

2017

THE RAINWATER BASIN JOINT VENTURE

Annual Report





2

PRIVATE LANDOWNERS



3

DUCKS UNLIMITED



4

FARM SERVICE AGENCY



5

LITTLE BLUE NATURAL RESOURCES DISTRICT



6

NEBRASKA GAME AND PARKS COMMISSION



7

NATURAL RESOURCE CONSERVATION SERVICE



8

PHEASANTS FOREVER & QUAIL FOREVER



10

TRI-BASIN NATURAL RESOURCES DISTRICT



11

THE NATURE CONSERVANCY



12

UPPER BIG BLUE NATURAL RESOURCES DISTRICT



13

U.S. FISH AND WILDLIFE SERVICE



14

U.S. FOREST SERVICE



16

FUNDING

The Rainwater Basin Joint Venture (RWBJV) partnership is dedicated to conservation of wetlands and grasslands in the mixed-grass prairie ecoregion of Nebraska. This geography is as varied as the migratory birds that rely on its landscape. Nebraska's Sandhills are the hemisphere's largest intact dune-stabilized grassland, while the Rainwater Basin's wetlands are scattered across a landscape dominated by irrigated row crops. Regardless of differences in these and other landscapes, the RWBJV partners find solutions to allow quality habitat to be part of private landowners' farm and ranch operations. These solutions require a diverse and growing number of partners, including individuals and organizations comprising government agencies, agriculture associations, non-government organizations, corporations, academic institutions, and others. Our respective missions and purposes may differ in some ways, but we share a common interest: the future of the waters, soils, habitats, and other resources that make the RWBJV landscape a special place.

A major accomplishment of the RWBJV partnership in 2017 was the revision of the RWBJV Water Plan. This plan outlines an ambitious goal of establishing a \$6.2 million endowment to offset costs associated with supplemental water deliveries from surface and groundwater sources to Rainwater Basin wetlands during both spring and fall migration. The supplemental water deliveries, along with the wetlands and watershed restoration activities, will ensure that Rainwater Basin wetlands will be able to support the 8.6 million waterfowl and half million shorebirds that rely on this region annually. To achieve the goals outlined in the RWBJV Water Plan, the partners have already begun installation of infrastructure to support water deliveries, as well as establishment of the financial framework for the endowment.

In addition to the RWBJV Water Plan elements, the RWBJV partners were able to leverage \$3.7 million to positively impact 30,069 acres. This is nearly double the average acreage the RWBJV has influenced annually since the partnership was established. Projects varied by region. Prescribed fire accomplishments included establishing a prescribed fire partnership that has burned over 1,000 acres on public and private lands in the Sandhills as well as collaborating with Pheasants Forever staff to implement 2,500 acres of prescribed fire in the Central Loess Hills. The Sandhills Task Force has also supported grassland enhancement through mechanical removal of eastern red cedar and implementation of wildlife friendly grazing infrastructure 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 contributions 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. In particular, the Nebraska Environmental Trust 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 their grants is often essential to receiving federal dollars, and is thus invaluable to the RWBJV and other conservation groups across Nebraska.





Photo: Greg Wright

PRIVATE LANDOWNERS

Landowners Make the Difference in Nebraska Conservation

The Rainwater Basin Joint Venture (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 administrative area 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. Numerous family ranches are scattered across the Sandhills and the ranchers' strong land ethic helps ensure the Sandhills remain an intact grassland system. Row crop production dominates the Rainwater Basin landscape and the area's producers have long recognized the difficulty of reliably producing crops on farmed wetlands. The value of Rainwater Basin wetlands for pasture and recharge to the aquifer is being recognized at an increasing rate. Regardless of the geography, farmers and ranchers across the RWBJV administrative area have a strong conservation ethic. Their willingness to enter into conservation projects is a direct reflection of their commitment to stewardship of their lands.

The RWBJV Implementation Plan recognizes the diversity of and opportunities in these different geographies, identifying habitat objectives for each of the eight geographic focus areas in the RWBJV administrative area. The RWBJV partners have embraced these objectives and collaborate with private landowners to develop multiple conservation projects in the Rainwater Basin and other focus areas in the RWBJV administrative area.

In the Rainwater Basin, 17 landowners agreed to fill 20 abandoned irrigation reuse pits in the watersheds of public wetlands managed by Nebraska Game and Parks Commission or U.S. Fish and Wildlife Service, as well as in the watersheds of wetlands enrolled in the Natural Resources Conservation Service's Agricultural

Conservation Easement Program. Filling these pits is expected to positively impact 512 acres of public and private wetlands. Project costs totaled \$455,000, with landowners contributing approximately \$28,000. Six landowners worked with RWBJV partners to construct infrastructure so wetlands could be grazed, promoting desired habitat conditions and allowing the wetlands to be a productive part of the farm or ranch operation. To successfully implement these measures, the landowners provided \$4,400 for development of the infrastructure.

The Working Lands for Wildlife Initiative was a tremendous success in the eastern Sandhills. As part of the first sign-up, ten applications were selected for funding. These projects will positively impact over 13,500 acres. A majority of the projects are focused on removal of eastern red cedar, which positively benefits both grassland birds as well as a producer's bottom line. To complete these projects, the RWBJV partners, including the landowners, are leveraging over \$465,000 in funding for mechanical removal of eastern red cedar, establishment of grazing infrastructure to support wildlife-friendly grazing regimes, and implementation of prescribed fire to prevent re-infestation of treated acres by eastern red cedar.

Pheasants Forever collaborated with ten adjacent landowners in the Central Loess Hills to generate a burn plan that allows over 3,500 acres to be burned through the Prescribed Fire Training Exchange. As part of this training exchange, 51 wildland firefighters from across the country came to assist with the prescribed fire. Twelve local landowners assisted the firefighters with implementation of the different prescribed fires. This effort demonstrated that large scale prescribed fire can be safely implemented on private lands and showed how neighbors can help one other with prescribed fire. Continuing to support prescribed burning in the Central Loess Hills will be critical to making headway against the region's eastern red cedar invasion.



Photo: Andy Bishop

DUCKS UNLIMITED

DU Credits RWBJV Partnership for Success in Winning North American Wetlands Conservation Act Grants in Nebraska

Ducks Unlimited, Inc., founded in 1937, is a volunteer-based, nonprofit habitat conservation organization that conserves, restores, and manages wetlands and associated habitats for North America's waterfowl and other wetland-dependent wildlife.

Ducks Unlimited's (DU's) conservation work in Nebraska is conducted primarily within the landscape conservation priority areas identified by the North American Waterfowl Management Plan to provide spring migration habitat for migrating waterfowl and waterbirds. The Rainwater Basin and Platte River are primary focus areas, with additional work conducted throughout the state.

The RWBJV partnership helps DU meet the match requirements of competitive North American Wetland Conservation Act (NAWCA) grants from the U.S. Fish and Wildlife Service (USFWS) by leveraging partners' non-federal funds. Many of these funds are direct operation funds or are part of grants awarded by the Nebraska Environmental Trust. NAWCA grants can cover as many as 20 individual habitat protection, restoration, and/or enhancement projects. With the help of the RWBJV partnership, DU in Nebraska has secured 36 NAWCA grants to date, totaling over \$26 million. The majority of the grant funding has gone toward projects within the RWBJV administrative area. The numerous partners and their financial matching contributions are the reason DU is so successful at scoring well on grant applications in Nebraska. The awarded NAWCA funds are often leveraged by supporting partners to meet the match requirements of Nebraska Environmental Trust grants and other funding sources to complete additional habitat projects.

In 2017, DU benefited 11,978 acres within the RWBJV administrative area through 23 NAWCA and Nebraska Environmental Trust grants. The projects included wetland restoration, control of invasive plants, purchase of tracts containing wetlands, and implementation of an innovative program to pay property taxes on conservation lands.

2017 highlights included restoration of playa wetlands at USFWS's County Line Waterfowl Production Area and on the White tract, which is protected through a DU Conservation Easement. DU also restored remnant backwater channels on the Platte River at Nebraska Game and Parks Commission's Darr Strip Wildlife Management Area and other locations. To control invasive plants on wetlands, DU continued implementation of the Rainwater Basin Disking and Enhancement Program.

DU purchased most of an intact basin in Clay County as part of the *revolving land strategy*¹ and completed transfers of *roundouts*² to the USFWS. To ensure that property taxes on lands DU transfer to USFWS are paid in perpetuity DU set up a property tax endowment fund – the first for transfers of land going to the USFWS.

With the ongoing partnerships facilitated by the RWBJV, DU's conservation achievements are much greater, more far-reaching, and more accessible to the public than they would be otherwise.

¹ DU's *revolving land strategy* involves the purchase, management, and protection of critical waterfowl breeding habitat for eventual sale to a wildlife agency or to a private individual who shares DU's interest in protecting the property's natural values. See <http://www.ducks.org/conservation/land-protection/revolving-land-strategy>.

² A *roundout* is a property acquired to complete the ownership or management of a targeted wetland area by conservation entities.





Photo: Andy Bishop

FARM SERVICE AGENCY

Working with RWBJV Partners to Provide Over 800,000 Acres of Wildlife Habitat Through the Conservation Reserve Program

The mission of the United State Department of Agriculture's Farm Service Agency is to serve all farmers, ranchers, and agricultural partners through the delivery of effective, efficient agricultural programs that benefit all Americans.

The Farm Service Agency (FSA) administers the Conservation Reserve Program (CRP) and its associated programs, including the Conservation Reserve Enhancement Program (CREP) and State Acres for Wildlife Enhancement (SAFE), with extensive implementation support from RWBJV. CRP is a 10- to 15-year program that provides agricultural landowners a yearly rental payment, cost-share for the establishment of habitat-friendly practices, and other incentives for environmentally sensitive land that has been reseeded with plant species to improve environmental health and quality. In Nebraska, nearly all of the recently enrolled acres have been seeded to native grass and forb species.

CREP targets high-priority conservation concerns identified by the lead state entity, and, through the leveraging of non-federal funds, effectively addresses these concerns. In Nebraska, CREPs have been developed to assist the state with Platte and Republican River water issues and to promote habitat for quail, pheasants, and prairie grouse. The Nebraska Department of Natural Resources is the primary state CREP sponsor.

SAFE is focused on maximizing CRP enrollments to benefit priority wildlife species. In Nebraska, SAFE enrollments have been developed to benefit Northern Bobwhite, Greater Prairie-Chicken, and Ring-necked Pheasant. In Nebraska, the Nebraska Game and Parks Commission and Pheasants Forever sponsored the existing Nebraska SAFE projects and have been active in assisting FSA with marketing all CRP programs.

New in 2017, Kansas and Nebraska FSAs were authorized to implement the Migratory Birds, Butterflies, and

Pollinators SAFE project in select playa areas of the respective states. Rainwater Basin and Playa Lakes JVs were the project sponsors. In Nebraska, the RWBJV partners played a critical role in promoting and implementing this new program. They assisted with the kickoff event, developed county playa lake maps, organized and sponsored direct-to-landowner program mailings, and supported seven landowner promotional meetings throughout the SAFE area.

To help focus marketing and outreach efforts to eligible landowners, the RWBJV developed several GIS models and associated spatial layers. The first spatial layer depicted highly erodible lands and the second identified grassland bird conservation areas or landscapes where increased enrollment in CRP would have the greatest benefit for priority grassland birds such as Greater Prairie-Chicken and Sharp-tailed Grouse. The models were used to target a mailing to the 40,000 landowners within the RWBJV administrative area who qualified for CRP programs. As a result of the marketing, Nebraska led the nation in CRP grasslands enrollment, filled SAFE allocations sponsored by Nebraska Game and Parks Commission and Pheasants Forever, and met its target for the Highly Erodible Land Initiative.





Photo: Andy Bishop

LITTLE BLUE NATURAL RESOURCES DISTRICT

\$3.25 Million for Conservation of Wetlands and
Ogallala Aquifer Recharge Secured By RWBJV Partnership

The mission of the Little Blue Natural Resources District is to protect lives, property, and the future within its boundaries.

The Little Blue Natural Resources District (LB NRD) covers portions of Adams, Clay, Fillmore, Jefferson, Nuckolls, Thayer, and Webster Counties and contains one of the highest densities of playa wetlands in the Rainwater Basin landscape. These wetlands provide important habitat for an estimated 8.6 million waterfowl, half million shorebirds and the federally endangered Whooping Crane during spring and fall migrations. Not only do these wetlands benefit migratory birds, they are also key recharge points for the Ogallala Aquifer. LB NRD's Board and staff recognize the opportunity to incorporate wetland restorations into local farm operations and worked with RWBJV partners to develop a Wetland Reserve Enhancement Partnership (WREP) application to the Natural Resources Conservation Service (NRCS).

In 2017, this \$3.25 million proposal was approved by NRCS for the restoration and protection of 900 acres of wetlands and associated uplands. To supplement the contribution from NRCS, LB NRD also submitted a \$425,000 grant to the Nebraska Environmental Trust to support conservation practices that are not eligible under WREP. Producers who enroll lands in WREP can select between 30-year and perpetual easement options. Easement compensation is based on the Geographic Area Rate Cap, which is dependent on land use. The program also pays for full hydrologic restoration of the wetland on the hydric soils and seeding of the upland buffer. The funds from the Nebraska Environmental Trust grant, along with partner funds, support additional conservation practices that allow enrolled acres to be integrated into farm operations.

LB NRD recognized the importance of meeting a producer's production goals while restoring wetlands in this WREP application. In the past, pivot irrigation systems could not travel through acres enrolled in this

program. This significantly reduced enrollment since a majority of Rainwater Basin wetlands are located in the middle of cropland and intersected by pivot irrigation systems. If a pivot irrigation system cannot complete a full rotation, irrigation water is inefficiently applied and crop production is negatively impacted. If wetland restoration comes at the expense of producing a crop, most farmers are reluctant to make the sacrifice. As part of LB NRD's WREP, landowners retain their rights to run center pivot irrigation systems through restored wetlands, thus creating a viable option for producers coping with marginal cropland. The program provides an option for acres prone to oversaturation, and helps to incorporate those wetland acres into an overall farm operation as irrigated pasture.

RWBJV partners, including the three major pivot manufacturers in Nebraska (Reinke, Valmont, and Zimmatic), have leveraged funds to modify pivots for travel through the wetland, construct perimeter fence that includes pivot bridges to facilitate pivot travel through the fence, and develop livestock watering facilities. These project elements ensure the enrolled acres can be seamlessly incorporated into farm operations. The programmatic flexibility with WREP and RWBJV partner funding for pivot modification and construction of grazing infrastructure has significantly increased interest in the program. In 2017, thirteen applications in the Rainwater Basin were accepted—a greater than fivefold increase in enrollment from 2016.





Photo: Andy Bishop

NEBRASKA GAME AND PARKS COMMISSION

Using RWBJV Decision Support Tools to Maximize Project Delivery Effectiveness

The mission of the Nebraska Game and Parks Commission (est. 1901) is stewardship of the state's fish, wildlife, park and outdoor recreation resources in the best long-term interest of the people and those resources.

In 2017, the Nebraska Game and Parks Commission (NGPC) continued its work with the RWBJV partners to secure funding for habitat work, deliver grassland and wetland habitat projects, and develop and refine decision support tools, such as GIS maps and models, to maximize project delivery effectiveness and assist with public outreach efforts. Pheasant hunting is a long-standing tradition among Nebraska residents. In 2016, the Berggren Pheasant Plan (BPP) was unveiled; implementation of the conservation actions associated with it will seek to “...produce the best pheasant hunting experiences for the most people over the next five years.”

NGPC and RWBJV partners work cooperatively to deliver habitat projects that restore and enhance wetland and grassland habitat complexes. Rainwater Basin and other wetland habitats within the BPP focus areas provide critical habitat to pheasants and migratory waterbirds, and a host of other grassland dependent species. As the term implies, ephemeral wetlands are not always wet and support variable habitat structure, including early successional vegetation, which provides cover and nutritional resources for migratory birds and resident wildlife. Pheasants benefit directly from the additional wetland and associated grassland habitats that are restored, even in the intensively farmed Rainwater Basin landscape. Further, as identified in a recent hunter *creel survey*³ within the Rainwater Basin, hunters seek out these publicly accessible wetland areas to hunt not only waterfowl, but pheasants too. This work and habitat contribute directly to BPP objectives.

In 2017, as in previous years, RWBJV partners supported NGPC in submitting Wetlands Reserve Enhancement Partnership allocation requests to the Natural Resources Conservation Service (NRCS). These program funds are

in addition to already-approved NRCS Wetlands Reserve Easement funding that the State receives and are to be applied within the Rainwater Basin and Central Table Playa Wetland Complexes of Nebraska, which are focus areas in the BPP. WREP funds will provide long-term protection and restoration of enrolled wetland and associated grassland buffers, both of which are important habitats outlined in the BPP. These are two important habitats outlined in the BPP. Thirteen applications were accepted for funding in 2017. The projects will positively influence 935 acres with a significant number of these acres in the Southeast Pheasant Opportunity Area. Additional funding support from the RWBJV for the BPP implementation is available through the Watershed Restoration Initiative, which seeks to restore hydrology to publicly-owned wetlands through pit fills and other actions; the Working Lands Initiative, which develops grazing infrastructure critical to long-term wetland management; and vegetative management funding that supports habitat enhancement to benefit migratory birds and resident wildlife such as pheasants. These program options are available on both public and private lands.

NGPC routinely uses decision support tools for targeted marketing and outreach campaigns to landowners and farm operators within focus areas that are eligible for different programs. Most recently the WREP decision support tool was used to identify those landowners with large playa wetlands in the Rainwater Basin that were also in also in the BPP focus area. As part of this analysis, 565 letters were sent to landowners highlighting the program and opportunities.

³ A *creel survey* is a sampling method that allows staff to interview recreational hunters to gain insights into their experience, success, and enjoyment of their experience.





Photo: Shelly Kelly

NATURAL RESOURCE CONSERVATION SERVICE

Initial Year of Working Lands for Wildlife Program
Improves 13,485 Acres in Nebraska's Sandhills

NRCS provides farmers and ranchers with financial and technical assistance to voluntarily put conservation on the ground, not only helping the environment but agricultural operations too.

Natural Resource Conservation Service (NRCS) assistance helps producers plan and implement a variety of conservation practices that benefit the landscape and many wildlife species. In 2017, Nebraska NRCS funded a Working Lands for Wildlife Initiative (WLFW) focused on control of eastern red cedar in Nebraska's Sandhills, which will have positive benefits for grassland-dependent birds, as well as ranchers. Many grassland birds will abandon an area where trees are present, even at relatively low densities (1-2 trees per acre); thus, control of eastern red cedar improves their habitat. It also benefits ranches because removal of trees allows more growth of grass species, thereby increasing forage production.

The agency's staff and RWBJV partners work with producers to develop individualized conservation plans that focus on implementing conservation practices to improve ranch operation. Often the conservation plan includes recommendations for grazing, modifications to infrastructure to promote wildlife friendly grazing practices, mechanical removal of eastern red cedar and integration of prescribed fire to control re-infestation. The conservation plan provides a roadmap for use of a suite of conservation practices to meet natural resource and production goals. Cost-share through the Environmental Quality Incentives Program (EQIP) provides financial assistance to ranchers for implementation of the conservation practices. The WLFW Initiative provides a special allocation of EQIP funds for these conservation practices in the Sandhills.

Meeting a producer's production goals while enhancing grassland habitat is especially important in the Sandhills because this region has large populations of the federally endangered American burying beetle and the Greater

Prairie-Chicken, an iconic grassland bird that has experienced significant population declines throughout most of its range.

In 2017, NRCS worked with RWBJV partners such as Nebraska Cattlemen, Nebraska Game and Parks Commission, Pheasants Forever, The Nature Conservancy, Sandhills Task Force, and U.S. Fish and Wildlife Service to implement the WLFW Initiative. In 2017, WLFW's first year, ten applications were funded. The conservation plans and conservation practices associated with the applications will positively impact 13,486 acres. In total, \$466,990 of EQIP and partner funds was leveraged to implement the projects. On average, landowners contributed 25% of the costs to complete the projects. In a very short time, the WLFW Initiative has impacted a significant number of acres, which is resulting in higher quality rangeland for ranchers and better wildlife habitat for Greater Prairie-Chickens and other grassland species. This is a great program to focus on a critical resource and restore the Nebraska Sandhills. NRCS is proud to be a partner of the RWBJV.





Photo: Ben Wheeler

PHEASANTS FOREVER & QUAIL FOREVER

Collaboration with RWBJV Partners Puts 17 Biologists
to Work on Conservation in Nebraska

Pheasants Forever and Quail Forever are dedicated to the conservation of pheasants, quail and other wildlife through habitat improvements, public awareness, education and land management policies and programs.

The Pheasants Forever (PF) and Quail Forever (QF) business model empowers county and local chapters with the responsibility to determine how 100% of their locally raised conservation funds are spent. As a result, chapter volunteers are able to see local results while belonging to a larger national organization with a voice on federal and state conservation policy. In Nebraska, there are 60 PF and four QF chapters with 11,000 members. These chapters, along with 25 staff members, have worked with partners to enhance over four million acres of habitat since 1986, when the first Nebraska chapter was formed.

In 2017, as in previous years, PF and QF worked with partners to accomplish many of their goals. Currently, PF employs 17 biologists around the state to work on conservation projects - 12 Farm Bill biologists and five coordinating wildlife biologists. These biologists are housed within Natural Resource Conservation Service offices and provide technical assistance to landowners interested in federal Farm Bill programs, such as the Conservation Reserve Program (CRP), Working Lands for Wildlife (WLFW), and the State Acres for Wildlife CRP (SAFE).

Farm Bill biologists have been instrumental in implementation of the WLFW as well as CRP options at a statewide scale. Promotional meetings for landowners about CRP helped ensure Nebraska had sufficient applications to enroll all of the acres allocated to the state for the different CRP and SAFE options. The WLFW Initiative is focused on assisting cattle producers in the eastern Sandhills with control of eastern red cedar to maximize habitat for grassland dependent wildlife and ranching profitability. Farm Bill biologist collaboration with other partners resulted in ten landowner contracts being developed in the first year. Once implemented, these contracts will impact 13,486 acres with partners leveraging \$466,990 to complete the conservation activities.

The Migratory Bird State Acres for Wildlife Enhancement Program is a new Conservation Reserve Program option tailored to playa wetlands. Landowners that enroll in the program are provided an annual rental rate based on a reverse auction that evaluates each landowner's offered rental rate as well as the ecosystem benefits the wetland can provide. Farm Bill biologists assisted RWBJV partners in hosting seven landowner meetings to highlight the new program and the associated application process.

Similar to Farm Bill biologists, coordinating wildlife biologists are also collaborative positions structured to match regional geography, opportunities, and goals. For example, the Central Loess Hills coordinating wildlife biologist focuses largely on implementation



of the goals and objectives outlined in Nebraska's State Wildlife Action Plan, known as the *Nebraska Natural Legacy Plan*. As a result, much of his work is dedicated to implementing prescribed fire to maintain healthy grasslands and control invasive woody species. He oversees a nationally recognized prescribed fire training exchange program and assists landowners in mechanical control of eastern red cedar. In this effort, the coordinating wildlife biologist works with multiple adjacent landowners to develop a single burn plan that will impact thousands of acres on contiguous grasslands. These burns are conducted by wildland firefighters participating in a Prescribed Fire Training Exchange. The results are a win-win situation; the firefighters participating in the training exchange gain valuable skills and experience, thousands of acres of grassland are rejuvenated, invasive species are controlled, habitats of grassland obligate species are restored, and the landowners see firsthand how large-scale prescribed fire can be safely implemented on the landscape. The RWBJV assisted with this project by developing Greater Prairie-Chicken models to identify core habitat and prioritize areas for prescribed fire. The RWBJV also is administering a Nebraska Environmental Trust grant that provides funding for mechanical control of eastern red cedar, deferred grazing payments to ensure sufficient fuel loads, and financial assistance for firefighters assisting with the prescribed fires.

These positions and programs would not be possible without the collaboration of partners. Partner support for these positions is made possible by contributions from PF, Nebraska Game and Parks Commission, and the Natural Resource Conservation Service. The RWBJV partners are actively leveraging funds to bring on an additional two Farm Bill biologists to replicate this successful staffing model.





Photo: Jill Shannon

TRI-BASIN NATURAL RESOURCES DISTRICT

Partners Collaborate to Flood Wetlands and Recharge the Aquifer While Protecting an Endangered Species

The vision of Tri-Basin NRD is to work cooperatively with District residents and others to promote good stewardship of land and water resources.

Tri-Basin Natural Resources District (TB NRD) is the local government agency responsible for protection of natural resources in Gosper, Phelps, and Kearney counties in South Central Nebraska. TB NRD contains approximately 100,000 acres of cropland irrigated by water diverted from the Platte River through the Central Nebraska Public Power and Irrigation District (CNPPID) canal and lateral network. This network 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 Rainwater Basin Wetland Management District. Several issues made supplemental water deliveries to these wetlands problematic in the past, including limitations with delivery infrastructure, timing of available water for surface water deliveries, and the cost of surface water deliveries. Working together CNPPID, TB NRD, and the Rainwater Basin Wetland Management District developed a set of solutions to address these challenges.

To begin the process, five WPAs owned and managed by U.S. Fish and Wildlife Service were identified as potential recharge sites: Cottonwood, Funk, Johnson, Linder, and Victor Lakes. Engineers developed water delivery infrastructure modifications that will allow as much as 3,000 acre-feet of canal water to be delivered to these wetlands in a seven-day period after the Whooping Crane migration window, which ends every year on November 15th. The upgrades allow high volumes of surface water from the Platte River to be delivered after the traditional irrigation season in a short period of time to reduce complications that can occur when operating a canal system during cold weather.

In 2017, the project partners submitted a Water Sustainability Fund grant application to the Nebraska Department of Natural Resources, who determined they could fund the project directly through their own Platte Over Appropriated Activities Committee funds. Through this funding, a variety of upgrades are being implemented. For the five properties, a total of 23,300 feet of underground pipeline will be installed, as well as a variety of valves, headgates, and energy dissipation structures, to achieve desired delivery capacity. Pipelines range in size from 36 inches in diameter at Funk WPA (already installed) to 18 inches in diameter at Johnson WPA. The estimated cost for the infrastructure improvements is \$1.3 million. It is anticipated that infrastructure improvements at the other four properties will be completed in Fall 2018. TB NRD has committed funding to pay for the surface water deliveries annually for the next three years.

This project highlights the ability of the RWBJV partners to identify opportunities for mutually beneficial projects, secure funding, coordinate efforts among partners, and quickly implement project elements. Construction is already completed at Funk WPA, with other WPA work in progress. That, along with surface water agreements and funding, will significantly increase flooded wetland habitat and provide groundwater recharge to the underlying aquifer.





Photo: Shelly Kelly

THE NATURE CONSERVANCY

Prescribed Fire Used to Increase Forage and Grassland Bird Habitat on Private Lands

The Nature Conservancy's mission is to conserve the lands and waters on which all life depends.

The Nebraska Chapter of The Nature Conservancy (TNC) is a statewide nonprofit organization with 65,000 acres of land ownership and another 27,000 acres of land with easements or deed restrictions. TNC's goal is to use good science, innovative thinking, and on-the-ground experimentation to create solutions that work for nature and people. It is important to TNC to work with local partners and communities. TNC owns and manages land to influence others and thereby advance the conservation of biodiversity at large scales.

In 2017, TNC and RWBJV focused on promoting patch-burn grazing and increasing the use of prescribed fire by landowners. TNC co-sponsored a grant application to the National Fish and Wildlife Foundation, entitled *Addressing Eastern Red Cedar in Nebraska's Sandhills: A Habitat Intervention*. Once awarded, grant funds will be used to hire a burn boss and implement prescribed fire on private lands. Through the Working Lands for Wildlife Initiative, TNC is planning an informational meeting for landowners to provide an overview of the landscape, threats, past successes, current conditions and future opportunities. The meeting will highlight the mutual benefits of ranching for cattle production and habitat for numerous species of animals and plants.

For that reason, TNC is grateful to work alongside the RWBJV partner agencies and organizations. Without the pooling of resources and sharing of knowledge facilitated by RWBJV partnership, no one entity would be as effective. For example, as one of the last strongholds of intact, natural grassland habitat in the world, the Nebraska Sandhills are full of plant and animal life. TNC believes strongly that the protection of this ecoregion is crucial and that one of the smartest things TNC can do is collaborate with and support the ranchers who have kept these grasslands in good health. The conservation efforts of the RWBJV have resulted in more grant dollars for private lands management, a critical goal shared by TNC. This has directly resulted in improvement of the habitats upon which so many birds depend. TNC efforts at its 56,000-acre Niobrara Valley Preserve and across the Sandhills are informed by the modeling, monitoring and research work of the RWBJV.



Photo: Ele Nugent

UPPER BIG BLUE NATURAL RESOURCES DISTRICT

Incorporating Variable Rate Irrigation Technology
to Protect Wetlands and Increase Net Farm Income

The mission of the Upper Big Blue Natural Resources District is to be a leader in conserving, protecting, developing, and managing the natural resources of this District for the health and welfare of the people of the District.

The Upper Big Blue Natural Resources District (UBB NRD) contains portions of Adams, Butler, Clay, Fillmore, Hamilton, Polk, Saline, Seward, and York Counties. A significant portion of UBB NRD is irrigated cropland, much of which is under center pivot irrigation systems. To maximize efficiency, these systems must complete full rotations. As a result, marginal acres, such as wetlands, have been modified to facilitate cropping and pivot travel. Today, 72% of historic hydric soils are intersected by pivot irrigation systems. Despite the wetland modifications, many of the farmed wetlands acres continue to pond water for extended periods of time during the growing season causing crop loss. The UBB NRD board and staff recognized the opportunity to incorporate wetland restoration and precision irrigation technology to develop whole-field solutions that could provide multiple benefits including more wildlife habitat, reduced irrigation applications, and increased net farm income for the producer.

In 2017, as part of this approach, UBB NRD worked with RWBJV partners to submit a successful \$1.8 million Regional Conservation Partnership Program application to the Natural Resource Conservation Service. The project involves a whole-field solution approach to complete wetland restoration and precision irrigation upgrades through the Agricultural Conservation Easement Program and Environmental Quality Incentives Program. RWBJV partners, including local pivot irrigation manufacturers and dealers, will provide additional cost-share for the pivot modifications and precision irrigation prescriptions. Three landowners applied for whole-field solutions through this

project. Over the next three years, 10 fields with wetlands that are intersected by center pivot systems will be restored and upgraded with Variable Rate Irrigation (VRI) technology.

VRI allows precise control of irrigation inputs through retrofitting existing pivot irrigation system. This technology ensures a more natural wetland hydroperiod by avoiding application of excess water, while maximizing crop production by applying irrigation inputs to locations in the field that are water deficient. VRI systems include modifications to valves and sprinklers and 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.





Photo: Laurel Badura

U.S. FISH AND WILDLIFE SERVICE

Private Landowners Join Forces with RWBJV Partners to Restore Multiple Waterfowl Production Areas

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

The U.S. Fish and Wildlife Service (USFWS) has two divisions that support the RWBJV partnership's conservation efforts: Migratory Birds and the National Wildlife Refuge System. The former provides base operating funds to support the RWBJV partnership, and the latter contributes to RWBJV partnership objectives through two branches. The Rainwater Basin Wetland Management District, part of the National Wildlife Refuge System, manages 60 Waterfowl Production Areas (WPAs) in the Rainwater Basin. The Partners for Fish and Wildlife Program is also administered as part of the National Wildlife Refuge System and works in partnership with the Rainwater Basin Wetland Management District and other conservation organizations to develop voluntary habitat restoration and restoration projects on private lands.

Atlanta WPA is one of the largest western Rainwater Basin wetlands owned and managed by USFWS. This 1,147-acre WPA consists of 488 acres of playa wetland surrounded by 659 acres of upland buffer. USFWS manages the wetland habitat for the benefit of wetland-dependent migratory birds. Because of this management, Atlanta WPA has been a migration stopover spot for many bird species, including the federally endangered Whooping Crane, as well as large concentrations of ducks and geese during spring migration. However, in recent years there have been noticeable declines in ponding frequency and ponded area during both fall and spring migrations, which has decreased its use by migratory birds. For this reason, Atlanta WPA has been a priority for wetland and watershed restoration work.

A major accomplishment in 2017 was the restoration and enhancement of Atlanta WPA. RWBJV partners worked with USFWS to complete restoration and enhancement activities on Atlanta WPA and in the surrounding watershed to increase its value to migratory wetland dependent birds. Project elements will maximize runoff

from natural precipitation events and snowmelt to increase ponded acres on the site.

Project planning began with wetland and watershed assessments to identify necessary restoration and enhancement practices. These assessments identified sediment deposition areas, 21 irrigation reuse pits in the watershed, waterway enhancements, and terraces on the WPA. Watershed restoration focused on filling the irrigation reuse pits and re-contouring waterways into the wetland, while on-site activities included the removal of 7.15 miles of terraces and a low level berm within the wetland.

USFWS funding, along with grant funds from the Nebraska Environmental Trust and North American Wetland Conservation Act, were leveraged to cover these restoration and enhancement elements. The watershed restoration activities are expected to provide 97.3 acre-feet of runoff to the wetland.

In the past, the USFWS has often relied on pumping groundwater from two wells to offset the poor functional condition of the watershed and increase available ponded habitat at Atlanta WPA. Restoration will reduce the need for this supplemental water and improve water efficiency when pumping is necessary. To pump 97.3 acre-feet of water onto Atlanta WPA would require 22 days of pumping, costing \$7,400. With the watershed restoration this pumping will no longer be necessary, providing a significant savings to USFWS in the years to come. With the additional on-site restoration activities completed, Atlanta WPA will now provide more frequent ponding that will benefit migrating waterfowl, shorebirds, and the federally endangered Whooping Crane.





Photo: Shelly Kelly

U.S. FOREST SERVICE

Grassland Birds, Ranchers, and Hunters Benefit from Flagship Prescribed Fire Partnership

The mission of the U.S. Forest Service is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations.

The RWBJV helps the U.S. Forest Service (USFS) achieve its goals by providing technical expertise and funding opportunities that further the agency's mission. 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 2017, USFS, RWBJV, and the Sandhills Task Force 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 on private lands adjacent to National Forest lands.

On the ground, this meant that prescribed burns were delivered efficiently with professional burn crews working side-by-side with landowners and local volunteer fire departments. A major benefit of the partnership to the volunteer fire departments was an elevated level of training that led to comfort with their own prescribed fire activities. Since the first burn through the partnership was conducted on private lands this past spring, area volunteer fire departments have already conducted another independent prescribed fire to control eastern red cedar, as well as used knowledge gained from their first prescribed fire to help suppress wildfires on public land. These activities demonstrate clear benefits to both public and private lands and provide positive impacts to both wildlife and ranching.

Comfort with prescribed fire in the Sandhills is gaining traction. Some landowners recognize it as the most efficient way to maintain their grassland in the long term and are eager to apply prescribed fire to other parts of their ranch where eastern red cedars are a problem. There is a common perception that effective burning means long periods of rest from grazing and that the two practices are not compatible in the same season. While it is true that developing a fuel load by deferring grazing is necessary to effectively kill larger eastern red cedars, grazing can be allowed during the same season that a light fire is conducted to remove seedlings and young trees. Thus, ranchers are favorably impressed with their ability to continue grazing within the same growing season as they burned.



In 2017 a tour of burned areas was hosted at the Bessey Ranger District with landowners and resource professionals presenting information about prescribed fire. The chief topic was the array of programs available to help restore fire as a natural process to eliminate eastern red cedar encroachment in which the Flagship Prescribed Fire Partnership can play a major role. Members recognize that this process requires long-term commitment to affect measurable changes. It is anticipated that this slow buildup of experience and accomplishments will bring a level of comfort with prescribed burning to ranchers and others in the Sandhills and measurably reduce eastern red cedar encroachment within Nebraska's largest grassland.

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, which had been previously degraded by the invasion of eastern red cedar.

The partnership recently completed its first 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.



INCOME AND EXPENSES

for Fiscal Year Ending September 30, 2017

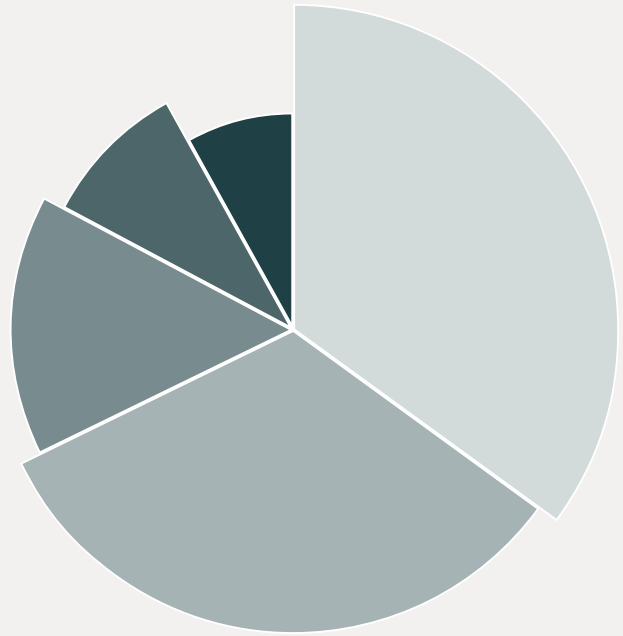
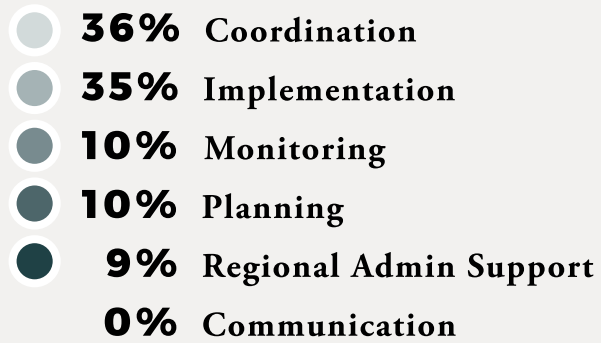
INCOME

U.S. Fish and Wildlife Service Allocation	\$ 455,378.00
<i>Grants</i>	
Nebraska Environmental Trust	\$ 767,086.09
Other Grants and Funding Awards	\$ 2,469,926.57
Total Grants and Other Income	\$3,237,012.66
<hr/>	
Total Available Funding	\$3,692,390.66

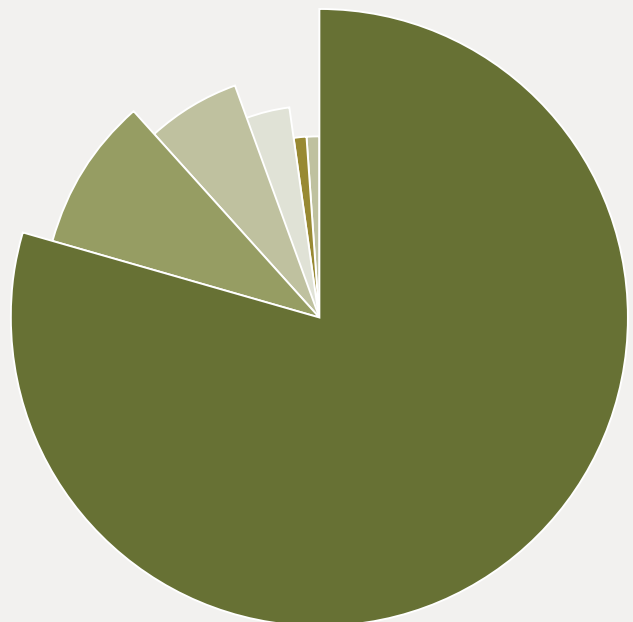
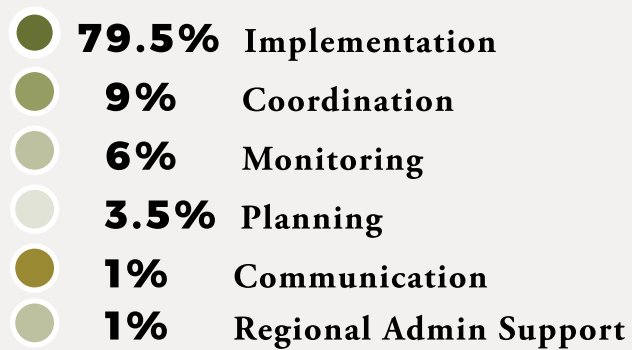
EXPENSES

Regional Overhead and Admin. Support	\$ 39,049.10
Coordination	\$ 336,660.26
Communication	\$ 43,348.72
Planning	\$ 120,308.21
Monitoring, Evaluation and Research	\$ 228,185.31
Project Development and Implementation	\$ 2,924,839.06
<hr/>	
Total Expenses	\$3,692,390.66

USFWS INCOME ALLOCATION BY CATEGORY



PARTNERSHIP FUNDING



RAINWATER BASIN JOINT VENTURE PARTNERS INCLUDE

