

2021

# RAINWATER BASIN JOINT VENTURE

Annual Report







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The Rainwater Basin Joint Venture (RWBJV) partnership is dedicated to conservation of wetlands and grasslands in Nebraska’s mixed-grass prairie ecoregion. This geography is as varied as the migratory birds that use this landscape. The Nebraska Sandhills are the largest intact grassland in the world, while the Rainwater Basin Region’s (RWB) wetlands are scattered across a row-crop dominated landscape. Regardless of the landscape, the RWBJV partners find solutions that ensure conservation projects can be part of the private landowner’s farm and ranch operations. These solutions require a diverse and growing number of partners. The RWBJV partnership fosters relationships between landowners, government agencies, agriculture associations, non-government organizations, corporations, and academic institutions to support habitat projects. Respective missions and purposes may differ, but these individuals and entities share a common interest in the water, soils, habitat, and other resources that make this a special place.

The RWBJV Annual Plan of Operations (APO) provides a strategic framework for the partnership. The APO benchmarks are incremental steps that will support the partners in achieving the landscape objectives outlined in the 2013 RWBJV Implementation Plan (Implementation Plan).

Consistent with the habitat objectives outlined in the Implementation Plan, grasslands and wetlands are the focus of the 2021 APO. The APO highlights acreage goals, capacity needs, science priorities, and limiting bottlenecks. This Annual Report provides an overview of the partnership accomplishments related to these benchmarks and significant partner contributions.

The 2021 APO highlights include leveraging funding to support seven shared positions. These positions provide a variety of skills including on-the-ground conservation delivery, communications, as well as research and monitoring. These individuals coordinate directly with the existing partner network to address bottlenecks and improve on-the-ground delivery. As a result of their support the partners were able to leverage \$5.3 million dollars and positively impact over 23,000 acres of playa wetlands and grasslands through partner agreements. The partners also were able to impact 313,168 acres through the Environmental Quality Incentives Program (EQIP) grassland projects in the four-priority grassland Geographic Focus Areas (GFAs).

The remainder of this Annual Report provides an in-depth overview of the accomplishments related to each strategy outlined for playas and grasslands through the federal fiscal year 2021 (FFY 2021). Our work would not be possible without the contributions of major funding partners, including Ducks Unlimited (DU), National Fish and Wildlife Foundation (NFWF), Nebraska Environmental Trust (NET), Nebraska Game and Parks Commission (NGPC), North American Wetlands Conservation Act (NAWCA), and the U.S. Fish and Wildlife Service (USFWS). In particular, the NET has been a mainstay in the funding for our on-the-ground habitat work since the partnership’s earliest years. The non-federal match provided by these grants is essential to receiving federal grant funding, making NET invaluable to the RWBJV and other conservation groups across Nebraska.





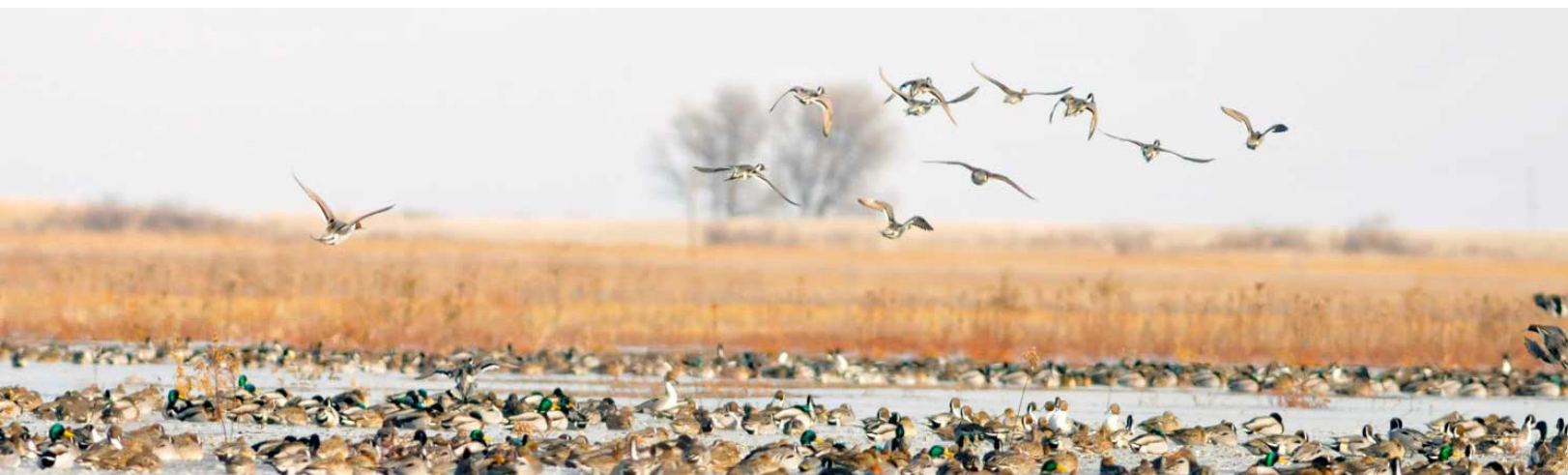
# Playa Wetland Conservation Strategies and Accomplishments

Since its inception the RWBJV has been focused on conservation of playa wetlands in the RWB. The Implementation Plan outlines explicit conservation benchmarks for the RWB and Central Table Playa Wetland Complex (CTP). Playa wetlands in the Southwest Playa Wetland Complex were also recognized, but no conservation goals were outlined. There were six strategies identified in the 2021 APO to achieve desired playa conservation.



## These strategies centered around:

- **Support for the Private Lands Workgroup (PLWG)**
- **Maintaining programmatic flexibility**
- **Increase watershed restoration activities**
- **Building the water development fund**
- **Generating new opportunities in the CTP**
- **Maintaining Agriculture Conservation Easement Program delivery capacity**



## Support for Private Lands Workgroup

The PLWG is the longest standing RWBJV workgroup. It provides an open forum to allow partners to develop field level solutions to maximize project delivery. In 2021, the PLWG conducted three virtual meetings and monthly coordination calls. Numerous communications, marketing, and outreach materials were also developed for the PLWG. These materials will be expanded on in the communication section.

Three virtual PLWG meetings along with monthly RWBJV Project calls resulted in 20 new private lands projects, impacting over 940 acres.

- The Kleinschmidt and Ely Projects helped to close out the “Divots under the Pivots” Regional Conservation Partnership Program (RCPP) project. These projects took a whole field approach and implemented irrigation water management components with Variable Rate Irrigation to compliment the wetland restoration. A total of 13 projects were completed as part of the RCPP impacting 1,270 acres and leveraging \$4.4 million in matching funds.
- Grazing infrastructure was constructed on 16 properties (735 acres).
- University of Nebraska – Lincoln Extension completed a forage production project while Natural Resource Conservation Service (NRCS) worked with partners to complete an Ecological Site Description for playa wetlands. Both these documents have been incorporated into the NRCS Field Office Technical Guide to develop grazing plans.







# Programmatic Flexibility

The RWBJV worked with NRCS and Farm Service Agency (FSA) to secure unique programmatic opportunities within the United States Department of Agriculture (USDA) Farm Bill Programs. In addition to Farm Bill Programs the partners successfully leveraged funds from NFWF, NET, and NAWCA to support unique wetlands and associated upland buffers. This leveraged approach is providing millions of dollars to increase programmatic flexibility.

## Success included:

**Migratory Bird State Acres for Wildlife Enhancement (SAFE) Conservation Reserve Program (CRP) reauthorized at 25,000 acres for playa and associated upland buffer in the CTP, RWB, and Southwest Playas Complexes.**

- Reverse auction approach allowing producers to bid a rental rate up to the county National Irrigation Statistics Service (NASS) irrigated rental rate.
- Selected offers maximize habitat, aquifer recharge, at the lowest cost.
- Contracts can be 10 or 15 years.
- Contract payments and restoration costs are estimated at \$71.25 million.

**The Wetlands Reserve Enhancement Partnership (WERP) was approved for the RWB and CTP.**

- Authorizes pivot travel through wetlands enrolled in the ACEP as a reserved right of the landowner.
- NRCS provided \$1.7 million with partners contributing \$250,000 to protect and restore 450 acres of wetlands and associated upland buffers.
- Corporate partners supporting flotation solutions and Variable Rate Irrigation upgrades.

**Nebraska Environmental Trust Grants**

- Managing five active NET grants, including a new grant for \$517,000 in matching funds for the WREP.
- NET grant priorities include grazing infrastructure for the Working Lands Initiative and restoration on public lands and private lands outside the USDA Farm Bill programs.
- Three new Nebraska Environmental Trust grants submitted for \$1.3 million to continue to support these projects.

**DU is managing multiple NAWCA grants that are being matched with RWBJV NET grants.**

- NAWCA matching to the WREP and the public wetland restoration projects.



# Watershed Restoration

The RWBJV Implementation Plan targets ponding in 45% of RWB wetlands under average conditions. Primary strategies include on-site wetland restoration in conjunction with off-site watershed restoration.

## The RWBJV partners secured millions of dollars to implement these hydrologic restoration objectives, including:

- Validated all watersheds using Light Detecting and Ranging (LiDAR) for USFWS and NGPC properties and private wetlands enrolled in conservation programs.
- Maps guided mailing to over 2,500 landowners with watershed modifications.
  - Contracts developed with 16 landowners in watersheds of 10 public wetlands and one private wetland. Over \$250,000 of EQIP funds committed to projects.

- Expanded the programmatic opportunities through NRCS’s EQIP for landowners that have pits in sub-wetlands in the watersheds of larger public wetlands.
- Allows sub-basins to be restored and improve hydrology to down drainage basins.

- Partners completed wetland restorations at Cottonwood, Funk, and Linder Waterfowl Production Areas (WPAs).
- Moved nearly 300,000 cubic yards as part of these restorations leveraging over \$990,000 in partner funds.
  - Partners (NRCS, DU, USFWS) working to complete soils investigations to develop additional restoration plans for the Funk WPA Peterson and Center Pool Units.
  - Wetland and watershed restorations planned for end of calendar year 2021 at the Grove/Bluewing Wildlife Management Area, as well as Hansen, Massie West, and Smith WPAs.
    - Projects will fill eleven irrigation reuse pits in the watersheds of these properties.

- Over \$1.5 million in project funds leveraged for wetland and watershed restoration activities in FFY 2021.
- Matching funds leveraged through DU, NAWCA, NET, NGPC, NRCS, and USFWS





## Water Development Fund

The RWBJV Water Plan recognizes the importance of supplemental water deliveries to achieve the 45% benchmark. To offset the Operations and Maintenance costs for supplemental water deliveries the RWBJV Water Endowment Fund was established. This fund is financially managed by DU, but the partners collectively help focus expenditures on public and private lands for both spring and fall habitat. Water Endowment Fund accomplishments to-date:

- DU staff successfully established the endowment and secured \$400,000 in principle.
- New commitments from DU donors and foundations to increase the principal.
- In 2021, \$20,000 was provided to USFWS and NGPC for fall pumping flooding 650 acres.
- Infrastructure has been prioritized for all public basins to maximize water deliveries.

## Central Table Playa Conservation

The CTP are an often-overlooked resource. The RWBJV Implementation Plan highlights a goal of 2,000 acres of playa wetlands enhanced through voluntary incentive-based conservation programs. The RWBJV has included CTP wetlands in the WREP and SAFE proposals to provide new opportunities for landowners and increase enrollment. Accomplishments to date:

- First applications were received for both SAFE and WREP during 2021. Projects will impact over 125 acres of playa wetlands.

## RWBJV Partner Capacity for Playa Conservation

Project funds (Financial Assistance-FA) are seldom limiting; however, staff to provide the Technical Assistance (TA) that facilitates on-the-ground conservation delivery is a continual bottleneck. The RWBJV Partners have leveraged agency, foundation, and grant funding for shared positions to increase delivery capacity. The RWBJV partners currently support six shared positions. These positions address a variety of conservation bottlenecks including program administration, communication, habitat management, and habitat restoration.

### The shared positions and accomplishments are outlined below:

- Central Platte Natural Resources District (CPNRD) Easement Administrative Specialist. This position initiated over 500 contacts with landowners. Ensured landowners were engaged in the management of their USDA easements. This position transitioned to a full time permanent NRCS position in April. Position was funded by CPNRD, NRCS, RWBJV.
- CPNRD Easement Habitat Specialists (2). These individuals completed annual monitoring on 150 easements, developed 30 easement management plans, generated 50 Compatible Use Authorizations, and worked with 13 landowners to submit application packages for ACEP. Positions jointly funded by CPNRD, NRCS, and RWBJV.





- RWBJV Communications Assistant. This position revised the RWBJV program manual, developed a new RWBJV webpage, created RWBJV social media platforms (Facebook, Instagram, twitter, etc.), managed the RWBJV eNewsletter and RWBJV Partnership Update. The updated website includes specific landing pages for the WREP and SAFE. A variety of direct mailings were completed to eligible landowners to promote ACEP, CRP, EQIP, SAFE, and WREP. Position funded by CPNRD, NRCS, and RWBJV.



- Pheasants Forever (PF) Farm Bill Biologist. This individual worked with the CPNRD Easement Specialists to develop seed mixes and restore 350 acres of uplands enrolled in WREP, generated 13 burn plans for ACEP tracts, and assisted with easement monitoring. The individual in this position transitioned to a full time NRCS Soil Conservationist with the position being back filled. Position supported by PF, NFWF, NRCS, and RWBJV.



- RWBJV Habitat Specialist. Coordinated with CPNRD Easement Specialists, NRCS Easement Team, Public Land Managers, and private landowners to implement seven prescribed fires (550 acres), contracted for tree removal (22 properties - ,850 acres), and herbicide treatments on 35 properties impacting 3,500 acres. Worked with 25 landowners to establish grazing infrastructure or other project elements impacting over 4,000 acres. Position funded by NGPC, NRCS, USFWS, and RWBJV.

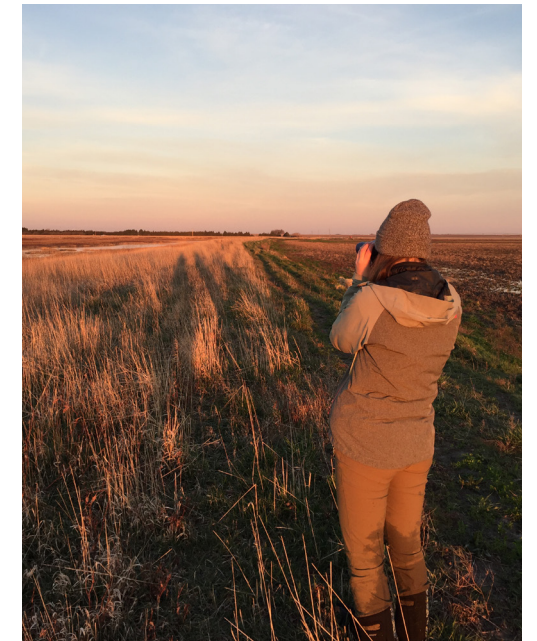


## Playa Wetland Science and Technical Transfer Accomplishments

The RWBJV partnership strives to use the best science available to guide conservation investments and achieve the greatest return on conservation investment. Since 2004, the RWBJV has invested in the Annual Habitat Survey (AHS) for the RWB and more recently (2018) a complimentary Waterfowl Survey (WS). These datasets are providing new insights into contemporary habitat distribution, waterfowl response to local and landscape habitat variables, and identification and prioritization of future wetland and watershed restoration actions.

### Significant accomplishments for FFY 2021 include:

- Coordinated with USFWS Habitat and Population Evaluation Team (HAPET) to collect the 18th year of AHS data. Data has been processed and integrated into a long-term dataset. Spatial queries of the data have been used to focus marketing and outreach to eligible landowners.
- Completed fourth year of the WS working with United State Geological Survey (USGS) scientists to analyze data and generate Decision Support Tools (DSTs) to prioritize wetland restoration, enhancement, and management.
- Western Basin Recharge Project groundwater monitoring network has been fully established. The five WPAs (Cottonwood, Funk, Johnson, Linder, and Victor Lakes) have been instrumented to support recharge monitoring. Preliminary results suggest one acre of playa wetlands can recharge 1.14 million gallons per acre when ponding water for a 30-day hydroperiod annually.





# Grassland Conservation Strategies and Accomplishments

## Playa Wetland Communication Accomplishments

The RWBJV has struggled to implement our communication plan. The recently hired RWBJV Communication Assistant has achieved a significant number of benchmarks. These include:

Coordinated with PLWG and other delivery staff to update the RWBJV Private Lands Program Manual. The manual will be distributed to NRCS Field Offices and provided as part of the Conservation Practitioner Symposiums that will occur in July and August 2022.

Composed letters, postcards, and infographics that highlighted ACEP, CRP, EQIP, WREP, and other partner programs. Over 10,000 landowners, farm operators, and ranch managers were contacted with letters, postcards, and other promotional materials.

Revised the RWBJV website with landing pages for landowners with a focus on WREP, SAFE, and other partner programs.

Developed social media platforms for the RWBJV including Facebook, Instagram, and Twitter.

The Implementation Plan set grassland conservation benchmarks. In 2015, the RWBJV received its first NFWF grant for work in the Sandhills. This grant has been replicated to increase FA and TA to support grassland conservation in the Central Loess Hills, Central Platte River, Republican/Blue River Drainages, and Verdigris Bazile drainage GFAs.

### Three strategies identified in the 2021 APO centered around:

- Support Sandhills grassland conservation efforts through increased project funds (FA) and science support to prioritize conservation efforts.
- Improve grassland habitat in the Central Loess Hills
- Engage partners to identify RWBJV role in the Republican River/Blue River Drainages/Loess Canyons and Verdigris – Bazile Creek Drainages





## Sandhills Grassland Conservation Accomplishments

Nebraska's Sandhills are an iconic landscape containing the largest intact grassland system in the world. This landscape is over 97% privately owned, requiring projects to be developed at the ranch level and scaled-up through neighbor buy-in. The Sandhills Task Force (STF) is a locally led partnership between the ranching community and conservation entities including DU, NGPC, NRCS, PF, The Nature Conservancy (TNC), U.S. Forest Service (USFS), and USFWS. The RWBJV continues to provide TA funding and leverage grant funds to support this partnership. Sandhills Grassland Conservation Accomplishments for FFY 2021:

Secured new NFWF grant for \$215,250.

- Purchase of two prescribed mobile burn units. Title for Burn Units will be held by Middle Niobrara NRD (MNNRD) and Nebraska Grazing Lands Coalition. These entities represent two new partners supporting Sandhills grassland conservation.
- Extend USFS seasonal employees to conduct prescribed fire on 5,000 acres of USFS and adjacent private lands.
- Contract low density tree removal on the Bessy and McKelvie USFS National Grasslands (10,000 acres)

Closed out 2018 NFWF grant.

- Partners leveraged \$1.5 million dollars to positively impact 67,500 acres of private lands. This is roughly 245% above grant goals for acres and matching funds.
  - 40,000 acres of mechanical removal of eastern red cedar.
  - 20,000 acres of grazing infrastructure.
  - 7,500 acres of prescribed fire.

Completed agreement with World Wildlife Fund for \$1.3 million to provide incentive payments to landowners restoring grasslands through EQIP, CRP, or another partner program.

- Goal will be to impact 22,000 acres in FFY 2022 and 2023

NRCS Working Lands for Wildlife experiences most successful year.

- 22 projects impacting 67,000 acres. Focus remains in the eastern Sandhills with a shifting emphasis towards low and ultra-low density tracts to maintain grassland cores.

## Central Loess Hills Grassland Conservation Accomplishments

The RWBJV Central Loess Hills are a patchwork of productive agriculture lands that transition into grasslands adjacent to the Loup River floodplains. NGPC's State Wildlife Action Plan (SWAP) highlights the importance of this landscape for rare and declining species as well as the mixed grass prairie communities.



### Grassland Conservation Accomplishments for FFY 2021 include:

- Completed 5,000 acres of prescribed fire activities as part of the Loup River Prescribed Fire Training Exchange (TREX).
  - Developed prescribed fire plans for 20 landowners for contiguous 2,500 large-scale fire.
  - 20 wildland fire fighters, 25 volunteer fire fighters, and 45 landowners participated in the event providing a unique real-world training on how large-scale prescribed fire can be implemented on private lands.
- Coordinated with CPNRD and Lower Loup NRD to submit NET and NFWF grants to support prescribed fire in the Central Loess Hills.
  - If funded at the \$700,000 level grants will support:
    - Mechanical removal of eastern red cedar.
    - A Prescribed Fire Specialist to work with landowners to develop burn plans.
    - Prescribed fire equipment.
    - Grazing deferment and prescribed fire preparation
    - Contracted burn crews to assist landowners in implementation of prescribed burns.



# Republican River/Blue River/Loess Canyons/Verdigris-Bazile Drainage GFA Grassland Conservation Accomplishments



The Republican River/Blue River/Loess Canyons/Verdigris-Bazile Drainage GFAs contain significant grassland acres. These landscapes vary significantly in topography, land-use, and landowner perceptions towards grassland conservation.

## Grassland accomplishment in these landscapes include:

- Coordinated with CPNRD, LLNRD, MRNRD, Tri-Basin NRD (TBNRD), and Twin Platte NRD (TPNRD) to include the Republican River Drainage and Loess Canyons in the NFWF grant application that will support these NRDs in developing a grassland management program and expand on existing opportunities for landowners
- World Wildlife Fund (\$1.3 million) will provide incentives for grassland restoration in the portions of the Loess Canyons and Verdigris-Bazile drainages for grassland restoration projects.



## RWBJV Partner Capacity for Grassland Conservation

- TNC Burn Boss. This position was funded through a NET grant awarded to TNC and a NFWF grant awarded to the RWBJV. Position is focused on supporting landowners in the WLFW focus are in implementing prescribed fire to control seed sources that remain after mechanical removal of eastern red cedar.
  - 5,700 acres treated in the last three years with 20,000 acres planned for the upcoming three years.
- CPNRD Prescribed Fire Specialists. Funding has been leveraged by CPNRD, NRCS, and RWBJV to hire a Prescribed Fire Specialist. Additional funds have been requested from NFWF and NET to make this a five-year full-time position.
  - Position will support landowners in the CPNRD, LLNRD, MRNRD, TBNRD, and TPNRD, to develop burn plans and ensure prescribed fire contracts can be completed through local burn associations or by the landowners with assistance from the contracted burn crews.





# Grassland Science and Technical Transfer Accomplishments



The RWBJV invested significantly in 2021 to improve the biological foundation that is used to guide our conservation investments. These datasets are a cornerstone for the revision of the RWBJV Landbird Plan. This plan outlines habitat benchmarks for each RWBJV GFA necessary to support target populations of landbirds.

## Significant accomplishments for FFY 2021 include:

- Revised RWBJV Landbird Plan with population objectives and habitat restoration, enhancement, and management goals for each RWBJV GFA.
- Collected field data (50 sample blocks) and 10 cm color infrared aerial photography (5,000 acres) to calibrate the Rangeland Brush Estimation Toolbox. This geospatial tool provides accurate canopy cover estimates to streamline EQIP brush management contracts and cost estimates for partner landowner agreements.
- Integrated all partner projects into a seamless projects database to support outcome-based monitoring (i.e. how many priority birds were impacted by implementation of partner projects).
- Developed spatially explicit occurrence and abundance models for the seven priority grassland birds using the Breeding Bird Survey (BBS) data and two prairie grouse species.
- Developed Grassland Bird Conservation Areas (GBCAs) at the State, RWBJV, and GFA levels to help prioritize grassland conservation. GBCAs generated from the abundance models developed for the RWBJV Landbird Plan highlight geographies that positively impact the greatest number of priority species..



# Grassland Communication Accomplishments



The RWBJV has significantly increased our communication efforts to landowners and ranch managers regarding conservation opportunities. These include:

- Developed letters, postcards, and infographics that highlighted CRP, EQIP, and WLFW program options to producers in the Sandhills and Central Loess Hills. Over 50,000 letters, postcards, and other promotional materials were sent to eligible landowners and farm operators in the Central Loess Hills, Republican River Drainage, Sandhills, and the Verdigris-Bazile.
- Website has new landing pages for each GFA highlighting the different conservation opportunities.



INCOME AND EXPENSES

for Federal Fiscal Year Ending September 30, 2021

FUNDING

U.S. Fish and Wildlife Service Allocation	\$ 498,820.00
Grants	
Nebraska Environmental Trust	\$ 575,609.72
Other Grants and Funding Awards	\$ 4,223,138.27
<b>Total Grants and Other Funding</b>	<b>\$ 4,798,747.99</b>
<b>Total Available Funding</b>	<b>\$ 5,297,567.99</b>

EXPENSES

Regional Administrative Support	\$ 38,299.15
Coordination	\$ 346,053.99
Communication	\$ 73,657.77
Planning	\$ 96,347.19
Monitoring, Evaluation, Research	\$ 176,780.80
Project Development & Implementation	\$ 4,566,429.09
<b>Total Expenses</b>	<b>\$ 5,297,567.99</b>

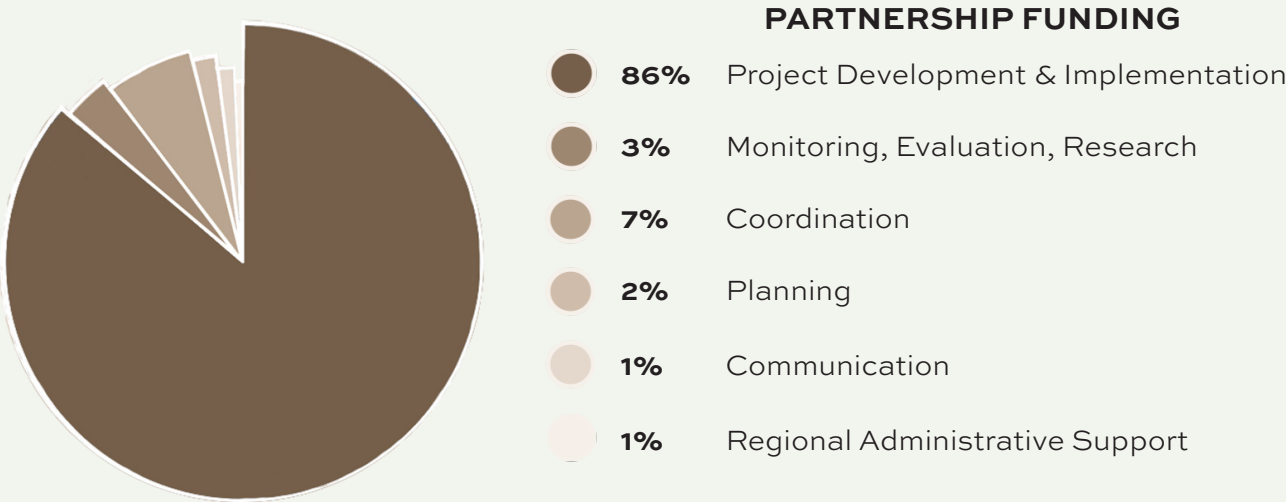
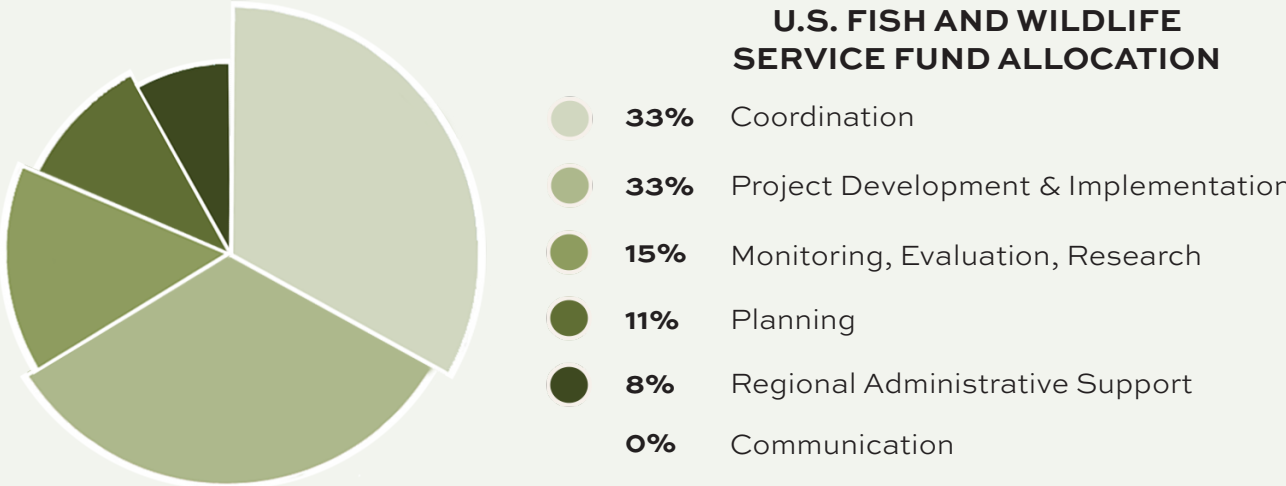






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# RAINWATER BASIN JOINT VENTURE

## PARTNERS INCLUDE

