of Nebraska- Lincoln assistant professor, weed ecologist, will moderate the 2-day program and provide instruction on understanding plant competition, determining species selection for re-vegetation, and how invasive plants tolerate stress, using greenhouse and lab facilities at the WCREC. Funding will cover EdMedia services and 10 registration scholarships for participants who work in Nebraska and cannot afford the fee.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** North Platte
Project Name: Restoring Ecosystem Function to Grasslands Following Removal of Closed Canopy Stands of Eastern Redcedar **Project No:** 14-179
Amount Requested: \$353,751 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Grasslands contain natural resources that are vital for sustaining healthy ecosystems. Eastern redcedar, a native invasive tree species, is a major driver in the overall reduction of Central Prairie grassland ecosystem services. An established stand of eastern redcedar creates a monoculture plant community that excludes both native and desirable plant species and negatively affects economic returns in grasslands. Ultimately, a poorly functioning ecosystem can have wide-ranging effects that occur at scales of individual plant communities to biomes and may result in natural disasters, such as catastrophic fires, wide-spread erosion, and loss of production. Therefore, to investigate grassland restoration and the use of more sustainable approaches to management, we are proposing to develop an ecosystem-based strategy that includes water, soils, and plant and animal ecology in restoring function and services to grasslands degraded by eastern redcedar. The response by plant communities and related changes in soil and biota in extreme and normal weather/ site conditions will be determined at paired sites where eastern redcedar has recently been removed (e.g. , within the past 3 years). Our team will work under the ecosystem-based framework to 1) assess the current practices of grassland managers and landowners and 2) determine what changes are needed for them to adopt practices that promote more diverse (' healthy') grasslands in areas infested by eastern redcedar. Through publications, reports, field days, focus groups, and the establishment of partnerships, we will provide on-the-ground guidance to landowners and managers that have eastern redcedar on their property. Our results will be applicable on a wide scale in both the Sandhills and Loess Canyons and provide long-term economic benefits for livestock owners that have witnessed production losses due to increasing eastern redcedar infestations.

Sponsor Name: Board of Regents, University of Nebraska - Lincoln **Nearest Town:** Statewide
Project Name: Developing and Demonstrating Large Animal Mortality Composting Systems for Nebraska Livestock **Project No:** 14-186
Amount Requested: \$102,938 **Term of Project Request:** 2 **Review Group:** Waste Management

A Nebraska state statute has historically prohibited composting of animal carcasses greater than 600 lbs. This restriction has recently been removed, providing large animal producers in the state an opportunity to utilize this low-cost, biosecure, and value-added mortality disposal option. Nebraska is home to over 6 million cows and cattle on feed annually. With mortality rates ranging from less than 0.5% for mature cattle to as high as 3% for calves, disposal of a large number of carcasses in a manner that is both economical for the producer and safe for the environment is desirable. Though rendering has long been used for disposal of large animal mortalities, it can be very costly and the processor receiving the carcasses dictates their acceptance. During periods of excessive temperatures, when death loss can increase dramatically, rendering facilities may not be able to accept all mortalities. Burial is another common disposal practice. With burial, several carcasses may be placed in a single trench, covered, and allowed to decay slowly over time. An economical alternative to these disposal methods and one that produces a value-added product known to improve soil health is composting. This project will provide funding to develop large animal composting protocols for Nebraska, demonstrate composting system start-up and management on cooperating producers' farms, determine environmental compatibility of mortality composting systems, and generate educational programming to promote this mortality disposal option.

Sponsor Name: Boy Scouts of America, Mid-America Council

Nearest Town: Cedar Bluffs

Project Name: Camp Eagle Lake Restoration

Project No: 14-173

Amount Requested: \$781,000

Term of Project Request: 2

Review Group: Lake Rehabilitation

The planned restoration and enlargement of the Camp Eagle Lake (Beaver Lake) will help the Boy Scouts of America achieve many of their objectives when scouts attend camps and utilize the facility. The lake at Camp Eagle provides both recreation and environmental educational opportunities for scouts. Recreation activities include boating, canoeing, fishing, fly fishing, rowing, and sailing. Education regarding the natural environment is a mainstay of the scout's camping experience. The lake provides an opportunity for hands-on environmental scout programs including environmental science, fish & wildlife management, soil & water conservation, geology, insect study, animal science, bird study, forestry, nature, plant science, reptile & amphibian study, and sustainability. These activities are Boy Scout merit badge activities that can potentially be earned at camp. Sedimentation in the lake has caused a degradation of the lake including reduced lake capacity/depth with lower water quality and degraded fish habitat. The depth of Lake Eagle is insufficient to maintain fishery during hard winters when the lake freezes over and depletes the amount of oxygen available for the fish. In the winter of 2010 a hard freeze resulted in a large fish kill. In addition, the two acre lake size limits the availability for multiple outdoor recreation and educational activities. An enlarged and deeper lake will provide an improved natural setting for both recreational and educational outdoor activities for more scouts.

Sponsor Name: Cass County

Nearest Town: Plattsmouth

Project Name: Stewardship Council Formation and Launch

Project No: 14-127

Amount Requested: \$219,000

Term of Project Request: 2

Review Group: Waste Management

NET's assistance will help grow Cass County's existing recycling programs, and, as importantly, support the launch of what should prove to be a model for local governments to collaborate with one another and their residents to enhance and protect our environment from a multitude of challenges facing our rural county. Like many Nebraska counties, we are a patchwork of small incorporated and unincorporated communities separated by rolling farmland. Distances and sparse population make it difficult to build unity and cooperation to deal with environmental problems; to name just a few, limited recycling opportunities, illegal dumping, burn barrels and firepits for trees and brush. The grant will pull the county together as one through a unique Stewardship Council, a body of committed public officials, businesses and concerned citizens dedicated to promoting resource conservation programs and policies. Supported by the Board of County Commissioners but empowered to address and focus on a wide range of conservation and environmental issues, including supervising the update of our solid waste plan, the Stewardship Council will be made up of volunteers, including other elected officials, village clerks, city and county staff members, small business owners, trash service providers, recyclers, farmers, school officials and citizens at large. The Council will tackle such issues as how to minimize the transport costs of our countywide recycling trailers while increasing the availability of recycling to more residents, convincing more residents to recycle and compost and helping our schools, town councils and village boards to study and implement policies that encourage greater resource conservation. The Council will serve as a sounding board, research group, catalyst and eventually a source of information and funding so as to be a sustainable means to implement a plethora of conservation measures, allowing Cass County to achieve its goal of being the state's "greenest county."

Sponsor Name: Center for Rural Affairs**Nearest Town:** Statewide**Project Name:** Women Connected to the Land**Project No:** 14-146**Amount Requested:** \$339,876**Term of Project Request:** 3**Review Group:** Education

This project will build the capacity of women landowners to practice good stewardship of Nebraska's environment through education and training in conservation actions for their farms and ranches, particularly water, soil and wildlife habitat conservation. An increasing number of women are sole decision-makers on Nebraska's farmland. Many have deep concern for protecting their land, water and wildlife. Many women landowners are widows with little experience in land management decisions, having left those decisions up to husbands or tenants and lack the experience, knowledge and confidence to put conservation practices to work on their land. This project creates local learning groups to provide women landowners the tools they need to take control of conservation outcomes around their water and habitat. Learning groups provide shared learning, peer support, connect with others who have similar concerns and problems, and provide a structured information source. Earlier pilot projects using learning groups have been especially effective with women landowners, resulting in markedly better outcomes relative to long-term adoption as compared to traditional training formats. A public-private partnership between the Center for Rural Affairs, Nebraska Game and Parks, NRDs, and NRCS, will reach our target audience with critical information and resources. At least 200 women in 18 Nebraska communities will receive initial demonstrations of water conservation and information on conservation resources. We will organize at least 80 of these women into 9 learning groups over 3 years. Each community group will receive focused training over 5 sessions through the year. Learning group participants will develop conservation goals and plans around water and habitat based on what they have learned. In turn they will voluntarily apply practices to approximately 8,000 acres, making a significant impact on their land, in their families and as models within their communities.

Sponsor Name: Central Community College**Nearest Town:** Hastings**Project Name:** Holistic Management - Promoting Sustainable Grazing Practices**Project No:** 14-130**Amount Requested:** \$58,113**Term of Project Request:** 3**Review Group:** Education

It is anticipated that over the grant's three year period, approximately 75 Nebraska farmers and ranchers and 36,000 acres of range land and wildlife habitat will be positively impacted through the Holistic Management workshop series. These workshops are focused on educating farmers and ranchers on holistic management, financial planning, planned grazing, and biological monitoring. All components of the workshops have an effect on soil health, water conservation, air quality, habitat, and waste management. By changing the way farmers and ranchers look at their practices, they will begin to see the "holistic" or whole picture. Workshops will be taught by certified Holistic Management instructors at one of Central Community College's (CCC) locations within CCC's 25-county service area. To increase participant attendance and environmental impact, workshops will be strategically placed across the service area allowing for ease of access each year. Classes will be conducted in the classroom as well as through fall grazing gatherings and a bus tour for additional learning experiences. These courses will coincide with the growing season to provide students with hands-on learning. Seven partners in a variety of areas; Holistic Management International, Grassfed Exchange, Nebraska Grazing Lands Coalition, Green Cover Seed, Nebraska Sustainable Agriculture Society, No-till On the Plains, and Ward Laboratories, have a great wealth of experience in their respective areas. As students begin to transition their acres, additional support from instructors via email and telephone, and consultations from partners will provide students with troubleshooting options. This information combined with the products and services they will provide the project will serve to lay a good foundation for improved farming practices for generations to come.

Sponsor Name: Central Community College**Nearest Town:** Columbus**Project Name:** Sub-Metering Project**Project No:** 14-131**Amount Requested:** \$300,822**Term of Project Request:** 2**Review Group:** Air Quality

Decisions about improving energy and natural resource systems in buildings rest, in large part, on detailed knowledge of current energy and natural resource use. Currently at Central Community College, multiple buildings or the entire campus is metered as a unit. The proposed project will install up to 75 electrical and natural gas meters on individual college buildings at the three main campuses of Central Community College located in Columbus, Hastings and Grand Island and purchase and implement a computerized Energy Management System (EMS). The individually sub-metered buildings and EMS will allow the college to collect and measure usage of electricity and natural gas, benchmark the usage and design improvement plans to reduce greenhouse gas emissions. Reducing the use of fossil fuels through minimizing usage and eliminating waste of energy and natural gas, is a giant step toward enhancing the environment by improving air quality.

Sponsor Name: Central Platte Natural Resources District**Nearest Town:** Grand Island**Project Name:** Groundwater Recharge, Central Platte River Basin**Project No:** 13-122-2**Amount Requested:** \$40,000**Term of Project Request:** 3**Review Group:** Water

To help maintain critical flows in the Platte River and more effectively manage water resources in Nebraska, the Nebraska Platte River Cooperative Hydrology Study (COHYST) built a groundwater flow model to simulate current and future groundwater and surface-water interactions within the Central Platte River basin (CPRB). As a priority to improve the predictive accuracy of the model, COHYST identified the need for more accurate measurements of groundwater recharge. Therefore, the overarching goal of the proposed project is to obtain more accurate and long-term measurements and understanding of groundwater recharge rates and water quality beneath rangeland, irrigated, and non-irrigated (dryland) agricultural lands and the east to west precipitation gradient across the CPRB. Successful completion of this project will result in improved COHYST models, thereby providing improved estimates of groundwater and surface-water conditions that will lead to better informed decision-making by water resource regulators and planners. To begin meeting the overarching project goals, a cooperative partnership was started in 2008 between the Central Platte Natural Resources District (CPNRD), U.S. Geological Survey (USGS) Nebraska Water Science Center (NWSC), and San Francisco State University (SFSU) to establish 8 new recharge assessments sites strategically located across the CPRB. Construction of the last 3 of 8 recharge sites was completed in June 2010, and all sites now have instrumentation that remotely and continuously track meteorological events and corresponding sub-surface water movement that becomes recharge. The requested 3-year funding will support the continued monitoring at the 8 recharge sites, which will provide valuable, long-term information about groundwater recharge and climate gradients and benefit future water management in Nebraska. Also, these sites will provide valuable information about the effect of land-use practices on the migration of agricultural chemicals and groundwater quality, which will help decisions about best management practices in the CPNRD and Nebraska. THIS PROJECT WAS FUNDED \$70,000 IN 2013 WITH THE INTENT TO FUND UP TO \$40,000 IN YEAR TWO AND \$20,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Central Platte Natural Resources District **Nearest Town:** Ogallala, North Platte
Project Name: Advanced Hydrogeologic Frameworks for Aquifer Management in Critical Sections of the Platte River Basin **Project No:** 14-106
Amount Requested: \$650,000 **Term of Project Request:** 1 **Review Group:** 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) requires new information and understanding of the natural system for determining the proper course for management that cannot be understood with current hydrogeologic information. For the NRDs to effectively design and apply groundwater management plan(s), they need detailed information on the aquifers in their NRD area. In particular, they need to understand the aquifer geometry, characteristics, inter-connection with surface water and adjacent aquifers and how the existing water production wells are connected to the water sources. Currently, there are many Conservation and Survey Division testholes in or near the area with several more test holes to be completed during 2013. These testholes are vital to the understanding of the area, but they cannot provide enough information to complete a detailed hydrogeologic framework. Often these testholes are spaced at 6 mile centers, which lacks the detail to be useful in developing a local hydrogeologic framework upon which a sub-regional groundwater model can be developed for evaluation of the proposed management practices. The total project cost is \$921,000. The applicants are requesting \$650,000 (70%) in funding from the Environmental Trust to pay for developing the tool for optimizing the collection of data with the realization of limited funds. A total of \$271,000 (30%) in match will be provided by the NRDs in the form of cash and in-kind services for aerial collection and subsequent data interpretation, databases, production of maps and data reports.

Sponsor Name: Central Platte Natural Resources District **Nearest Town:** Gothenburg
Project Name: East Loess Canyon Grassland Preservation Project **Project No:** 14-129
Amount Requested: \$1,479,250 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The mixed grass ecosystem of the Eastern Loess Canyons in Dawson County is at a critical point in history as this landscape is being over-run by Eastern Red Cedar encroachment. This project is a collaborative effort designed to address the cedar tree problem and the human issues which have led to it. This project will restore the natural ecosystem through the use of grazing management, cedar tree cutting, and prescribed fire. This project will ensure the survival of this improved habitat by building collaborative landowner groups and increasing neighborhood cooperation. The goals of the project are aligned with the Nebraska Natural Legacy project in this Biologically Unique Landscape (BUL) in order to increase habitat for the endangered American Burying Beetle and the Greater Prairie Chicken. We are seeking funding from the Trust to facilitate the mechanical tree clearing portion of the project, while partners will provide resources for tree clearing, grazing deferment, prescribed burning, coordination, meetings and training.

Sponsor Name: Cornhusker Council, Boy Scouts of America **Nearest Town:** Humboldt
Project Name: Camp Cornhusker Environmental and Conservation Education Center **Project No:** 12-184-3
Amount Requested: \$240,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The Cornhusker Council seeks funding for the development of a renewable energy Environmental and Conservation Education Center to be located in Richardson County. The Education Center will consist of the upper section of a one story walk out facility. The base section, a storm shelter, will be funded through NEMA. The Education Center will be 2,450 GSF, and will primarily house education facilities for environmental and conservation education as well as being a model facility for sustainability and LEED. The entire facility will be submitted for a minimum of becoming LEED Certified Building for New Construction and will have an overarching goal of Zero Net Energy design. The building will be used itself as a training tool during the design and construction phase, and then in future educational curriculum when teaching sustainability and conservation. HDR Inc. engineers and architects as partners and board members, will provide LEED accredited professionals for these educational components. The building will also be used to teach merit badges and leadership training, and overnight sleeping quarters. The facility will serve the more than 67,100 scouts and alumni that live in the 16 county service area that the Cornhusker Council serves. The facility will also be available to the general population for functions and will serve as a model through demonstration of renewable energy capabilities to the communities and people it serves in Nebraska.

THIS PROJECT WAS SUBMITTED IN 2011 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST. THIS PROJECT WAS FUNDED \$50,000 IN 2012 WITH THE INTENT TO FUND UP TO \$150,000 IN YEAR TWO AND \$240,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Craft LifeStyle Management **Nearest Town:** Ashland
Project Name: CLM Farm Going Green Collaboration Project **Project No:** 14-219
Amount Requested: \$562,450 **Term of Project Request:** 3 **Review Group:** Waste Management

The CLM Farm Going Green Collaboration Project seeks to collaborate with a diverse population of individuals to improve the opportunities available for competitive employment amongst individuals with disabilities; increase volunteer opportunities for senior citizens; and provide leadership and community service opportunities for high school students. This project is unique, in the fact that it will employ a number of environmentally friendly processes, such as implement green gardening techniques; recycle home goods and building materials; and rehabilitate rescued farm animals. It is an innovative solution to a growing problem. The Project Sponsor, Craft LifeStyle Management (CLM), works with hoarders to organize their residence and restore a safe living environment. On average, CLM is only contracted for forty hours per residence. Ultimately, with such little time to sort items many things are disposed of and end up in our landfills. With an alternative outlet, items can be sold, recycled, or repurposed. The CLM Farm Project's primary goal is to reduce the number of items disposed of in large dumpsters by taking them to the farm. Raised garden boxes and beds will be grown surrounding the farm building. Crop rotation, organic farming, compost development, and organic fertilizer production are just a few of the environmentally friendly gardening techniques to be implemented. Produce and recycled goods will be sold in the storefront of the farm building. The farm will provide a safe haven for rescued domestic farm and exotic animals. Ninety percent of the work completed on the farm will be done by volunteers. By collaborating with community organizations and schools, the CLM Farm will become a sustainable "green" social enterprise with a spectrum of creative endeavors. The funds from this grant would be used to construct a multipurpose farm building; purchase vehicles/trailers to haul estate items; and pay for farm administration.

Sponsor Name: Crane Trust, The **Nearest Town:** Grand Island
Project Name: REACH - Research Experience to Achieve Conservation of Habitat **Project No:** 13-171-2
Amount Requested: \$100,000 **Term of Project Request:** 2 **Review Group:** Education

Private and public conservation groups have made substantial commitments to the restoration and enhancement of migratory bird habitat along the Platte River in Nebraska. In many cases, these efforts have focused heavily on implementation, with disproportionately little attention devoted to measuring and evaluating impacts on target species and goals. As such, there is a regional need to formalize evaluation of habitat projects to help improve them, as well as document and share approaches that lead to successful outcomes. To this end, the Crane Trust proposes to develop and sustain a conservation-training program for college students and young professionals called REACH (Research Experience to Achieve Conservation of Habitat) to improve restoration of migratory bird habitat along the Platte River by directly involving participants in scientific evaluation, cross-site research, and educational outreach. The two-year development project will involve partnerships among the Nebraska Environmental Trust, Crane Trust, U.S. Fish and Wildlife Service, U.S. Geological Survey, the University of Nebraska at Kearney, as well as other academic institutions, conservation partners, and private landowners. Benefits of the REACH program will include a better understanding of outcomes of habitat restoration activities along the Platte River, especially as they relate to provision of resources used by whooping cranes, and educational and training opportunities for young professionals to develop as conservation leaders in Nebraska and beyond. The REACH program will continue beyond the duration of the initiating NET grant with support from the Crane Trust, regional colleges and universities, and conservation partners.
THIS PROJECT WAS FUNDED \$125,000 IN 2013 WITH THE INTENT TO FUND UP TO \$100,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Ducks Unlimited, Inc. **Nearest Town:** Elm Creek
Project Name: Cottonwood Ranch Platte River Wetland Restoration **Project No:** 13-177-2
Amount Requested: \$111,067 **Term of Project Request:** 2 **Review Group:** Rural Habitat

Ducks Unlimited and its partners will conduct a habitat restoration project on property owned by the Cottonwood Ranch LLC consisting of over 140 acres of Platte River wet meadow habitat in Phelps County, Nebraska. The goal of restoration will be to restore important Platte River habitat in support of migrating waterfowl and other wildlife including federally listed species such as whooping cranes, piping plovers, and least terns. It further restores and complements a complex of wetland sloughs owned by the Nebraska Public Power District, the Platte River Recovery Implementation Program, and Ducks Unlimited. The parcel consists of degraded riparian slough and wet meadow habitat that is currently being farmed. To restore the property, the wetlands will be made functional by shallow excavations, the planting of native upland buffers, the removal of tile drains, tree removal, and the installation of water control structures to promote management of water levels for desirable plant species. Livestock fencing and watering facilities will be installed around the project. While being highly beneficial to wildlife on the property itself, conservation activities on Cottonwood Ranch will add further benefit to the large and contiguous Platte River habitat complex composed of both public and private landholdings. THIS PROJECT WAS FUNDED \$13,000 IN 2013 WITH THE INTENT TO FUND UP TO \$111,067 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Ducks Unlimited, Inc.**Nearest Town:** Sutton**Project Name:** Rolland WPA Roundout**Project No:** 13-178-2**Amount Requested:** \$38,290**Term of Project Request:** 2**Review Group:** Rural Habitat

The Rolland Waterfowl Production Area Roundout proposal seeks funding assistance from the Nebraska Environmental Trust to acquire and restore the Gemar property, an important "roundout" to the Rolland Waterfowl Production Area in Fillmore County, in the heart of Nebraska's Rainwater Basin. The 41.5 acre Gemar property lies adjacent to the 128 acre Rolland Waterfowl Production Area. The two properties share a common 87 acre wetland. Approximately 32 acres of the 87 acre wetland lies on the Gemar property. A large, excavated "pit" on the Gemar property partially drains the wetland. Acquisition of the Gemar property will allow the entire wetland to be fully restored and managed properly, providing significant habitat benefits to waterfowl, shorebirds, wading birds, resident wildlife, and many other species. Ducks Unlimited will acquire the property and hold the tract for several years before transferring the property to the U.S. Fish and Wildlife Service. The Fillmore County Commission supports this proposal. Prior to transfer to the Service, the wetland on the tract will be fully restored by placing compacted fill material into the pit and restoring the natural surface of the wetland basin. THIS PROJECT WAS FUNDED \$78,850 IN 2013 WITH THE INTENT TO FUND UP TO \$38,290 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Ducks Unlimited, Inc.**Nearest Town:** Central City**Project Name:** Timberlake Ranch Habitat Project - Combining Conservation with Education **Project No:** 13-182-2**Amount Requested:** \$57,225**Term of Project Request:** 2**Review Group:** Rural Habitat

Nebraska Rivers support one of the largest breeding piping plover and Interior Least Tern populations in North America. The Platte River is a critical portion of their current range in Nebraska. Unfortunately, the natural processes that maintained Platte River habitats are largely missing today. Despite these changes, the Platte River remains critical breeding habitat to these Tier 1 At-risk species. Located in the heart of plover and tern breeding range, the Timberlake Ranch Camp provides a unique opportunity to conserve valuable habitat and provide educational opportunities to thousands of children each year. Timberlake is a large, expansive piece of property used primarily as a youth camp. The tract has been encroached severely by eastern red cedar and the historic wetland sloughs are degraded and non-functioning. The restoration of habitat will provide an ideal opportunity to greatly increase tern and plover habitat that once existed along this stretch of river. The objective is to restore 60 acres of critical limiting habitat for at-risk species dependent upon the Platte River for some portion of their lifecycle. Through the proposed conservation actions, the project will then be utilized to expose the general public to Nebraska's natural resources in a fun and educational manner. Activities will be tailored to teach the next generation how important, critical and unique Nebraska habitat is and why it should be conserved. To balance habitat benefits of the project with the education phase, special precautions and non-access to sandbars on the river during the nesting season for species of concern will occur. THIS PROJECT WAS FUNDED \$87,000 IN 2013 WITH THE INTENT TO FUND UP TO \$57,225 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Ducks Unlimited, Inc. **Nearest Town:** Kearney
Project Name: Platte River Wildlife Management Area Partnership **Project No:** 13-185-2
Amount Requested: \$76,515 **Term of Project Request:** 2 **Review Group:** Rural Habitat

The Central Platte River, considered by the many to be one of the most endangered waterways in the U.S., provides critical habitat to over 300 bird species. The Platte River hosts migration habitat to ½ million sandhill cranes and several million ducks and geese each spring. With ninety-seven percent of the land base in Nebraska is privately owned, outdoor recreation opportunities on the Platte River are more limiting than any other part of the state. The Nebraska Game and Parks Commission own a relatively large amount of real estate along the Platte River in Central Nebraska. However, NGPC lands have suffered the same habitat changes that most of the land along the river has realized. While these tracts currently provide many wildlife benefits, the planned conservation activities will greatly diversify habitat types and the species that utilize them. This proposal includes extensive public benefits through restoration activities planned on public land along the river. Four state-owned Wildlife Management Areas (Bassway Strip WMA, Dogwood WMA, Blue Hole WMA, and Martin’s Reach WMA) will be targeted for restoration and enhancement activities, providing both improved habitat for migratory waterbirds and Nebraska wildlife, and increased outdoor opportunities for the general public. Shallow floodplain wetlands and backwater sloughs will be improved, invasive species will be removed, and a diversity of habitats will be realized for both wildlife and fellow Nebraskans. THIS PROJECT WAS FUNDED \$58,800 IN 2013 WITH THE INTENT TO FUND UP TO \$76,515 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Ducks Unlimited, Inc. **Nearest Town:** North Platte
Project Name: Evaluation of Sandhill Crane and Waterfowl Use through Prioritization and Application **Project No:** 14-191
Amount Requested: \$165,000 **Term of Project Request:** 2 **Review Group:** Rural Habitat

While habitat selection and population estimates are well documented for spring migrating birds in the central Platte River system, little information or monitoring efforts on the Platte River system west of North Platte, Nebraska exist, particularly for the multiple priority bird species known to be present. Most conservation partners deliver habitat programs in the region with limited information and a lack of a landscape prioritization tools. In order for conservation delivery to be more effective and efficient in utilizing limited funds, a decision support tool is critical so that priority species habitat needs are being addressed through appropriate restoration/management strategies in the correct geography at multiple scales. We propose to identify and address key uncertainties related to the ecological requirements of sandhill cranes and waterfowl on the North Platte River that can ultimately be implemented as a decision support tool directing “on-the-ground” habitat delivery strategies at a landscape-level. Anticipated outcomes for broader conservation planning will include surveys documenting population estimates and locations; vegetation and wetland mapping; and additional ecological habitat covariates that will be implemented into habitat suitability models for sandhill cranes and waterfowl. While spring surveys will quantify species occurrence and distribution for priority species to assist in targeting key portions of the river for conservation action, direct project assessment is required to determine actual influence and success in relation to habitat use. Four conservation projects are also being proposed as evaluation sites that will both restore 2.8 miles of backwater sloughs, 7 acres of floodplain wetlands, and 30 acres of grassland restoration allowing partners to document habitat use pre- and post-restoration while integrating local scales into the landscape-level modeling. Understanding the success of these projects will aid in realistic planning for refining habitat goals for the future using explicit data. Results will be applied by partners, refine local habitat initiatives and direct conservation delivery.

Sponsor Name: Ducks Unlimited, Inc. **Nearest Town:** Maxwell
Project Name: Maxwell South Channel Wetland Restoration **Project No:** 14-192
Amount Requested: \$219,796 **Term of Project Request:** 2 **Review Group:** Rural Habitat

Ducks Unlimited (DU) and its partners will conduct a habitat restoration project on property to be acquired by DU consisting of over 164 acres of Platte River accretion and wet meadow habitat in Lincoln County, Nebraska as well as another 30 acres of wetland accretion habitat on an adjoining private property. The goal of restoration will be to restore important Platte River habitat in support of migrating waterfowl and other wildlife. The parcel consists of degraded riparian slough and wet meadow habitat that is currently being farmed or is badly invaded by invasive trees. To restore the property, the wetlands will be made functional by shallow excavations, the planting of native upland buffers, tree removal, and the installation of water control structures to promote management of water levels for desirable plant species on a total of 170 acres. Livestock fencing and watering facilities will be installed around the 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:** Mitchell
Project Name: Spring Creek Conservation Partnership Phase II **Project No:** 14-196
Amount Requested: \$86,250 **Term of Project Request:** 1 **Review Group:** Rural Habitat

Wetland habitat in the North Platte River watershed has been drastically impacted by extensive water diversions, invasive plant species, wetland drainage activities, and reduced groundwater levels along streams and floodplains. The limiting habitat type, floodplain wetlands have essentially been eliminated in the North Platte River drainage, greatly reducing diverse habitat for wetland dependent species. It is imperative to conserve key complexes that will remain intact and will provide resources long-term. With greater than 97% of the land base in Nebraska being privately owned, habitat programs must be available to landowners in order to sustain and improve wetland habitat within the North Platte River watershed. In response to the rapid decline of critical wildlife habitat, Ducks Unlimited initiated a project to protect and restore a vital habitat complex in Scotts Bluff County through the Spring Creek Conservation Partnership proposal funded by the Trust in 2013. Conservation of these key tracts will result in the protection and restoration totaling over 1,200 acres of critical contiguous habitat in the Spring Creek watershed on the North Platte River. Through a community approach, landowners of the Spring Creek Complex have all agreed to work individually with Ducks Unlimited for a common cause – Conserve habitat for wildlife and open space long-term. The conservation easements on two of the properties will protect the complex from future development, and subdivisions, ensuring the invested conservation dollars by the Trust provide long-term benefits. The Spring Creek Conservation Partnership is a prime example of working with communities to achieve conservation success and a landscape-scale. Ducks Unlimited is requesting the Trust fund Year two of the original proposal to ensure the critical work at Spring Creek is accomplished.

Sponsor Name: Ducks Unlimited, Inc. **Nearest Town:** Fairmont
Project Name: County Line Waterfowl Production Area Roundout **Project No:** 14-197
Amount Requested: \$29,360 **Term of Project Request:** 2 **Review Group:** Rural Habitat

The County Line Waterfowl Production Area Roundout proposal seeks funding assistance from the Nebraska Environmental Trust to acquire and restore the Bettger property, an important “roundout” to the County Line Waterfowl Production Area in Fillmore County, Nebraska’s Rainwater Basin. The 5 acre Bettger property lies adjacent to the 406 acre County line Waterfowl Production Area. The two properties share a common 289 acre wetland. Approximately 8 acres of the 289 acre wetland lies on the Bettger property. A large, excavated “pit” on the Bettger property partially drains the wetland and intercepts natural runoff. Acquisition of the Bettger property will allow hydrology of the entire wetland to be improved and better managed, providing significant habitat benefits to waterfowl, shorebirds, wading birds, resident wildlife, and many other species. Ducks Unlimited will acquire the property and hold the tract for several years before transferring the property to the U.S. Fish and Wildlife Service. The Fillmore County Board of Supervisors supports this proposal (see attached letter). Prior to transfer to the Service, the wetland on the tract will be restored by placing compacted fill material into the pit and restoring the natural surface of the wetland basin.

Sponsor Name: Ducks Unlimited, Inc. **Nearest Town:** York
Project Name: Heron Waterfowl Production Area Roundout **Project No:** 14-198
Amount Requested: \$120,250 **Term of Project Request:** 2 **Review Group:** Rural Habitat

The Heron Waterfowl Production Area Roundout proposal seeks funding assistance from the Nebraska Environmental Trust to acquire and restore the VanHousen property, an important “roundout” to the Heron Waterfowl Production Area in York County, in Nebraska’s Rainwater Basin. The approximately 48 acre VanHousen property lies adjacent to the 314 acre Heron Waterfowl Production Area. The two properties share a common 241 acre wetland. Approximately 28 acres of the 241 acre wetland lies on the VanHousen property. Currently, a York County minimum maintenance road bisects the basin at the property line between the VanHousen property and the WPA. This minimum maintenance road has been officially closed. Ducks Unlimited will remove the road to the original wetland elevation. This will restore hydrology between the VanHousen property and the WPA. Acquisition of the VanHousen property will allow the greater portion of the wetland to be restored and managed properly, providing significant habitat benefits to waterfowl, shorebirds, wading birds, resident wildlife, and many other species. Ducks Unlimited will acquire the property and hold the tract for several years before transferring the property to the U.S. Fish and Wildlife Service. The York County Commission supports this proposal (see attached letter). Prior to transfer to the Service, the wetland on the tract will be fully restored by removing the minimum maintenance road and establishing a buffer around the wetland.

Sponsor Name: Ducks Unlimited, Inc. **Nearest Town:** Morrill
Project Name: Horse Creek Wetland Restoration Project **Project No:** 14-200
Amount Requested: \$40,175 **Term of Project Request:** 1 **Review Group:** Rural Habitat

The Horse Creek Wetland Restoration Project is a proposal to restore wetlands and associated habitats along the Platte River close to the mouth of Horse Creek in Scotts Bluff County. The project offers the unique opportunity to restore both large off channel wetlands and backwater side channel wetland habitats. The project site is privately owned. The landowners are contributing extensively to the restoration costs of the project and are willing to place a perpetual conservation easement on the tract to ensure that restored habitats will be protected in perpetuity. Ducks Unlimited will hold the conservation easement. The diversity of restored and enhanced habitats will provide abundant benefits to a wide variety of wetland wildlife species, including waterfowl, shorebirds, wading birds, fish, amphibians, reptiles, native plants and other species. Drainage ditches will be plugged and water control structures installed to restore off channel wetlands. Along the Platte River, former backwater channels will be excavated to restore hydrology to those sites and enhance wetland habitat. The property is located in close proximity to other conserved and protected wildlife habitats, including the Stateline Unit of the North Platte National Wildlife Refuge, the Kiowa Wildlife Management Area owned by Nebraska Game and Parks Commission and the Horse Creek Wildlife Management Area, owned by Platte River Basin Environments, Inc. Other partners in the project include the Nebraska Game and Parks Commission and the U.S. Fish and Wildlife Service.

Sponsor Name: Elkhorn Logan Valley Public Health Department **Nearest Town:** Wisner
Project Name: Be the Solution **Project No:** 14-148
Amount Requested: \$89,985 **Term of Project Request:** 1 **Review Group:** Waste Management

Elkhorn Logan Valley Public Health Department (ELVPHD) seeks funding to support a waste management project which will include both public education and hazardous waste disposal opportunities. Efforts will focus on increasing levels of awareness regarding proper disposal of common hazardous household waste materials (paint, chemicals, oil, batteries, etc.) by using proven and innovative education venues. Past household hazardous waste events sponsored by ELVPHD have been extremely successful with over 500 vehicles having participated in four previous ELVPHD hazardous waste events (an average of over 125 vehicles at each event). Over 70% of past participants indicated that they would like to be contacted about future household waste events which indicates an intent to continue responsible disposal. Also, 38% of past participants indicated on their participant surveys that disposal events benefitted their environment and/or community. Continuing waste disposal activities creates a safe, effective method of disposal and instills a sense of environmental responsibility. Public education efforts and waste collection events will be publicized at the same time to capitalize on effectiveness and reinforce the message. Public health will be positively impacted indirectly by reducing the risk of exposure to dangerous and unhealthy materials. The project will be professionally evaluated both in terms of process and outcome attainment. All ELVPHD projects are conducted with the premise that activities are evaluated, and only those that are proven to be successful are replicated. For this project, past household waste events funded by Nebraska Environmental Trust have proven to be extremely successful and replicating them in other communities throughout our service area will allow for additional residents to have the opportunity to dispose of chemicals / household waste properly and to learn about the importance of proper disposal for a safe, clean environment thus encouraging continued environmental responsibility.

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

Project Name: Native Grassland Protection Against Invasive Weeds II **Project No:** 13-192-2

Amount Requested: \$46,250 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Native Prairies are the most threatened ecosystem in North America. 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. 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. In 2011, the Five Rivers WMA received a total of sixteen applications from landowners in four different counties requesting aid in controlling the invasive species. Due to the higher than expected volume of applications from landowners seeking assistance, Five Rivers Weed Management Area had to request to reallocate funding from the Nebraska Environmental Trust Fund – Project Number 11-133, to include an increased amount dedicated to conservation implementation and a decreased amount of funding for education in order to meet the needs of local landowners and managers, which displays the interest and need for the cost share program in the designated region. The WMA continues to educate landowners and managers and continually receives inquiries along with new applicants seeking aid in controlling the invasive weed species. Therefore, the Weed Management Area seeks a continuation request, extending the program for an additional three years. The WMA is seeking \$90,000 for a three year cost share program that would assist in making effective invasive weed species control affordable for landowners, land managers, and other entities. Seventy-five percent of the fees for the chemical and application would be funded through this grant. This program would be available on a rating basis; dependent on severity of invasion, type of invasive weed(s), native prairie in an identified Biologically Unique Landscape, and in kind or cash match (minimum requirement of 25%). A five year maintenance agreement will be required on any entity acquiring grant funds. An additional \$21,000.00 is requested to fund three project promotional workshops (speakers, lunch, mailings, building rental, supplies) throughout the WMA area, totaling \$7,000 per year for three years, and \$27,750.00 for project/grant administration, divided into equal payments of \$9,250.00 a year for three years. THIS PROJECT WAS FUNDED \$46,250 IN 2013 WITH THE INTENT TO FUND UP TO \$46,250 IN YEAR TWO AND \$46,250 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

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

Project Name: Southeast Nebraska Centralized Recycling Center Feasibility Study **Project No:** 14-220

Amount Requested: \$72,281 **Term of Project Request:** 1 **Review Group:** Waste Management

Five Rivers RC&D along with their partners throughout Southeast Nebraska would like to propose a study to determine the need and benefits of a centralized regional recycling center, with the goal in mind of reducing waste transferred to the landfills, thus saving landfill space while conserving our natural resources and improving air, land, and water quality. The Five Rivers RC&D Council, Staff, and Partners are confident that combining the loads of several individual waste collection trucks into a single shipment will help communities save money on the labor and operating costs of transporting the waste to a distant disposal site. The study will determine if the construction of one large, centralized recycling center that will be able to collect, process and market recyclables for all of the counties in the designated Southeast Nebraska region will be beneficial for the communities involved, the residents, and the environment. The research performed during the study will include data collection to prove that a centralized regional recycling center will decrease the volume of materials entering local landfills, as well as decrease the cost of operating garbage collection and incineration. In addition to collecting the necessary research to determine the need for such a center, the study will also collect data to determine the most appropriate location of the center, ensuring that the collection of recyclables remains convenient and easy and does not cause any potential problems for residents living near the proposed site. The requested study would allow us to take an important first step in this process. It would provide a more comprehensive assessment of our districts' needs. The study would research our area's current recycling services, the feasibility of new recycling options within our area, and the increase in recyclable materials.

Sponsor Name: Fremont Area Habitat for Humanity**Nearest Town:** Fremont**Project Name:** Habitat HomeStore Building**Project No:** 14-138**Amount Requested:** \$150,000**Term of Project Request:** 1**Review Group:** Waste Management

Our project includes the purchase and repair of a warehouse, which will house our Habitat HomeStore, offices and an area for construction. In a continuing effort to serve low-income families and provide an efficient way to recycle usable furniture, building and home improvement materials, Fremont Area Habitat for Humanity has been operating a HomeStore since January of 2012 (soliciting donations began in fall of 2011). The HomeStore quickly outgrew our first location of 2500 square feet, and has now outgrown a 6500 square foot warehouse. We are seeking funding to assist with building purchase and preparation of a 14,000 square foot warehouse which will also house the Habitat administrative offices and provide an area for our construction crew to store tools and materials, and to use in inclement weather. The HomeStore is a home improvement outlet that sells new and gently-used donated merchandise such as furniture, building supplies, appliances, and household goods. The HomeStore allows community members to donate their items for re-sale, keeping them out of the landfill. Everything in the store is sold at a significant discount, allowing persons of every income level to purchase items. Revenues generated by the store fund the construction costs of safe, decent, affordable and energy efficient Habitat homes. Our warehouse is run completely by volunteers, and all of our profits go towards building Habitat homes. We hope to be able to continue to keep items that can be used or repurposed out of the landfill, to provide household items and building materials to the public at a discounted price, and to use the proceeds from sales of items to partially support the construction costs of our Habitat homes. We are requesting \$150,000 towards the project. Purchase price is \$325,000 and total project cost is \$374,500.

Sponsor Name: Friends of Heron Haven, Inc.**Nearest Town:** Omaha**Project Name:** Educational Program and Wetland Facility Enhancements**Project No:** 13-175-2**Amount Requested:** \$6,197**Term of Project Request:** 3**Review Group:** Education

The recent completion of a \$0.5 million USACE/Papio-Missouri NRD wetland restoration project greatly enhanced Heron Haven's unique wetland habitat. As a timely and mission-appropriate next step, Friends of Heron Haven requests funding for 9 projects that, in partnership with the NRD, will expand our nature and environmental education programs and accomplish a series improvements to our physical facilities that will enhance its educational potential, provide greater access for the disabled, improve public safety, and facilitate maintenance of the property by volunteers. Project 1 supports visits by school groups to participate in a combination of indoor and outdoor environmental education programs. Project 2 funds the annual Heron Haven Wetland Festival, which involves families in a variety of educational nature-related activities. Project 3 installs a series of full color, interpretive signs for our major attractions that will offer guidance in identifying common flora and fauna. Project 4 requests recycled plastic lumber for a post and rail security fence around a Dragonfly Pond. Project 5 replaces a worn cedar fence surrounding the Nature Center patio. This patio contains a bird-feeding station that provides opportunities for year-round bird observation and provides space for the annual Wetland Festival. Project 6 installs an irrigation system for the Butterfly Garden, Nature Center planters and patio garden. These gardens, which attract numerous visitors, provide opportunities for the study of native perennials and butterflies. Project 7 proposes to replace an obsolete utility shed that houses equipment and supplies used by volunteers to maintain the property. Project 8 installs a video security system for the area around the Nature Center. Finally, Project 9, which begins in Year 2, requests crushed rock to upgrade 600 feet of unimproved trail to provide access for the disabled to the viewing/photography blind, with installation to be provided by the NRD. THIS PROJECT WAS FUNDED \$30,231 IN 2013 WITH THE INTENT TO FUND UP TO \$6,197 IN YEAR TWO AND \$5,878 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Friends of The Nebraska 150 Sesquicentennial **Nearest Town:** Statewide
Project Name: Planning Process for Historic Community Environmental and Education Program **Project No:** 14-193
Amount Requested: \$20,000 **Term of Project Request:** 1 **Review Group:** Education

The State of Nebraska will commemorate and celebrate its 150th year of statehood in 2017. Plans are now underway to make this a very meaningful event by implementing "Legacy" projects that will have a lasting positive impact on the state as well as "Signature" Events that will be remembered for years to come. It is the desire of the planning committee to develop a number of major "Legacy" projects that will represent the proud past of the state as well as be an investment in the future. Education and economic development will play key roles, but there is also a great desire to embrace environmental projects that will involve and educate the public on the importance of planting and protecting trees, water resources and especially our extraordinary heritage and pride in preserving native grass areas. This grant application proposal is provided as a request for the Nebraska Environmental Trust to underwrite the initial planning and development phase of a major three year "Legacy Project" aimed at involving communities across the state in an historic effort to recognize and protect native grasslands, establish arboretums, preserve water resources and creatively recognize other environmentally sensitive subjects as part of their local tribute to the 150th year of Nebraska statehood.

Sponsor Name: Grand Island Area Clean Community System **Nearest Town:** Grand Island
Project Name: Household Hazardous Waste Collection Facility **Project No:** 14-102
Amount Requested: \$180,000 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Green Recycling Enterprises, LLC dba Second Nature Public Recycling **Nearest Town:** Omaha
Project Name: Recycling on the Go! **Project No:** 13-109-2
Amount Requested: \$117,072 **Term of Project Request:** 2 **Review Group:** Waste Management

GRE is in the business of providing recycling containers at public events throughout Nebraska. During the two years, we have proven the demand for public recycling containers at over 97 (69 completed thru August, 79 confirmed) different events with additional 18 multiple events in Omaha, Lincoln, Papillion, West Point, La Vista, Nebraska City and Bellevue. Some events we conducted include: (1) College World Series; (2) Swim Trials; (3) Lincoln Marathon and the (4) Cox Classic golf tournament. GRE will secure additional funding from sponsors for the Recycling on the Go campaign by providing a promotional opportunity via a full-color graphic display (17.5 in. x 28.5 in.) located on each side of the recycling containers. The program was extremely successful in 2011 and 2012. 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. Our plan for 2013 and 2014 is to have the events help promote us in the setup of the event. 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 GRE to provide a turnkey recycling campaign for the State of Nebraska. Without the NET and private sponsors, GRE would not be able to provide this successful and proven program. THIS PROJECT WAS FUNDED \$147,293 IN 2013 WITH THE INTENT TO FUND UP TO \$117,072 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Gretna Sanitation, Inc. **Nearest Town:** Ashland
Project Name: Cass County Project Harvest Cooperative **Project No:** 14-115
Amount Requested: \$170,242 **Term of Project Request:** 1 **Review Group:** Equipment

The Cass County Project Harvest Cooperative is an initiative launched by Gretna Sanitation in an effort to Race to Zero Waste. Race to Zero Waste is Gretna Sanitation's battle cry and fuels its drive to recover natural resources otherwise dumped or burned; divert said resources from the landfill; reduce solid waste volume and disposal costs for public partners; create markets for collected materials; and serve as a model for other waste management endeavors. Currently, the Company partners with Ashland, Louisville, Mead, Ralston, Springfield, Weeping Water and Yutan. Gretna Sanitation saves these cities thousands of dollars in labor, equipment and fuel costs by harvesting vegetative waste from municipal parks, recreational areas and designated resident waste dump sites. In exchange for organics, the Company does not charge its municipal partners for its recovery services. Burning restrictions and landfill limitations have prompted other municipalities to seek Gretna Sanitation's services. Cass County recently partnered with Gretna Sanitation citing that Project Harvest aligns with the County's comprehensive approach to community development and recognized stewardship of financial and human resources. From April to July 2013, Gretna Sanitation logged 189 hours on a rented grinder. A majority of these hours were associated with grinding wood waste for public partners. The equipment could only be rented on a limited basis hindering Gretna Sanitation from accommodating municipal demand. Rental costs coupled with limited grinder availability give the Company pause in actively engaging more public partnerships. With Trust assistance, Gretna Sanitation can purchase a tub grinder and continue to offer harvesting services to its current partners and confidently include Cass County and the following twelve Cass County cities: Alvo, Avoca, Cedar Creek, Eagle, Elmwood, Greenwood, Manley, Murdock, Murray, Nehawka, Plattsmouth, South Bend, and Union. Without financial support, the Company cannot purchase the tub grinder and subsequently initiate Project Harvest.

Sponsor Name: Indian Center, Inc **Nearest Town:** Lincoln
Project Name: Geothermal System **Project No:** 14-195
Amount Requested: \$1,041,480 **Term of Project Request:** 1 **Review Group:** Air Quality

The Indian Center building was originally constructed in 1980 with a \$1.4 million construction grant from the Economic Development Administration (EDA). Heating and air-conditioning of the 20,000 square foot building is powered by the original boiler system which is cost prohibitive for a small nonprofit organization in terms of the high monthly utility costs of heating and cooling, maintenance, and uncertainty of the life cycle cost (net present value) of the system. Responding to these issues, the Indian Center proposes to install a geothermal system composed of two (2) Water Furnace 20 ton, water source heat pump and accessories and one (1) Water Furnace 4 ton, water source heat pump and accessories. A geothermal heat pump or ground source heat pump is a central heating system that pumps heat to or from the ground. Uses the earth as a heat source (in the winter) or heat sink (in the summer). This design takes advantage of the moderate temperatures in the ground to boost efficiency and reduce the operational costs of heating and cooling systems, and may be combined with solar heating to form a geosolar system with even greater efficiency. The Indian Center has never applied to the Nebraska Environmental Trust before and hopes to obtain the funding necessary to modernize the facility and make it an attractive, comfortable, and cost efficient environment from which to operate its programs benefitting low-income individuals of all races, nationalities, and affiliations.

Sponsor Name: Joslyn Castle Institute for Sustainable Communities **Nearest Town:** Statewide
Project Name: Strategic Communications Design for Sustainable Development **Project No:** 13-139-2
Amount Requested: \$150,000 **Term of Project Request:** 2 **Review Group:** Education

This is a two-year proposal for the development of a “strategic communications design for sustainable development” that will be developed from practice in previous and new target communities to discern best practices for communication strategy in other Nebraska communities. The final product will be an electronic handbook accessible to all communities. Context of the Proposal: The Joslyn Institute (JISC) is in the process of forming a three-way, long-term partnership with the new University of Nebraska Rural Futures Institute (RFI), and ongoing sustainability efforts at Creighton University. This proposal will be the first collaborative project between these three institutions. The new, reorganized Board of Directors for the JISC will include permanent seats from the University of Nebraska and Creighton, University while the JISC will retain its 501c3 non-profit status, and will carry primary management responsibility for this project. Design Strategy: Research and practice in the development of sustainable community solutions has repeatedly demonstrated that sustainability requires more than the application of science. Each problem-opportunity in the quest for sustainability is a local matter and, thus, requires a distinctive understanding of what will work in a particular place at a particular time. This capacity is built up in certain forms of deliberative and democratic communication that increases understanding, facilitates democratic skills and fosters positive community attitudes. Goal: To work with community partners to establish a framework for fostering appropriate, targeted and local communication strategies to address their specific problem and opportunities. The result will be robust, innovative practices that drastically increase a decision-making capacity on sustainability issues in a given community. Community Context of This Proposal: This project will be coordinated with a recently funded 2012 DEQ Waste Reduction and Recycling grant to the JISC for a one year study of “Creation of a Net-Zero Community Waste Management Template”. North Platte, South Sioux City, and Lincoln have been selected for surveys, modeling, and applications of a proposed template for waste management. These three cities will have extended engagement with the UN, JISC and Creighton team as models of communications concerning their planning. THIS PROJECT WAS FUNDED \$150,000 IN 2013 WITH THE INTENT TO FUND UP TO \$150,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Keep Alliance Beautiful **Nearest Town:** Alliance
Project Name: Recycling Education and Center Support **Project No:** 13-183-2
Amount Requested: \$32,749 **Term of Project Request:** 3 **Review Group:** Waste Management

Keep Alliance Beautiful, Inc. is requesting partial funding to retain personnel at the recycling transfer center and for educational personnel for 3 years to help promote recycling in the community of Alliance and Box Butte County. The recycling program falls within the Waste Management section of the Nebraska Environmental Trust category areas. The Center was opened three years ago through a prior Nebraska Environmental Trust grant (#10-132). Keep Alliance Beautiful, Inc. received \$15,858 in the sale of recycling commodities in 2011-12. The Alliance City Council instituted 50 cents of a 1% landfill fee increase in 2011 for recycling expenses. KAB is slated to receive \$6,000 a quarter for the recycling services provided in 2012-2013 budget year. Recycling has become a service that people and businesses in Box Butte County are becoming accustomed to. Environmental programs operating in the schools and for the benefit of the community and county have been part of the success of the program. KAB will continue educational programming through the three year period. As KAB's recycling transfer center needs grow, keeping the program operational is necessary. Expectations are that the City of Alliance will play a larger role in meeting those needs. Currently the recycling center is housed in a small 18" x 75' (1350 sq. ft.) building. We are now beyond subsistence and ready to grow but need help to make that happen. Financial assistance is necessary for KAB's recycling program to move forward. During the next three year period, we expect to move to a larger building with storage and be able to secure additional funding locally. KAB must also continue waste management education focusing on reduction, reusing, repurposing, and recycling. Additional programs on "closing the loop" and purchasing recycled goods are also important. THIS PROJECT WAS FUNDED \$32,749 IN 2013 WITH THE INTENT TO FUND UP TO \$32,749 IN YEAR TWO AND \$32,749 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: La Vista, City of **Nearest Town:** La Vista
Project Name: Thompson Creek Watershed Restoration **Project No:** 13-110-2
Amount Requested: \$375,000 **Term of Project Request:** 3 **Review Group:** Bank Stabilization

Urban streams greatly improve the quality of life for communities, but they usually are too damaged to be an asset. Urban streams experience eroding banks, poor water quality, and poor habitat for aquatic life. The City of La Vista intends to restore Thompson Creek, an urban stream at the center of its community. Future park and other development plans will make Thompson Creek a recreation destination. The Thompson Creek Watershed Restoration implements this vision with a holistic watershed restoration approach phased over three years (with two additional years of monitoring). Implementing the 1,250-acre Watershed Restoration require \$2,689,750, with funding by the City, NDEQ 319 Grant, Papio-Missouri River Natural Resource District, and the Environmental Trust Fund. NET's contribution represents 41% of the total amount over three years.

Planned activities are: 1. Pre- and post-construction monitoring of water quality, stream stage, stream habitat and biota. Data will largely be collected by teacher and students, guided by contracted professionals. 2. Education and outreach through web and print-based communications, open houses, and volunteer activities, including engaging students and teachers in the Papillion-La Vista School District. 3. Cost-sharing and demonstration projects, targeting homes and apartments for runoff reduction and larger projects in commercial areas and public open space. 4. Reconstruction largely using bioengineering of 4,757 linear feet of eroding Thompson Creek, with engineered storm sewer outlet structures and created wetlands for pre-treatment. The Watershed Restoration is expected to significantly improve water and habitat quality in Thompson Creek: 1. In-stream habitat conditions will significantly improve based on the USEPA's Rapid Bioassessment Protocol. 2. The first polluted stormwater flush will be treated for a significant portion of the watershed (with 100% in 10 years). 3. Peak flows for the 2-year, 24-hour event are expected to decrease by 25%. 4. Eroding banks will be reduced by 80%.

THIS PROJECT WAS FUNDED \$525,000 IN 2013 WITH THE INTENT TO FUND UP TO \$375,000 IN YEAR TWO AND \$100,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: La Vista, City of **Nearest Town:** LaVista
Project Name: Thompson Creek Watershed Restoration **Project No:** 14-119
Amount Requested: \$250,000 **Term of Project Request:** 1 **Review Group:** Water

The City of LaVista is in Phase I, the design/initiation phase, of restoring the urbanized 1,250-acre Thompson Creek to an ecologically functional stream and riparian system and a valued community asset. Like many urban streams Thompson Creek suffers from poor water quality, eroding banks, and diminished aquatic habitat and diversity. In Phase II we focus on improving water quality and aquatic habitat by extensive stream reconstruction and bioengineering-remeandering the channel, stabilizing stream banks, constructing pools and riffles, reconstructing a floodplain bench, and restoring deep-rooted native vegetation to riparian areas. Phase II also will continue implementing BMPs in residential, public and other settings using rain gardens, downspout redirection, street planters, stormwater treatment trains, and retrofitting of storm sewers with hydrodynamic separators and end-of-pipe treatment wetlands. Construction design drawings and opinion of probable cost are completed at the 30% level, with the 100% level expected December 2013, and a construction bidding process to commence in early 2014. Construction is expected to begin in 2014 and end in 2015. Outreach and education will continue to be integrated across the watershed and over many months through interpretive materials, public meetings and updates, and the involvement of teachers and students in monitoring water quality, stream conditions, and aquatic macroinvertebrates. The University of Nebraska Omaha and the US Geological Survey are participating. The project is anticipated to significantly improve water quality and aquatic riparian functions in the watershed by reducing peak flows (by 25% for the 2-year, 24-hour event), by treating the first flush of stormwater for a significant percentage of the watershed, and by stabilizing stream beds and banks. Requested funds in Phase II will be used for Thompson Creek reconstruction work and construction management costs, cost-share demonstration projects, and education and outreach.

Sponsor Name: Lewis & Clark Natural Resources District **Nearest Town:** Hartington
Project Name: Upper Missouri Tributaries Hydrogeologic Framework and Groundwater Monitoring Network **Project No:** 13-193-2
Amount Requested: \$86,000 **Term of Project Request:** 3 **Review Group:** Water

The Lewis and Clark Natural Resources District (LCNRD) located in the northeast corner of Nebraska has a complex assemblage of aquifers which supply most of the water used for irrigation and drinking. The LCNRD is looking to the Trust for funding to drill test holes, record down-hole data, construct monitoring wells and install dedicated water-level readers and two dedicated pumps to establish baseline information about groundwater quality, quantity, and aquifer composition. At this time the LCNRD has only a limited number of monitoring wells, located in a Groundwater Management Area in Knox County. The establishment of a monitoring network will allow for year-round monitoring, providing a more complete picture of the groundwater resource, now and over the long-term. To develop a reliable groundwater management tool in Northeast Nebraska, it is first necessary to develop a complete regional hydrogeologic overview. The first step is establishing the hydrogeologic framework through test hole drilling and down-hole geophysical logs. From that data, a groundwater monitoring program will be developed, to support planning and management. Drilling test holes and analyzing geophysical logs provides a geologic basis to design and construct monitoring wells in the aquifers of current irrigation development and secondary aquifers where potential for development is high. With the information gathered from this research, the District will have the tools necessary to assess the current groundwater condition, identify areas which may require regulation, and identify areas of concern which will benefit from further monitoring or additional research. Water quality data is an important function of the District and dedicated monitoring wells provide unaltered samples from distinct zones in the aquifer. Hydrogeologic characterization from test holes, stratigraphic analysis, water chemistry, and water-level information will be a great advancement for the District in improving the water management plan and protecting water resources. THIS PROJECT WAS FUNDED \$103,500 IN 2013 WITH THE INTENT TO FUND UP TO \$86,000 IN YEAR TWO AND \$186,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Lexington, City of **Nearest Town:** Lexington
Project Name: Plum Creek Park Lake Restoration Project **Project No:** 14-118
Amount Requested: \$270,000 **Term of Project Request:** 1 **Review Group:** Water

Requested NET funds, combined with local and Section 319 monies, will be used to restore the community lake at Plum Creek Park in Lexington, Nebraska. Specifically, the rehabilitation plan calls for lake dredging to optimize aquatic vegetation growth and sustainable fish habitat, and shoreline stabilization to minimize the amount of sediment entering the Lake, promoting greater water clarity. Other non-lake improvements are being planned with this project to improve the functional, educational, and recreational utility of the Lake for Park patrons and anglers. Aquatic vegetation is an issue at the Lake. During the summer months it becomes overgrown with algae and other vegetation, rendering a significant portion of the Lake unsuitable for proper fish habitat. The vegetation blooms make recreational uses at the Lake difficult, and inhibits proper aquatic habitat. In general, a pond or lake should have a significant portion of the water at least 12-14 feet deep to prevent fish kills and support proper types of aquatic vegetation growth. Several portions of Plum Creek Park Lake are less than five feet deep. Areas most in need of dredging are the narrow portions around the peninsula which prevents proper water circulation in the Lake. Widespread fish kills are not a regular occurrence; however, the lack of suitable habitat prohibits proper fish spawning and natural repopulation. The planned restoration project will create sustainable habitat for several fish species. Eroding shorelines are also an issue at the Lake. Several areas have steep and muddy banks. Wave action deteriorates the banks, and draws sediment and pollutants into the water; reducing water clarity, and eventually settling to the bottom to further reduce Lake depth. Several trees along the shoreline have fallen due to the erosion, which accelerates the erosion process and makes access difficult. Eroded banks are becoming a safety hazard to fishermen.

Sponsor Name: Lincoln Children's Museum **Nearest Town:** Lincoln
Project Name: Lincoln Children's Zoo Watershed Quality Project **Project No:** 14-217
Amount Requested: \$74,000 **Term of Project Request:** 1 **Review Group:** Water

The Lincoln Children's Zoo is Nebraska's third most attended cultural attraction and Lincoln's top cultural attraction. It is fortunately placed in the heart of Lincoln as well as being placed in very near proximity to Antelope Creek watershed, the Billy Wolff and Rock Island trails. The Zoo hosts 185,000+ annual guests. This number doesn't include all educational attendees such as the Science Focus High School students who daily come during the Lincoln Public Schools academic year. Due to the fact that the Zoo serves a significant number of guests, there are numerous non-porous and hard surface areas such as roofs, sidewalks, and parking lots. Consequently these surfaces provide for an exceptional amount of watershed to be managed. The nearby Antelope Creek manages 100% of the watershed in the area, causing a significant concern for this volume and condition of the water. The Lincoln Children's Zoo has worked hard to better manage watershed and to encourage groundwater quality thanks to private dollars contributed in conjunction with a previous Nebraska Environmental Trust Grant presented to the Zoo. The Zoo now needs to better manage its guest areas to improve water quality, as well as be careful in best practices for the area ground water. The Lincoln Children's Zoo Watershed Improvement Quality Project will GREATLY improve all of the watershed areas in and around the Zoo along with empowering the Zoo to execute extensive educational displays to the Zoo's guests as well as the guests in the surrounding park area. Everything from a green roof with live animals to hands on educational displays will drive home the importance of responsible watershed management and practices. The Zoo is requesting \$74,000 from the NET to provide funding for educational elements and to assist with the green roof element of the project.

Sponsor Name: Lincoln, City of **Nearest Town:** Multiple
Project Name: Eastern Saline Wetlands Project - 2012 **Project No:** 12-139-3
Amount Requested: \$310,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The Eastern Saline Wetlands Project 2012 will conserve the most imperiled natural community in Nebraska. The targeted eastern saline wetland ecosystem is located primarily in the Salt Creek watershed in northern Lancaster and southern Saunders counties. Conserving the eastern saline wetlands also protects the endangered Salt Creek tiger beetle and saltwort plant as well as other fauna and flora which survive in the saline wetlands unique to this limited area of the state. Only about 4,700 acres of saline wetlands still exist and these acres are only partially conserved. Conservation would be afforded the saline wetlands in five ways: 1. By acquiring the wetlands and adjoining buffer and connective tracts in fee simple from willing sellers. 2. By purchasing permanent conservation easements from willing sellers on the wetlands and adjoining buffer and connective tracts. 3. By continuing to retain a full-time Saline Wetland Coordinator. 4. By restoration and management work on the wetlands. 5. By developing area conservation plans. No commercial, industrial, residential, or other use detrimental to the protected ecosystem would be allowed on project lands. Land acquired or conserved by a conservation easement would be largely left in its natural state or used for limited agricultural purposes. The saline wetlands are largely in the flood plains of the streams; the conservation of them will provide a permanent measure of flood control along the waterways and protect the quality of the stream water and groundwater from typical urban and agricultural pollutants. With the existing Saline Wetlands Conservation Partnership and a Coordinator focused on the project, the partners will continue to implement the Conservation Plan; a framework for more effective and higher-leverage conservation of the eastern saline wetlands as an integrated unit. We feel the Eastern Saline Wetlands Project 2012 qualifies for the feature program bonus. THIS PROJECT WAS FUNDED \$2,750,000 FROM 2002 TO 2009. THIS REQUEST IS FOR A CONTINUATION OF THIS PROJECT. THIS PROJECT WAS FUNDED \$360,000 IN 2012 WITH THE INTENT TO FUND UP TO 730,000 IN YEAR TWO AND \$310,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Lincoln, City of **Nearest Town:** Lincoln
Project Name: Community-Driven Toxics Reduction: A Plan for Education & Year Round Access to Safe Disposal **Project No:** 14-207
Amount Requested: \$159,265 **Term of Project Request:** 1 **Review Group:** Waste Management

The goal of this project is to develop year-round access to hazardous waste disposal for the nearly 300,000 residents of Lincoln and Lancaster County and 2,100 small businesses/agencies that are exempt from State and Federal regulations on hazardous waste. In order to achieve this goal, we will take a two part approach that includes conducting a Facility Site Analysis to assess options for locating a hazardous waste collection facility on city property, and to assure success, we also propose to engage our community to gather feedback on a facility, while at the same time educating on best practices and waste reduction strategies to minimize the amount of hazardous waste this facility will have to manage. 1. Facility Site Analysis: The site analysis would evaluate the City of Lincoln's North 48th Street Transfer Station as a location for a year-round hazardous waste facility to accommodate residents and small businesses. The analysis would include the assembly of a Facility Siting Analysis Task Force comprised of both city and community representatives in addition to the hiring of a consultant to oversee the process. This site has been pilot tested for appointment only household hazardous waste collections over the past five years, and we have a high degree of confidence that this site will serve the needs of our community. 2. Community Engagement & Education: We will contract with the UNL Public Policy Center to develop a community engagement process. We believe involving the public and key community stakeholders in developing policy assures better outcomes and increase trust. The community engagement process will create dialogue on expanding toxics reduction education strategies and on the operation of a hazardous waste collection facility through deliberative discussions, focus groups, information seminars and presentations, community conversations, and possibly surveys.

Sponsor Name: Lincoln, City of - Parks and Recreation Department **Nearest Town:** Lincoln
Project Name: Prairie Corridor on Haines Branch Implementation Project **Project No:** 13-116-2
Amount Requested: \$200,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

BACKGROUND: The project vision is to expand prairie and riparian habitat areas, build recreational and educational connections, and promote enhancement and preservation of one of southeast Nebraska's most valuable resources - tallgrass prairie - in and around Lincoln and Lancaster County. Through local grants, the City of Lincoln was able to complete the Salt Valley Greenway and Prairie Corridor Master Plan, July 31, 2012, that details the steps to achieve this vision. The next step is phased implementation of the master plan. This proposal focuses on Phase I of implementation. **PURPOSE:** The Salt Valley Greenway is a ribbon of open space and greenway links within the Salt Valley drainage basin within Lincoln and Lancaster County. One of the key greenway links is the Prairie Corridor on Haines Branch, connecting Pioneers Park and Spring Creek Prairie, valuable parcels of tallgrass prairie and key resources for environmental education. Implementation of the master plan will begin with the Prairie Corridor to provide early protection and enhancement of this high priority area while serving as a model for implementation of the entire Salt Valley Greenway master plan. The City of Lincoln will serve as the lead agency. Partners include the Lincoln Parks Foundation, Lancaster County, Lower Platte South Natural Resources District, Spring Creek Prairie Audubon Center, Nebraska Game & Parks Commission, and others. The City will pursue a series of grants, including this application requesting \$300,000 per year for three years to fund land acquisition, conservation and habitat development of prairie, riparian habitat, saline wetlands, and related areas that comprise the Prairie Corridor. Matching funds will assist with these activities and the installation of a trail and trail corridor. The NET grant will be used to leverage additional grants to fully fund the Prairie Corridor. The first phase of implementation will cost approximately \$1.84 million. THIS PROJECT WAS FUNDED \$500,000 IN 2013 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: Lincoln/Lancaster County Habitat for Humanity **Nearest Town:** Lincoln
Project Name: Lincoln Habitat ReStore **Project No:** 14-135
Amount Requested: \$64,345 **Term of Project Request:** 1 **Review Group:** Waste Management

As we continue to serve low-income families in Lancaster County we are beginning to reach out in other ways. Lincoln/Lancaster County Habitat for Humanity is seeking funding to assist with the start-up costs of the first Habitat ReStore in Lincoln, NE. A Lincoln Habitat ReStore will provide multiple benefits to individuals, families and our community year-round. By launching the ReStore we will keep hundreds of tons of materials out of the waste stream each year and be able to generate more funding to build approximately 7 more Habitat homes in the first three years. By selling the donated items at a discounted rate of 50% or more off retail value this will give working families throughout the community a cost effective way to purchase materials to improve their homes. Customers and donors will both benefit through their increased awareness of recycling and community betterment when they become involved with the Lincoln Habitat ReStore. This recovery and reuse program will increase community recycling awareness, reduce materials in our community's landfills, and provide needed household items at affordable prices.

Sponsor Name: Lincoln-Lancaster County Health Department **Nearest Town:** Lincoln
Project Name: Nebraska MEDS Disposal Program - Protecting Nebraska's Water & People **Project No:** 13-199-2
Amount Requested: \$154,016 **Term of Project Request:** 2 **Review Group:** Waste Management

Now, in its sixth year of working to confront the environmental and public health challenges of emerging contaminants/unwanted medications in our state, the Nebraska MEDS Coalition and the Lincoln-Lancaster County Health Department are prepared to maintain and to expand their targeted efforts to develop and test efficient and effective approaches to better manage unwanted, expired, and excess pharmaceuticals in Lancaster County and across the state of Nebraska. With the primary objective of protecting the natural environment and human health, the Nebraska MEDS Coalition is uniquely positioned to create a uniform, comprehensive and long term model for the safe and legal management of pharmaceutical waste. With support of several key stakeholders (Nebraska Pharmacists Association, Lancaster County Sheriff's Office, Nebraska Regional Poison Center, and the Groundwater Foundation), the Nebraska MEDS Coalition aims to take the lessons learned from the ongoing, Trust-funded Local Pharmacy Medication Disposal Pilot Project and apply them to the collection of controlled substances all the while expanding educational and proper disposal efforts in the other sectors challenged by varying quantities of unwanted and expired medications. Program expansion will include activities that aim to identify, evaluate, strengthen and share successful disposal practices and educational approaches with other concerned communities, small businesses, organizations, public sector agencies and consumers. The Nebraska MEDS Disposal Program will leverage critically-needed partner expertise (public/private), associated partner networks and resources to achieve measureable environmental and public health benefits. This will be accomplished by building the capacity of Nebraskans to understand the risks of emerging contaminants like pharmaceuticals in addition to giving them safe, legal and convenient disposal options for waste medications that can be found in every Nebraska community. THIS PROJECT WAS FUNDED \$152,192 IN 2013 WITH THE INTENT TO FUND UP TO \$154,016 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Little Blue Natural Resources District **Nearest Town:** Seward, York, Geneva,
Project Name: Watershed Restoration to Enhance Rainwater Basin Wetlands **Project No:** 13-119-2
Amount Requested: \$135,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Little Blue Natural Resources District, Nebraska Game and Parks Commission, U.S. Fish and Wildlife Service, and Ducks Unlimited together as part of the Rainwater Basin Joint Venture Partnership are applying for this Nebraska Environmental Trust grant to restore watershed functions of wetlands throughout the Rainwater Basin Region of south-central Nebraska. The primary objective is to fill at least 60 irrigation reuse pits in priority watersheds. Emphasis will be placed on irrigation reuse pits in close proximity to the wetlands and irrigation reuse pits with a large storage capacity. Filling pits provides a "win-win" situation for the producer and wetland dependent wildlife. Many irrigation systems in past years have been converted from gravity, where water is recycled using the irrigation reuse pits, to more efficient center pivot irrigation where the pits are no longer needed. This grant will enable producers to eliminate 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. Functional Rainwater Basin Wetlands are critical especially during spring migration when an estimated 8.6 million waterfowl stage in this area to rest and replenish nutrient reserves before continuing migration. The Little Blue Natural Resources District is submitting this grant on behalf of the Rainwater Basin Joint Venture Partnership 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 \$135,000 IN 2013 WITH THE INTENT TO FUND UP TO \$135,000 IN YEAR TWO AND \$135,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Little Blue Natural Resources District **Nearest Town:** Davenport
Project Name: Little Blue Basin Water Management Plan **Project No:** 14-112
Amount Requested: \$175,000 **Term of Project Request:** 2 **Review Group:** Water

The NET is being requested to fund a portion of the Little Blue Basin Water Management Plan (Plan) which is being led by the Little Blue River Natural Resources District (LBNRD). The intent of the Plan is to manage groundwater and surface water resources as one collaborative effort to strengthen management decisions related to sustainability of water resources over the next 20-30 years. The Plan is proactive and a first of its kind in Nebraska. The Plan is not related to Integrated Management Planning or water rights, but instead will help assess existing management activities and prioritize practices and projects to improve water quality, watershed health, and protect public health, safety, and welfare throughout the Little Blue River Basin. The plan will address specific issues related to non-point source pollution by targeting Nebraska's Section 303(d) list of impaired waters, evaluating nitrate contamination of source water aquifers, evaluating quantity issues for surface water and groundwater, and lastly providing watershed residents and stakeholders an education on the importance of sustainable water resources, pollutant reduction, and an opportunity to provide feedback to the planning process. The plan has been organized into four components for planning purposes including; 1) Vadose Zone Assessment, 2) Surface and Groundwater Quantity, 3) Surface and Groundwater Quality, and 4) Public and Technical Input. The NET is being requested to support a portion of the Vadose Zone Assessment and Groundwater and Surface Water Quantity Planning. Ultimately the Plan will provide a road map for the LBNRD Board of Directors and staff to establish basin-wide management goals, manage surface water and groundwater quality/quantity collaboratively, identify short and long-term water needs and priorities, leverage local funds, and save the NRD and other agencies money by focusing resources to specific prioritized needs. The plan timeline is May 2014 until December 2015.

Sponsor Name: Live Well Omaha **Nearest Town:** Omaha
Project Name: Omaha B-cycle Expansion **Project No:** 14-169
Amount Requested: \$600,000 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Loup Basin Resource Conservation and Development Council **Nearest Town:** Burwell
Project Name: Pollination = Preservation **Project No:** 13-164-2
Amount Requested: \$62,500 **Term of Project Request:** 2 **Review Group:** Education

The insects that pollinate native plants and crops are essential components of Nebraska’s habitats and ecosystems. Pollinator habitat, and many wild pollinators are disappearing from Nebraska’s landscape. Presence of wild pollinators can equal preservation of rare plants. This project aims to increase pollinator populations and public awareness of pollinator protection through pollinator habitat development and restoration along the Loup Rivers Scenic Byway. We will educate local residents and visitors on the importance of pollinators and their role in the ecosystem. Butterfly/pollinator gardens will be developed to attract and sustain pollinators, resulting in improved wildlife habitat. Technical assistance will be provided as communities and individuals develop their gardens. The project will add ecotourism options to the Nebraska’s Junk Jaunt® tourism promotions to recruit participants and to attract and educate visitors from other towns and states. Activities will include community outreach, meetings and educational workshops on pollinators and habitat development. Fifteen pollinator gardens will be developed and will receive subsidized plant materials. Schools and youth groups will be included in activities. Information on water quality and quantity and soil conservation will be provided by NRD and NRCS partners, and trainers will include experts in the field, i.e. Xerces Society, the Center for Rural Affairs, etc. A strong media component will bring attention to the project and attract tourists who will also learn the importance of pollinators and their role in the ecosystem. Participating communities will be able to earn a Certified Butterfly Garden certificate. Materials gathered and developed will be available in the Burwell Butterfly Pavilion. The project will result in increased pollinator populations and improved habitat for wildlife, enhance economic development of the region, and reach beyond local communities as tourists visit and learn. The project will serve as a model for the rest of the state. THIS PROJECT WAS FUNDED \$62,500 IN 2013 WITH THE INTENT TO FUND UP TO \$62,500 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Lower Big Blue Natural Resources District **Nearest Town:** Beatrice
Project Name: Groundwater Quality & Quantity Project **Project No:** 13-157-2
Amount Requested: \$50,000 **Term of Project Request:** 2 **Review Group:** Water

Among the many responsibilities of the Lower Big Blue Natural Resources District (LBBNRD), of paramount importance is the management of groundwater quality and quantity in all or parts of Gage, Jefferson, Pawnee and Saline counties. While this perpetual charge to the district is correlative to the dominant agricultural uses of groundwater, the district’s 25 incorporated cities and villages are also of particular importance. Extreme and variable hydrogeology within the District confounds this duty by providing accordingly variable data. The lack of appropriate or insufficient groundwater quantity and quality data coverage leads to a severe handicap in long-term resource management. In light of the demands upon a complex and heterogeneous aquifer system, the Lower Big Blue NRD, in conjunction with partners, seeks to install and operate a district-wide monitoring well network that will provide data suitable to the long-term goals of groundwater quality and quantity management. Environmental Trust funds would directly facilitate the implementation of such a network, specifically the installation of dedicated monitoring wells, providing for the environmental and economic protection of present and future residents of the Lower Big Blue NRD. The Lower Big Blue NRD is seeking funding for a 2-year NET grant to assist with the installation of a dedicated groundwater well monitoring network. This amount will be used as match to acquire federal funds in the amount of \$500,000. THIS PROJECT WAS FUNDED \$50,000 IN 2013 WITH THE INTENT TO FUND UP TO \$50,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Lower Elkhorn Natural Resources District **Nearest Town:** Pierce
Project Name: Understanding Cyanobacteria Blooms in Willow Creek Reservoir **Project No:** 12-188-3
Amount Requested: \$20,270 **Term of Project Request:** 3 **Review Group:** Statement of Intent

Cyanobacteria, also known as blue-green or toxic algae, pose a health threat to people and animals that come in contact with lake water suffering from an algal bloom and result in economic hardships to local communities that depend on recreational dollars spent at lakes experiencing blooms. Willow Creek Reservoir near Pierce, Nebraska is one such lake that has experienced several cyanobacterial blooms since its construction in 1984. When placed on alert status due to cyanobacteria levels, the estimated impact is an 80% drop in boaters and beach goers, a 33% drop in camper numbers, and a 50% drop in angler visitation. Local stakeholders such as the Lower Elkhorn Natural Resources District wish to reduce these blooms to the extent possible. However, in order to do so, a better understanding of the causes of those blooms needs to be established. This project proposes to achieve that understanding by: (1) characterizing cyanobacteria levels in Willow Creek Reservoir; (2) characterizing potential causes of those cyanobacteria blooms; (3) identifying relations between cyanobacteria levels in Willow Creek Reservoir and potential causes; and (4) sharing those findings with the public and local stakeholders to provide guidance for managing cyanobacteria in Willow Creek Reservoir. These tasks will be accomplished over a 3-year period through a collaborative effort between six separate agencies and by leveraging funding from local, state, and federal sources in addition to those requested from the Nebraska Environmental Trust Fund. THIS PROJECT WAS FUNDED \$62,320 IN 2012 WITH THE INTENT TO FUND UP TO \$58,180 IN YEAR TWO AND \$20,270 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Lower Elkhorn Natural Resources District **Nearest Town:** Amelia/Arnold/Chamber
Project Name: New Approach to Detailed, Integrated Water Budgets in East-central Nebraska Drainage Basins **Project No:** 13-167-2
Amount Requested: \$39,930 **Term of Project Request:** 3 **Review Group:** Water

This project will construct an annual water budget for two drainage basins in different topographic regions, one in the Sand Hills and one in the Dissected Plains, and includes a quantitative analysis of the most important components of the water budget – groundwater recharge and stream base flow. Numeric models will be used to analyze the integrated water budget on a local scale to determine the components of the budget and how it relates to the regional flow system. A detailed annual water budget is vital for effective integrated water management, particularly in river valleys where streamflow and crop demands are key components. This project will provide a new approach to water budget analysis by 1) quantifying groundwater recharge and stream base flow, and relating these to soil type, land use, and hydrogeology, and 2) separating the contribution of local base flow from regional base flow. This detailed approach will enhance our understanding of the interaction between groundwater and surface water and will improve our ability to develop water budget analyses. The results of the project will be used to redefine the methodology used in new areas by determining which methods work best and are most economical for completing a water budget that will help protect water and ecosystem resources. The project will take three years, with recharge point measurements made during the first year, streamflow and groundwater measurements taken during the first two years, and numerical model development and analyses over all three years. The Lower Elkhorn NRD, in cooperation with the Lower Loup, Upper Loup, Upper Elkhorn and Lower Platte North NRDs, the USGS, NDNR and UNL, requests funds in the amount of \$185,380 over three years to complete this project. THIS PROJECT WAS FUNDED \$64,410 IN 2013 WITH THE INTENT TO FUND UP TO \$39,930 IN YEAR TWO AND \$81,040 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Lower Loup Natural Resources District **Nearest Town:** Albion
Project Name: Pibel Lake Renovation Project **Project No:** 13-194-2
Amount Requested: \$140,000 **Term of Project Request:** 3 **Review Group:** Lake Rehabilitation

The Lower Loup Natural Resources District (LLNRD) is seeking funding from the Environmental Trust Fund to assist with renovation and modernization of Pibel Lake Recreation Area in central Nebraska. Pibel Lake is a 53-acre recreation area now under ownership of the LLNRD. The LLNRD will be partnering with the Nebraska Game and Parks Commission and the Pibel Lake Bible Camp to renovate critical portions of the lake and improve accessibility. The lake comprises 24 acres and is formed from an impoundment structure on Clear Creek, located in the eastern portion of the Sandhills. Pibel Lake is highly susceptible to sedimentation and nutrient inflow from the Clear Creek drainage and the current design of the spillway is insufficient to safely handle flood events and is contributing to erosion problems downstream. The LLNRD is seeking a multi-year Environmental Trust Grant to assist with the renovations and improvements to Pibel Lake. The renovation will feature a sediment control structure located on the inflow of Clear Creek to Pibel Lake in order to control nutrient inflow and sedimentation. The spillway system at Pibel Dam will also be renovated, the outflow culverts redesigned, and armored with riprap in order to prevent stream-bank erosion to Clear Creek. Funding is also being sought for improvements to the picnic and parking areas and a portion of the funds would go to improving accessibility to the lake for those with disabilities through installation of a fishing platform and pier and construction of handicap parking areas. During the later portions of this work, the entire Clear Creek watershed would be integrated into a Watershed Management Plan with further financial assistance sought from the Department of Environmental Quality (NDEQ) through a 319 Grant. THIS PROJECT WAS FUNDED \$60,000 IN 2013 WITH THE INTENT TO FUND UP TO \$140,000 IN YEAR TWO AND \$40,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Lower Loup Natural Resources District **Nearest Town:** Multiple
Project Name: Irrigation Monitoring Program **Project No:** 14-150
Amount Requested: \$200,000 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Lower Platte North Natural Resources District **Nearest Town:** Prague
Project Name: Wahoo Watershed Phase II - Stream Restoration Plan for Priority Basins **Project No:** 14-162
Amount Requested: \$125,000 **Term of Project Request:** 1 **Review Group:** Water

Requested NET funds, combined with LPNDRD and Section 319 monies will be used to establish the Wahoo Watershed Phase II – Stream Restoration Plan for Priority Basins and design/construction of two Best Management Practices (BMP's). In October, 2010, the Lower Platte North NRD contracted with JEO Consulting Group, Inc. to develop the Wahoo Creek Watershed Plan. The Watershed Plan evaluated 15 subwatersheds to identify and prioritize management actions to address water quality and aquatic habitat issues throughout the area. Three of those subwatersheds: Cottonwood Creek, North Fork Wahoo Creek, and Dunlop Creek were identified as high priority. Specifically, the Phase II - Stream Evaluation and Restoration Plan for Priority Basins will involve a detailed stream assessment and restoration plan for the Cottonwood, North Fork Wahoo, and Dunlop Creek subwatersheds to identify management actions aimed at addressing stream bank stability, down cutting, and erosion problems. The report will recommend measures to address the ongoing bank erosions and pollutant loading issues. Restoration measures may include raising the stream bed through series of grade control structures and installing other upland BMPs such as ponds. In addition, locations will be identified to create wetland habitats and enhance aquatic life habitat. The restoration plan will focus on hydrologic, biological/ecological and aquatic life restoration through various in-stream and upland engineering practices in the priority subwatersheds. The in-stream measures may include rock riffles, cross vanes, Newbury weirs, and other grade control structures. Upland BMPs will likely involve water quality dams to capture sediment and other pollutants to prevent them from reaching the streams. Through the installation of these BMPs, water quality and aquatic habitat in the Wahoo Creek Watershed will be enhanced. Ultimately, the goal of the Watershed Plan is to remove Wahoo Creek from the 303(d) list.

Sponsor Name: Lower Platte River Corridor Alliance **Nearest Town:** Multiple
Project Name: Spatial and Temporal Dynamics of Sandbars in the Lower Platte River **Project No:** 13-136-2
Amount Requested: \$40,500 **Term of Project Request:** 3 **Review Group:** Water

The height and area (geometry) of emergent sandbars (sandbars) are primary measures of on-river nesting habitat quality in the lower Platte River important to the interior Least Tern and Piping Plover (tern and plover), bird species that are state and federally listed as “endangered” and “threatened,” respectively. Currently, little is known about the physical processes controlling sandbar geometry, nor how human activities affect the abundance, persistence, and distribution of emergent sandbars. This lack of information reduces the efficiency and viability of planning and permitting processes in the lower Platte River corridor, because NRD managers are often faced with predicting impacts on tern and plover habitats from proposed development and infrastructure construction, as well as future depletions of streamflow. The proposed project will implement a sandbar monitoring program along 103-miles of the Platte River downstream from the confluence with the Loup River to 4 miles upstream from the Missouri River. Surveys will characterize the location, and geometry of all mid-channel sandbars larger than 2 acres. The project has two primary goals: (1) quantify channel morphologic and hydraulic conditions that favor high-quality tern and plover sandbar habitat, and (2) map the along-stream potential for quality tern and plover sandbar habitat formation in the lower Platte River. The proposed project builds on projects previously funded by NET for the Lower Platte River Cumulative Impact Study Phase 2. A pilot sandbar monitoring study, funded by Lower Platte South NRD, has already been implemented in the lower Platte River between U.S. Highway 77 near Fremont, and highway 75 near Plattsmouth, and has been ongoing since 2010. The initial findings of the pilot study indicate that there is good potential to statistically relate channel morphologic and hydraulic characteristics to sandbar geometries, which is key to the second objective of proposed study. THIS PROJECT WAS FUNDED \$51,900 IN 2013 WITH THE INTENT TO FUND UP TO \$40,500 IN YEAR TWO AND \$55,600 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Lower Platte South Natural Resources District **Nearest Town:** Multiple
Project Name: ENWRA Aquifer Framework Study **Project No:** 14-183
Amount Requested: \$1,099,005 **Term of Project Request:** 3 **Review Group:** Water

The Eastern Nebraska Water Resource Assessment (ENWRA), a coalition of six Nebraska Natural Resources Districts (NRDs) in the glaciated portion of Nebraska, is requesting funding to use airborne electromagnetic (AEM) surveys to map the hydrogeologic framework along ~ 640 miles of transects (eastern third of Nebraska) and two localized block areas (~175 mi² in southeast & east-central Nebraska). Existing hydrogeological data for eastern Nebraska does not provide an adequate understanding of the ground water resources for proper management by the NRDs given the water supply problems encountered in the recent drought and increasing demand in this populated portion of the state. AEM will substantially improve our understanding, allowing for efficient and effective ground water management and protection. The planned transect surveys will cross approximately 24 counties, more than 110 river and stream segments, are located within one mile of 37 towns, and will provide detailed subsurface views/framework guides for many, if not most, of the diverse aquifer and geologic material settings encountered over Nebraska's glaciated region. The block surveys, two of many priority management block areas targeted by the ENWRA NRDs for further assessment, will also be mapped using AEM survey with the requested funding to examine the aquifers and provide an updated estimate of the physical extents and volume of the aquifer systems. The hydrogeologic frameworks generated along the proposed transects and within the block areas (Figures 1a, 1b, and 1c attached), will build upon previous grant work (2009 airborne surveys - NET#: 09-112) and congruent priority block area work conducted by NRD ENWRA partners (-170 mi² flown by Lower Platte South [LPSNRD] and Lower Elkhorn [LENRD] in August 2013), providing enhanced understanding of relationships between ground water, surface water, and bedrock invaluable for NRD water resource development, decision-making, and management in the complex geologic setting of eastern Nebraska.

Sponsor Name: Lower Republican NRD **Nearest Town:** Alma
Project Name: Water Conservation Using Soil Moisture Sensor Technology **Project No:** 13-102-2
Amount Requested: \$130,000 **Term of Project Request:** 2 **Review Group:** Water

The Lower Republican Natural Resources District (LRNRD) seeks to implement a project in partnership with irrigators in the five county area of our district under which modern, successfully-tested soil moisture sensor technology will be installed at field level on 80,000 irrigated acres to conserve water by more efficiently managing water use. This technology enables the timing of irrigation to be driven by measurement of soil moisture at actual crop root depth rather than by traditional "hand-feel" measurement at the surface. The technology has been shown in testing conducted by soil and water resources engineers at the University of Nebraska-Lincoln, in collaboration with the Nebraska Corn Board and partner irrigators statewide, to conserve 1-2 inches of water per acre annually in irrigated fields with no negative--and sometimes positive--impact on yields. The project includes proactive actions to educate irrigators and the general public regarding the use and effectiveness of this modern technology and the availability of cost-share assistance to implement the technology through this project, if funded. THIS PROJECT WAS FUNDED \$130,000 IN 2013 WITH THE INTENT TO FUND UP TO \$130,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Metropolitan Utilities District **Nearest Town:** Omaha
Project Name: Driving Omaha Natural **Project No:** 13-196-2
Amount Requested: \$191,250 **Term of Project Request:** 3 **Review Group:** Air Quality

Driving Omaha Natural will facilitate the expanded use of Compressed Natural Gas (CNG) fueled vehicles in the Omaha Metro Area. The Metropolitan Utilities District of Omaha (MUD) will sponsor and coordinate this project. CNG is the cleanest burning alternative fuel commercially available today and represents an environmentally-friendly alternative to petroleum-based fuels. CNG offers an immediately available solution to make substantial reductions in air pollutants from vehicles. The Omaha area is uniquely impacted by air quality issues and is at risk of violating the National Ambient Air Quality Standard (NAAQS) established by the Environmental Protection Agency. The project will create a CNG Fleet Fund to offset the initial vehicle costs for Omaha area fleet operators establishing or expanding their use of CNG fueled vehicles. Several public and private organizations including the City of Omaha, Douglas County, University of Nebraska at Omaha and Backlund Plumbing will partner in this project by purchasing and deploying CNG vehicles in their fleets. Additional partners including Eastern Nebraska Human Services, Eastern Nebraska Office on Aging and Creighton University plan to apply for vehicle funding assistance through the project's CNG Fleet Fund. Adding CNG vehicles and fueling stations is a sound strategy which will have a positive impact on the effort to reduce our region's ozone-forming emissions and there is strong multi-agency support for this effort. This project will establish a new CNG fueling station to supplement the two existing stations MUD opened in 2011. MUD will be responsible for financing the station. The project will also include a Fleet Education & Outreach Campaign designed to inform fleet operators of the opportunities and challenges involved in utilizing CNG vehicles. Through a combined and coordinated effort this project will enable fleets in and around Omaha to drive forward using a clean alternative fuel. THIS PROJECT WAS FUNDED \$497,000 IN 2013 WITH THE INTENT TO FUND UP TO \$191,250 IN YEAR TWO AND \$61,250 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Middle Niobrara Natural Resources District **Nearest Town:** Valentine
Project Name: No-Till Grass Drill **Project No:** 14-126
Amount Requested: \$31,000 **Term of Project Request:** 1 **Review Group:** Equipment

The demand for the use of no-till drills far exceeds the availability of drills to inter-seed perennial grasses and legumes. The cost of a medium sized no-till drill is over (31,000) which makes it impossible for operations to own a drill to seed a limited amount of acres in any given year. If funded, the no-till drill will be used in north central Nebraska in the counties of Cherry, Keya Paha, Brown, and Rock. The drill will be headquartered out of the MNNRD office in Valentine.

Past history has proven that having access to no-till drills that can be used by the public is very successful. Two no-till drills have been operated out of the Ainsworth UNL Extension office since 1999, with over 20,000 acres being seeded with each drill for a total of over 40,000 acres. The number of ranches, farms, and wildlife groups like Pheasants Forever, golf courses, city parks and recreational departments have totaled over 450 that have used these drills with a growing demand. This demand is why the MNNRD and UNL Extension feel that it would be good to have a drill stationed in another part of the district.

Sponsor Name: Middle Niobrara Natural Resources District **Nearest Town:** Valentine
Project Name: North Central Nebraska Eastern Red Cedar and Fire Management **Project No:** 14-128
Amount Requested: \$99,500 **Term of Project Request:** 1 **Review Group:** Rural Habitat

The Middle Niobrara Natural Resource District (MNNRD) sees a need to purchase vital fire-fighting equipment to start a mobilized fire equipment cache in North Central Nebraska. Located in the heart of the Sandhills, the MNNRD encompasses 3,000,000 acres of sensitive wildlife habitat found nowhere else in the world and has areas identified by the recent LB 634 to be at high-risk for wildfires. This bill was passed with four goals to reduce the effects of wildfire. With the ability to reduce the fuel load, increase response time and access to fires, and conduct prescribed fires, our project will take part in all four. Furthermore, this project will address the issue of the invasive Eastern Red Cedar (ERC) encroachment in our district and provide landowners with a program to eradicate this volatile fuel source from their land while providing benefits to the local ecosystem. The need for the equipment is vital because the district relies on volunteer fire departments for all fire emergencies. This creates problems with limited funds, equipment and man power. Without these limitations, even more wildlife habitat and homes could have been saved during the 2006 and 2012 wildfires and will be saved in the future. Fire cleanup projects and habitat improvement projects are beginning to arise from the aftermath of these fires. With increased awareness, landowners are seeking ways to conduct after-fire cleanup and manage invasive ERC that increase the fuel load and subsequently, the fire danger. The MNNRD has planned to hire an additional team member to assist with the escalating work load. Having this equipment on hand and having staff to operate it will have crucial benefits, including increased response time, man power, accessible up-to-date equipment and numerous environmental benefits.

Sponsor Name: National Wild Turkey Federation **Nearest Town:** Chadron
Project Name: Forest Stand Restoration on Pine Ridge Wildlife Management Areas **Project No:** 13-117-2
Amount Requested: \$78,837 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The proposed project is a partnership endeavor between the NWTF, NGPC, and the NFS for forest stand improvement on four western WMAs (Metcalf WMA, Ponderosa WMA, Bighorn WMA, and Chadron Creek Ranch WMA). Project goals include habitat restoration for wildlife species, specifically five At-risk, Tier 1 species (including bighorn sheep) and 45 Tier II species, reducing the threat of large-scale catastrophic wildfires, & testing new, innovative equipment and forest management techniques. The recent wildfires along the Niobrara River in Nebraska are a vivid reminder of the real costs of wildfires. This project should reduce the catastrophic impacts of fires should they occur, impacting wildlife and humans at the landscape level and directly enhance 817.5 acres. The project also will include an outreach –education component to share successes and knowledge gained with landowners & land managers of similar properties. The NWTF will coordinate this effort through field staff located in the Chadron area. The NWTF and NGPC currently have a partnership supporting a cooperative forester, an NWTF employee, working out of the Ponderosa WMA NGPC office. The NWTF will continue its support of this position and budget 50% of the forester's time and travel for implementation of this project. Since this position was created in 2011, NWTF and NGPC staffs have worked to identify the critical forest health issues and management needs for the proposed WMAs. Now that the needs have been identified and plans prepared for future management, we are seeking the financial assistance of a Nebraska Environmental Trust grant to assist with implementation of needed forest management practices. Matching funds will be provided through NWTF, NGPC, and NFS sources, which include Nebraska NWTF funding, NWTF-National funding, and fuels reduction NFS funds via USFS. THIS PROJECT WAS FUNDED \$81,588 IN 2013 WITH THE INTENT TO FUND UP TO \$78,837 IN YEAR TWO AND \$55,587 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Nebraska Big Game **Nearest Town:** Scottsbluff, Chadron
Project Name: Wildlife Water Developments **Project No:** 13-206-2
Amount Requested: \$10,000 **Term of Project Request:** 2 **Review Group:** Rural Habitat

This proposal is a partnership between the newly organized Nebraska Big Game Society (NBGS), Nebraska Game & Parks Commission, and Rocky Mountain Elk Foundation (RMEF). The goal is to provide wildlife water sources on private land in the arid regions of the Pine Ridge and Wildcat Hills of Nebraska's panhandle. The drought of 2012 has shown significant stress on the State's wildlife resources. This project will provide needed water sources to all game, non-game, and At-Risk species including bighorn sheep, Tawny crescent, Lewis' woodpecker, Bell's vireo, long-legged myotis, Fringe-tailed myotis, Townsend's big-eared bat, swift fox and burrowing owl. These water developments – better known as guzzlers – are utilized extensively throughout the western and southern United States and have been utilized by NGPC on the State's various public lands. The design of these guzzlers allows them to catch rainwater and dew providing a season long water source during spring, summer and fall. An application process, a project ranking, and landowner agreement would be developed and administered by NGPC with a more focused effort on interested private landowners. THIS PROJECT WAS FUNDED \$10,000 IN 2013 WITH THE INTENT TO FUND UP TO \$10,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Nebraska Cattlemen **Nearest Town:** Statewide
Project Name: Leopold Conservation Award Video Project **Project No:** 13-130-2
Amount Requested: \$10,000 **Term of Project Request:** 3 **Review Group:** 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 to families who internalize this land ethic and are dedicated to leaving their land better than they found it. Since 2010, the Leopold Conservation Award Program has benefited from Nebraska Governor Dave Heineman's Earth Day Announcement of the award recipient at the State Capitol. Governor Heineman's involvement brings increased media interests to the award program, 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 both years, vastly expanding its reach to media outlets as far away as The Boston Globe. The Nebraska Leopold Conservation Award Video Project seeks to capture the landowners' ethic in their own words and images, giving the recipients an opportunity to share their story. Visual media are essential for not only archival purposes but are also important for educating the general public on the types of innovative conservation practices occurring every day on Nebraska's agricultural lands. Aside from actually setting foot on these operations, we view these video profiles as the next best way to experience the exceptional efforts of these families. The project involves a full day of crew time interviewing the landowner and filming the conservation features they have put in place. The video will be professionally produced first as a stand-alone piece to be shown during speaking engagements, conventions, and trade shows, and second as a piece to be placed on Sand County Foundation's YouTube channel, award partner and sponsor websites, and other online video outlets, as appropriate. THIS PROJECT WAS FUNDED \$10,000 IN 2013 WITH THE INTENT TO FUND UP TO \$10,000 IN YEAR TWO AND \$10,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Nebraska Cooperative Republican Platte Enhancement Project (NCORPE) **Nearest Town:** North Platte

Project Name: Sandhills Prairie Restoration Project **Project No:** 14-215

Amount Requested: \$1,423,000 **Term of Project Request:** 1 **Review Group:** Rural Habitat

The Sandhills Prairie Restoration Project is believed to be one of the, if not the largest conversion of irrigated cropland to native prairie on a contiguous or nearly contiguous tract of land in Nebraska history. Approximately 16,000 acres of irrigated cropland in the Sandhills Ecoregion of Nebraska as defined by the Nebraska Game and Parks Commission will be converted to native prairie and rangeland. The formerly irrigated cropland is owned by the Nebraska Cooperative Republican Platte Enhancement Project (NCORPE), an interlocal agency that is comprised of the Upper Republican, Lower Republican, Middle Republican, and Twin Platte NRDs. The property was purchased so that crop irrigation would cease on the property and groundwater that would otherwise be used to grow crops could be redirected to the Platte and Republican Rivers for the purpose of increasing river flows. The portion of the project for which NCORPE is requesting an NET grant is tied only to prairie restoration, not the transmission of water to boost stream flows to meet interstate and intrastate water obligations. Initial steps have been taken to begin the prairie restoration aspect of the project for which grant funding is being sought, namely the establishment of a cover crop on the majority of the acres owned by NCORPE that will aid the establishment of native grasses and forbs.

Sponsor Name: Nebraska Department of Education **Nearest Town:** Statewide

Project Name: Educating the Next Generation of Nebraskans About Soil Conservation Using the Power Of Geographic Information Systems (GIS) **Project No:** 14-153

Amount Requested: \$88,881 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Nebraska Department of Health and Human Services **Nearest Town:** Multiple
Project Name: Nebraska Well Rehabilitation and Decommissioning Project **Project No:** 14-206
Amount Requested: \$750,000 **Term of Project Request:** 2 **Review Group:** Water

Nebraska's older public water supply wells and its 94,000 plus active irrigation wells are constructed with gravel fill in the area between the well borehole wall and the well casing potentially compromising the natural protection provided by existing clay layers in Nebraska's geology. Recent research has confirmed that the gravel fill serves as a direct pathway for contaminants to enter Nebraska's groundwater aquifer. Many of these contaminants cause health related problems to Nebraskans obtaining their drinking water from domestic or public water supply wells causing them to spend millions of dollars to react to the problem by obtaining safe drinking water in the form of constructing a new drinking water well, installing water treatment or connecting to another safe water supply. The Nebraska Department of Health and Human Services' proposed two (2) year research grant would take a pro-active approach by researching different methods to insert sealants into the gravel fill adjacent to the existing natural clay layers; thus, making the clay layers effective again in protecting Nebraska's groundwater from surface contaminants. In partnership with six (6) Natural Resources Districts, these techniques will be utilized in various geological formations in eastern Nebraska. In summary, the Department's proposed research grant is designed to find and confirm methodologies for inserting sealant material into Nebraska's existing gravel-packed water wells resulting in rehabilitated water wells that provide equivalent groundwater and public health protection as newly constructed public water supply wells. This same methodology would also be applicable in the sealing of gravel fill when decommissioning a water well that is no longer in use. Currently, water well decommissioning consists of only filling the well casing and placing a cap over the well; thus preventing someone from falling into the well but not protecting the groundwater from surface contaminants.

Sponsor Name: Nebraska Department of Natural Resources **Nearest Town:** Multiple
Project Name: Platte Basin Water Management Action Initiative **Project No:** 12-119-3
Amount Requested: \$3,300,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

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 by LB 701 in 2007 to fund the State's contingent water resources remediation needs in fully and overappropriated basins. The WRCF has funded various projects since its inception in 2007. One project is the Platte Basin Habitat Enhancement Project (PBHEP), that is currently also funded with Nebraska Environmental Trust (NET) dollars. The "Platte Basin Water Management Action Initiative" (Initiative) described below is an anticipated evolution of the PBHEP, expanding on other methods and water projects; 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, remediating for current depletions caused by past actions. The Initiative will assist the Department of Natural Resources and the Platte Basin Natural Resources Districts (NRDs), in cooperation with other partners to optimize timing and efficiency of water use, enhance streamflows, and reduce water consumption in fully and overappropriated 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. THE PBHEP PROJECT MENTIONED ABOVE WAS AWARDED IN 2009 IN THE AMOUNT OF \$3,000,000.

THIS PROJECT WAS FUNDED \$3,300,000 IN 2012 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 THIRD YEAR REQUEST

Sponsor Name: Nebraska Department of Roads **Nearest Town:** N/A
Project Name: StreamStats Web Tool for Estimating Streamflow Statistics **Project No:** 14-109
Amount Requested: \$491,000 **Term of Project Request:** 3 **Review Group:** Water

This project focuses on the implementation of StreamStats, a nationwide effort by USGS to use stream gage data, topography and regression equations to provide flow data for selected drainageways. The web-based platform will identify drainage basins, watershed characteristics and flow rates for use in water resource facility design and analysis. This information will be used by local, state and federal government agencies and private consultants for floodplain management, wetland restoration and mitigation projects, as well as in the analysis and design of culverts, bridges, stormwater treatment facilities, detention ponds and other water resource related projects. Nebraska’s water resources are crucial to the livelihood and survival of its citizens and wildlife, therefore combined efforts of Nebraska’s residents, agricultural community, private enterprise and local, state and federal government agencies are essential to the preservation and protection of these water resources. Fundamental to these preservation efforts is the knowledge and understanding of flow paths, expected base flows and predicted extreme flows for all drainageways in our state. In order to implement StreamStats in Nebraska, current gage information needs to be collected and analyzed. The USGS and Nebraska Department of Natural Resources stream gages will both be used, including the addition of nearly 20 years of gage data for active gages. This will essentially double the number of gages in the analysis and will provide better statistical sampling to develop statewide equations. The current, FEMA-approved, regression equations are the Beckman equations. Published in 1976. Low-now data will also be used to develop separate equations for base flow conditions. This information will be used to identify base flow fluctuations in perennial streams and protect crucial aquatic organism habitat. It is anticipated that the low-flow equations will expand the current user base of the regression equations to include environmental interests.

Sponsor Name: Nebraska Forest Service **Nearest Town:** Plattsmouth
Project Name: Creating a Forestry Demonstration/Education Center **Project No:** 12-128-3
Amount Requested: \$83,558 **Term of Project Request:** 3 **Review Group:** Statement of Intent

This project will leverage \$250,000 in recent investments and convert the 240-acre Horning State Farm Demonstration Forest in Plattsmouth from a limited-access forestry research facility to a broadly accessible and critically needed Forestry Education Center. The Center will serve a broad clientele including woodland and acreage owners, producers, conservation and green industry professionals, and urban residents. It will demonstrate and promote sustainable forest, agroforest and urban tree management practices appropriate across eastern Nebraska. This facility will be the only tree, forest and agroforest management-focused educational center in Nebraska. It combines 1) field-based demonstrations, 2) an established forested facility with mature and diverse forests, 3) a location that is central to a large population of forest landowners, producers, urban/acreage owners and residents, and 4) a powerful link to technical assistance programs and field personnel of the NFS- facilitating landscape-scale replication across eastern Nebraska. Our unmanaged eastern forests are in poor and declining condition. Management is essential for healthy, diverse, resilient forests that produce cleaner air and water, improve wildlife habitat, sequester carbon, and generate many other environmental and economic benefits. Unfortunately, these stressed resources are facing formidable threats such as highly destructive invasive species (Emerald Ash Borer, Thousand Canker Disease of walnut, honeysuckle, garlic mustard, etc.), other forest pests (Pine Wilt, Oak Wilt), and severe weather events, all exacerbated by a changing climate. This Center will serve as a vital resource to minimize, through improved forest management, the negative impacts of these threats. It will do so by developing a field-based demonstration facility and associated partner-based outreach and education programs. These assets, combined with the rural and urban forestry technical assistance capacity of the NFS, will train and support landowners and practitioners in implementing improved practices on their own land, fostering improved forest/agroforest management and urban tree care across eastern Nebraska.

THIS PROJECT WAS FUNDED \$70,105 IN 2012 WITH THE INTENT TO FUND UP TO \$93,321 IN YEAR TWO AND \$83,558 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

Sponsor Name: Nebraska Forest Service **Nearest Town:** Valentine, Chadron
Project Name: Protecting, Rehabilitating and Restoring Nebraska's Pine Forest Ecosystems **Project No:** 14-111
Amount Requested: \$1,034,500 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Nebraska Game and Parks Commission **Nearest Town:** Statewide
Project Name: Statewide Grassland Enhancement Project **Project No:** 12-140-3
Amount Requested: \$255,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The objective of this project is to complete grassland habitat improvements on 25,000 acres across Nebraska over the next three years, with the majority of these habitat improvements coming on private and public lands. Nebraska has been a leader in undertaking grassland management activities to improve the wildlife habitat benefits on grassland acres. 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 chickens, 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 CRP-Management Access Program (CRP-MAP), 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 expiration this fall Nebraska is poised to drop below the 1 million acre mark for only the second time since 1988. Over 40% (>400,000) of Nebraska's current CRP acres will expire during the next 3 years, so active grassland management is going to be more important on non expiring CRP 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 SUBMITTED BUT NOT FUNDED IN 2004 AND 2011, AND WAS FUNDED \$1,450,000 FROM 2005 THROUGH 2010. THIS REQUEST IS FOR A CONTINUATION OF THIS PROJECT. THIS PROJECT WAS FUNDED \$255,000 IN 2012 WITH THE INTENT TO FUND UP TO \$340,000 IN YEAR TWO AND \$255,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Nebraska Game and Parks Commission **Nearest Town:** Multiple
Project Name: Missouri River Post-Flood Habitat Recovery **Project No:** 12-141-3
Amount Requested: \$111,400 **Term of Project Request:** 3 **Review Group:** Statement of Intent

This grant application seeks funding to renovate Missouri River floodplain habitats on public and private lands impacted by flooding. Landowners owning land in the Missouri River Valley are currently facing an unprecedented flood. They will soon be looking at land use options for lands impacted by the flood of 2011. Agricultural landowners will need economically viable alternatives for lands they deem unfarmable. Recreational landowners, both public and private, will need support renovating floodplain habitats. State-owned lands are limited in the Missouri River Valley of Nebraska, but 60% of the State’s population lives within an hour of the Missouri River. The habitat and recreational opportunities provided by these lands are extremely valuable to Nebraskans. Current flooding on the Missouri River will likely have reconfigured these areas, requiring post-flood renovation activities to maximize public use benefits. Private landowners have shown interest in USDA wetland and floodplain habitat programs since their introduction in the late 1990s. One hundred sixty-seven landowners have voluntarily enrolled twenty-two thousand acres of Missouri River floodplain into USDA programs like Wetlands Reserve Program (WRP), WREP, and EWP. Additional acres have been enrolled into USDA’s CRP. Funds from this grant may be used to incentivize existing USDA programs like CRP and WRP, do habitat renovation work on EWP sites, leverage additional USDA WREP funding for Nebraska, or meet other landowner habitat development requests. THIS PROJECT WAS FUNDED \$85,000 IN 2012 WITH THE INTENT TO FUND UP TO \$103,600 IN YEAR TWO AND \$111,400 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: Wildlife Habitat Improvement Through Prescribed Grazing: A Private/Public Partnership **Project No:** 12-142-3
Amount Requested: \$75,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

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 8,797 acres and improved water quality by encouraging best management practices on surrounding lakes streams, and wetland areas. Partners in the project include Nebraska Cattlemen, private landowners, the Natural Resources Conservation Service, and the Nebraska Game and Parks Commission. These partners will provide match exceeding 1:1. In 2004, 2005, and 2008 this project received \$350,000 from the Nebraska Environmental Trust (grants #04-169, #05-176, and #08-144). These grants have all been successfully completed. THIS PROJECT WAS FUNDED \$75,000 IN 2012 WITH THE INTENT TO FUND UP TO \$110,000 IN YEAR TWO AND \$75,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

Sponsor Name: Nebraska Game and Parks Commission **Nearest Town:** Multiple
Project Name: Bobwhite Quail and Pollinators Conservation Initiative **Project No:** 14-222
Amount Requested: \$600,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The objective of this project is to complete specific bobwhite quail, pollinator and grassland wildlife habitat improvements, restoration, and evaluation on 7,500 acres of land over the next three years. We will be offering incentives to producers to encourage them to participate in bobwhite quail and pollinator friendly management activities. Along with private lands work we will be conducting the same type of activities on public land to demonstrate the results to producers and resource professionals through habitat tours and workshops. Nebraska is a leader in grassland management activities that improve wildlife habitat benefits on grassland acres. With the loss of grassland acres the quantity and quality of available habitat has decreased. This loss of habitat and plant diversity has decreased the amount of suitable habitats for bobwhite quail, pollinators, and grassland wildlife. Intensively managed grassland acres can restore diversity and productivity for wildlife, especially for bobwhite quail and pollinators. The Nebraska Game and Parks Commission (NGPC), Pheasants Forever (PF), private producers, USDA, and other partners need to work together to improve grassland habitat. The northern bobwhite quail ten year trend is down 20.2% on annual whistle count routes. The northern bobwhite quail is a tier II species under Nebraska Natural Legacy Project (NNLP), other species needing similar related habitat are the loggerhead shrike and bell's vireo which are tier I species under NNLP which have been declining at a high rate. This grant will assist in making these habitat improvements and evaluating success of those efforts. The additional acres of bobwhite quail, pollinator, and grassland wildlife habitat enhanced and restored with Nebraska Environmental Trust funding through this initiative will generate many direct and indirect benefits not only to bobwhites and pollinators, 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:** Statewide
Project Name: WILD Nebraska Program **Project No:** 14-223
Amount Requested: \$300,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Nebraska Game and Parks Commission and its' partners have been implementing the WILD Nebraska program on private lands in the state since 2000. This habitat based program has been widely accepted and received by ranchers and farmers throughout the state as a means of encouraging conservation and wildlife habitat on private lands. Currently, the agency allocates approximately \$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 \$300,000.00 (\$100,000.00 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.

Sponsor Name: Nebraska Land Trust **Nearest Town:** Gretna
Project Name: Schramm Bluffs/Patterson Farm Preservation Project **Project No:** 13-112-2
Amount Requested: \$613,433 **Term of Project Request:** 2 **Review Group:** Rural Habitat

In eastern Nebraska, few areas match the biological diversity, water resources, rich soils, and scenic beauty of the Schramm Bluffs in Western Sarpy County. Locally rare oak/hickory woodlands in the bluffs are so important for migrating birds that the Audubon Society has designated Schramm State Park as an Important Bird Area. As part of the Lower Platte River BUL, the bluffs are also among the most threatened natural landscapes in Nebraska, located just off I-80, between Omaha and Lincoln, in our fastest growing county. The Nebraska Land Trust tackled land preservation in 2008, thanks to a \$1.1 million grant from NET. To maximize public benefits derived from this grant, the NLT and partners developed resource-based criteria and assessed 13 properties to prioritize projects. By a wide margin, the 694-acre Patterson Farm topped the list. Multiple criteria factored into this ranking including size, as it is one of the largest unfragmented properties in the bluffs, where a person could walk from one end to the other and never cross a road. Along the way, they might follow spring-fed, boulder strewn streams under a canopy of old oaks, see abundant wildlife, cross old wagon trail ruts, the stone ruins of an early farm, or climb steep hills of productive soils that have been farmed for 1,000 years. THIS PROJECT WAS FUNDED \$432,200 IN 2013 WITH THE INTENT TO FUND UP TO \$613,433 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Nebraska One Box Foundation **Nearest Town:** Broken Bow
Project Name: Nebraska One Box Habitat Regeneration **Project No:** 13-123-2
Amount Requested: \$25,000 **Term of Project Request:** 2 **Review Group:** Equipment

The Nebraska One Box Pheasant Hunt is a non-profit organization that is seeking funding to assist with the purchase of two new Great Plains 10' No-till Habitat Drills. The organization currently works with land owners, Pheasants Forever, Inc, and the Nebraska Game and Parks to establish nesting habitat, grass cover and food plots for pheasants, quail and other wild game birds. The One Box organization needs to purchase the new no-till habitat drills to plant new plots. The addition of a Farm Bill Wildlife Biologist in Custer County has enabled the number of habitat projects to increase in number creating a back log of habitat projects. Plains Equipment Group in Broken Bow, NE will store and maintain these new drills. The goal of the One Box is to improve nesting habitat, grass cover, CRP cover and winter food plots to significantly increase the wild game bird population in central Nebraska. THIS PROJECT WAS FUNDED \$25,000 IN 2013 WITH THE INTENT TO FUND UP TO \$25,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Nebraska Renewable Energy Systems **Nearest Town:** Lyons
Project Name: Vineyard and Winery Waste Recycling Program **Project No:** 13-133-2
Amount Requested: \$50,000 **Term of Project Request:** 2 **Review Group:** Waste Management

The wine-grape production process is an intricate system where numerous waste streams are created. In the wine-grape industry primary waste streams include grape prunings and grape waste biomass (pomace). These byproducts create an opportunity to apply recycling techniques that can reduce or eliminate the overall amount of materials that are treated as waste. Ultimately, processing of these waste materials enable the development of a new type of recycling market and promote the means necessary to put these wastes into a value added form. Turning pomace into food, feed and fuel are pursued in the scope of this grant. The final products being grape-seed oil, grape-seed pellets and animal feed; all are a result of grape growing, wine making and oil seed pressing processes. In Nebraska there are twenty-six wineries adding to a total of approximately 250 grape growers. Currently, 173 tons of grape seed pellets and 4,000 gallons of grape-seed oil can be produced from the growing Nebraska wine industry. These numbers are based on the following assumptions: One acre of a red varietal is produced on each vineyard, with a pomace recovery of 50% per ton and an average of six tons of grapes per acre. This project will provide a very clear demonstration of recycling innovation. It will offer tremendous public benefit to the Nebraska wine Industry by reducing and re-utilizing current materials that must be disposed of by the producer. Funds will be used to support the creation of a pilot scale grape waste processing program in Lyons, NE. Once underway, the facility will be available for educational outreach for wineries and schools across the state, showcasing recycling, sustainability and renewable energy opportunities. These processes will be highly replicable within the various wine producing regions of Nebraska, the Midwest and the nation. THIS PROJECT WAS FUNDED \$50,000 IN 2013 WITH THE INTENT TO FUND UP TO \$50,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Nebraska State Irrigation Association **Nearest Town:** Multiple
Project Name: Water Leaders Academy **Project No:** 12-115-3
Amount Requested: \$41,302 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The Association began planning for a water leadership education program in 2009. The first Water Leaders Academy was introduced in 2011. It sought applicants from all backgrounds and interests which relate to water resources. Individuals selected for 2011 fulfilled that goal. Participants commit to attend six week end programs across the State. The programs provides tours, discussions and structured presentations about Nebraska water laws, political structures responsible for water resources management decisions, water sciences, water economics and water policy planning. Sessions also include a strong program of leadership training activities. Leadership techniques that emphasize cooperation and collegiality to solve complex water issues are employed in the training. Participants are assigned projects to be completed between week end sessions and are teamed into work groups to develop independent study projects related to water resources subjects. Presentations are then prepared and presented to the Academy with the goal of ultimately being used in public education efforts. It is expected that academy graduates will remain connected to the Academy in the future and will assist in development and implementation of future Academy programs. It is also expected that the graduates will apply their water education and leadership skills training in water policy decision making positions at the local, regional, state and national levels. Informed water leaders are essential to sound water resources decisions now and into the future. The Nebraska Environmental Trust needs to be an active partner in this critical preparation of tomorrow's leaders in Nebraska water policy decisions and this grant request for the continuation and growth of the Academy project is the opportunity to be that significant partner. THIS PROJECT WAS FUNDED \$41,190 IN 2012 WITH THE INTENT TO FUND UP TO \$54,822 IN YEAR TWO AND \$41,302 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Nebraska Statewide Arboretum **Nearest Town:** Multiple
Project Name: Sustainable Schoolyard Partnership **Project No:** 12-116-3
Amount Requested: \$157,048 **Term of Project Request:** 3 **Review Group:** Statement of Intent

Sustainable Schoolyard Partnership (SSP) is a statewide, three-year initiative aimed at dramatically improving the natural environment of school grounds through innovative development and management of green infrastructure as well as equipping schools to better care for the landscape via inquiry-based education and demonstration. This effort will target 20 partner schools to implement and demonstrate landscape level improvements to maximize energy/water efficiencies and conservation practices as well as training 100 educators and engaging up to 30,000 students in conservation education principles. Research shows most school landscapes lack the green infrastructure to reap the educational, environmental, and physiological benefits of green spaces. Current research also demonstrates that American youth are increasingly disengaged from nature. Use of electronic media has increased over the last five years to 50 hours a week; obesity and other health related risks continue at epidemic rates among children and youth; and science test scores are below acceptable levels. The SSP seeks to reverse many of these negative trends while creating landscapes that are more useful, manageable, and sustainable. The Nebraska Statewide Arboretum (NSA) is requesting \$519,004 to fund on-the-ground projects of the SSP program. Federal assistance has been requested to fund the educational component. SSP will provide funding for landscape improvements and technical assistance to reduce water use, improve water quality, increase habitat and empower students, teachers, parents, administrators and community volunteers to take responsible action on behalf of the environment. SSP will be a multi-partner collaborative effort including NSA, Nebraska Forest Service, UNL Department of Agronomy and Horticulture, Groundwater Foundation, Verdis Group, local NRDs, and participating schools statewide. If funded, the program will leverage an additional \$700,000 in matching funds from other sources and partners. The program will advance each of the Trust's funding priorities, with a special emphasis on Surface and Ground Water and Habitat. THIS PROJECT WAS FUNDED \$158,129 IN 2012 WITH THE INTENT TO FUND UP TO \$193,827 IN YEAR TWO AND \$157,048 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

Sponsor Name: Nebraska Statewide Arboretum **Nearest Town:** Statewide
Project Name: Community as Habitat: Biodiverse and Waterwise Urban Landscapes **Project No:** 14-205
Amount Requested: \$1,488,862 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Community green spaces can be more than the relatively homogenous, resource-intensive and closely-cropped landscapes that they have become. These landscapes can be transformed to include richly diverse and colorful plantings (especially natives) that attract a much wider variety of pollinators and other community wildlife and which do much more to help manage stormwater, conserve drinking water, improve ecological function and sustain human health. "Community as Habitat" is a three-year initiative with the primary goal of improving the biodiversity and ecological health of community landscapes via greater use of native plants, planting of pollinator-friendly habitat, implementation of "waterwise" practices, promotion of sustainable management techniques and through extensive outreach and education. This program will help educate Nebraskans that their community landscape should not be seen primarily as decoration but rather as a great opportunity to serve as habitat that better supports biodiversity and ecological health. The initiative will be undertaken via a unique partnership between the Nebraska Statewide Arboretum (leaders in community landscape sustainability) and the UNL Department of Entomology (those that know the insects & pollinators). The initiative will advance the Trust's priority of Habitat by greatly expanding the use of native and ecologically appropriate plantings that provide food and shelter for pollinators and other community wildlife. The initiative will also advance the priority of Surface and Ground Water by demonstrating and promoting horticultural practices that conserve drinking water, reduce stormwater runoff and which help keep lawn and landscape pollutants out of local water supplies.

Sponsor Name: NET Foundation for Television, Inc.

Nearest Town: Lincoln

Project Name: Imagining the Platte

Project No: 14-117

Amount Requested: \$100,000

Term of Project Request: 3

Review Group: 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.

Sponsor Name: Northeast Nebraska RC&D

Nearest Town: Plainview

Project Name: Integrated Management of Noxious Weeds in Biologically Sensitive Areas by the Northeast Nebraska Weed Management Area

Project No: 12-189-3

Amount Requested: \$24,134

Term of Project Request: 3

Review Group: Statement of Intent

Invasive species are cited frequently as significant threats to biological diversity in Nebraska's Natural Legacy Project planning document (NNLP). To address issues with invasive species, NNLP recommended development of collaborative conservation efforts to seek effective control measures, increase awareness of biological diversity, and to implement strategies that address specific issues in biologically unique landscapes (BUL's) identified in the plan. One such group is the Northeast Nebraska Weed Management Area (NNWMA). Established in 2004, they seek innovative, collaborative, and effective means to reduce ecological and economic impacts of noxious weed infestations. NNWMA is composed of a diverse group of partners. The area of responsibility covers 8 counties and 4,610,212 acres of private, public, and tribal land. Eight BUL's are partially or wholly within NNWMA boundaries. These include prairies that contain federally threatened Western Prairie Fringed Orchid and state listed Small White Lady Slipper Orchid, as well as habitats that are home to 34 other Tier 1 plant, mussel, fish, insect, bird, and mammal species. Historic flooding has occurred on 3 major river systems during the last 2 years, likely creating habitat that will be conducive for noxious weed growth. Beginning in 2012, NNWMA proposes to conduct aerial mapping surveys, acquire biological control agents (insects) to control noxious weeds on ecologically sensitive sites, and conduct annual education and outreach tours and workshops. Releases will be prioritized and will be targeted at places where herbicide use is not desired (i.e. high diversity grasslands, wetland/riverine habitats, rangeland with organic designations etc.). Targeted plants are Purple Loosestrife, Leafy Spurge, Salt Cedar, and non-native Phragmites. Appropriate insects will be acquired for purple loosestrife and leafy spurge. Releases will occur in a variety of locations within the NNWMA over a 3 year period and will be marked using GPS equipment. THIS PROJECT WAS FUNDED \$21,133 IN 2012 WITH THE INTENT TO FUND UP TO \$24,733 IN YEAR TWO AND \$24,134 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Northern Prairies Land Trust **Nearest Town:** Multiple
Project Name: Tallgrass Prairie Conservation on Private Lands IV **Project No:** 12-107-3
Amount Requested: \$220,500 **Term of Project Request:** 3 **Review Group:** Statement of Intent

Tallgrass prairie and oak woodlands are among the most threatened ecosystems in North America. Most remaining prairies and woodlands are privately owned, making cooperation between landowners and conservationists essential for their conservation. In 2003, public and private conservation groups and landowners formed the Nebraska Tallgrass Prairie Partnership (NTPP) whose mission is to conserve and enhance tallgrass prairies in the state. In 2007, the Nebraska Natural Legacy Project endorsed NTPP's efforts in southeastern Nebraska as the Southeast Flagship Initiative. Partners in the Initiative include the Northern Prairies Land Trust (NPLT), Nebraska Game and Parks Commission (NGPC), Southeast Nebraska Grazing Association, United States Fish and Wildlife Service, Audubon Nebraska, Natural Resource Conservation Service, and others. Over the past eight years, using primarily NET and USFWS Landowner Incentive Program (LIP) and State Wildlife Grant (SWG) funds, the NTPP/Southeast Flagship has worked with 131 landowners to enhance over 31,200 acres of tallgrass prairie and oak woodland, 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. Due to restricted Federal budgets, LIP funds have been discontinued and SWG funds greatly reduced. We must now rely more heavily on in-state conservation monies to maintain our infrastructure and increase our capacity to meet demand for native habitat conservation in southeast Nebraska. We are seeking \$706,000 from the NET for this three-year project. The project partners will provide approximately \$212,500 in cash match. The NPLT will lead the project and NGPC will conduct funds management and reporting. NET funds will be used to enhance 8,000 acres of tallgrass prairie on private lands through tree clearing, prescribed fire, etc. in southeast Nebraska and continue our Annual Tallgrass Prairie Management Seminar for landowners. THIS PROJECT WAS FUNDED \$1,550,0000 FROM 2005-2011. THIS REQUEST IS FOR A CONTINUATION OF THIS PROJECT. THIS PROJECT WAS FUNDED \$220,500 IN 2012 WITH THE INTENT TO FUND UP TO \$265,500 IN YEAR TWO AND \$220,500 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Omaha Home for Boys **Nearest Town:** Omaha
Project Name: Campus Revitalization **Project No:** 14-176
Amount Requested: \$7,200 **Term of Project Request:** 1 **Review Group:** Urban Habitat

The Omaha Home for Boys is requesting the Nebraska Environmental Trust to partially fund the re-planting of 18 trees and other landscaping on the Omaha Home for Boys main campus. Youth in the Home's Boy's Residential Program will be involved with the project including maintaining and inspecting the trees and landscaping. Four trees will be planted in the Fall of 2013 funded by OPPD's Tree Grants. We are asking the Nebraska Environmental Trust to fund the planting of 14 more trees to be planted in the Spring of 2014 alongside with additional landscaping. Costs such as future maintenance and staff time will be paid for by the Omaha Home for Boys.

Sponsor Name: Omaha, City of **Nearest Town:** Omaha
Project Name: Saddle Creek Stormwater Wetlands and Detention Basins **Project No:** 12-144-3
Amount Requested: \$10,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The City of Omaha (the City) requests funding for construction of the wetland and stormwater detention components of a natural stormwater treatment system to reduce flooding and improve water quality in the Saddle Creek basin. The project's Green Solutions (directing stormwater into natural treatment areas) components include: wetlands; dry detention ponds with pretreatment basins; and restoration of an open channel. The overall project also includes sewer separation, for which the City is not requesting grant funding. The stormwater quality improvement and peak flow reduction components of this Combined Sewer Overflow (CSO) project go beyond the requirements of the Nebraska Department of Environmental Quality (NDEQ) and USEPA by providing treatment of stormwater prior to discharge to the Little Papillion Creek, which is currently on the list of State waters not meeting quality standards. The project is supported by the Pappio-Missouri River Natural Resource District (P-MRNRD) and the NDEQ. This project will accomplish multiple objectives that, when achieved, will provide a wide range of the benefits to the community including:

- Increasing wildlife habitat.
 - Improving water quality in the stream and reducing pollutants reaching the Little Papillion Creek.
 - Addressing permitting requirements while maximizing mitigation opportunities.
 - Maximizing sewage treatment with existing and proposed wastewater treatment facilities.
 - Reducing capital costs for the CSO Program for sewer fee payers.
 - Providing public education opportunities via a demonstration project for Green Solutions.
- The project will demonstrate Best Management Practices for stormwater management in an urban setting and the incorporation of Green Solutions for improving water quality. The project will also reduce combined sewer overflows to Little Papillion Creek, and thereby reduce the financial impact on Omaha's sewer rate payers; currently 1/3 of the State population. THIS PROJECT WAS FUNDED \$577,134 IN 2012 WITH THE INTENT TO FUND UP TO \$230,366 IN YEAR TWO AND \$10,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Omaha, City of **Nearest Town:** Omaha
Project Name: Hell Creek Rehabilitation Project **Project No:** 13-118-2
Amount Requested: \$350,000 **Term of Project Request:** 3 **Review Group:** Bank Stabilization

The City of Omaha (City) will rehabilitate a concrete-lined urban stream that is nearly devoid of aquatic habitat. These actions will result in a sustainable community amenity that can support aquatic life. The project includes rehabilitating a 3,300-foot reach of Hell Creek (about a mile west of the I-80 and I-680 interchange), creating a more natural state by removing a failing concrete liner with threatened structural integrity, compromised functionality, and minimal capacity to support aquatic life—this reach also provides no environmental benefit and is a general eyesore. The channel will be rehabilitated using bio-engineering principles that incorporate a combination of vegetation and low profile rock grade control structures to promote channel stability. Significant site constraints, including the presence of 75 nearby homes and critical utility infrastructure (overhead power and sanitary sewer utilities), limit rehabilitation options and increase costs to design and construct the project. The aesthetically pleasing improvements will provide environmental enhancements to restore aquatic life habitat and improve water quality while creating a community amenity. This project wouldn't be possible without the City's commitment to implementation of green infrastructure. The City worked proactively with the developer working upstream to incorporate improvements along Hell Creek, improving the channel's connection to the flood plain and reducing peak flows. Doing so accommodates rehabilitating the channel with vegetation while not adversely impacting the flood elevations or increasing risk to area residents. The improvements will be similar to those implemented on the Whitted Creek Stream Restoration project, a Nebraska Environmental Trust (NET) grant-funded project in Sarpy County and a tour location during the July 2011 NET board meeting. While the Whitted and Hell Creek projects drain watersheds of similar sizes, the Hell Creek project will be constructed within a more developed area that has less than half the width of the Whitted Creek corridor. THIS PROJECT WAS FUNDED \$500,000 IN 2013 WITH THE INTENT TO FUND UP TO \$350,000 IN YEAR TWO AND \$150,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Omaha, City of - Public Works Department **Nearest Town:** Omaha
Project Name: Spring Lake Park Pond Restoration Phase 5 **Project No:** 14-141
Amount Requested: \$1,000,000 **Term of Project Request:** 3 **Review Group:** Water

The City of Omaha is requesting continued support from the Nebraska Environmental Trust for a multifaceted green infrastructure project in historic Spring Lake Park. The project has developed over the last decade from a dream of a dedicated neighborhood group to the reality of construction-ready plans incorporating natural storm water quality treatment processes into amenities for the community. Collaboration with a diverse stakeholder group has proven that public involvement can lead to projects that meet multiple goals. Project features include: • State of the art, easy to maintain "pre-treatment" systems capturing trash and pollution from the urban runoff before it enters the new natural water features, • A series of natural treatment systems including dry detention, rain gardens, infiltration basins and wetlands, that improves water quality and reduces peak flows to the Missouri River, which is listed as impaired water downstream of Omaha, • Clean groundwater from existing springs feeding into a 1.5 acre pond that supports an urban fishery instead into the combined sewers, and • Installation of almost 800 trees in several parks to enhance habitat diversity. Previous grant requests awarded by the Nebraska Environmental Trust have helped make this project possible. Design will be complete in the fall of 2013, with construction planned to begin in 2014. Design components go above and beyond the basic requirements of the CSO Program, which requires separation of sanitary and storm sewers in the project area. Through collaboration efforts, the City will be constructing a project that reduces the need for "grey" infrastructure by maximizing the use of "green" infrastructure, which is not required by regulators. The City of Omaha believes this project will showcase a variety of green infrastructure technologies that can be incorporated on other projects in the future.

Sponsor Name: Papio-Missouri River Natural Resources District **Nearest Town:** Bellevue
Project Name: Platte/Missouri River Confluence Ecosystem Project **Project No:** 14-107
Amount Requested: \$3,600,000 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Papio-Missouri River Natural Resources District **Nearest Town:** Omaha
Project Name: Groundwater Monitoring Network Wells **Project No:** 14-177
Amount Requested: \$92,000 **Term of Project Request:** 1 **Review Group:** Water

The Papio-Missouri River Natural Resources District, located in eastern Nebraska, seeks funding assistance from the Nebraska Environmental Trust to install clustered groundwater quality monitoring wells to improve the reliability of water quality sampling, access to sampling locations, and long term reliability of the Districts sampling program. Groundwater is the primary source for drinking water for the majority of residents of Nebraska. The quality of that drinking water supply is susceptible to natural and anthropogenic influences such as dissolved minerals, trace metals, and agricultural chemicals. The District monitors groundwater quality within five aquifer systems as part of its Groundwater Sampling Program. There are currently fifteen dedicated monitoring locations within the District. The Sampling Program samples all fifteen dedicated wells and approximately an additional thirty wells annually. The additional wells are selected each year to do targeted sampling of one or more of the aquifer systems. Typically the District has utilized irrigation or domestic wells for the additional sampling locations which provides less reliable results and poorer continuity of samples. Construction of additional dedicated sampling well nests will enhance the reliability of data collected within the Sampling Program. A well cluster is typically comprised of three separate wells screened at different depths and allows for the discrete sampling of the upper, middle, and lower portions of an aquifer. A typical irrigation is often screened across a large portion of the aquifer or the entire saturated thickness of the aquifer. Detection of particular water quality constituents that are specific to, as an example, the upper portion of the aquifer, are hampered by the dilution effects of water mixing from other portions of the aquifer. Dedicated monitoring wells screened at discrete intervals, reduce these dilution effects on the results and allows for the Sampling Program to more readily detect concerns and improve management decisions.

Sponsor Name: Pheasants Forever - Antelope Valley **Nearest Town:** Oshkosh
Project Name: No-Till Grass Drill **Project No:** 14-124
Amount Requested: \$27,000 **Term of Project Request:** 1 **Review Group:** Equipment

This grant application seeks funding from the NET to purchase a no-till grass drill to be used by landowners to establish wildlife habitat. Currently, there are few no-till drills available in the 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, CRP-MAP, etc. have greatly increased the need for this type of specialized equipment. Matching NET moneys with that of the Antelope Valley Pheasants Forever chapter would purchase the no-till drill. The purchase price of a no-till grass drill is approximately \$34,400. Jon Krajewski and/or Dave Cook of Oshkosh, 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 establishing more wildlife habitat to a higher quality habitat provided by these seed mixtures, wildlife will benefit.

Sponsor Name: Pheasants Forever - Boone County Chapter

Nearest Town: Albion

Project Name: No-Till Grass Drill

Project No: 14-123

Amount Requested: \$29,000

Term of Project Request: 1

Review Group: Equipment

This grant application seeks funding from the NET to purchase a no-till grass drill to be used by landowners to establish wildlife habitat. Currently, there are few no-till drills available in the 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, CRP-MAP, etc. have greatly increased the need for this type of specialized equipment. Matching NET moneys with that of the Boone County Pheasants Forever chapter would purchase the no-till drill. The purchase price of a no-till grass drill is approximately \$39,000. Helena Chemical Company of Albion, 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 establishing more wildlife habitat to a higher quality habitat provided by these seed mixtures, wildlife will benefit.

Sponsor Name: Pheasants Forever - Dakota/Thurston County Chapter

Nearest Town: Dakota City

Project Name: No-Till Grass Drill

Project No: 14-122

Amount Requested: \$29,000

Term of Project Request: 1

Review Group: Equipment

This grant application seeks funding from the NET to purchase a no-till grass drill to be used by landowners to establish wildlife habitat. Currently, there are few no-till drills available in the 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, CRP-MAP, etc. have greatly increased the need for this type of specialized equipment. Matching NET moneys with that of the Dakota/Thurston County Pheasants Forever chapter would purchase the no-till drill. The purchase price of a no-till grass drill is approximately \$39,000. Dennis Reinert of Dakota City, 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 establishing more wildlife habitat to a higher quality habitat provided by these seed mixtures, wildlife will benefit.

Sponsor Name: Pheasants Forever - Oregon Trail Chapter **Nearest Town:** Scottsbluff
Project Name: No-till Grass Drill **Project No:** 14-121
Amount Requested: \$29,000 **Term of Project Request:** 1 **Review Group:** Equipment

This grant application seeks funding from the NET to purchase a no-till grass drill to be used by landowners to establish wildlife habitat. Currently, there are few no-till drills available in the 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, CRP-MAP, etc. have greatly increased the need for this type of specialized equipment. Matching NET moneys with that of the Oregon Trail Pheasants Forever chapter would purchase the no-till drill. The purchase price of a no-till grass drill is approximately \$39,000. The North Platte NRD of Scottsbluff, 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 establishing more wildlife habitat to a higher quality habitat provided by these seed mixtures, wildlife will benefit.

Sponsor Name: Pheasants Forever, Inc. **Nearest Town:** Multiple
Project Name: Corners for Wildlife **Project No:** 12-171-3
Amount Requested: \$280,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

This application continues a partnership funded by the Trust from 1995 to 2011. 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 16 years the program has been offered, Trust funds have been partnered with over \$1.7 million for materials from 45 Pheasants Forever chapters, 16 Natural Resource Districts, the Nebraska Game & Parks Commission and private landowners on 1,378 projects throughout the state. With "in-kind" contributions included, the level of financial partnership being combined with Trust funds currently exceeds \$5.3 million. Landowners receive a rental payment for a five-year contract to establish and maintain high diversity wildlife habitat on center pivot irrigation 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 334 wildlife shrubs and/or trees per corner in the program. 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 SUBMITTED IN 1997 AND 2010 BUT NOT FUNDED DUE TO PLACEMENT ON THE RANK ORDER LIST AND AVAILABILITY OF FUNDS. THIS PROJECT WAS FUNDED \$2,842,000 FROM 1994-2011. THIS REQUEST IS FOR THE CONTINUATION OF THIS PROJECT. THIS PROJECT WAS FUNDED \$280,000 IN 2012 WITH THE INTENT TO FUND UP TO \$325,000 IN YEAR TWO AND \$280,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: Pheasants Forever, Inc. **Nearest Town:** Statewide
Project Name: Grassland Improvement Program **Project No:** 13-159-2
Amount Requested: \$250,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

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 areas 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. THIS PROJECT WAS FUNDED \$310,000 IN 2013 WITH THE INTENT TO FUND UP TO \$250,000 IN YEAR TWO AND \$190,000 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: Habitat Share Partnership **Project No:** 14-116
Amount Requested: \$462,000 **Term of Project Request:** 3 **Review Group:** 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). Most state agencies find it challenging to manage public lands to the degree they would like to due to limitations associated with man-power, funding, habitat equipment and available days during specific seasons. This partnership has successfully bridged many of those limitations by hiring contractors to perform some of the critical habitat improvement activities that normally would have been undertaken by state agencies and their staff. By assigning some of the management activities to contractors for completion, the NGPC can accomplish an increased number of their habitat management objectives on more WMA's across the state. Formed in 2010, the Habitat Share partnership has already performed habitat improvement activities on 60 different WMA's impacting 12,268.5 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:** Pollinator Habitat Program**Project No:** 14-185**Amount Requested:** \$102,335**Term of Project Request:** 3**Review Group:** 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 conservations issues like the plight of the pollinators and educating Nebraskans on the importance and value of sound conservation practices.

Sponsor Name: Platte River Basin Environments, Inc.**Nearest Town:** Multiple**Project Name:** North Platte River Valley Habitat Restoration and Enhancement Partnership **Project No:** 13-189-2**Amount Requested:** \$51,000**Term of Project Request:** 3**Review Group:** Rural Habitat

The North Platte River has long been the lifeblood for a large portion of Western Nebraska. Dozens of communities, thousands of farmers, ranchers, and recreationists; and millions of individual plants and animals depend on and utilize the river and its waters and habitats. Unfortunately the wetland and upland habitats of the North Platte River have become degraded over time, making them of drastically reduced quality and availability to wildlife and private landowners alike. A partnership has been forged between the Platte River Basin Environments, Inc. (PRBE), the Nebraska Game and Parks Commission; and the U.S. Fish and Wildlife Service to address the degrading factors impacting North Platte River Valley habitats. Targeted specifically on private and non-profit conservation entity owned lands, this effort will implement habitat projects to address the species and habitat stressors of the area. The conservation actions to be implemented will not only address habitat needs, but will have important water, soil, economic, private lands, and public benefits. This partnership's objective is to restore, enhance, and manage the wetland and associated upland habitat values of North Platte River Valley wetlands and to find win-win solutions for integrating wildlife habitat into land management operations. This will be achieved by (1) providing financial assistance for restoring, enhancing, and managing wetlands and associated uplands on private lands and privately owned conservation entity properties, (2) providing education and high quality technical assistance to private landowners in the restoration and long-term management of their habitats and integration of habitat into their land management operations, and (3) using demonstration sites to exhibit the numerous environmental, wildlife, and economic benefits of wetlands. Utilizing NET grant funds, PRBE will offer cost-share to landowners in addition to funds available from conservation entities to expand the scope and quantity of restoration projects. THIS PROJECT WAS FUNDED \$51,000 IN 2013 WITH THE INTENT TO FUND UP TO \$51,000 IN YEAR TWO AND \$52,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Platte River Basin Environments, Inc. **Nearest Town:** Bridgeport
Project Name: Weber Property Acquisition **Project No:** 14-201
Amount Requested: \$1,244,000 **Term of Project Request:** 1 **Review Group:** Rural Habitat

The Platte River Basin Environments, Inc. (PRBE) is requesting funding from the Nebraska Environmental Trust (NET) to assist with the acquisition of the Weber property near Bridgeport, Nebraska. The Weber tract will be an addition to the PRBE properties along the North Platte River. The Weber property is a 313-acre tract located northwest of Bridgeport and will add an additional one mile of Platte River frontage to PRBE-managed, wetland complexes. The acquisition of the Weber tract is urgently needed. The property offers a wonderful opportunity to manage restored wetlands, backwater sloughs and native grasslands on this site. The NET and other project partners recently completed an expansive habitat restoration and enhancement project on this property. Funding is now being requested from the NET to assist with the acquisition of the tract. The landowner is very interested in selling the property to a conservation organization and wishes 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 Platte River Basin Environments, Inc. will provide long-term ownership and management of the site, opening the property to a variety of public uses. 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: Platte River Whooping Crane Maintenance Trust, Inc. **Nearest Town:** Alda
Project Name: Nebraska Prairie Trail and Bison Project **Project No:** 12-183-3
Amount Requested: \$42,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The Platte River Whooping Crane Critical Habitat Maintenance Trust (Crane Trust) respectfully requests your consideration of a grant in the amount of \$385,000. This three-year request includes funding for the Nebraska Nature & Visitor Center (NNVC) and a trail system with bison with a budget that is over \$1,100,000. The Crane Trust and its partners will insure the success of the over-all budget of the program. NNVC and the Crane Trust have entered into an agreement to merge operations. This will result in a large, stable organization that will deepen both existing and new opportunities for good science, land management, communication, and education in Nebraska's native habitats. This is a unique opportunity that will have a significant impact on conservation and outreach in Nebraska, as well as an economic impact within the central Nebraska region. The Crane Trust, Inc. was formed in 1978 as part of a court-approved settlement of Grayrocks Dam on a tributary of the Platte River in Wyoming. The Crane Trust was funded by a payment from the Missouri Basin Power Project, and income from the endowment is used to further the Trust's mission. Three trustees are appointed by the three participants in the settlement to administer the Trust. The Nebraska Nature & Visitor Center, established in 1989 as a private, 501c3, non-profit organization, was reorganized on January 31, 2007 under the direction of a five-member Board of Directors, a group of successful business leaders committed to re-establishing the Nebraska Nature & Visitor Center as a center for environmental education. The result of the merger will mean that the NNVC will operate within the structure of the Crane Trust. Key aspects of this proposal include: •Creation of a ten-mile nature trail network that is available to the public. •Facilitating a bison herd on Crane Trust ground that is accessible to the public. •Continued operation of the NNVC through sound business operations. Central Nebraska is the fortunate site of the annual migration of the sandhill crane, one of the world's great natural phenomena, as well as a fragile yet beautiful ecosystem, the native prairie and Platte River habitat. The Crane Trust is uniquely positioned to manage and showcase these environmental wonders and educate a new generation of environmentally committed Nebraskans. The goal of this proposal and the merger of these two organizations is to create a unique and exciting destination point in central Nebraska. We are planning on building up to 10 miles of trails and with bison being reintroduced, people from around the Midwest will come to the Nature Center. We will have the opportunity to show everyone how Nebraska truly looks. The bison will draw tourist off the interstate and all will learn more about Nebraska. THIS PROJECT WAS FUNDED \$42,000 IN 2012 WITH THE INTENT TO FUND UP TO \$72,000 IN YEAR TWO AND \$42,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE

Sponsor Name: Prairie Loft Center for Outdoor & Agricultural Learning **Nearest Town:** Hastings
Project Name: Purchase of Adjacent Land for Habitat Restoration, Food Production, and Public Education **Project No:** 14-164
Amount Requested: \$150,000 **Term of Project Request:** 1 **Review Group:** Rural Habitat

We respectfully submit this request for funding to enable the purchase of approximately 64 acres adjacent to Prairie Loft's program site, just west of the Hastings city limits. Once ownership is secured, we plan to begin improvements for environmental education and agriculture production. We look forward to expanding our experiential, place-based education program in a landscape that promotes a deeper understanding of native ecosystems, wildlife habitat, outdoor recreation, food origins, crop production, livestock management, range management, and environmental literacy. The State of Nebraska currently owns the parcels of land adjacent to Prairie Loft. The acres, leased as farmland, consist of dry land, no-till fields bisected by substantial windbreaks (26 acres west of current property) and potential pasture, including Pawnee Creek (38.4 acres east of current property). Prairie Loft submitted a bid on these two parcels in February 2011. All bids were rejected by the Department of Administrative Services at that time, and the sale was tabled until an undetermined date. The Nebraska DAS plans to accept bids again in 2014. Prairie Loft and the surrounding acres are historically significant, being located on the former site of the Ingleside farm operation that provided food for the Hastings Regional Center from the 1890s until the 1960s. Prairie Loft purchased 8.3 acres from the State in 2004 and began offering public programs in 2007. Since then, nearly 25,000 people of all ages have attended activities on site. Current activities include field trips, educator trainings, workshops, presentations, field studies, community events, facility rental, and community gatherings. Buildings and grounds are undergoing renovations to provide a unique, multi-purpose and energy-efficient space. Our intent is to expand programming into these additional 64 acres for the purposes of habitat restoration and education focused on responsible management of crops, livestock, pasture, rangeland, wetland, and prairie.

Sponsor Name: Prairie Plains Resource Institute **Nearest Town:** Marquette
Project Name: Sherman Land Acquisition, Hamilton County **Project No:** 13-132-2
Amount Requested: \$150,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Sherman Ranch contains an unusual Platte River landscape in northern Hamilton County. Its 650 acres include a mile of Platte River frontage, ecologically diverse wet meadow bottomland and prairie-covered loess hills and canyons. Such ecological, topographic and scenic attributes are rare in a large single ownership tract in eastern Nebraska. The Sherman Ranch is located within a Biologically Unique Landscape area (Central Platte BUL, Nebraska Legacy Plan). It also has exceptional potential for public recreation. PPRI will develop access for hunting, fishing, birdwatching, hiking, biking, camping, canoeing and trail riding compatible with prairie and wildlife management. The land will remain in agricultural use as native hay and rangeland. Purchase of the Sherman Ranch is urgent. Most likely it will end up subdivided into acreages if PPRI cannot raise necessary funds. No other entity will have the opportunity for undivided purchase. If not acquired by PPRI, huge public benefit will be lost. Nearly 1.2 million people live within two hours of this property and could benefit from its recreational potential. There are few parks or wildlife areas between Grand Island and Ashland, a river distance of 130 miles. Nothing in that stretch is as striking and diverse or offers as much public value as the Sherman Ranch. Prairie Plains Resource Institute (PPRI) is requesting \$450,000 from NET to assist in the acquisition of the Sherman Ranch - approximately 20-25% of estimated \$2 million total price. Substantial match will be required from other sources yet-to-be-determined. DU will partner on the wetland portion, contingent on NAWCA funding; USFWS will assist in restoration and stewardship. Future opportunity may exist to connect Sherman Ranch to Griffith Prairie (NET-funded in 2002) located a mile west, creating a block of recreational prairie land greater than 1,700 acres situated along 2.7 miles of Platte frontage. THIS PROJECT WAS FUNDED \$150,000 IN 2013 WITH THE INTENT TO FUND UP TO \$150,000 IN YEAR TWO AND \$150,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: PrairieLand RC&D Council **Nearest Town:** Multiple
Project Name: Continuous No-till and Soil Health Education **Project No:** 13-179-2
Amount Requested: \$100,000 **Term of Project Request:** 3 **Review Group:** Education

This statewide educational project will build on and expand existing efforts to increase the adoption and sustainable use of Continuous No-till (CNT) by one million acres. 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 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. With improved soil health, crop production becomes more sustainable and the resulting crops are healthier. This project will be extremely cost-effective, about \$0.62/acre for the million acre goal, or about \$25/producer if half of Nebraska’s producers adopt or increase their use of CNT, saving them \$50/acre or more. 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. NET funds will be used to fund all or part of the following: an Extension No-till Specialist, a Western Nebraska No-till Specialist, and a project administrator; many in-state educational programs, networking activities, opportunities for producers to attend key out-of-state no-till events; and the development and distribution of I&E materials. THIS PROJECT WAS FUNDED \$100,000 IN 2013 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: Quail Forever **Nearest Town:** Statewide
Project Name: Mobile Prescribed Burn Unit & Education Outreach **Project No:** 14-139
Amount Requested: \$117,700 **Term of Project Request:** 1 **Review Group:** Rural Habitat

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 their 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 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 and improved landowner educational events and materials across the state.

Sponsor Name: Quail Forever - Central Nebraska Chapter

Nearest Town: St. Paul

Project Name: Weed Wiper Equipment

Project No: 14-154

Amount Requested: \$3,000

Term of Project Request: 1

Review Group: Equipment

This grant application seeks funding from the NET to purchase a Weed Wiper to be used by landowners in central Nebraska to properly manage wildlife habitat that is already established. Currently, there are no weed wiper or weed wick pieces of equipment available anywhere in central Nebraska for landowners to use. A Weed Wiper available to interested landowners would increase both the quantity and quality of wildlife habitat. The central Nebraska area has many acres currently enrolled into the Conservation Reserve Program and Wetlands Reserve Program. These wildlife acres commonly become established to invasive trees within a few years of establishment and quickly become problematic for landowners to control and manage. Habitat monitoring and trials conducted in 2013 have determined that a weed wiper is a very cost effective way for landowners to control invasive tree encroachment into conservation program acres. Trials showed the equipment to be easily adapted by landowners, cost efficient to use and highly selective for the invasive species being targeted.

Sponsor Name: Rainwater Basin Joint Venture

Nearest Town: Multiple

Project Name: Development of Grazing Infrastructure to Support the RWB Working Lands Initiative

Project No: 12-166-3

Amount Requested: \$87,838

Term of Project Request: 3

Review Group: Statement of Intent

If funded, this grant will provide funding that will be leveraged with partner funds to work with local producers to develop infrastructure that will facilitate grazing on abandoned wetlands throughout the Rainwater Basin Landscape. These projects will provide demonstration sites that will showcase both the biological and economic benefits of grazing Rainwater Basin wetlands. 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 three stages: 1) producers with abandoned wetlands in high quality wetland complexes will be contacted about this opportunity to integrate grazing back into their operation, 2) funds from this grant will be matched with partner dollars to construct necessary infrastructure (perimeter fence, cross fence, and livestock watering) to facilitate grazing, and 3) landowner tours will be conducted at several demonstration sites throughout the Rainwater Basin Region. These tours will be coordinated by the Nebraska Cattlemen and Sand County Foundation to ensure an open dialogue between landowners and biologists. This dialogue will help both biologists and the producers develop better projects in the future, more clearly 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 that depend on RWB wetlands.

THIS PROJECT WAS FUNDED \$41,419 IN 2012 WITH THE INTENT TO FUND UP TO \$112,838 IN YEAR TWO AND \$87,838 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

Sponsor Name: Rainwater Basin Joint Venture **Nearest Town:** Seward, York, Geneva,
Project Name: Rainwater Basin Wetland Management for Improved Migratory Bird Habitat **Project No:** 13-120-2
Amount Requested: \$75,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

This project will address the management of aggressive and invasive vegetation negatively effecting wetlands in the Rainwater Basin region of south-central Nebraska. Waterfowl and shorebird habitat are negatively impacted by dense, monotypic stands of vegetation including reed canary grass, river bulrush, hybrid cattail, and phragmites. In addition wetland invasion by wood species like cottonwood, willow, and green ash is also negatively impacting habitat. A shortage of funds to pay for needed materials and equipment and to hire contractors for management such as disking, herbicide spraying, prescribed burning, mechanical tree removal, installation of fences, and roto-tilling are limiting these actions on both private and public wetlands resulting in a significant degradation of migratory bird habitat. THIS PROJECT WAS FUNDED \$75,000 IN 2013 WITH THE INTENT TO FUND UP TO \$75,000 IN YEAR TWO AND \$75,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Rainwater Basin Joint Venture **Nearest Town:** Multiple
Project Name: Wetland Habitat Enhancement and Restoration in Nebraska's Rainwater Basin **Project No:** 13-125-2
Amount Requested: \$350,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The "Wetland Habitat Enhancement and Restoration in Nebraska's Rainwater Basin" project will develop unique opportunities to restore and enhance wetland and associated upland habitats in the Rainwater Basin landscape. On private lands, this project will result in implementation of conservation programs that allow producers to integrate these restored wetlands into their operations through haying and grazing. The drought of 2012 has demonstrated the importance of diversified farm operations and the need for additional forage to maintain Nebraska's cattle industry. In addition to providing cattle forage, these wetlands will contain desired habitat conditions for the millions of wetland dependent migratory birds and resident species that rely on this region since grazing and haying are extremely effective wetland management techniques. On public lands, project funds will be used to maximize habitat conditions on these unique and highly valued lands. A recent assessment by Nebraska Game and Parks Commission highlighted the recreational value of these lands. This assessment suggested over 80,000 hunter days in the RWB by migratory waterfowl and upland bird hunters. In addition to game species, RWB wetlands provide optimal habitat for Whooping Cranes, Buff-breasted Sandpipers, King Rails, and nearly 20 other priority species and vegetation communities identified in Nebraska's Natural Legacy Plan. The Rainwater Basin wetlands and associated uplands do not just provide habitat and recreational opportunities. These wetlands benefit all Nebraskans through the numerous ecosystem services provided by playa wetlands. Research by the University of Nebraska Lincoln and Oklahoma State University has documented groundwater recharge, nutrient cycling, carbon sequestration, and flood storage. Actions funded through this grant will help ensure that, as Nebraskans, we will continue to have reliable groundwater for both agricultural and municipal uses. To successfully implement this project, Rainwater Basin Joint Venture partners have leveraged over \$2.38 million dollars in matching funds. THIS PROJECT WAS FUNDED \$350,000 IN 2013 WITH THE INTENT TO FUND UP TO \$350,000 IN YEAR TWO AND \$350,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Rainwater Basin Joint Venture **Nearest Town:** Holdrege, Franklin, Kea
Project Name: Watershed Restoration of Atlanta Waterfowl Production Area **Project No:** 14-143
Amount Requested: \$181,125 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Rainwater Basin Joint Venture **Nearest Town:** Bertrand
Project Name: Western Rainwater Basin Waterfowl Production Areas **Project No:** 14-144
Amount Requested: \$92,411 **Term of Project Request:** 1 **Review Group:** Rural Habitat

The Rainwater Basin Joint Venture (RWBJV) and its partners will facilitate the restoration and enhancement of approximately 479 acres of Rainwater Basin wetlands on US Fish and Wildlife Service (USFWS; the Service) lands in Gosper and Kearney Counties. The restoration and enhancement of RWB wetlands will occur at two separate USFWS Waterfowl Production Areas (WPAs) in the western reach of the RWB region. The RWB region is recognized as providing critical habitat to millions of migrating birds, particularly during the spring migration period when forage and resting areas are most limited. The wildlife species that will benefit from these projects include millions of waterfowl that migrate in Central Flyway, numerous shorebird species, and the endangered whooping crane. The end goal of this project will be to improve habitat to benefit wetland species of wildlife at a local and continental scale, to improve public services provided by these wetlands such as increasing water quality benefits, and to produce a sustainable, long-term product by permanently restoring wetland functions on these tracts.

Sponsor Name: Rainwater Basin Joint Venture **Nearest Town:** Ord
Project Name: Central Loess Hills Prescribed Fire Training Exchange Program **Project No:** 14-145
Amount Requested: \$302,500 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Rocky Mountain Bird Observatory **Nearest Town:** Kimball
Project Name: Landowner Stewardship for Grassland Habitat and Bird Conservation in the **Project No:** 13-143-2
Kimball Grasslands Biological Unique Landscape
Amount Requested: \$125,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

Nebraska Prairie Partners, a partnership between Rocky Mountain Bird Observatory and Nebraska Game and Parks Commission has been successful at conserving grassland and cropland species in western Nebraska for 10 years. Private landowners have been the driving force behind successful conservation for the Mountain Plover (*Charadrius montanus*) (MOPL), a Tier 1 species under the Nebraska Natural Legacy Project and a state "threatened" species. In western Nebraska, MOPL nest on agricultural or disturbed lands. By marking nests, landowners drive tractors around the nests avoiding accidental tillage. Landowners receive payments for such conservation action through state incentive programs. However there is risk of losing those incentives. In 2012, 42% of marked nests were located and marked by landowners, the highest proportion since the project's inception. To keep this momentum sustainable and to ensure viable populations of MOPL and other grassland obligate birds remains in western Nebraska NPP proposes to 1). Continue marking Mountain Plover nests with landowners, increase the number of landowners participating in the program, and implement strategies for sustainable nest marking after Landowner Incentive Program funds cease 2). Implement management practices to promote nesting habitat in rangeland and Conservation Reserve Program lands 3). Continue with Kimball County Conservation Cooperative (KCCC) meetings; develop a steering committee to guide landowners toward self-sufficiency 4). Evaluate the use and success of raptor nest platforms erected through previous grant activities. 5). Survey Kimball Grasslands BUL for open-capped irrigation pipes, seal openings and install wildlife escape ladders for stock tanks, and 6). Monitor nesting plovers through remote cameras and generate video for future outreach to landowners and schools. We anticipate reaching 800 residents and school children, enrolling an additional 20 landowners and 20,000 acres in our nest-marking program and habitat enhancement projects, and installing 500 pipe caps and ladders to reduce threats to grassland birds. THIS PROJECT WAS FUNDED \$125,000 IN 2013 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: Rocky Mountain Bird Observatory **Nearest Town:** Scottsbluff
Project Name: Enhancing Habitat Management in the Nebraska Panhandle Through Conservation Education **Project No:** 13-191-2
Amount Requested: \$105,000 **Term of Project Request:** 3 **Review Group:** Education

Nebraska Prairie Partners (NPP), a partnership between the Rocky Mountain Bird Observatory (RMBO) and the Nebraska Game and Parks Commission (NGPC), has outlined conservation goals that, through outreach and education programs, will address threats to at-risk species and to the shortgrass prairie and ponderosa pine habitats of the Nebraska panhandle. With support from the Nebraska Environmental Trust, NPP will continue to support a full-time Wildlife Education Coordinator who will plan and implement education and outreach activities focused on at-risk wildlife and their habitat needs for long-term ecosystem viability. Building on the education work that NPP has achieved over past years, we will continue to implement successful education programs while introducing new programs to augment those already in existence. By continuing and expanding NPP’s experiential and placed-based education program, students of all ages will continue to develop awareness of, appreciation for, and decision making skills regarding the biologically unique communities and landscapes in western Nebraska as identified by the Nebraska Natural Legacy Plan. Thirty percent of students in the panhandle are reached biennially through NPP with many receiving multiple environmental education experiences. We will also continue NPP’s efforts in outreach to landowners and resource professionals through conservation and education workshops that address current issues in the panhandle. With support from the Nebraska Environmental Trust we anticipate reaching 2,000 students and 150 landowners, resource professionals, and educators in western Nebraska each year. We will continue our successful activities, including educator and landowner workshops, educational bird banding stations, PEEP, nature clubs, family nature programs, an Earth Day Festival, and add new programs: “Pennies for Plovers”, RMBO Naturalists and a citizen science project focusing on swift fox. We believe that life-long conservation education curricula targeting K-12 students, resource professionals, and area landowners and ranchers is an integral part of conserving Nebraska’s biologically unique landscapes. THIS PROJECT WAS FUNDED \$105,000 IN 2013 WITH THE INTENT TO FUND UP TO \$105,000 IN YEAR TWO AND \$105,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Ruth Hill Elementary School **Nearest Town:** Lincoln
Project Name: Development of an Outdoor Classroom **Project No:** 14-202
Amount Requested: \$25,162 **Term of Project Request:** 1 **Review Group:** Education

We request one year of funding to convert part of a sterile outdoor space at Ruth Hill Elementary School (RHE) in Lincoln that is now covered in gravel, invasive/non-native grasses, weeds, and concrete into a new and vibrant outdoor environment for use by children at school and by the surrounding neighborhood community. The final product will be an area with natural grasses, trees, and interpretive information that will enable lifelong learning both via formal (outdoor classes by teachers at RHE) and informal education, discovery, and play. The project will restore to a "natural state" part of the playground at RHE, leading to reduced surface water runoff, increased habitat diversity, improved air quality (trees), and enhanced soil profile. We will accomplish this by simultaneously planting grasses and trees and developing a Nature Explore Outdoor Classroom" on the northeast side of the playground at RHE.

Sponsor Name: Sandhills Journey Scenic Byway Visitor/Interpretive Center **Nearest Town:** Mullen
Project Name: Sandhills Journey Scenic Byway Birding Trail **Project No:** 14-181
Amount Requested: \$84,900 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Sandhills Resource Conservation and Development **Nearest Town:** Mullen
Project Name: Cedar Control in the Sandhills Region **Project No:** 14-182
Amount Requested: \$150,900 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Sandhills Task Force **Nearest Town:** Taylor
Project Name: Price Ranch Conservation Easement **Project No:** 12-133-3
Amount Requested: \$80,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

This application seeks funding to complete the acquisition of a conservation easement on approximately 25,450 acres of Sandhill grassland and wetlands in Loup County. In January of 2011, the Price family and the Sandhills Task Force (STF) signed a letter of intent to pursue funding for the easement. A grant application was submitted to the Natural Resources Conservation Service. NRCS determined the ranch qualified for their Farm and Ranchland Protection Program and agreed to fund approximately 50% of the value of the easement. The Price family has agreed to contribute 25% of the easement value. The Sandhills Task Force is currently raising the remaining 25% to complete the purchase. We have allocated a large amount of our funds toward the project, as well as secured a significant contribution from the Nebraska Land Trust. Because of the large size of this easement, additional funds are still needed. The proximity of the property to the headwaters of the Elkhorn River and the Calamus River elevates the importance of this unique landscape. Both the Elkhorn headwaters and the Upper Loup River tributaries have been identified in the Nebraska's Natural Legacy Plan (NNLP) as significant areas of biological diversity. In addition, Audubon has identified the Price ranch as the first privately-owned Important Bird Area (IBA) in Nebraska. Recently, the ranch became a core part of a landowner-driven association focused on enhancing habitat for grassland bird and plant species. This landowner-driven conservation is expected to be the model for similar efforts throughout the Sandhills and around the nation. The Price family's leadership and commitment to sound ranching practices coupled with a holistic approach has resulted in a conservation ethic that will provide a lasting legacy for the citizens of Nebraska. Placement of a conservation easement on this property will ensure that this area remains an intact landscape in the eastern Sandhills.

THIS PROJECT WAS FUNDED \$175,627 IN 2012 WITH THE INTENT TO FUND UP TO \$125,000 IN YEAR TWO AND \$80,000 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 Native Ecosystem Project **Project No:** 12-134-3
Amount Requested: \$45,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The Sandhills Task Force has been the recipient of several NET grants since the conception of the Trust. The monies received have been strategically used with grants from other sources to complete much needed conservation projects within the Sandhills. By its nature, the region is sparsely populated with large individual ownerships. Within many of these ownerships exists water quality and wildlife habitat concerns that are far from public view and lack local communities to support conservation. Landowners are reluctant to seek government involvement or submit individual grants. The result is stream erosion, overgrazing, and decline in grasslands which remain unaddressed. Our organization is working on behalf of Sandhill landowners to protect natural resources. This grant will be used to build capacity to enhance the entire ecosystem-its abundant surface and ground water, its grasslands, and its wildlife. Our approach will build trust among landowners and conservation groups and address isolated resource problems. Work will be done to complete about 40 projects that restore grassland health and diversity; restore degraded streams and wetlands; increase public awareness of the Sandhills; control of invasive plants (primarily eastern redcedar); and encourage proper use of fire to control tree encroachment of grasslands. 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 non-profit organizations. Each project will have a 10-year contract with the landowner and other participating partners. Monitoring and follow-up will be conducted by the Sandhills Task Force and its partners (primarily the Fish and Wildlife Service, Nebraska Game and Parks Commission, and Natural Resource Conservation Service). This project addresses the resources of the Sandhills' Biologically Unique Landscapes identified by Nebraska Game & Parks. SANDHILLS TASK FORCE HAS BEEN AWARDED \$1,000,500 THROUGH THREE GRANTS FROM 1997 THROUGH 2011.

THIS PROJECT WAS FUNDED \$95,000 IN 2012 WITH THE INTENT TO FUND UP TO \$180,000 IN YEAR TWO AND \$45,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

Sponsor Name: Sandhills Task Force **Nearest Town:** Gordon
Project Name: Parker Ranch Conservation Easement **Project No:** 14-147
Amount Requested: \$240,813 **Term of Project Request:** 1 **Review Group:** Rural Habitat

In March of 2012, a Parker family representative and projects coordinator of the Sandhills Task Force (STF) signed a letter of intent to pursue the placement of a conservation easement on the Parker ranch. A joint application was submitted to NRCS at the Lincoln level and was forwarded to Washington. The ranch was deemed eligible for inclusion in the Farm and Ranchland Protection Program and for NRCS to fund approximately 50% of the value of the easement subject to NRCS appraisal guidelines. Additional funds have been made available from the STF and the landowner. During our August STF board meeting it was the consensus of the STF board to submit an NET grant request to fund 25% of the estimated appraised value of the easement, plus defense fund costs and part of the expense associated with the closing costs. The STF board believes this property is ideally suited to the mission of both STF and NET. This application seeks funding from NET to complete this project as it was proposed by the Parker family and the STF. Completion will result in the placement of a conservation easement on approximately 3,692 acres. The proximity of this ranch to the Niobrara River elevates the importance of this unique landscape to a higher level. Both the Upper Niobrara River and tributaries have been identified in the Nebraska's Legacy Project (NNLP) as significant areas of biological diversity. The Parker ranch has received numerous awards, including the Land Stewardship Award by the Nebraska Bird Partnership and the Lifetime Conservation Stewardship Award from the Sierra Club. Previous habitat enhancement projects have been completed on the property with support from NRCS, RMBO, STF, FWS and NGPC. It appears this model of landowner driven conservation will lead to similar efforts throughout the Sandhills and around the nation. The Parker ranch's leadership and commitment to sound ranching practices coupled with a holistic approach has resulted in a conservation ethic that will provide a lasting legacy for the citizens of Nebraska. Placement of a conservation easement on this property will ensure that this area remains an intact landscape in the western Sandhills.

Sponsor Name: Santee Sioux Nation of Nebraska **Nearest Town:** Niobrara
Project Name: Improving Stream Corridor Habitat and Function **Project No:** 14-174
Amount Requested: \$76,000 **Term of Project Request:** 2 **Review Group:** Rural Habitat

The Nation's project intends to improve water quality and habitat conditions along the Missouri River tributary Bazile Creek. The management of Bazile Creek is provided by the Santee Sioux Nation, the Natural Resource Conservation Service, the Bureau of Indian Affairs, and the State of Nebraska. The Nation monitors water quality and non-point source pollution using funds provided by the US Environmental Protection Agency from Clean Water Act Section 106 and 319 authorities. In addition, the Nation's land management program has entered and intends to enter trust acreage into the Wetlands Reserve Program (WRP). Enhanced by fee parcels already under WRP, this project seeks to build upon established successes by reducing nutrient and sediment loading into Bazile Creek. Secondary benefits include habitat enhancement and restoration and fire protection. As the Winnebago Agency Office of the Bureau of Indian Affairs plans its annual prescribed burn schedule, the structures developed and maintained for the scope of this project will provide management areas for fire teams. Finally, ecosystem protection supports the propagation and sustainability of wildlife species. The habitat enhancement and restoration features of this project ensures the protection of tribal acreages for this purpose.

Sponsor Name: Sargent Irrigation District **Nearest Town:** Milburn
Project Name: Erosion Management and Recovery **Project No:** 13-103-2
Amount Requested: \$25,000 **Term of Project Request:** 3 **Review Group:** Bank Stabilization

The proposed project would involve constructing a series of Jetties above our Milburn Diversion Dam, in an effort to divert waters of the Middle Loup River, away from a seriously eroding bank and back towards the gates of the Dam. The erosion of the west bank, upstream of our Diversion Dam is becoming closer every year to our Diversion Dam. This is alarming because of the location in which the bank is cutting away, is outside of the original construction of our Dam and any rip rap. If it were to continue, the River would breach our Dam, creating a new path for the River and not allow for our facility to be able to provide irrigation to farmland for over 14,287 acres in Custer and Valley Counties. Furthermore, on the west side of the Dam, is also a Fish-way bypass that was constructed in 2005 by the Nebraska Game and Parks Commission. Sargent Irrigation District received funding through a grant from the Nebraska Environmental Trust in 2006 to stabilize the bank in which this Fish-way exists. This structure allows fish to migrate upstream and enhance fish and wildlife as well as recreation. If action is not taken, the ability for the Fish-way to operate as intended could also be in jeopardy. For these reasons, we feel that this project needs to be a priority, in which we are requesting funding, because it is threatening to the operation of our irrigation project of the Fish-way bypass. In addition, we have contacted Game and Parks as well as the Army Corps of Engineers to receive suggestions, information and permits as needed. With the help of the Nebraska Environmental Trust, we can assure that this project will be complete as needed.

THIS PROJECT WAS FUNDED \$40,000 IN 2013 WITH THE INTENT TO FUND UP TO \$25,000 IN YEAR TWO AND \$25,000 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
Amount Requested: \$750,000 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Sidney, City of **Nearest Town:** Sidney
Project Name: East Sidney Watershed Project **Project No:** 14-120
Amount Requested: \$1,050,000 **Term of Project Request:** 3 **Review Group:** Water

The City of Sidney, along with the South Platte NRD, and other partners are proposing to Implement water quality measures in rapidly developing areas in East Sidney, NE. The City of Sidney is requesting funding from NET for a portion of the anticipated cost of the proposed water quality measures (bioswales and bioretention areas). The project is described in more detail in the narrative section.

Sponsor Name: South Platte Natural Resources District **Nearest Town:** Multiple
Project Name: Hydrogeology of Western Nebraska **Project No:** 14-172
Amount Requested: \$480,000 **Term of Project Request:** 3 **Review Group:** 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.

Sponsor Name: Spalding, Village of **Nearest Town:** Spalding
Project Name: Fishery Restoration on the Cedar River **Project No:** 14-103
Amount Requested: \$445,872 **Term of Project Request:** 1 **Review Group:** Water

Numerous dams have been built on Nebraska streams since settlement began. That these dams stopped upstream fish movements and had negative impacts on our stream fishes was first mentioned in the 1883 Report of the Board of Fish Commissioners. While many of these dams have disappeared over the years, others still exist and provide benefits. They also continue to block the movements of fishes. The Spalding dam is one of these. The purpose of the Spalding Dam is to provide water to a hydroelectric powerhouse located just east of the dam. The channel catfish is Nebraska's most important stream sport fish. The Cedar River should be an important catfish fishery however, a study done in 2000 revealed that the 27 miles of Cedar River between the Spalding and Ericson Dams had virtually no catfish. That the dam was the cause of this problem was revealed in 2003 when the river at this site had to return to a free-flowing state while the powerhouse underwent repair. Netting above the dam that summer found many catfish in the river above the dam. Subsequent sampling in 2006 and 2007, after repairs were complete, revealed that the river above the dam again had no channel catfish. The focus is on the channel catfish because that is the species for which we have the most information. However, all fishes native to the Cedar River could use the fishway to repopulate the river above the dam. Among others, this can include the shorthead redhorse (a nongame fish), the sauger (a sport fish), and the flathead chub (a species of concern). The intention is to construct a fishway which will allow native Nebraska fishes to bypass the Spalding Dam. The project is shovel-ready as construction plans and specifications have been completed.

Sponsor Name: Spring Creek Prairie Audubon Center **Nearest Town:** Denton
Project Name: Prairie Horizon - Protecting Habitat at Spring Creek Prairie **Project No:** 14-187
Amount Requested: \$130,000 **Term of Project Request:** 1 **Review Group:** Rural Habitat

Spring Creek Prairie Audubon Center (SCPAC) is an 808-acre native tallgrass prairie preserve and education center that exists to foster the understanding, appreciation, and conservation of this sensitive ecosystem by engaging people in our site's natural and cultural resources. Only two percent of Nebraska's original tallgrass prairie remains and opportunities to protect remnant parcels are increasingly rare. SCPAC has negotiated the purchase of 46.69 acres adjacent to our existing prairie preserve. Acquisition and protection of this land will increase the area of tallgrass prairie habitat managed for the benefit of plants, wildlife, and residents of Nebraska and beyond. It will also ensure the view of SCPAC's southern horizon from our education center will remain uninterrupted by residential development. Residential housing pressures are great in the region and this particular area was very recently subdivided into two 20-acre lots. SCPAC respectfully requests the Nebraska Environmental Trust support our purchase of this critical land for prairie restoration, habitat improvement, and viewshed protection. The total value for this parcel has been appraised at \$5,600 per acre, or \$261,500 total, and we ask the Trust to consider contributing \$130,000 specifically toward the land purchase. Additional funding to complete the land purchase and support costs for initial improvements, on-going management, and property taxes is being raised through individual donations and partnerships. The total budget for the project is approximately \$313,200. As of September 3, \$174,500 in direct donations and pledges have already been raised. The support of the Trust will be essential to achieving our final goal and securing the future of tallgrass prairie habitat in our community.

Sponsor Name: Stella, Village of **Nearest Town:** Stella
Project Name: Stella Arboretum Pond Renovation **Project No:** 14-104
Amount Requested: \$9,979 **Term of Project Request:** 1 **Review Group:** Lake Rehabilitation

The purpose of this grant is to renovate the pond at the Stella Arboretum. The Stella Arboretum, which includes a greenhouse, pond and native plant area, was created in 2000 by a grant from the Environmental Trust to the Southeast Nebraska Consolidated School District. When the school closed in 2010, the Village of Stella took ownership of the Arboretum. The Stella Garden Club became the caretakers. The Village and Garden Club have maintained and expanded use of the Arboretum with community and educational events. In 2013, the Arboretum was certified as a Butterfly Garden by the North American Butterfly Association. All maintenance-weeding, daily pond maintenance, maintaining the greenhouse and conducting spring burn-off-are done by volunteers. Operating expenses are covered by memberships and fund raising activities. After 13 years, the pond liner and water system for the pond are in need of replacement and repair. This is a capital expense that is beyond the scope of the annual maintenance budget. The grant amount would cover the labor and materials to replace the pond liner, pump and plumbing and add a filtration system and UV purifier. With this repair and upgrade, the pond will continue to be a source of recreation, education, enjoyment and natural habitat for years to come.

Sponsor Name: The Groundwater Foundation **Nearest Town:** Multiple
Project Name: Bridging the Gap in Source Water Protection **Project No:** 12-163-3
Amount Requested: \$23,203 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The major source of Nebraskans' drinking water is groundwater. The quality of our drinking water is largely dependent on our actions; while some contamination occurs naturally the majority of source water pollution is due to human actions. To reverse the paradigm the Groundwater Foundation (GF) proposes the "Bridging the Gap in Source Water Protection" project. The project will foster groundwater protection and conservation actions in Nebraska homeowners. It will create awareness of best management practices by showcasing efforts with proven environmental benefits and will provide homeowners with tools to replicate the practices. The GF will accomplish this by selecting proactive sites (from the GF's vast network of partners and program participants) where the GF will incorporate educational activities into events. By proactive sites the GF intends businesses, places and communities that have implemented water conservation and protection efforts into their practices. For example the GF will provide workshops for employees at proactive businesses (i.e. training sessions to employees at Assurity Life Insurance Company to highlight efforts that Assurity has adopted to protect water quality and quantity) or educational booths at site events (an example is incorporating a Test Your Well opportunity at a Spring Creek Prairie event, since this is a practice that Spring Creek Prairie utilizes to monitor their water quality). The GF will also develop educational materials; handouts for site visitors, online resources and a smart phone app. The GF anticipates participating in up to 40 site events (workshops, training sessions, educational/activity booths), therefore estimates directly working with 5,000-8,000 people. The GF anticipates distributing the handouts to approximately 25,000 visitors and the online resources will reach an unlimited audience. In-kind services are secured from ISL company (website development company) and Trust funds will be matched by additional funding sources. THIS PROJECT WAS FUNDED \$52,784 IN 2012 WITH THE INTENT TO FUND UP TO \$42,559 IN YEAR TWO AND \$23,203 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: The Groundwater Foundation **Nearest Town:** Multiple
Project Name: LEAP into Groundwater **Project No:** 12-164-3
Amount Requested: \$48,700 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The Groundwater Foundation (GF) is requesting funding from the Nebraska Environmental Trust for a collaborative project with Girl Scouts Spirit of Nebraska. The GF is a nonprofit organization that educates people and inspires action to ensure sustainable, clean groundwater for future generations. The GF has over 25 years of experience in educating youth about groundwater. Girl Scouts Spirit of Nebraska is the largest girl serving organization in Nebraska with more than 25,000 girl and adult members. The project, to integrate experiential-based learning activities about water into the Girl Scouts program, is an opportunity for the GF to utilize its expertise and reach a vast new audience across the state. The timing is ideal; Girl Scouts USA has developed a new series of books dedicated to the environment. The series addresses important issues facing our environment, but it does not offer the opportunity for hands-on learning, nor for girls to take action in their local community. The Girl Scouts Spirit of Nebraska asked the GF to develop tools to integrate these components into the new environmental series. The GF has developed a three-year comprehensive plan to integrate activities that will complement the structure of the Girl Scouts. The GF is requesting funding from the Nebraska Environmental Trust towards implementation of this plan. The GF has secured matching funds from the Nebraska Department of Environmental Quality. The project while initially will be developed for the Girl Scouts Spirit of Nebraska, has the potential to be expanded to Girl Scouts USA and will be explored during this project. THIS PROJECT WAS FUNDED \$59,075 IN 2012 WITH THE INTENT TO FUND UP TO \$74,895 IN YEAR TWO AND \$48,700 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST.

Sponsor Name: The Groundwater Foundation **Nearest Town:** Multiple
Project Name: Growing Groundwater Awareness in Nebraska Phase II **Project No:** 13-150-2
Amount Requested: \$41,245 **Term of Project Request:** 3 **Review Group:** Education

Groundwater is Nebraska's most important natural resource; a clean sustainable supply is critical to continued prosperity in our state. Yet there is much misunderstanding about the resource and how our actions impact its availability to sustain life, livelihood and the natural environment. The Groundwater Foundation is requesting funding for phase II of the Growing Groundwater Awareness in Nebraska (GGAN) program to effectively expand the groundwater conservation and protection work to more communities. During phase one the program has done much more than generate awareness in the ten target communities, it has generated awareness across the state and it has positioned the target communities to continue long-term protection efforts. Phase II of the program will continue the statewide awareness building and bring long-term protection and conservation work to 10 additional Nebraska communities. What is especially advantageous is that the tools and resources have already been developed; therefore the continued work will not have costs associated with development. Additionally, the Groundwater Foundation has had numerous communities recognize how the program would further their efforts to protect their water. These communities are dealing with non-point source pollution, point source pollution or quantity issues. Funding from the Nebraska Environmental Trust will enable the GGAN program to take place in 10 communities. It will assist them to engage the public and set up the structure to implement long-term protection and conservation efforts well past the time frame of the grant. (These desired outcomes have been verified by the work of the target communities in phase I of the program). The Groundwater Foundation has secured the continued support of its media partners (KOLN-KGIN 10/11, KRVN and Nebraska Educational Television and Radio), and has requested matching funds from the Nebraska Department of Environmental Quality. THIS PROJECT WAS FUNDED \$147,726 IN 2013 WITH THE INTENT TO FUND UP TO \$41,245 IN YEAR TWO AND \$31,029 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: The Groundwater Foundation **Nearest Town:** Multiple
Project Name: Hydrogeology: Water for the World **Project No:** 13-151-2
Amount Requested: \$17,845 **Term of Project Request:** 3 **Review Group:** Education

The Groundwater Foundation is seeking funding for Hydrogeology: Water for the World, a science event that challenges secondary school students to research and identify solutions to eliminate or mitigate groundwater degradation. The launch of Hydrogeology: Water for the World will be through the Science Olympiad program (a national science competition for secondary students). The timing is especially exciting since the University of Nebraska, Lincoln will be hosting the 2015 national tournament. As such, Hydrogeology: Water for the World will be developed and piloted in secondary schools in Nebraska. The experience gained by Nebraska students will serve to promote implementation of the event by students across the nation. This will set the stage for it to be a widely competed and successful event at the 2015 national tournament. This is an excellent opportunity to engage local secondary students in investigative learning about groundwater, have them apply the knowledge in order to seek solutions to pollution and other threats and gain an understanding of further academic and career opportunities. Therefore the project will effectively reach tomorrow's decision-makers, with needed education about groundwater and the impacts our actions have on its quality and quantity. NET funds will be used for the development of the science competition event, piloting of the event in up to 30 teams in Nebraska, developing training materials and resources for coaches as needed to ensure the event is widely competed at the national tournament in Nebraska and remains in the lineup for tournaments well beyond the timeframe of the grant. The Groundwater Foundation has proposals for additional funding into NDEQ (319 funds), Lincoln Community Foundation to cover work done in Nebraska. The Robert B. Daugherty Foundation is interested in the project and has requested a grant proposal; this funding would be used primarily for work outside of the state. THIS PROJECT WAS FUNDED \$79,277 IN 2013 WITH THE INTENT TO FUND UP TO \$17,845 IN YEAR TWO AND \$19,128 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: The Groundwater Foundation **Nearest Town:** Statewide
Project Name: Reaching Further Reaching Wider **Project No:** 14-212
Amount Requested: \$220,000 **Term of Project Request:** 3 **Review Group:** Education

"There is not a shred of doubt that the foundation's work has been instrumental in increasing awareness and knowledge about groundwater ... Now generation after generation of children has learned the basics of hydrology, which makes it easier to create sound public policy on use of the water that all people must share." To achieve this kind of impact The Groundwater Foundation (GF) is requesting funding for its new project, Reaching Further Reaching Wider, which will expand the reach of its educational activities by training educators on how to use new water activities developed by the GF. The GF will conduct a series of workshops, participate in educator conferences, provide in-classroom instruction, and access to online resources. To ensure educators are well-equipped to conduct effective groundwater education for years to come they will receive an educator's toolkit. The project will focus highly on the Nebraska Environmental Trust's (NET) District 6 (see letters of support). The timing for the project is perfect; it will feature the GF's new educational tools (many developed through NET funding). These tools will be enhanced by adding new features. For example the ability to track personal water use with hints on how to reduce use and the ability to conduct individual and group challenges will be added to the educational mobile app. Partners in the project, such as the Nebraska Department of Education, are enthusiastic about the opportunity as they recognize its benefit to educators. The GF has received funding from the Johnny Carson Foundation and the Roger's Foundation for the initial stages of the project. Funding from NET will ensure the project is taken statewide. Long-term groundwater protection and conservation happens only with effective education for our youth. Reaching Further Reaching Wider will do just this!

Sponsor Name: The Nature Conservancy **Nearest Town:** Multiple
Project Name: Learning from the 2012 Niobrara Fire **Project No:** 13-176-2
Amount Requested: \$114,257 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The July 2012 wildfires that burned more than 76,000 acres in north-central Nebraska have created an unprecedented set of opportunities: to learn about wildlife; to study the impacts of controlled burns on plants and wildlife; to train firefighters; and most importantly, to apply what is learned to transform future management practices across the state. Over three years, the Conservancy will: 1) Train 120 fire personnel from the private sector, from federal and state government, and from non-governmental organizations through fire training exchanges. 2) Through the course of training, safely execute prescribed fires (approximately 10,000 acres per year over three years for a total of 30,000 acres, weather conditions permitting) in the Middle Niobrara and the Central Loess Hills to maintain ecological structure and function for the management of native species through fire training exchanges. 3) Integrate a host of stakeholders to conduct community outreach and promote best fire practices during the fire training exchanges. 4) Convene researchers from interested colleges and universities to identify the most pressing evaluation questions, coordinate efforts, share information, and develop short and long-term studies. In years two and three, research will begin. The information will be collected and distributed by The Nature Conservancy's Fire Learning Network for anyone to learn from and use. 5) Share images from six time-lapse cameras to be installed on the Niobrara Valley Preserve to enhance research efforts and to educate the public about the positive ecological impacts of fire. These activities will result in: better habitat for wildlife, including several species at risk; better management on land used by the public; pockets of prescribed fire expertise across the state; greater understanding of the effects of wildfire that will inform future land management; a better informed citizenry; and, ultimately, prevention of catastrophic wildfires. THIS PROJECT WAS FUNDED \$154,932 IN 2013 WITH THE INTENT TO FUND UP TO \$114,257 IN YEAR TWO AND \$64,257 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: The Nature Conservancy **Nearest Town:** Cozad
Project Name: Platte River Performance Irrigation Conservation Project **Project No:** 14-189
Amount Requested: \$586,613 **Term of Project Request:** 3 **Review Group:** Water

Conservation of water in the Platte River Valley is important to every Nebraskan. Its watershed provides drinking water for 70% of us. America relies on Platte farmers for food and fuel; 40% of the nation's irrigated corn comes from Nebraska, much of this from the Platte. Irrigation accounts for 90% of human water use in the state (8.5 million acres are irrigated). The Platte's value to wildlife- both as a primary north-south corridor for migratory birds and for resident plants and animals is well documented. No better natural laboratory exists in the country for examining how to balance water use among agriculture, human welfare, and nature. Recent efforts to recover the Platte's endangered species (and innovation in farm practices) place focus on the role of on-farm irrigation efficiency in keeping more water in the Platte River. With this project, the Conservancy will begin to address the question: "How does a farmer's water saving efforts actually impact the Platte River's watershed, and at what scale would high-efficiency irrigation improve the Platte's ecological health?" More efficient water use over a large scale may be a better long-term solution to sustaining water resources than selective cessation of irrigation altogether on productive farmland. Using advanced technologies and techniques, The Nature Conservancy, along with our technical advisors, will work with irrigators in a concentrated geography along the Platte River to implement water conservation practices that aim to improve ecological and economic sustainability. Over three years, a total of 12,500 acres will be enrolled to evaluate the connection between farm and watershed and to serve as a working showcase to promote more efficient water use. More aggressive tracking, scheduling, and measuring should result in improved water management and keep more water in the Platte watershed, benefitting people and wildlife, including its four endangered species.

Sponsor Name: University of Nebraska - Omaha - Board of Regents **Nearest Town:** Omaha
Project Name: Glacier Creek Watershed Initiative **Project No:** 12-122-3
Amount Requested: \$340,000 **Term of Project Request:** 3 **Review Group:** Statement of Intent

The Glacier Creek Watershed Initiative will purchase approximately 105 acres (the West Watershed) to extend the western boundary of Allwine Prairie so as to incorporate the entire upper drainage of the Glacier Creek watershed. This purchase, in conjunction with purchase of the north viewshed which is presently in progress, will create a truly unique prairie preserve that encompasses an entire drainage which, after restoration, will encompass a significantly expanded diversity of native terrestrial and aquatic ecosystems. A portion of the cost of land acquisition is being requested from the Nebraska Environmental Trust with this proposal. Because of its location within 30 minutes of the Omaha metropolitan area, the expanded preserve will provide unique regional educational opportunities for local and watershed-level environmental experience for individuals, classes, and organizations. From a broader perspective, this initiative will take land once preliminarily platted for development and (1) restore natural upland and aquatic features and vegetation which will also (2) reduce soil erosion, (3) improve local surface water quality, and (4) reduce water flow into the Big Papillion Creek while also (5) ensuring the long-term viability of a dynamic preserve with diverse habitats for wildlife and with regional opportunities for environmental education for future generations.

THIS PROJECT WAS FUNDED \$390,000 IN 2012 WITH THE INTENT TO FUND UP TO \$442,000 IN YEAR TWO AND \$340,000 IN YEAR THREE PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE THIRD YEAR REQUEST

Sponsor Name: University of Nebraska - Omaha - Board of Regents **Nearest Town:** Omaha
Project Name: Glacier Creek North Conservation Area Initiative **Project No:** 14-140
Amount Requested: \$1,476,000 **Term of Project Request:** 3 **Review Group:** Rural Habitat

The Glacier Creek North Conservation Area Initiative, a \$1,476,000 proposal over three years, will assist in the purchase of 123 acres that (1) expands preserve habitat diversity to include additional lowland and slope wetland sites, (2) provides a sustainable buffer against development, (3) improves general soil and water quality, (4) protects slope springs, and (5), particularly importantly, facilitates acquiring the remaining upper Glacier Creek drainage. Critical to this proposal is a change since 2011 in which the land owner will only sell the 228 acres in their entirety (123 acres of this proposal plus the 105 acres of the 2011 West Watershed NET grant) so as not to be left with unsalable remnants. This change expands the acres and funds needed to acquire the complete watershed, the objective of the umbrella Glacier Creek Project, although it also brings additional benefits. The acquisition of the North Conservation Area, an effort that meets all five of the NET's Feature Program points and is also the final property needed to the west, is the focus of this proposal. Its acquisition will further enhance the diversity and extent of native habitats that provide the environmental foundation on which is based the use of the Glacier Creek Preserve. A 2012 donation of \$1.2 million for construction of the newly completed, on-site educational facility and the 2013 purchase of the overlooking property that add to the existing preserve makes Glacier Creek Preserve both an increasingly important regional environmental resource and a symbol of the significant contributions of the Trust towards native habitat conservation and environmental education.

Sponsor Name: Upper Loup Natural Resources District **Nearest Town:** Thedford, Broken Bow,
Project Name: Investigating the spatial and temporal characteristics of groundwater discharge in the Loup River Basin **Project No:** 14-133
Amount Requested: \$303,000 **Term of Project Request:** 3 **Review Group:** Water

The Upper Loup and Lower Loup Natural Resources Districts are requesting funds in the amount of \$303,000 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, potentiometer, and seepage meter measurements. Within the four stream reaches, six coupled groundwater/surface-water gages will be instrumented at existing stream-gaging stations. Coupled groundwater/surface-water gages consist of a streamgage 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. This will provide water managers a better understanding of the impacts of irrigation and climate on instream flows, which agriculture, fish and wildlife, recreation, and public and domestic supplies depend upon.

Sponsor Name: Upper Republican Natural Resources District **Nearest Town:** Multiple
Project Name: URNRD Moisture Monitoring Program **Project No:** 13-111-2
Amount Requested: \$50,000 **Term of Project Request:** 2 **Review Group:** Water

The Upper Republican NRD Moisture Monitoring Program proposes to reduce crop irrigation water use in Perkins, Chase and Dundy Counties, thereby helping preserve the Ogallala Aquifer, by increasing use of the newest generation of soil-moisture probes and related technology. Use of soil-moisture probes can negate unnecessary irrigations and has been shown to reduce water use by 2-4 inches per acre by electronically communicating to farmers the moisture content of their fields and offering recommendations on whether irrigation is necessary. Under the proposed program, NET and URNRD funds would be used to reimburse farmers for 2/3 of their costs of attaining and using probes. The remaining 1/3 would be paid by participating farmers. Approximately 110 probes could be leased or purchased over a two year period under the program, reducing water use by 1.5 billion gallons or approximately 4,600 acre feet across the URNRD assuming use of the probes reduce water use by approximately 2 acre inches per acre, per year over two years. 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. During the project, farmers and industry professionals will be asked to help conduct educational seminars to advise farmers in the three-county region on use and benefits of soil-moisture probes.

THIS PROJECT WAS FUNDED \$50,000 IN 2013 WITH THE INTENT TO FUND UP TO \$50,000 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Uribe Refuse Service, Inc. **Nearest Town:** Lincoln
Project Name: Nebraska Organic Waste Resources Project **Project No:** 14-180
Amount Requested: \$900,000 **Term of Project Request:** 3 **Review Group:** Waste Management

Uribe Refuse Services, Inc. requests up to \$900,000 in NET Grant Program funds over a period of three grant terms to develop and implement the Nebraska Organic Waste Resources Project. Total project costs are valued at \$1.9- \$2.2 million over the grant period. Grant funds will be used to offset a portion of the administrative and equipment costs associated with the project. The NOW Resources Project is designed to demonstrate the feasibility and replicability of new innovations in available waste conversion technology systems to integrate and optimize the environmental, energy, economic performance and security of conventional waste management practices and business operations in Nebraska by maximizing recovery of the available energy, nutrients and recyclable materials resources from an average 1,400 tons per year (4 tons per day) of organic solid waste- about 14% of our total annual waste collections. The facility includes the installation and operation of a food waste depackaging equipment line and state-of-the-art anaerobic digester system as well as the construction of two new buildings on the property. A new 3,000 ft2 steel-frame operations building will house the food waste depackaging equipment line and anaerobic digester system as well as provide a small office space to accommodate 2-4 new staff positions resulting from the project. A 3,900 ft2 fabric membrane storage building will provide staging and storage areas for input materials and finished co-products. The NOW Resources Project will divert 1,400 tons of organic solid waste from the landfill; displace 143,334 gallons of petrochemical fertilizer products from our farmlands and lawns; save 2,660 gallons of diesel fuel; reduce greenhouse gas emissions associated with Uribe operations by an estimated 713 MTCOze (metric tons of carbon dioxide equivalent); and convert an average \$49,000 a year in non-labor operating expenditures into more than \$200,000 in cost savings and gross revenues annually.

Sponsor Name: WasteCap Nebraska **Nearest Town:** Multiple
Project Name: Zero Waste Community Planning **Project No:** 13-172-2
Amount Requested: \$157,572 **Term of Project Request:** 2 **Review Group:** Waste Management

This project will educate local community leaders and businesses about the need for a Zero Waste approach in Nebraska. It will create a template for Zero Waste education and outreach to community leaders. Four strategies will be implemented to provide sufficient data, resources and support for this project in communities:

1. Develop a baseline comparison study of various solid waste management models and infrastructure in selected Nebraska communities and their impact on participation rates. A case study and fact sheet will be created for each community.
2. Meet face to face with elected officials, community and business leaders in up to five communities to educate about Zero Waste management strategies. Following these meetings, several stakeholders will be brought together for regional training on Zero Waste Strategies.
3. Development and implementation of a large-scale educational campaign for the general public. Local volunteers will be trained to share the Zero Waste message at businesses, schools and other public gatherings. The project will also include a workshop and Zero Waste Certification program for local community and business leaders.
4. Work with one community to begin the Zero Waste planning process for the 10-year Bridge Strategy to Zero Waste. This will include determining infrastructure needs, educational needs, and potential funding sources for planning, education and equipment. Write a case study and develop a planning template on this project.

THIS PROJECT WAS FUNDED \$151,791 IN 2013 WITH THE INTENT TO FUND UP TO \$157,572 IN YEAR TWO PENDING AVAILABLE FUNDS AND SATISFACTORY PROGRESS. THIS IS THE SECOND YEAR REQUEST.

Sponsor Name: Water Vulnerability International, Inc. **Nearest Town:** Statewide
Project Name: Statewide groundwater vulnerability assessment to nitrate **Project No:** 14-166
Amount Requested: \$86,000 **Term of Project Request:** 1 **Review Group:** Water

Nebraska's groundwater is vulnerable to nonpoint-source (NPS) contamination from natural and anthropogenic sources. Nitrate (NO₃⁻) is the most ubiquitous NPS contaminant of groundwater resources in Nebraska and worldwide, and poses well-known ecological and human-health risks. Health concerns, including methemoglobinemia or "blue baby" disorder, spontaneous abortion, and increased risk of non-Hodgkins lymphoma, have been linked to drinking water with nitrate concentrations as low as 2.5 to 4 mg/L (NO₃⁻ as N). The annual cost for U.S. water treatment to meet federal nitrate standards has been estimated in the hundreds of millions to billions of dollars. Although considerable management efforts from local land owners to Natural Resource Districts and other State and Federal agencies have helped to reduce the loading of nitrate to groundwater, NPS nitrate contamination of groundwater remains a substantial problem that will likely increase in the future because of nitrate that is already present in the subsurface from natural sources and previous land-use activities. To help preserve and restore Nebraska's groundwater from degradation due to nitrate contamination, the proposed project will use publically available data to build and disseminate groundwater vulnerability models and maps that delineate the probability of detecting elevated NPS nitrate in the used groundwater resource that supplies water to irrigation, drinking, livestock, and ecosystems. The proposed implementation plan is based on sound science and extensive previous experience developing similar groundwater vulnerability products that have proven to be valuable and highly cost-effective in designing and fostering best management practices across other regions of the High Plains and U.S. The dissemination of these products to resource managers and policy makers is critically important to develop effective local to statewide management practices and policy to protect Nebraska's groundwater as a clean and safe source of water today and for generations to come.

Sponsor Name: West Point Public Schools **Nearest Town:** West Point
Project Name: Alternative Energy Learning Center **Project No:** 14-204
Amount Requested: \$40,824 **Term of Project Request:** 1 **Review Group:** Education

The West Point Public Schools (WPPS) Alternative Energy Learning Center (AELC) is a student-constructed, free-standing structure that showcases over sixteen energy saving systems to local students, regional post-secondary students, public and private industries and organizations, and the community at large. Beginning in the fall of 2010, the students of the Trades & Industry class, under the direction of instructor David Hughes, have designed and constructed the AELC building and assisted with the installation of the wind generator and photovoltaic array. Since the construction began, this facility has been utilized students of West Point Public Schools, students of UNL, local utility technicians and local electricians, all contributing to the development of the facility. Upon completion, the AELC will provide a publically-accessible, working demonstration of the many energy saving systems installed. To aid in the demonstration of the different energy systems, temperature and electrical monitoring sensors have been installed and are publically accessible through the school's website. The AELC will also support the latest in audio, video and communication technologies providing an attractive location for demonstrations and meetings in general. In addition to the obvious energy saving construction techniques displayed, the AELC provides an integration to the Alternative Energy Academy (AEA). The students in the AEA learn the process of creating bio-fuels, including biodiesel that will run a biodiesel backup generator connected to the AELC. The AELC stands today as an unfinished building with roughly half of the energy savings systems completed and only part of the uncompleted systems currently in progress. While the AEA students do learn the process of creating bio-fuels, they have yet to have the opportunity to utilize their fuel in a real world application. With the assistance of the Nebraska Environmental Trust Fund, WPPS hopes to complete the AELC and open this resource to the public.

Sponsor Name: Yutan, City of

Nearest Town: Yutan

Project Name: Capturing and Filtering Subdivision Storm Water Runoff, an Innovative Approach

Project No: 14-209

Amount Requested: \$644,000

Term of Project Request: 1

Review Group: Water

The City of Yutan, in Saunders County, draws its drinking water from underground sources. To protect these sources, we have enrolled in the Wellhead Protection Program. As a means of further implementing the program we propose to incorporate four state of the art storm water collection systems into a planned subdivision that will be built in the northeast part of our city. The systems will be designed to collect, store and infiltrate, into the ground, the first one-half inch of storm runoff from roofs, lawns, driveways and streets. We are requesting funds from NET to help purchase and install the storm water collecting components. Yutan is committing funds, plus staff time toward project administration and our partner and builder, Melvin Sudbeck Homes, Inc. is donating time for installation and maintenance of the components. We have also submitted a companion grant to NDEQ for partial funding to purchase the system components.