

2018

THE RAINWATER BASIN JOINT VENTURE

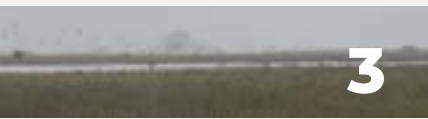
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FUNDING

The Rainwater Basin Joint Venture (RWBJV) partnership is dedicated to conservation of wetlands and grasslands in the mixed-grass prairie ecoregion in Nebraska. The RWBJV administrative area is divided into eight geographic focus areas (GFAs), which are as varied as the migratory birds that rely on them. To illustrate the variety, consider that Nebraska's Sandhills are the Western Hemisphere's largest intact dune stabilized grassland, while the Rainwater Basin Region's wetlands are scattered across a landscape dominated by irrigated row crops. Despite the differences in landscapes, the RWBJV partners find solutions that allow quality habitat to be part of the private landowner's farm and ranch operations. The solutions require a diverse and growing number of partners, including individuals and organizations such as government agencies, agriculture associations, non-government organizations, corporations, academic institutions, along with others.

Our respective missions and purposes may differ,
**BUT WE SHARE A COMMON INTEREST: THE FUTURE OF THE
WATERS, SOILS, HABITAT, AND OTHER RESOURCES THAT
MAKE NEBRASKA'S MIXED-GRASS PRAIRIE A SPECIAL PLACE.**

A major accomplishment of the RWBJV partnership in 2018 was the addition of four new conservation delivery staff positions for work with landowners to implement conservation programs in the Rainwater Basin. This included a Pheasants Forever Farm Bill Biologist, two Easement Habitat Specialists, and an Easement Administrative Specialist. These positions will significantly increase opportunities for one-on-one interaction with landowners interested in implementing conservation programs. The Farm Bill Biologist will focus his efforts in the Upper Big Blue and Little Blue Natural Resources Districts. The three easement staff will be focused on successful delivery of Natural Resources Conservation Service's Agriculture Conservation Easement Program throughout the RWBJV administrative area.

The new staff collaborated with other RWBJV partners to leverage \$4.8 million to positively impact 16,140 acres through a variety of projects including wetland restorations, implementation of prescribed fire, and establishment of grazing infrastructure to incorporate prescribed grazing as a management tool. Projects varied by region; highlights include prescribed fire and grassland enhancement activities on private lands in the Central Loess Hills and a public private prescribed partnership that implements prescribed fire on public and private lands in the Sandhills. The partners have continued to actively pursue projects in the Rainwater Basin, with a majority of the funds being spent in this region where our work began in 1992. In the following pages, you will see the diversity of projects that the partners have implemented to successfully contribute to the RWBJV Implementation Plan objectives.

Our work would not be possible without the support of major funding partners, including Ducks Unlimited, National Fish and Wildlife Foundation, Nebraska Environmental Trust, Nebraska Game and Parks Commission, North American Wetlands Conservation Act, and the U.S. Fish and Wildlife Service. Nebraska Environmental Trust (NET) has been a mainstay in the funding of our on-the-ground habitat work since the partnership's earliest years. The non-federal match provided by NET grants is often essential to receiving federal dollars, and is invaluable to the RWBJV and other conservation groups across Nebraska.



PHOTO: B. WHEELER



PHOTO: JOHN DENTON



PRIVATE LANDS CONSERVATION

is the Cornerstone of Bird Conservation in Nebraska

The RWBJV administrative area encompasses 34.7 million acres, including 20.3 million acres of grassland, 9.3 million acres of cropland, and 2.3 million acres of wetlands. With 97% of the RWBJV in private ownership, a majority of the habitat is owned and managed by farmers and ranchers. Therefore, bird conservation in the RWBJV administrative area is directly tied to the quality of habitat on private working lands.

The farm and ranch operations in the RWBJV administrative area are as varied as the habitats found in the different geographies. For example, numerous family ranches are scattered across the Sandhills while row crop production dominates the Rainwater Basin landscape.

Despite the differences in operations, habitat and geography, many of the ranchers and farmers across the RWBJV administrative area hold a similar, strong conservation ethic. In the Sandhills, this helps ensure the Sandhills remain an intact grassland system. In the Rainwater Basin, area producers have long recognized the difficulty of reliably producing crops on farmed wetlands. This difficulty, along with an increasing understanding of the value of RWB wetlands for pasture and recharge to the aquifer has led to a shift in conservation ethics and land management. The willingness of landowners to enter into conservation projects is a direct reflection of their commitment to stewardship of their lands.

The diversity and opportunity in these different geographies is recognized in the RWBJV Implementation Plan, which lists habitat objectives for each of the eight geographic focus areas in the RWBJV administrative area. The RWBJV partners have committed to these objectives, and use traditional techniques, as well as developing

innovative solutions, to ensure conservation projects fit into local farm and ranch operations. An example of this in the Sandhills is the leveraging of grant funding to allow U.S. Forest Service fire crews to participate in prescribed fires on adjacent ranches to control eastern red cedar. An example in the Rainwater Basin is the provision of cost-share to landscape producers to retrofit pivots to maximize irrigation efficiency and restore natural wetland hydrology.

Additionally, in the RWB, seven landowners agreed to fill seven abandoned irrigation reuse pits in the watersheds of public wetlands managed by the U.S. Fish and Wildlife Service. Filling these pits is expected to positively impact 91 acres of public and private wetlands. The total cost of these projects was \$236,935, with landowners contributing approximately \$72,135. Twelve landowners worked with RWBJV partners to construct grazing infrastructure so wetlands could be an active part of their farm and ranch operation. Grazing is not only economically viable; it promotes desired habitat conditions. This grazing infrastructure will positively impact 1,000 acres of Rainwater Basin wetlands and associated uplands. To assist with development of this infrastructure, landowners provided \$33,180 towards construction costs.

In the Central Loess Hills, Pheasants Forever collaborated with ten adjacent landowners to generate a burn plan that will allow over 5,000 acres to be burned through the Prescribed Fire Training Exchange (TREN). This large-scale prescribed fire will help demonstrate that this type of fire can be safely implemented on private lands with neighbors assisting one another. Continuing to support prescribed burning in the Central Loess Hills will be critical to getting ahead of the region's eastern red cedar invasion.

DUCKS UNLIMITED REVOLVING LANDS PROGRAM

Crucial Habitat-to-Habitat Protection in Nebraska

Since 2001, the Revolving Habitat Program has been going strong. It began with the purchase of the first portions of the Verona Complex in Clay County using a combination of Wetlands America Trust, Inc. (WAT) and Nebraska Environmental Trust (NET) funds. WAT is the sister land-holding organization of Ducks Unlimited (DU). The Revolving Habitat Program is put into play when WAT purchases a property containing priority wetlands from willing sellers at its appraised value. DU then restores the wetland and protects it with a perpetual conservation easement or raises funds to transfer the property to a permanent conservation holder, such as Nebraska Game and Parks Commission, U.S. Fish and Wildlife Service, or a fellow conservation non-profit that focuses on conservation and management of land as wildlife habitat in perpetuity. The sale proceeds are then reinvested in the Revolving Lands Program, and the process begins anew.

Statewide, 58 tracts totaling 11,049 acres have been part of this program. Initial investments by WAT total over \$26 million (not including properties fully funded by North American Wetlands Conservation Act or NET grants). At any one time, DU has approximately 4,000 to 5,000 acres under ownership in Nebraska, making it one of the largest DU land programs in the nation. DU currently owns 24 tracts; these lands are open for public hunting and other recreational activity. DU voluntarily pays all property taxes to ensure financial support to rural local communities is maintained while the properties are under DU ownership. A new standard procedure is to create an endowment fund in each county in which properties are transferred from WAT to the federal government to offset any property tax losses over time.

In a landscape such as the Rainwater Basin with relatively high land costs, it is sometimes difficult for landowners to justify enrolling in voluntary conservation programs because, for many operations, the financials do not “pencil out.” An especially successful aspect of the Revolving Lands Program in Nebraska has been the use of land trades. Many of the wetlands acquired have associated upland cropland acres. DU protects and restores the wetland areas and some associated buffer upland while keeping the productive croplands as they are. DU then offers the croplands for trade on an appraised-for-appraised basis to nearby priority wetland landowners. DU is likely the only willing trade partner for non-productive wetland acres, and the agricultural trade partner receives more highly productive cropland than what he or she gives in trade. It is a win-win scenario for the producer and for conservation in the Rainwater Basin.

DU's conservation program in Nebraska was one of the pioneers of this program nationwide, and it has proven to be one of the most effective tools in protecting Rainwater Basin wetlands. Since October 2017, four new properties, comprising nearly 500 acres, have entered the program in the Rainwater Basin. In a time of limited government funding for acquisition or conservation easements, DU has increasingly taken up the mantle of acquiring and protecting wetland habitat in this landscape. DU has the capability to act more nimbly than our partners when properties are listed for sale or when interested landowners are ready to make a move. DU is proud to serve in this role for the Rainwater Basin Joint Venture partnership and look forward to many more high-quality wetland properties being protected by this very successful program.



FARM SERVICE AGENCY

Partnering with the RWBJV for Soil, Water and Wildlife through the Conservation Reserve Program

The Nebraska USDA Farm Service Agency (FSA) administers a number of conservation programs through the Conservation Reserve Program (CRP) and its components, including the Conservation Reserve Enhancement Program (CREP) and State Acres for Wildlife Enhancement (SAFE). These programs are administered by the FSA with implementation support from the Rainwater Basin Joint Venture (RWBJV) partners.

CRP is a cost-share and rental payment program in which the federal government pays farmers to take certain croplands out of production and convert them to vegetative cover, such as wetland plant communities, grasslands, wildlife and pollinator food and shelter plantings, and riparian buffers. The purpose of the program is to reduce land erosion, improve water quality and promote wildlife habitat. CRP contracts run for 10 to 12 years.

The CREP is the component of CRP that targets high-priority conservation concerns identified by the lead state, and, through the leveraging of non-federal funds, effectively addresses these concerns. In Nebraska, landowners have an opportunity to enroll in a CREP contract to assist the state with Platte and Republican River water issues. The Nebraska Department of Natural Resources (NDNR) is the primary State CREP sponsor.

SAFE also is part of CRP. It is focused on maximizing CRP enrollments to benefit priority wildlife species. In Nebraska SAFE enrollments have been developed to benefit Northern Bobwhite Quail, Greater Prairie-Chickens, Ring-necked Pheasants, and, of specific interest to the

RWBJV, migrating waterfowl, cranes, and shorebirds. The Migratory Birds, Butterflies, and Pollinators SAFE project was announced in 2017, and is applicable in select playa areas of Kansas and Nebraska. RWBJV and Playa Lakes Joint Venture are the project sponsors and continue to assist FSA in both states with marketing and implementation of the program.

In Nebraska, the RWBJV provides critical outreach to promote and implement this program. After a brief enrollment hiatus in 2017, during which revisions were made to the Migratory Bird SAFE ranking process, sign-up resumed late in the year. Contract offers were ranked and announced in September 2018. Nebraska showed significant program growth in 2018, receiving approval on 42 offers for a total of 994 acres.

The CRP also has a specific grasslands component, and, with the assistance of groups such as the RWBJV, Nebraska was extremely successful during the 2018 CRP Grasslands contract offer period. In September 2018, county FSA offices were notified of the approval of 210,000 acres of CRP Grasslands in Nebraska. Nebraska led the nation in number of acres accepted during the signup period. The CRP Grasslands program is significant because it marries support for livestock grazing operations with development of plant and animal biodiversity that improves environmental quality.

NATURAL RESOURCES CONSERVATION SERVICE

New Tools to Incorporate Grazing into Wetland Management

The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) offers technical and financial assistance to help landowners address natural resource concerns as well as plan and implement a variety of conservation practices that benefit the landscape and many wildlife species.

NRCS recognizes the importance of wetlands in addressing a variety of natural resource concerns including water quality and quantity, wildlife habitat, and livestock forage resources. For this reason, Nebraska NRCS has been a leader in restoration and protection of private wetlands.

Recognizing that Nebraska is 97% privately owned, conservation of privately-owned wetlands is critical. Through their programs, NRCS helps landowners restore and protect wetlands as well as incorporate these acres into their farm operations. The Agriculture Conservation Easement Program (ACEP) ranking prioritizes "endangered" wetland complexes where the most significant loss has occurred, like the Rainwater Basin. To date, Nebraska NRCS has acquired over 100 easements in the Rainwater Basin, protecting and restoring over 6,500 acres of playa wetlands and associated uplands.

Playa wetlands, like those found in the Rainwater Basin, evolved under an intense disturbance regime. Factors, like drought and deluge, coupled with intense grazing by large herds of ungulates promoted early successional vegetation communities. These vegetation communities produce seeds that provide foraging resources for millions of waterfowl. Protection and restoration of these wetlands is critical to ensuring the RWBJV partnership is able to support the waterfowl and other wetland-dependent birds that rely on the resources found in this region.

NRCS is committed to promoting quality habitat

conditions on their easements in the Rainwater Basin; however, management is time-intensive and can be expensive. To promote desired habitat conditions on these easements, NRCS's goal is to work with landowners to develop management plans that integrate wetlands into the working farm operation. Grazing is one of the most efficient techniques available for managing these easements. To help streamline the process of developing grazing management plans, NRCS has developed several useful tools. These include an Ecological Site Description (ESD) to inform the management plans and a forage production calculator to determine stocking rates needed to achieve management objectives.

The ESD provides an overview of wetland functions and the impacts of different management treatments to achieve desired habitat objectives. It includes a state and transition model that describes natural processes that occur in wetlands as well as potential impacts of common management treatments on vegetation communities. Grazing timing, duration, and intensity contribute significantly to vegetation community shifts.

The forage production calculator informs natural resource professionals about the stocking rate and grazing duration necessary to achieve management objectives. This information is integrated into the grazing management plan so landowners understand the constraints of the different grazing options. This allows the easement owners to implement the best options to incorporate the easement into their farm/ranch operation or to choose to work with other livestock producers to achieve management objectives. The goal of these tools is to provide a framework so landowners, grazers, and natural resource professional are using the same information to achieve mutually desired management objectives.



PHOTO: TED LAGRANGE

PHOTO: SCOTT LUEDTKE



NEBRASKA ASSOCIATION OF RESOURCES DISTRICTS

Divots in the Pivots

The mission of the Nebraska Association of Resources Districts (NARD) is to assist the 23 locally-led Natural Resources Districts (NRDs) in a coordinated effort to accomplish collectively that which might be impossible to do individually—to conserve, sustain, and improve Nebraska's natural resources and environment. To highlight new opportunities with irrigation management and precision irrigation, the NARD sponsored a 2016 Nebraska Environmental Trust Grant that provided the necessary matching funds to secure a \$1.8 million Regional Conservation Partnership Program (RCPP) grant administered by the Natural Resources Conservation Service (NRCS). The goal of these matching grants is to protect and restore 400 acres of playa wetlands in the Rainwater Basin Wetland Complex (RWB).

A significant portion of the RWB wetlands in the Tri-Basin, Lower Republican, Upper Big Blue, and Little Blue Natural Resources Districts are under row-crop cultivation. A majority of these acres are irrigated with center pivot systems that complete full rotations and cross wetlands. Many of these wetlands have been artificially drained, yet still experience intermittent ponding during the cropping season. As a result, these cropped wetlands are often subject to reduced yields or diminished profitability and are being targeted for wetland restoration and the application of new technology to precisely manage irrigation inputs.

With higher demands on our water resources, the NRDs have had to increase restrictions on new irrigation development and, in some cases, implement irrigation allocations to protect water resources. As a result, producers are challenged to farm with more precision, managing by the acre rather than by the field. The NRDs are working with the Rainwater Joint Venture (RWBJV) and local producers to incorporate wetland restoration and precision irrigation technology into local farming operations.

The NRDs, RWBJV, NRCS, U.S. Fish and Wildlife Service, Nebraska Game and Parks Commission, and three pivot manufacturers have teamed up to support this innovative approach of restoring wetlands utilizing precision irrigation on local farming operations. These projects highlight that

conservation programs can have multiple benefits: habitat for migratory birds, reduced irrigation inputs, increased groundwater recharge, improved water quality and increased net farm income.

The NRDS in the RWB are working with five producers who have submitted applications to pursue the opportunity to restore wetlands and integrate precision irrigation into their operation. To initiate the process, a producer enrolls in NRCS's Agriculture Conservation Easement Program (ACEP). As part of the program, the enrolled wetland is restored to the greatest extent possible and a perpetual or 30-year easement is placed on the enrolled wetland acres. The easement precludes negatively impacting the restored wetland and allows the pivot to cross enrolled acres. Depending on the easement, the producer can graze and/or continue cropping the site.

As part of the ACEP enrollment, an Environmental Quality Incentives Program (EQIP) application is submitted, as well. The EQIP project elements allow the pivot irrigation system to be upgraded to incorporate variable rate irrigation (VRI) technology. VRI provides precise control of irrigation inputs through retrofitting existing pivot irrigation systems. This technology ensures a more natural wetland hydroperiod by eliminating irrigation and other agricultural inputs within the farmed wetland while maximizing allocated groundwater on the more productive upland areas. VRI systems include modifications to valves and sprinklers, plus GPS and specialized software at the pivot panel. Together, these upgrades allow producers to control when nozzles are turned on and off according to their location in the field. Soil moisture probes, along with precision mapping, allow the producer to understand in real time how much moisture is needed, and where.

The RWBJV partners, including local pivot irrigation manufacturers and dealers, provide additional cost-share (up to 85%) for the pivot modifications, precision irrigation prescriptions, and grazing infrastructure to ensure sites can be seamlessly incorporated into the producer's operation.

NEBRASKA GAME AND PARKS COMMISSION

Supports Management of Rainwater Basin Wetlands

Active management of wetlands is critical to maintaining their health and the services that they provide, including supplying habitat for migrating birds. Rainwater Basin Joint Venture (RWBJV) partners have worked on many restoration projects together. Once projects are completed, ongoing management is necessary. In recognition of this, over the years the RWBJV and its many partners have worked to greatly increase their management of wetlands in the Rainwater Basin geographic focus area and throughout the entire administrative area.

To increase capacity to better manage wetlands, the RWBJV partners established a Habitat Specialist position, held by the U.S. Fish and Wildlife Service. This has been staffed by Ele Nugent over the past several years. Ele helps to coordinate management work on both private and public lands, including on Waterfowl Production Areas managed by the U.S. Fish and Wildlife Service and Wildlife Management Areas managed by the Nebraska Game and Parks Commission (NGPC). To further increase management capacity on lands enrolled in the Natural Resources Conservation Service's Wetlands Reserve Easement Program (WRE), the NRCS provided funding to NGPC to hire a Wetland Management Biologist. Scott Aden has been in that position over the past several years, working throughout Nebraska, often within the RWBJV administrative area.

While RWBJV partners have been increasing management activities, base funds have not kept up with the need. To help address the need for increased wetland management funding, NGPC collaborated with the RWBJV and applied for, and was awarded, a grant from the Nebraska Environmental Trust.

2018 marked the third year of funding from the Nebraska Environmental Trust wetland management grant and all of the grant funds have now been expended. During 2018,

1,361 and 1,112 acres were treated on public and private lands, respectively. The main focus of the management treatments was the control of invasive plants. The herbaceous invasive plants including reed canary grass, hybrid cattail, and river bulrush, were targeted as well as woody plants, like eastern red cedar.

These invasive herbaceous plants often form dense monotypic stands that provide much less food to migrating waterbirds than native plants. The dense stands were physically manipulated to allow more sunlight to reach the soil, increasing the germination rates of desirable moist-soil plants, which can then re-establish themselves. Historically, trees and other woody species did not grow in wetlands or the adjacent prairie, arguably due to unsuppressed wildfire, the deliberate burning of the prairies by Native Americans, and grazing by bison. Their growth alters the structure of the plant community and often crowds out desirable native species. They, too, are removed, which increases the productivity and diversity of the grassland.

Grazing by livestock is recognized as an important wetland management tool on private and public lands. Properly done, that is, at the correct stocking rate and appropriate times of the year, grazing can help to control invasive plants by reducing the density, extent, or vigor of the plants. Grazing is often integrated with other management treatments, such as spraying and disking. One constraint in using grazing as a management tool is the lack of grazing infrastructure, such as boundary fencing, cross fencing, and livestock watering systems. To address this need, the Nebraska Cattlemen applied for, and were awarded, a prescribed grazing grant from the Nebraska Environmental Trust to help pay for grazing infrastructure on NGPC Wildlife Management Areas and private lands enrolled in WRE. NGPC is assisting with this grant.



PHOTO: CHAD CHRISTENSEN, U.S. FISH & WILDLIFE SERVICE



PHOTO: JILL SHANNON



PHEASANTS FOREVER AND QUAIL FOREVER

Putting Boots on the Ground to Deliver Conservation

Pheasants Forever (PF) and Quail Forever (QF) are dedicated to the conservation of pheasants, quail and other wildlife through habitat improvements, public awareness, education, and land management policies and programs. These organizations empower county and local chapters to determine how 100% of their locally-raised conservation funds are spent. As a result, chapter volunteers see local results, while belonging to a larger national organization with a voice on federal and state conservation policy. In Nebraska, there are 58 PF and four QF chapters with 11,000 members. These chapters, along with the 30 staff, have worked with partners to enhance over 5.5 million acres of habitat since inception.

PF and QF work with partners to accomplish many of their goals. The development of partnership biologist positions has been critical to getting conservation on the ground. Nebraska PF employs 16 Farm Bill Wildlife Biologists and nine Coordinating Wildlife Biologists around the state. The Farm Bill Biologists are partnership positions between PF, Nebraska Game and Parks Commission, and Natural Resources Conservation Service (NRCS). The biologists are housed within NRCS offices, and provide technical assistance to landowners through federal Farm Bill programs such as the Conservation Reserve Program (CRP), the Conservation Stewardship Program (CStP), and Working Lands for Wildlife (WLFW).

In 2018, PF and QF worked with RWBJV partners to leverage grant funds with PF chapters to hire a PF Farm Bill Biologist to support CRP delivery in the eastern Rainwater Basin. This individual works directly with landowners to promote the conservation programs that

address their conservation and natural resource goals. One of the programs that the biologist is promoting is the new Migratory Bird State Acres for Wildlife Enhancement (SAFE) CRP. This SAFE allows producers to develop offers for playa wetlands embedded in cropland. Rental rates are established based on a reverse auction that takes into consideration ecosystem benefits and proposed rental rates. Tracts that maximize ecosystem benefits at the lowest costs are enrolled in the program. This program is only offered in Nebraska and Kansas and could not be delivered successfully without the technical assistance provided by the Farm Bill Biologists.

Coordinating Wildlife Biologists are also collaborative positions structured to match regional geography, opportunities, and goals. A WLFW Coordinating Wildlife Biologist was hired to support this program. Their focus is to assist cattle producers in the Eastern Sandhills with control of eastern red cedar to maximize habitat for grassland-dependent wildlife and ranching profitability. In a short two years, the WLFW effort has resulted in 18 contracts developed with landowners impacting 25,955 acres and partners leveraging nearly \$1.0 million in total dollars for these conservation actions.

TRI-BASIN NATURAL RESOURCES DISTRICT

*Works with Rainwater Basin Joint Venture Partners
to Maximize Available Habitat and Groundwater Recharge*

Water resources management often requires difficult choices. The perception, and sometimes the reality, is that there are winners and losers. Tri-Basin Natural Resources District (TBNRD), working with the Rainwater Basin Joint Venture (RWBJV) developed a mutually beneficial outcome.

TBNRD is a local subdivision of government, and is responsible for protection of natural resources in Gosper, Phelps and Kearney Counties in South Central Nebraska. TBNRD contains approximately 30% of the remaining wetlands in the Rainwater Basin and about 100,000 acres of cropland irrigated by water diverted from the Platte River through the Central Nebraska Public Power and Irrigation District (CNPPID) canal system. This system provides a unique opportunity for supplemental water deliveries to several Waterfowl Production Areas (WPAs) owned and managed by the U.S. Fish and Wildlife Service's (USFWS) Rainwater Basin Wetland Management District (RWBWMD). Several bottlenecks made supplemental water deliveries to these wetlands problematic in the past. These included limitations with delivery infrastructure, timing of available water for surface water deliveries, and the cost of surface water deliveries. Working together, CNPPID, TBNRD, RWBWMD, and other RWBJV partners developed a set of solutions to address these bottlenecks.

To begin the process, five USFWS-owned WPAs were identified as potential recharge sites. These properties were Cottonwood, Funk, Johnson, Linder, and Victor Lakes WPAs. Engineers developed water delivery infrastructure modifications to support 3,000 acre-feet of deliveries to these wetlands in a seven-day period. The upgrades were designed to increase both the rate and the volume of water delivered to ensure surface water deliveries could be made by diverting water from the Platte River after the target flow window for Whooping Crane migration (November

15th) and before winter weather interfered with canal operations. A variety of upgrades were designed to increase capacity and reduce potential problems associated with cold weather canal operations. For the five properties, a total of 23,300 feet of underground pipeline has been, or is currently being, installed. This includes valves, head gates, and energy dissipation structures necessary to achieve desired delivery capacity. Delivery pipeline sizes range from 36 inches in diameter at Funk WPA to 18 inches at Johnson WPA. The estimated cost for the infrastructure improvements is \$1.3 million. This project was funded by the Nebraska Department of Natural Resources through its Platte Over Appropriated Activities Committee (POAC) funds, Nebraska Environmental Trust Funds, North American Wetland Conservation Act grant funds, and a grant from the USFWS Threatened and Endangered Birds program.

RWBJV partners have installed the 36-inch pipeline to Funk WPA, which was used to deliver 1,900 acre-feet to the WPA in November and December of 2018. Prior to initiation of surface water deliveries, a groundwater monitoring network was established to determine a baseline of groundwater levels, which will enable the partners to quantify groundwater recharge contributions resulting from these projects.

This project highlights the ability of the RWBJV partners to identify opportunities, coordinate efforts, leverage funding opportunities to develop projects, and quickly implement project elements. As a result of this project, there will be a significant increase in flooded wetland habitat and enhanced groundwater recharge to the underlying aquifer in the western Rainwater Basin in Gosper, Kearney, and Phelps Counties in Central Nebraska.



THE NATURE CONSERVANCY

Increases Prescribed Fire Capacity

The mission of The Nature Conservancy (TNC) is “to conserve the lands and waters on which all life depends.” Its goal is to use good science, innovative thinking, and on-the-ground research to create solutions that work for nature and people. TNC owns 66,000 acres of land and manages 27,000 acres more through easements or deed restrictions to influence others and thereby advance the conservation of biodiversity at larger scales. It is important to TNC to work with local partners and communities. The Nebraska program works statewide.

For these reasons, TNC is grateful to be part of the Rainwater Basin Joint Venture (RWBJV) and work with the many partner agencies and organizations that make this collaboration a success. Without the pooling of resources and the sharing of knowledge by the RWBJV partners, none of us would be as effective. An example is rendered by one of the last strongholds of intact, natural grassland habitat in the world - the Nebraska Sandhills—which are a priority focus area for TNC and the RWBJV partners.

The Nature Conservancy believes that grassland protection, restoration, and enhancement in this ecoregion is crucial to wildlife and to people. Eastern red cedar is a major threat to the health and viability of Sandhills grasslands. The RWBJV partners recognize this threat and have leveraged significant partner and grant

dollars to implement on-the-ground conservation actions to reduce eastern red cedar—a critical goal shared by TNC. In 2018, TNC and the RWBJV partners focused on promoting implementation of prescribed burning in the Sandhills and across Nebraska as a grassland maintenance and enhancement strategy. Using a combination of grants from the Nebraska Environmental Trust and National Fish and Wildlife Foundation awarded to TNC and RWBJV, TNC hired a burn boss to increase the implementation of prescribed fire.

The burn boss began work in October 2018, actively collaborating with public land managers and private landowners to be prepared to implement 4,000 acres of prescribed fire in the spring of 2019, if weather conditions cooperate. As part of these activities, the burn boss has developed prescribed burn plans, coordinated equipment for the upcoming prescribed burns, and planned and provided a variety of training opportunities for RWBJV partners and landowners to increase knowledge and opportunities to use prescribed fire as an effective grassland management tool.



UPPER BIG BLUE NATURAL RESOURCES DISTRICT

Integrates Wetlands into Local Producer Operations

The mission of the Upper Big Blue Natural Resources District (UBBNRD) is to be a leader in conserving, protecting, developing, and managing the natural resources of the District for the health and welfare of the people of the District. The UBBNRD contains portions of Adams, Butler, Clay, Fillmore, Hamilton, Polk, Saline, Seward and York Counties. A significant portion of the UBBNRD is irrigated cropland, and it also contains the largest proportion of wetlands of the six Natural Resources Districts in the Rainwater Basin.

In the past, Rainwater Basin wetlands were often considered an impediment to successful row-crop production. With advancements in precision agriculture and increased input costs, producers are reexamining options for flood-prone cropland. One option that producers are beginning to adopt is restoration of flood-prone cropland to wetlands and grasslands. Producers can then integrate these restored acres into their operation through haying and grazing. These restorations usually have three phases: restoration of the wetland hydrology, seeding the wetland and adjacent upland acres, and establishing necessary grazing infrastructure.

As part of this approach, the UBBNRD worked with the Rainwater Basin Joint Venture (RWBJV) partners to leverage cost-share to support these activities. Through partner funds and grants awarded to the RWBJV and

grants from the Nebraska Environmental Trust and National Fish and Wildlife Foundation, the partnership is able to provide 100% cost-share for wetland restoration and upland seeding. The RWBJV is also provides 85% cost-share for perimeter fence, cross fence, livestock water, pipelines, and watering facilities.

After delivering 20 of these projects in the UBBNRD, only one obstacle to grazing wetlands remained, which was the infrastructure necessary to safely move cattle between wetlands and work them to address animal health issues if necessary. Area producers suggested the idea of a portable tub/chute/alley system as a solution. The UBBNRD Board of Directors agreed to hold title, pay insurance on, and oversee a check-in/check-out process of a portable tub/chute/alley if the RWBJV partners could leverage funding for the initial purchase. As part of the 2019 Nebraska Environmental Trust grant cycle, the RWBJV partners were awarded a grant to support future wetland restorations, as well as purchase two portable tub/chute/alley systems. UBBNRD will administer one of these systems while the other will be administered by Tri-Basin NRD. Innovative solutions like this are addressing obstacles and changing the perspective of landowners about wetlands in the UBBNRD and throughout the Rainwater Basin Wetland Complex.



PHOTO: GREG WRIGHT



U.S. FOREST SERVICE

Flagship Prescribed Fire Partnership Benefits Continue

The Rainwater Basin Joint Venture (RWBJV) helps the U.S. Forest Service (USFS) achieve its goals by providing technical expertise and funding opportunities that further the agency's mission of "sustaining the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations". In the spirit of partnership, USFS and RWBJV work collaboratively to find innovative solutions for today's conservation challenges. In Nebraska's Sandhills, the USFS manages over 200,000 acres of public land as part of the Nebraska National Forests and Grasslands. Most of the acreage is managed as a natural grassland system and is within the RWBJV administrative area. These grassland habitats are a stronghold for declining grassland bird populations in the Great Plains.

In 2018, USFS, RWBJV, and the Sandhills Task Force (STF) achieved objectives associated with their National Fish and Wildlife Foundation grant, Nebraska Sandhills Landscape Conservation: A Public-Private Partnership. The grant provided funding to support a Flagship Prescribed Fire Partnership, wherein USFS staff from the Nebraska National Forests and Grasslands' Bessey Ranger District participated in prescription burning and mechanical tree removal on National Forest system lands, and prescription burning on adjacent private lands.

Prescribed fire in the Sandhills as a means of controlling eastern red cedar, where appropriate, continues to gain support. In 2018, two landowners were signed up to participate in prescribed burns, and conditions allowed for one of those treatments to occur. For 2019, there are plans in place to burn private property held by three separate landowners adjacent to USFS lands, if conditions

allow. Private landowners have cited recent successful burns conducted with assistance from the RWBJV, STF, and USFS as their reason for interest in prescribed fire on their own property. Some landowners now recognize fire as the most cost-effective and efficient way to maintain their grassland in the long term. The past perception that grazing and effective burning cannot both happen in the same year has given way to an understanding that, if growing conditions are favorable and appropriate planning takes place, the two are compatible.

The conservation practices outlined above are benefiting the broad public, including grazing permit holders, sportsmen and women, and wildlife enthusiasts. On public lands, thousands of acres of grassland have been treated already, and pronghorn, mule deer, and grassland birds have benefited from improved habitat that had been previously degraded by the invasion of eastern red cedar.

The partnership recently completed its second of three grant-funded field seasons. Ongoing administration of this grant by RWBJV is instrumental. Future plans between USFS and RWBJV include more burning, mechanical removal of eastern red cedars, and research to restore populations of the endangered perennial plant, blowout penstemon.



PHOTO: ELE NUGENT



U.S. FISH AND WILDLIFE SERVICE

Wetland and Watershed Restoration Activities on Ritterbush Waterfowl Production Area for the benefit of Migratory Waterbirds

The U.S. Fish and Wildlife Service's (USFWS) National Wildlife Refuge System is a branch of the Department of the Interior. Its responsibility is "to work with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people." The Rainwater Basin Wetland Management District (RWBWMD), part of the National Wildlife Refuge System, manages 61 Waterfowl Production Areas (WPAs) in the Rainwater Basin. The Partners for Fish and Wildlife Program (PFW) is also administered as part of the National Wildlife Refuge System and works in partnership with RWBJV partners and private landowners to efficiently achieve voluntary habitat restoration on private lands, through financial and technical assistance, for the benefit of Federal trust species.

Ritterbush WPA is a 203-acre western Rainwater Basin wetland and consists of 125 acres of playa wetland surrounded by 78 acres of upland buffer. RWBWMD manages the wetland habitat for the benefit of wetland-dependent migratory birds. In 2017, the addition of the Freda Wild tract allowed RWBWMD to work on the restoration of the hydric soil footprint, while limiting potential impacts to neighboring landowners. The restoration, in conjunction with additional restoration work throughout the watershed, was designed to increase wetland ponding frequency and duration, in turn benefitting moist soil plants and migratory waterbirds.

In 2018, the restoration and enhancement of Ritterbush WPA, and the associated watershed improvements, were a major step towards meeting RWBWMD's Comprehensive Conservation Plan. The RWBJV partners worked with RWBWMD to complete restoration and enhancement activities on Ritterbush WPA, and worked with the PFW program in the surrounding watershed to facilitate water movement into the wetland to increase its value to

migratory wetland-dependent birds. Project elements were designed to maximize runoff from natural precipitation events and snowmelt to increase ponded acres on the site.

Project planning began with RWBWMD identifying the necessary restoration and enhancement practices to be conducted on the WPA. These assessments identified sediment deposition areas and waterway enhancements on the WPA. Approximately twenty acres of wetland were restored by removing sediment and fill from the hydric soils. Two pits were filled on the WPA using sediment and fill removed from the wetland. Waterways were enhanced to facilitate water movement into the wetland. Approximately five acres of upland were seeded to a diverse mixture of grasses and forbs. After restoration activities were complete, a livestock watering system and fence were installed to aid in future management of the wetland and upland through grazing.

The PFW program focused its efforts on restoration of the watershed. The work included filling four abandoned irrigation reuse pits in the watershed using sediment and fill removed from the wetland, and working with Ducks Unlimited, the RWBJV, and private landowners to fill three abandoned irrigation reuse pits found within the hydric soil footprint on private lands. Additionally, PFW worked with the Franklin County Highway Department to install new culverts under the road to facilitate water movement through the road ditches.

USFWS funding, along with grant funds from the Nebraska Environmental Trust and Cooperative Recovery Initiative, were leveraged to cover the restoration and enhancement elements. The restoration and enhancement activities on the wetland, combined with the watershed restoration activities, will provide more frequent ponding that will benefit migrating waterfowl, shorebirds, and the federally endangered Whooping Crane.

INCOME AND EXPENSES

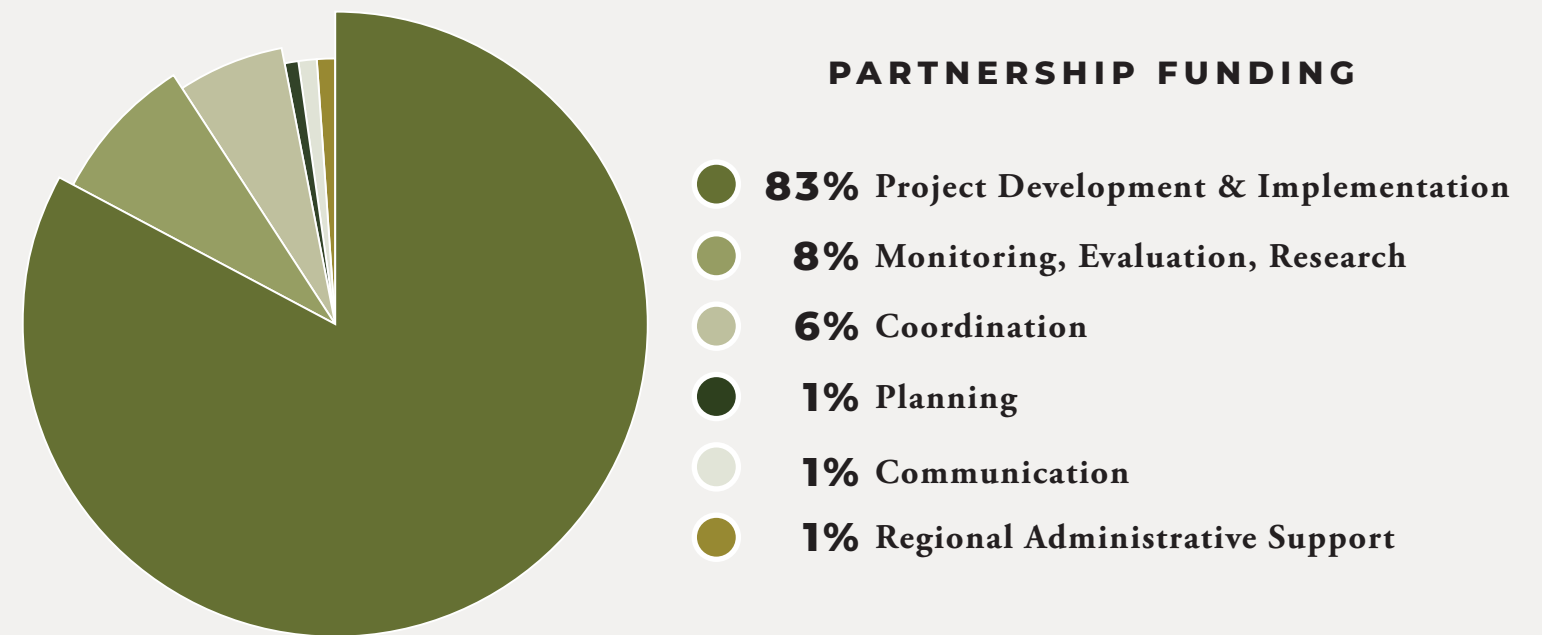
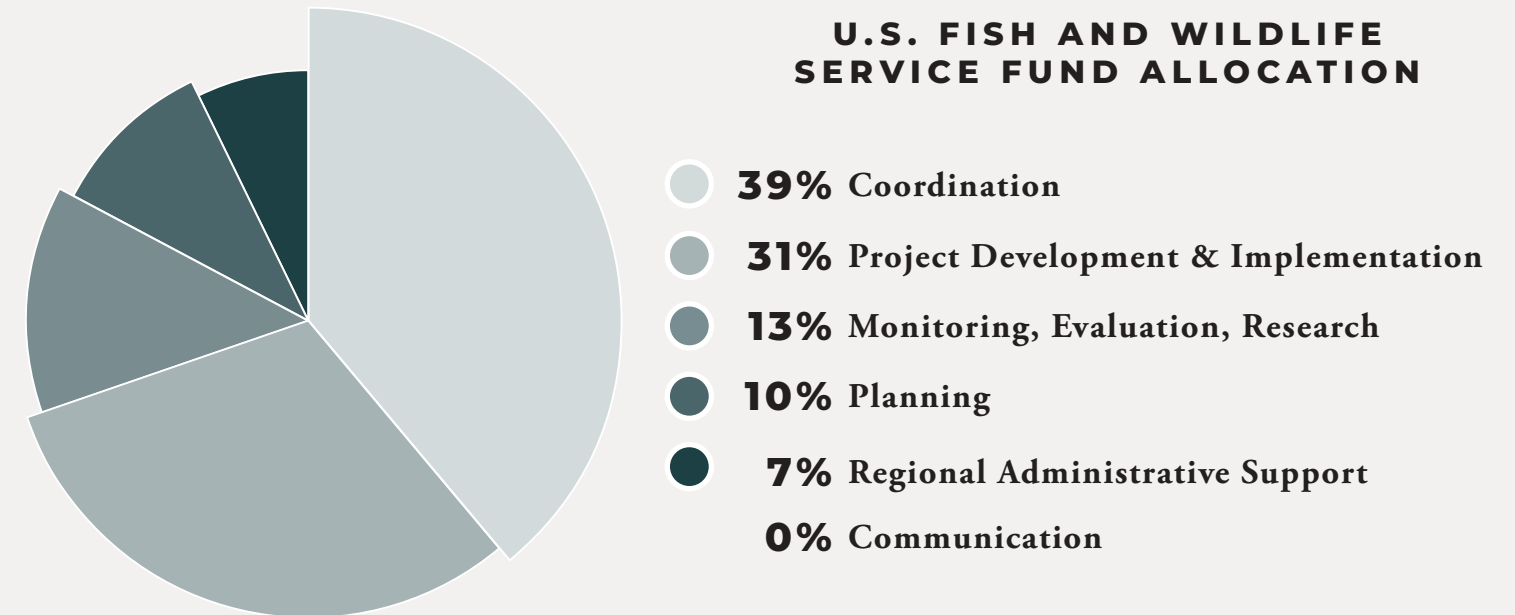
for Fiscal Year Ending September 30, 2018

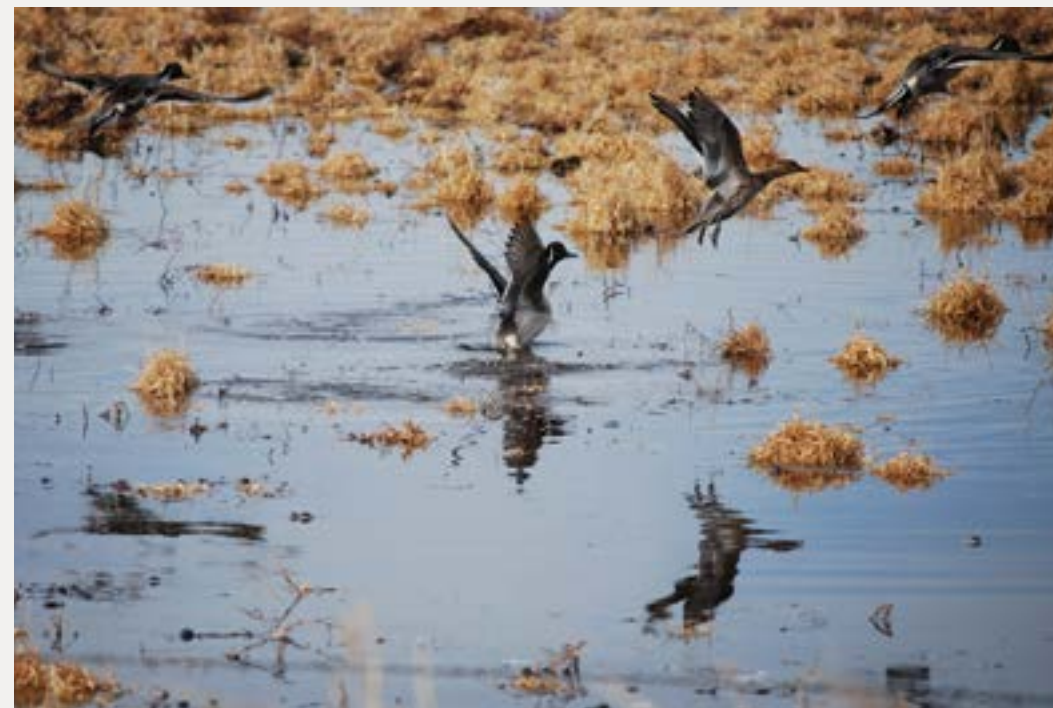
INCOME

U.S. Fish and Wildlife Service Allocation	\$ 454,658.00
<i>Grants</i>	
Nebraska Environmental Trust	\$ 758,492.26
Other Grants and Funding Awards	\$ 3,602,909.04
Total Grants and Other Income	\$4,361,401.30
Total Available Funding	\$4,816,059.30

EXPENSES

Regional Administrative Support	\$ 32,691.16
Coordination	\$ 287,898.71
Communication	\$ 56,548.15
Planning	\$ 51,347.02
Monitoring, Evaluation, Research	\$ 381,773.26
Project Development & Implementation	\$ 4,005,801.00
Total Expenses	\$4,816,059.30





PHOTOS (LEFT TO RIGHT), TOP ROW: BEN WHEELER | GREG WRIGHT
MIDDLE: LAUREL BADURA | SHELLY KELLY | CHRIS HELZER
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**RAINWATER BASIN JOINT VENTURE
PARTNERS INCLUDE**

