



BIENNIAL REPORT

2019
2020



PLATTE RIVER
RECOVERY IMPLEMENTATION PROGRAM

PROGRAM TARGET SPECIES



Top Left Piping Plover | 1986 Federally Listed as a Threatened Species
 Top Right Pallid Sturgeon | 1990 Federally Listed as an Endangered Species
 Bottom Left Whooping Crane | 1967 Federally Listed as an Endangered Species
 Bottom Right Interior Least Tern | 1985 Federally Listed as an Endangered Species

Serving the threatened and endangered species of the Platte River as well as the people who live here.

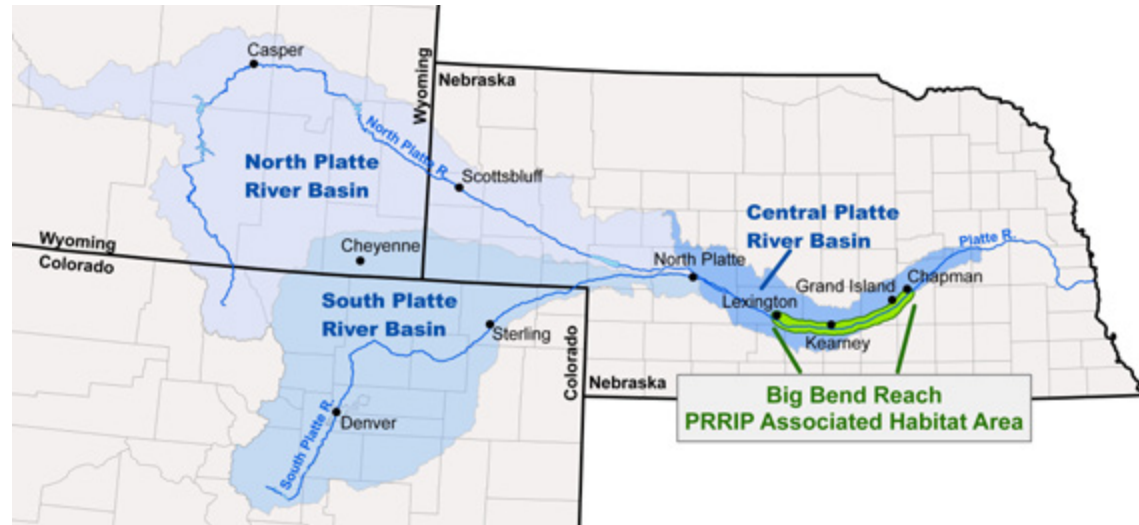


From the Executive Director JASON FARNSWORTH

The last two years of Program implementation have been a time of transition and refocusing. The majority of 2019 was focused on extending the First Increment of the Program, which was set to sunset at the end of that year. Thanks to the hard work and dedication of many Program stakeholders, reauthorizing legislation passed in December of 2019 and the Program transitioned into a 13-year Extension on January 1, 2020. We, along with the rest of the world, were almost immediately plunged into a pandemic that reshaped implementation in 2020. As I write this message, it has officially been a year since the Program's last in person meeting. Despite the challenges of implementing a collaborative program remotely, the Program made substantial progress in 2020. Here are a few examples.

- One of the requirements for extending the Program was the acquisition of an additional 1,500 acres of habitat to form a new habitat complex. In 2020 the Program acquired two properties downstream of the city of Grand Island, establishing the core of a new habitat complex in the last bridge segment that lacked any conservation protections.
- In 2017, the Program's Governance Committee (GC) committed to acquiring an additional 60 acres of off-channel sand and water nesting habitat for least terns and piping plovers, which would satisfy the habitat obligations for those species. In the fall of 2020, the Program acquired a large property near Lexington that will provide an additional 80 acres of nesting habitat.
- Construction of the Cottonwood Ranch broad-scale recharge project was completed in October of 2019. That project provides the capacity to recharge up to 70 cfs of excess flow from Central Nebraska Public Power and Irrigation District's canal system as well as provides several hundred acres of palustrine wetland roosting habitat for whooping cranes.
- The Program entered into an agreement with the Tri-Basin Natural Resources District to construct a recharge recapture pilot project that will allow the Program to pump recharged groundwater to the river during times of deficits, substantially increasing the efficiency of the Program's groundwater recharge projects.
- In 2020, the GC developed a Second Increment policy framework that identifies priority uncertainties that need to be addressed during the Extension to inform Second Increment negotiations.

In addition, the Program reconstituted its Adaptive Management Working Group (AMWG) in 2020 and began the process of identifying priority flow/habitat management actions and associated uncertainties that need to be evaluated during the Extension. We are hopeful that a revised Adaptive Management Plan will be completed in 2021. Overall, we are tremendously proud of the progress the Program has made during a difficult time marked by uncertainty. Like everyone else, we are looking forward to the day when we can all gather in person. In the meantime, we will continue to press forward.



Program History

On July 1, 1997 the governors of Nebraska, Colorado, Wyoming and the Secretary of the Interior entered into a Cooperative Agreement to address the needs of four threatened or endangered species while allowing water development to continue to occur. The named species were the endangered whooping crane, least tern, pallid sturgeon and the threatened piping plover. The agreement proposed a framework for a long-term Recovery Implementation Program to aid these species. Initially, the agreement was for three years to develop a basin-wide cooperative program. However, negotiations regarding the details of the program took place from 1997 to 2006.

In late 2006, the governors of Nebraska, Colorado, Wyoming and the Secretary of the Interior signed the final program agreement, effective January 1, 2007. The Program provides Endangered Species Act (ESA) compliance for water related activities within Colorado, Nebraska, and Wyoming, while working to recover the threatened and endangered target species. The Program was originally authorized for a 13-year First Increment, which began in 2007, at an estimated cost of roughly \$320 million in 2005 dollars with the cash portion being \$187 million.

During the First Increment, ESA compliance is measured through progress in achieving ten Program Milestones that are related to the First Increment Objectives. The Milestones generally include implementation of three initial water supply projects to provide 80,000 acre-feet of water, operation of state and federal depletions plans, provision of an additional 50,000 acre-feet of water, acquisition of 10,000 acres of habitat and implementation of monitoring and research to inform land and water management.

The Program made rapid progress towards meeting the Milestones. By 2016, it was apparent that all but the water milestone (50,000 additional acre-feet) would be met by the end of the First Increment. This was due to a large storage project that became financially infeasible. The Signatories proposed a 13-year Extension of the First Increment to allow the Program to complete and operate Program water projects in support of the research and monitoring that are necessary to provide a sound knowledge base upon which to structure a Second Increment. In late 2019, the Extension received Congressional authorization and the governors of Nebraska, Colorado, Wyoming and the Secretary of the Interior signed an amendment to the final program agreement, effective January 1, 2020.

The Extension does not change First Increment objectives or the implementation framework. Nor does it modify the Milestones. During the Extension, the Program is required to acquire an additional 1,500 acres to create a new habitat complex as well as reach a total of 120,000 acre-feet of water as quickly as possible; and do the science necessary to determine if an additional 10,000 acre-feet are needed. The Extension is essential in providing the time necessary for the Program to complete and operate water projects in support of the research and monitoring necessary to inform Second Increment negotiations.

A total of \$63 million in unexpended First Increment cash contributions has been carried forward into the Extension. An additional \$78 million in federal funding will also be contributed during the Extension with Colorado and Wyoming jointly contributing another \$28 million. Cash equivalent contributions come in the form of \$50 million in water from the states; Nebraska's entire contribution is of this nature.

Executive Summary

This is the seventh accomplishments report of the Program, covering 2019 and 2020. This has been a refocusing period as the Program transitions into a 13-year Extension focused on water acquisition and science implementation. This report is organized to mirror the structure of the Program and is correspondingly divided into four main sections; Land, Water, Adaptive Management, and Program Administration and Outreach.

LAND

The First Increment land objective is to protect, and restore as necessary, 10,000 acres of habitat within the 90-mile Associated Habitat Reach (AHR). Of that total, 9,200 acres are to be in the form of on-channel habitat complexes and the remaining 800 acres split evenly between off-channel palustrine wetland and tern/plover nesting habitat. In addition, the Program committed to acquiring an additional 1,500 acre land “plus-up” during the Extension, for the purpose of establishing a new habitat complex. To date, 13,400 acres have been protected through sponsorship agreements, purchases, leases, or perpetual easements from willing sellers/partners. This includes all of the land needed to achieve the First Increment complex and non-complex land objective as well as 881 acres that count towards the Extension plus-up.

Since the last biennial report in 2018, two tracts totaling 565 acres were purchased in the Grand Island to Chapman bridge segment to form the Program’s eighth habitat complex. A 196-acre sandpit was also acquired near Lexington to complete the Program’s non-complex habitat acquisition requirements. Habitat restoration planning is in process at both locations with construction expected to occur in 2021.

All land implementation activities are conducted under the good neighbor policy and the Program has maintained both good tenant and good neighbor relationships. As part of this policy, the Program pays property taxes on all purchased lands. The Program paid approximately \$299,000 in taxes in 2019 and 2020.

WATER

The focus of the Program’s Water Plan in 2019 and 2020 was the continued development of projects that will cumulatively achieve the Water Plan objective of reducing shortages to U.S. Fish and Wildlife Service target flows by an average of 130,000 to 150,000 acre-feet per year (afy) as measured at Grand Island. Projects to facilitate the retiming of excess flows and the purchase or lease of water were the primary focus of these efforts. The initial state water projects—the Environmental Account (EA) in Lake McConaughy (Nebraska), the Pathfinder Modification Project (Wyoming), and Tamarack I (Colorado)—were completed by 2012 and are credited with providing 80,000 afy toward the Program’s water objective.

Additional operational Water Action Plan (WAP) projects include groundwater recharge on canal systems owned by the Central Platte Natural Resources District (CPNRD), Nebraska Public Power District (NPPD), and Central Nebraska Public Power and Irrigation District (CNPPID). CNPPID’s Elwood Reservoir is also used as a groundwater recharge facility. In addition, the Program completed construction of a broad-scale recharge facility at the Cottonwood Ranch Complex in 2019. Recharge projects jointly contribute approximately 12,000 afy towards the water objective. During the last two years, surface water leases have also become an important source of Program water. Leases with the State of Wyoming, CPNRD and CNPPID provide more than 22,000 afy towards the water objective.

In addition to these water supply projects, the Program continues to work to increase flow capacity through the North Platte chokepoint to 3,000 cfs to allow larger flow releases from the Lake McConaughy Environmental Account. A North Platte chokepoint flow test conducted in July 2020 successfully demonstrated the flood mitigation benefits of the restored State Channel berm.

ADAPTIVE MANAGEMENT

Adaptive Management Plan activities in 2019 and 2020 focused on management action implementation, associated monitoring, data synthesis, and development of an Extension Science Plan. Tern and plover highlights included implementation and monitoring of additional predator controls including fencing and lighting to reduce the impacts of predation on tern and plover productivity. The Program also conducted a preliminary analysis of data from the whooping crane cellular telemetry tracking project to examine factors involved in the decision to stopover versus flyover the AHR. Other activities such as full-scale sediment augmentation and systematic monitoring of target species and channel conditions continued in both years. The Program published two papers describing factors associated with whooping crane riverine stopover sites and diurnal use sites as well as a paper on sandhill crane use of riverine roost sites along the central Platte River, and a paper comparing the effectiveness of monitoring terns and plovers from within versus outside nesting colonies. The Program completed a 2019 State of the Platte Report summarizing science learning during the 13-year First Increment and began development of an Extension Science Plan for target species.

Independent science activities included an annual AMP Reporting Session in 2019 (the 2020 session was postponed to February 2021) focused on discussing a synthesis of First Increment science learning and working with the Independent Scientific Advisory Committee (ISAC) to identify critical uncertainties and information gaps to be addressed during the Extension. In late 2020, the Governance Committee (GC) also conducted a series of virtual workshops to develop a Second Increment Policy Frame, helping to establish key science priorities for the Extension and broad sideboards for subsequent Second Increment negotiations.

PROGRAM ADMINISTRATION AND OUTREACH

Through 2020, the Program has expended over \$155 million. After the initial two years, expenditures have averaged about \$12.5 million a year, fluctuations driven primarily by acquisitions and water project expenditures.

While all of the Executive Director’s Office is considered Administrative, staff efforts are evenly split between Program administration and technical support for the planning and implementation of land, water, and adaptive management activities of the Program. Besides providing direct technical services, Program staff also provides technical support, oversight, and direction to all Program contractors.

Public outreach educates and informs the public about the Program and Program activities through a variety of venues. Since 2013, the Program has been one of the sponsors of the Nebraska Educational Television time-lapse project on the Platte River and a sponsor of youth outdoor education at Rowe Sanctuary, Prairie Loft and South Platte River Environmental Education. The 2020 pandemic led to numerous cancellations of in-person conferences and venues at which Program staff would normally exhibit and present. The Program sponsored two events in 2019–2020 and we made over 2,900 contacts at Program exhibits at various professional conferences and public events. The Executive Director’s Office staff presented on various aspects of the Program to a variety of audiences in 2019 and 2020 (19 and 4 presentations, respectively).

While not directly an EDO function, one of the key benefits provided by the Program is a streamlined Section 7 Consultation process. During the first increment, the U.S. Fish and Wildlife Service have provided 213 streamlined Section 7 consultations through calendar year 2020.



**ACQUIRING, ENHANCING,
RESTORING AND PROTECTING
HABITAT LANDS FOR THE
TARGET BIRD SPECIES**

LAND

Objective Acquisition, protection, and restoration of 10,000 acres of habitat for the three avian species. An additional 1,500 plus up acres were added for the Extension.

Key Concepts Willing seller/willing buyer
Good Neighbor Policy
Will not shift tax burden

Highlights Total of 13,400 acres owned, under easement/lease or in management agreements

Total of 881 acres acquired towards 1,500-acre Extension land plus up

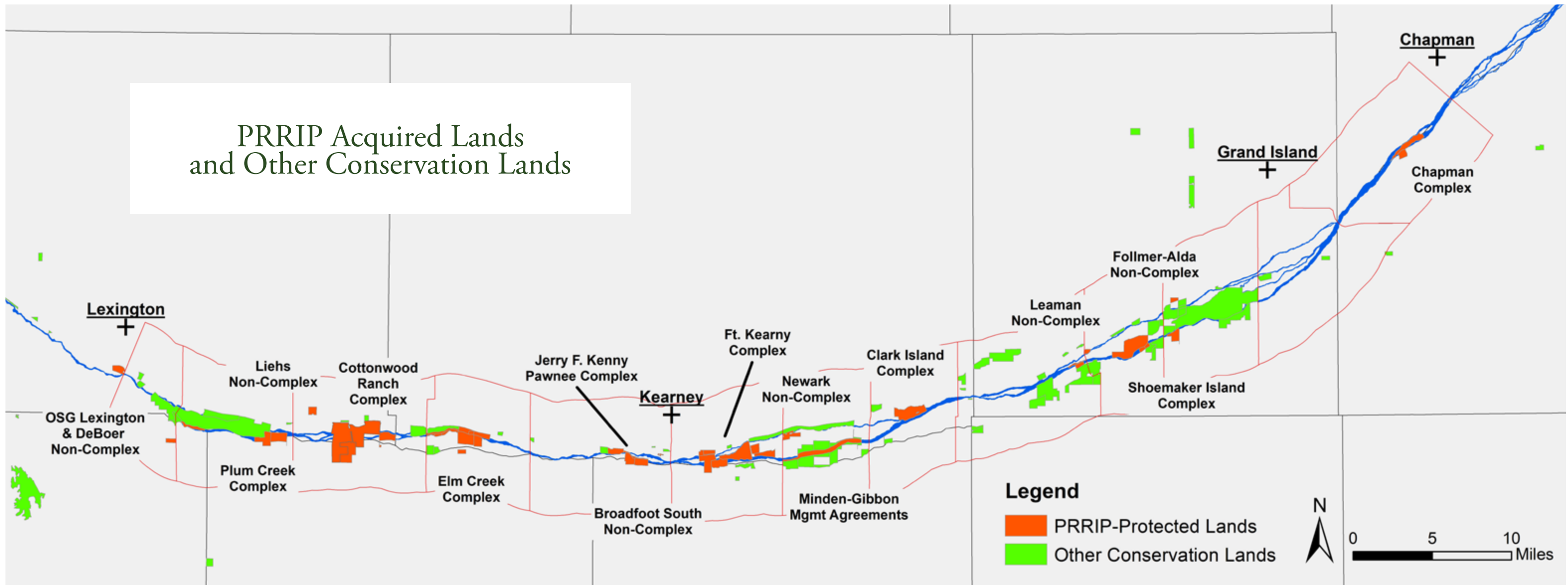
Purchased two tracts (565 acres) in Grand Island to Chapman bridge segment to establish new habitat complex

Acquired off-channel sand and water property near Lexington to fulfill non-complex habitat objective

Widespread public support of Platte River Recreation Access Program (PRRA)

Taxes paid in eight Nebraska counties

PRRIP Acquired Lands and Other Conservation Lands



The Program evaluated a total of 19 potential properties in 2019–2020 and purchased three tracts totaling 761.2 acres. Two tracts are in the Chapman to Grand Island bridge segment and one tract is in the Lexington to Overton bridge segment. At the end of 2020, the Program owned, leased, or managed a total of 13,400 acres.

A new complex was established in the Chapman to Grand Island bridge segment in 2019 and additional acres were added in 2020. Land purchased in 2020 in the Lexington to Overton bridge segment added off-channel acres to complete the non-complex goals of the Program.

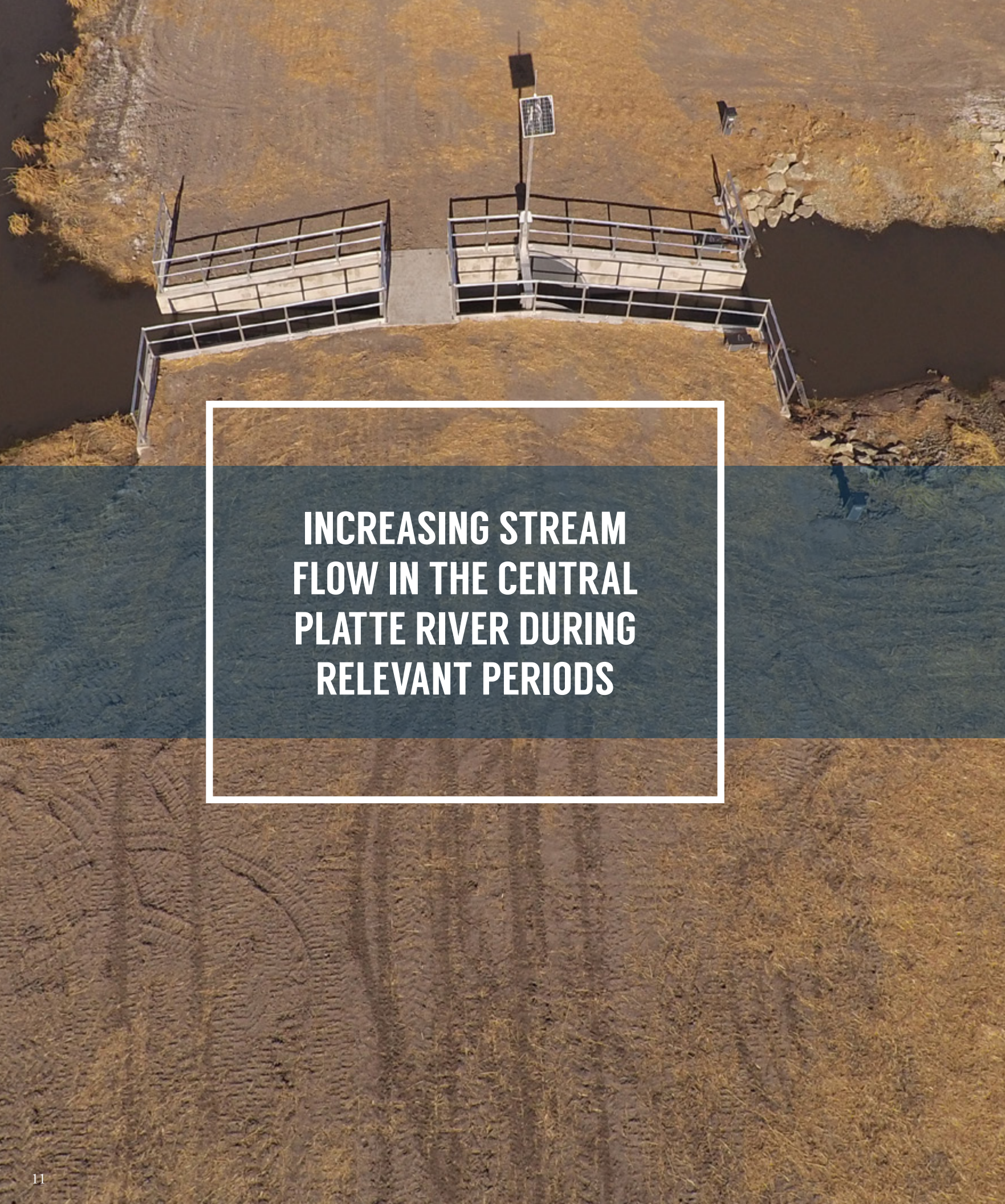
The Program manages 12,559 acres of complex habitat distributed across eleven habitat complexes and 841 acres of non-complex habitat land. In 2019 the Program paid \$145,560.45 in taxes and \$153,935.42 in 2020.

PRRIP LANDS AND ACRES

Name	Number of Acres
Cottonwood Ranch Complex	3,552
Fort Kearney Complex	2,190
Elm Creek Complex	1,438
Shoemaker Island Complex	1,292
Plum Creek Complex	866
Gibbon to Minden	834
Clark Island Complex	784
Pawnee Complex	742
Alda to Grand Island	286
Grand Island to Chapman	575
Total Complex Land	12,559
Total Non-Complex Land	841
Grand Total	13,400

Platte River Recreation Access

The Platte River Recreation Access (PRRA) program is in its tenth year. The PRRA provides the public the opportunity to use selected portions of the 13,400 acres controlled by the PRRIP during times when targeted species are not present. The PRRIP contracts with the Nebraska Game and Parks Commission (NGPC) to administer and enforce the PRRA. The PRRA website (www.platteaccess.org) allows the public to sign up for available dates to use open land along the Platte River. The sites are available to a limited number of people each day and are completely closed to public access during the target species protection periods. Permission slips must be in hand to access land and enforcement is a priority to follow the Program's good neighbor policy. Allowed activities include deer hunting, turkey hunting, hiking, fishing, bird watching, mushroom collecting, and limited waterfowl and small-game hunting.



**INCREASING STREAM
FLOW IN THE CENTRAL
PLATTE RIVER DURING
RELEVANT PERIODS**

WATER

Objective Reducing deficits to USFWS target flows by 130,000 to 150,000 AFY at Grand Island

Key Concepts Addressing New (Post-1997) Water-Related Activity Impacts
Three States and Federal Depletions Plans
Addressing Existing (Pre-1997) Water-Related Activity Impacts
Three Initial Projects—Tamarack I (CO), Pathfinder Modification (WY), Lake McConaughy Environmental Account (NE)
New water conservation/supply projects

Water Management

Highlights Construction of the first broad-scale recharge project was completed in October 2019, followed by test fill operations during the summer of 2020. The project is located at the Cottonwood Ranch complex in Phelps County, Nebraska.

The Program continued a successful project to lease surface water from irrigators within the Central Nebraska Public Power and Irrigation District (CNPPID) systems, with increasing numbers of enrolled acres in each successive year of operation.

Pilot exchange projects to credit additional surface water to the Lake McConaughy EA were successfully implemented. The source water is leased from Central Platte Natural Resources District (CPNRD) and Nebraska Public Power District (NPPD) canals that divert along the central Platte River.

Retiming of excess flows through groundwater recharge during the non-irrigation season continued to be successful, with operations involving six irrigation canals and an existing reservoir.

A North Platte Chokepoint flow test in July 2020 successfully demonstrated the flood mitigation benefits of the restored State Channel berm.

Water Objective

REDUCING SHORTAGES TO TARGET FLOWS BY AN AVERAGE OF 130,000 TO 150,000 ACRE- FEET PER YEAR (AFY)

A combination of reregulation and water conservation/ supply projects will contribute to Platte River streamflows during periods of shortage

Initial water projects by the three Platte Basin states—the Environmental Account (EA) in Lake McConaughy (Nebraska), the Pathfinder Modification Project (Wyoming), and Tamarack I (Colorado)—collectively provide 80,000 AFY toward the Program’s First Increment water objective. The EA was operational before the Program began in 2007; the Pathfinder Modification Project, including the Pathfinder EA and the Wyoming Municipal Account, became operational in 2012; and the Tamarack I project was partially operational at Program inception in 2007, with associated wells, recharge basins, and other facilities constructed between 1997 and 2014.

The remaining portion of the First Increment water objective (50,000 to 70,000 AFY) will be met through a diverse portfolio of incentive-based water conservation and water supply activities, first identified in the 2000 Reconnaissance-Level Water Action Plan (WAP). Progress toward the development of these additional projects since the beginning of the First Increment was reported in the 2009 and 2014 WAP updates. Program water plan activities during 2019–2020 focused on the operation of existing WAP projects.

Implemented and Proposed Water Action Plan (WAP) Projects to meet Program objectives

Nebraska Groundwater Recharge

Excess flows diverted into canals and a reservoir in the Central Platte region seep into the underlying groundwater

aquifer. This recharged water will gradually return to the Platte River as baseflow accretions over a period of months to years.

Recharge operations using the Phelps County Canal in the Central Nebraska Public Power and Irrigation District (CNPPID) system were first implemented in 2011 and continued to be successful through 2020. A total volume of about 2,700 AF was diverted into the canal for recharge on behalf of the Program in 2019–2020. Diversions were lower than in previous years due to an extended period with high groundwater levels in the area between the Phelps County Canal and the Platte River.

A well installed on Program property to recapture recharged water from the Phelps County Canal and enhance the project yield pumped 243 AF into the Platte River during times of shortage in 2019–2020.

Diversions of excess flows for recharge through the CNPPID’s Elwood Reservoir continued, totaling 18,540 AF for the Program in 2019. Recharge diversions were curtailed in 2020 to evaluate seepage issues and ensure safe project operations. Elwood Reservoir recharge is expected to resume following the completion of repairs during 2021.

The Program continued diversions of excess flows into the Thirty Mile, Cozad, and Orchard-Alfalfa canals for groundwater recharge under agreements with the Central Platte Natural Resources District (CPNRD). Return flows from previous years’ project operations totaled about 1,460 AF in 2019, and new net recharge of 2,950 AF occurred in 2020.

Excess flow diversions into the Gothenburg and Dawson County canals resulting in about 9,200 AF of net groundwater recharge were made in 2019–2020 under an agreement with the Nebraska Public Power District (NPPD).

Nebraska Water Leasing

In 2011, the Program signed an agreement with the Wyoming Water Development Office to lease water from the Pathfinder Municipal Account. A total of 14,400 AF was purchased by the Program and released from Pathfinder Reservoir under the Municipal Account Lease during 2019–2020. This water is recaptured in the Lake McConaughy EA before eventual release through the critical habitat reach further downstream.

In 2013, the Program signed an agreement with the CPNRD to lease the net consumptive use credit from transferred surface water rights under the Thirty-Mile, Cozad and Orchard-Alfalfa canals. For the first three years of project operation, the transferred surface water was returned to the Platte River at the canal headgates, after which the project was reconfigured to instead credit the leased surface water to the Lake McConaughy EA. Pilot exchange project agreements in 2019 and 2020 resulted in contributions to the Lake McConaughy EA from the CPNRD canals totaling 28,170 AF.

The Program also continued the successful implementation of a project to lease surface water from irrigators on lands within the CNPPID system. The enrolled irrigated acreage continued to increase in each successive year, with 2,934 acres in 2019 and 2,989 acres in 2020. For each enrolled acre, 9 inches (0.75 AF) of water are credited to the Lake McConaughy EA after the end of the irrigation season, totaling 4,440 AF during 2019–2020.

WAP Projects in Development

Construction of the Cottonwood Ranch broad-scale recharge (BSR) project was completed in 2019. Test fill operations

were conducted during the summer of 2020, with about 360 AF delivered from the Lake McConaughy EA for recharge. Full project operations are expected to begin in 2021. In a collaborative effort with the Tri-Basin Natural Resources District, the Program is developing a pilot scale recapture well network to pump recharged water to the Platte River during times when there are shortages to target flows. This will allow for more efficient use of groundwater recharge projects. Installation of seven pilot project wells is expected to be completed in 2021.

The Program continues to pursue mutually beneficial partnerships with irrigation districts along the North Platte River and elsewhere to contribute additional water to the Lake McConaughy EA and improve overall Platte River flow conditions.

North Platte River Chokepoint Capacity Enlargement Activities

The Program completed construction of the State Channel project at the North Platte Chokepoint in 2018. This project is intended to direct high flows away from flood prone areas and back towards the main river channel upstream of the Highway 83 bridge. A North Platte Chokepoint flow test conducted in 2020 demonstrated successful performance of the restored State Channel berm, but an attempt to increase the chokepoint flow capacity available to the Program by raising minor flood stage was unsuccessful. The Program will continue to investigate other methods for increasing channel capacity and reducing flood risk in the area, including disking and vegetation removal to improve conveyance.

The Program continued to support and collaborate with The Platte Valley and West Central Weed Management Areas to work toward control of invasive vegetation in the river channel from Lake McConaughy to Columbus, Nebraska. These efforts include spraying and mechanical efforts to kill and remove vegetation from the channel to restore conveyance capacity and enhance habitat.





**SYSTEMATIC PROCESS TO TEST
ACTIONS AND APPLY INFORMATION
LEARNED TO IMPROVE MANAGEMENT
OF LAND AND WATER**

ADAPTIVE MANAGEMENT

Objective Improve production of interior least tern and piping plover from the central Platte River Valley

Contribute to survival of whooping cranes during migration

Avoid adverse impact from Program actions on pallid sturgeon populations

Within overall objectives 1–3, provide benefits to non-target listed species and non-listed species of concern and reduce likelihood of future listings

Key Concepts All research tied to management actions

Scientific rigor is essential for meaningful learning

Developing useful scientific information to assist with decision making

Highlights Implementation of additional predator management actions to improve productivity of interior least terns and piping plovers at off-channel sand and water nesting sites

Began development of an Extension Science Plan for target species

Continued full-scale sediment augmentation management experiment

Published 4 manuscripts related to target species and Program management actions



Monitoring

Whooping Cranes

- Annual spring and fall migration monitoring in 2019 and 2020
- Completed reports for both years

Terns and Plovers

- Annual nesting season monitoring in 2019 and 2020
- Completed reports for both years

Geomorphology and In-Channel Vegetation

- Remote monitoring conducted in 2019 and 2020

LiDAR and Aerial Photography

- Aerial imagery acquired in both 2019 and 2020
- Bathymetric LiDAR successfully flown in 2019 and 2020

Research

Whooping Cranes

- Preliminary analysis of data from whooping crane cellular telemetry tracking project for analysis of factors affecting whooping crane decision to stopover versus flyover the Associated Habitat Reach
- Published manuscripts in 2019 and 2020:
 - Diurnal habitat selection of migrating Whooping Crane in the Great Plains. *Avian Conservation and Ecology*. 14(1): 6.
 - Whooping crane use of riverine stopover sites. *PLoS ONE*. 14(1): e02096125.
 - Sandhill Crane use of riverine roost sites along the central Platte River in Nebraska, USA. *Monographs of the Western North American Naturalist*. 11: 1–13.

Terns and Plovers

- Completed band re-sighting of terns and plovers on central Platte River during 2019 and 2020 to track reproductive success, site fidelity, and survival over time
- Implemented a 2-year predator abundance study, monitoring individual nests during 2019 and 2020
- Implemented a turtle deterrent fencing and predator deterrent lighting pilot study in 2020
- Implemented a turtle capture and recapture study in 2020
- Implemented a predator track survey study in 2020
- Published manuscript in 2020:
 - Reducing effort when measuring shorebird productivity. *Waterbirds*. 43(2): 123–133.

Geomorphology and In-Channel Vegetation

- Time-lapse photography monitoring vegetation response to germination suppression flows in 2020
- Development of new model for describing factors important for channel width maintenance in 2020

Wet Meadows Hydrology Investigations

- Continued monitoring during 2019

Independent Science Review

Independent Scientific Advisory Committee (ISAC)

- Independent Scientific Advisory Committee (ISAC) meeting in 2019 (2020 meeting delayed until February 2021)
- Specific ISAC input on Program implementation of adaptive management, annual State of the Platte reports, and bridging the science / policy gap during the Extension. Included ISAC guidance on framing uncertainties and science learning to inform GC decision-making.



Implementation

Implemented additional predator management actions including predator deterrent lighting, turtle deterrent fencing, and predator track surveys at selected tern and plover nesting sites in 2020.

Implemented turtle capture and recapture at four tern and plover nesting sites in 2020.

Tested remote nest camera setup in 2019. Implemented tern and plover nest monitoring via remote nest cameras at four tern and plover nesting sites in 2020.

Implemented full-scale sediment augmentation in the Platte River south channel above the Overton bridge.

Plum Creek Complex management actions—Conducted prescribed fires on grassland areas in 2019. Maintained off-channel bare-sand nesting habitat on sandpit peninsulas in 2019 and 2020.

Cottonwood Ranch Complex management actions—Maintained off-channel nesting habitat in 2019 and 2020. Conducted prescribed fires on grassland area south of OCSW in 2020.

Elm Creek Complex management actions—Conducted prescribed fires on grassland areas in 2019 and 2020. Disked in-channel areas in 2020. Cleared trees and burned, buried tree piles along channel.

Pawnee Complex management actions—Applied preemergent herbicide in 2019 and 2020. Disked in-channel areas in 2020.

Ft. Kearny Complex management actions—Conducted prescribed fires on grassland areas in 2019 and 2020. Continued active pumping to improve whooping crane wet meadow habitat suitability.

Clark Island Complex management actions—Conducted prescribed fire on grassland area in 2020. Cleared trees, burned and buried tree piles, and disked in-channel islands in 2020.

Shoemaker Island Complex management actions—Conducted prescribed fires on grassland areas in 2019 and 2020 and conducted in-channel river disking in 2020.

Chapman Complex—Completed Restoration and Maintenance plans for Tracts 2019001 and 2020001.

Non-complex tern and plover habitat—Active mining to create nesting habitat for terns and plovers at Follmer-Alda and Lakeside continues. Active mining at Newark East was completed in 2020. Continued herbicide treatments and maintained bare-sand nesting habitat at Follmer-Alda, Leaman East, Newark East, Newark West and Broadfoot Kearney South in 2019 and 2020.

Non-complex palustrine wetland habitat—Conducted prescribed fires on grassland area in 2020. Continued active pumping to improve whooping crane wetland habitat suitability in 2019 and 2020.

Planning

- Completed 2019 State of the Platte Report that summarized science learning during the 13-year First Increment; included an assessment of AMP management objectives, ten Program “Big Questions,” and associated priority hypotheses.
- Adaptive Management Working Group bi-monthly meetings in 2020 to develop Extension Science Plan.
- Adaptive Management Plan Reporting Session in 2019—gathering of ISAC, Technical Advisory Committee, Governance Committee, Program staff, Program contractors, Special Advisors, and interested parties to discuss results of previous year’s monitoring and research, data analysis, and data synthesis.



COST EFFECTIVE ADMINISTRATION

INFORM AND EDUCATE THE
PUBLIC ABOUT THE PRRIP

PROGRAM ADMINISTRATION & OUTREACH

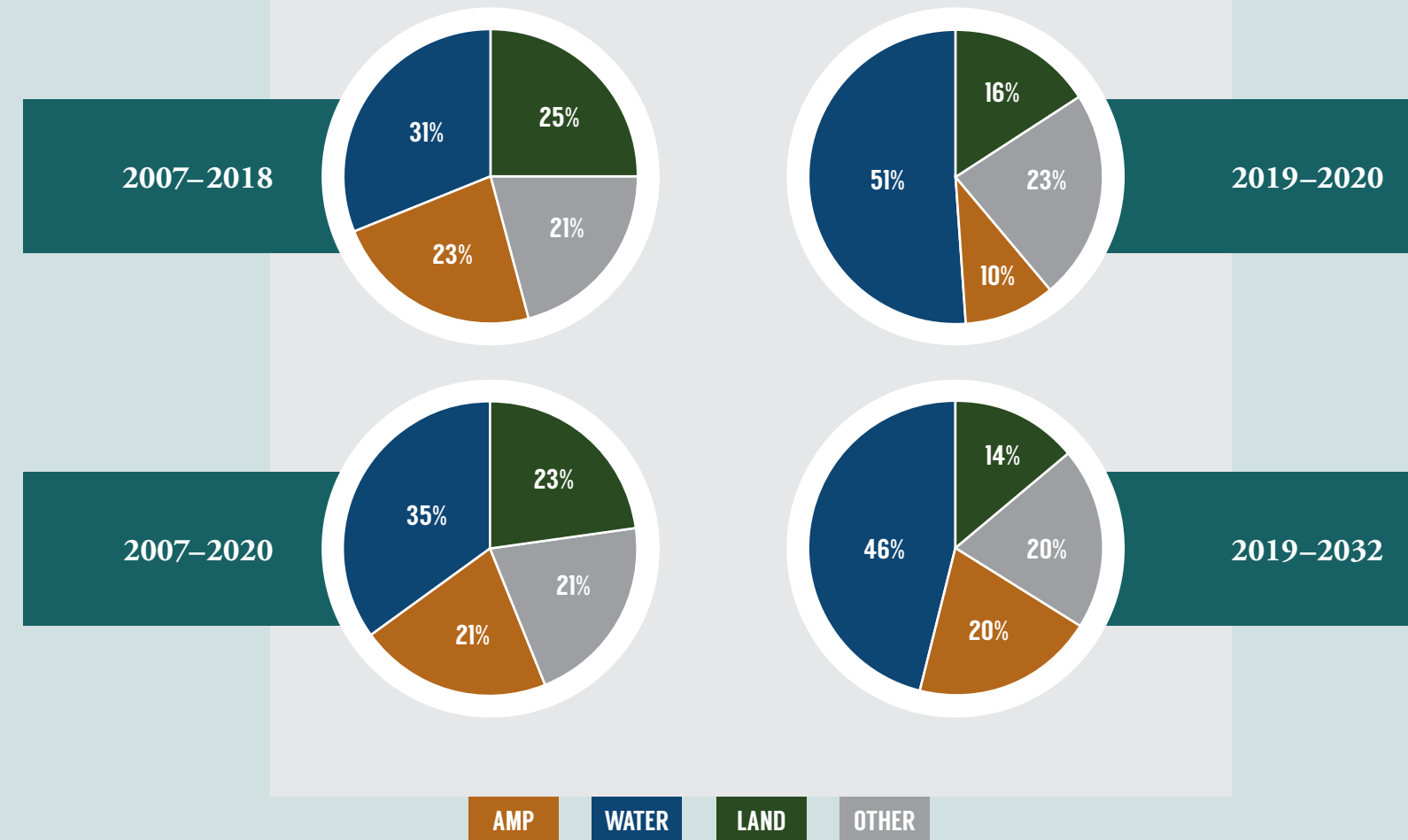
Administration Highlights	Total of \$26.7 million expended on Program with \$155 million expended since 2007 Collaborative effort with signatories and stakeholders resulted in extension of first Increment to 2032
Outreach Highlights	Provided funding for experiential programs for children and youth that educated approximately 9,000 Over 2,900 contacts with the public at Program exhibits

PRRIP EXPENDITURES

The organizational structure of the PRRIP is different than many of the other existing Recovery Implementation Programs. The key organizational difference is that the actual day-to-day implementation actions are carried out by an independent entity, Headwaters Corporation (a private sector firm), rather than a government agency. The services of the Executive Director and Program Staff are provided through a contract with Headwaters Corporation. In most other recovery Programs, these implementation functions are performed by federal employees acting through their specific agency. This fairly unique structure was selected to truly embody the collaborative nature under which the Platte River Recovery Implementation Program has been undertaken.

Control of the Program rests with a group of stakeholders that prominently includes State and Federal representatives, water users and environmental groups. Governance of the Program is provided by representatives of the Department of Interior; the States of Colorado, Nebraska, and Wyoming; water users; and environmental groups.

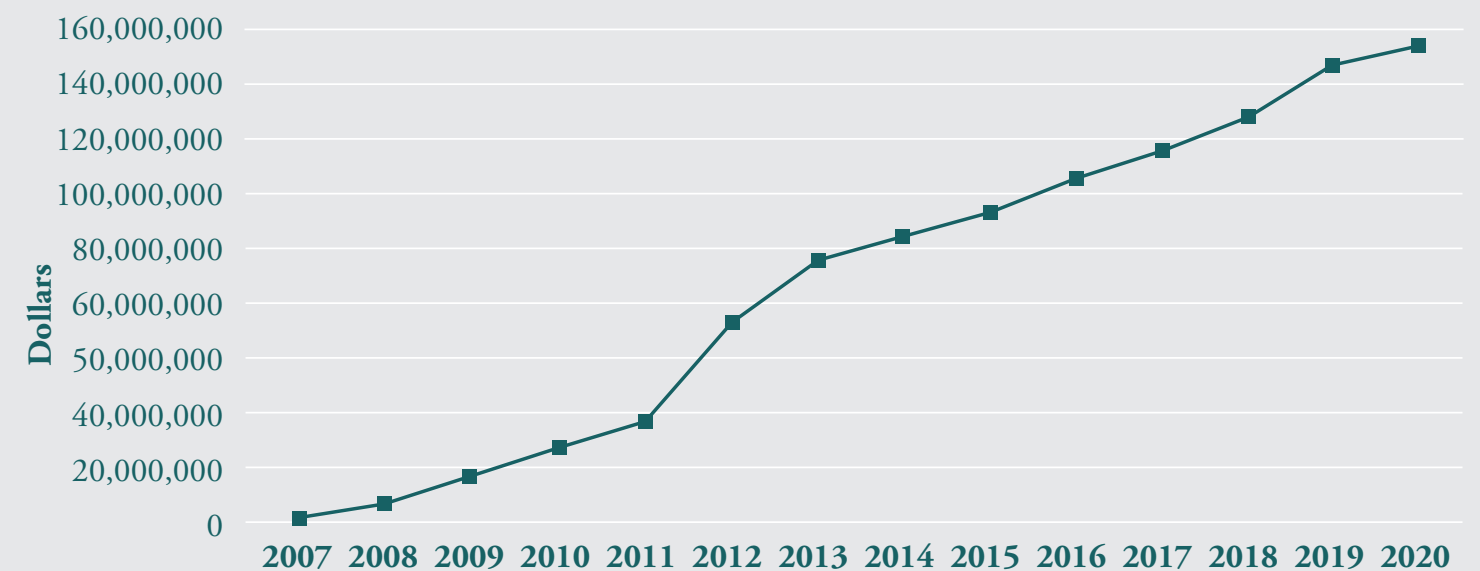
Represented in the Program's Governance and Advisory Committee structure are a broad spectrum of diverse stakeholders from a variety of organizations and entities, including: the Bureau of Reclamation, Fish and Wildlife Service, the State of Colorado, the State of Nebraska, the State of Wyoming, Colorado Water Conservation Board, Colorado Department of Water Resources, Denver Water, Greeley Water and Sewer Department, Northern Colorado Water Conservancy District, Lower South Platte Water Conservancy District, Wyoming Water Development Commission, Wyoming State Engineers Office, Casper-Alcova Irrigation District, Goshen Irrigation District, Pathfinder Irrigation District, Nebraska Department of Natural Resources, Nebraska Game and Parks Commission, Central Platte Natural Resources District (NRD), Twin Platte NRD, Tri-Basin NRD, Central Nebraska Public Power and Irrigation District, Nebraska Public Power District, The Nature Conservancy, The Audubon Society, and The Crane Trust.



Through 2020, the Program expended \$155 million. The total expenditures by year are shown on the graph on the following page. After the initial two years, expenditures have averaged about \$12.5 million a year, fluctuations driven primarily by land acquisitions and water project expenditures.

The series of pie charts on the next page provide a breakdown of the expenditures by category; Land, Water, AMP and Other (implementation support, administration, oversight and outreach costs). The charts tell a clear story. The distribution of expenditures in 2019-2020 show significant expenditures for water. This contrasts with the distribution for 2007-2018, when there is balance between expenditures for water, land and science.

CUMULATIVE EXPENDITURES



Outreach

Iain Nicolson Audubon Center at Rowe Sanctuary

The Program financially supports educational programs at the Iain Nicolson Audubon Center at Rowe Sanctuary in Nebraska. Rowe Sanctuary's outdoor, experienced-based education programs provide children, families and adults with opportunities to experience the Platte Valley ecosystem. Platte River Safari Camp is for children in 2nd through 5th grades. Campers take part in a variety of activities focused on the Platte River and surrounding areas that include natural and physical science, language arts, history, agriculture, music and art. Flying Higher Camp (grades 6th through 8th) is a hands-on, ecology camp that takes campers into the realm of scientific surveys and identification. In addition to these camps, Rowe Sanctuary also offers outdoor classroom education and Rowe Adventures. In 2019, 118 campers experienced nature first-hand at a camp and 1,965 family members attended an educational program. In

2020, summer camps were cancelled due to the pandemic. Rowe Sanctuary conducted several virtual programs, many using new GoPro equipment that helped reach around 4,476 people across the country. These programs included virtual wildflower walks, community science bird counts, and written nature exploration activity guidelines for families to explore nature together.

South Platte River Environmental Education (SPREE)

The Program continued funding in 2019 and 2020 for The Greenway Foundation's South Platte River Environmental Education (SPREE) program in Colorado. SPREE's core program is Excursions. These field trips help students build a connection to the River as well as the knowledge and skills that they will need to be active and engaged decision makers. In 2019, SPREE educators guided nearly 5,000 learners on environmental education field trips along the

most urban stretches of the South Platte River and taught over 600 children at two summer camp locations. SPREE also held four free family events along the river that engaged over 250 participants in stewardship, recreation, and educational activities.

In March of 2020, Denver Public Schools moved all its students to remote/virtual learning and the City imposed restrictions on gatherings as well as the use of its park spaces. This resulted in the unfortunate cancellation of in-person Summer Camps. SPREE created a 5-week virtual camp that encouraged children to engage with and learn about local waterways by completing environmental missions. SPREE Excursions were also adapted to a virtual format. A robust package of grade-specific materials, including pre-recorded videos, student worksheets, and "get outside" activities was developed for 1st–5th graders. Over 4,800 students participated in these Virtual Excursions and 530 students attended "live-stream"

educational lessons with SPREE instructors. SPREE family events were also adapted, a "curbside pickup" model was used to distribute activities to families in lieu of in person events. Despite these changes, SPREE still engaged nearly 300 people through these events.

Prairie Loft

The Program financially supports the educational program of the Prairie Loft Center for Outdoor and Agricultural Learning in Nebraska. Prairie Loft's mission is to teach agriculture appreciation, outdoor education, cultural traditions, and the wise use of natural resources. Education programs involve preschool, elementary and middle school students and their families through hands-on, place-based learning programs. Prairie Loft offers field trips, school programs, community events, monthly Family Outdoor Club programs, and summer camps including Dirt Day, Little Sprouts day Camp, Junior Farmhands Camp, and Grandparents Camp. Subjects include plant

Cont.





PROGRAM EXHIBITS & SPONSORSHIPS

science, soils, water, food origins, and wildlife and habitat. In 2019 attendance at Prairie Loft field trips and lessons was 2,445 students and 955 teachers/parents. On-site participant numbers and program activities in 2020 were greatly reduced due to the pandemic, the center hosted just under 3,000 in 2020. Prairie Loft developed new experiential educational programs including home delivery of 110 Activity Packs for kids ages 4–12, reservations for 200 families to explore the site, modified summer camps, new online material such as virtual field trips and family programs and nature videos on YouTube and Facebook.

The Platte Basin Timelapse Project

The Program continued financial support of the Platte Basin Timelapse Project (PBT) in 2019 and 2020. The project has nearly 60 timelapse camera systems placed throughout the 90,000 square-mile basin, from its headwaters along the Continental Divide in the Colorado Rockies to the river’s confluence with the Missouri River on Nebraska’s eastern border. In 2019 and 2020, the

PBT provided storytelling grants to develop stories on the sandhill crane migration and trumpeter swans returning to Nebraska. PBT’s *A Trout with Feathers* documentary film was an official selection in the Colorado Environmental Film Festival in 2019, and its photo essay was featured in *Audubon Magazine*.

The PBT website also has an educational component with Science Technology Engineering Mathematics (STEM) based educational curriculum for late elementary, middle and high school science students. The curriculum includes lesson plans, learning objectives and handouts on subjects such as Platte River prairies, habitats & ecosystems. In 2020 the PBT began a partnership with the Nebraska Game and Parks Commission to create web-based multimedia content and educational deliverables about Nebraska’s wetlands that will reach schools and diverse public audiences throughout the state. The website is www.plattebasintimelapse.com.

2019 Exhibits

	State	Contacts
4States Irrigation Council <i>January</i>	Colorado	159
Colorado Water Congress <i>January</i>	Colorado	270
Rainwater Basin Joint Venture <i>February</i>	Nebraska	78
Audubon’s Nebraska Crane Festival <i>March</i>	Nebraska	100
American Water Resources Conference <i>March</i>	Nebraska	105
Husker Harvest Days <i>September</i>	Nebraska	1,500
Natural Resources District Conference <i>September</i>	Nebraska	175
South Platte Forum <i>October</i>	Colorado	154
Kearney Children’s Museum <i>October</i>	Nebraska	N/A

2019/2020 Sponsorships

	State
South Platte Forum <i>October 2019</i>	Colorado
NE Water Resources Association/NE Irrigators Association—Webinar Series <i>October/November 2020</i>	Nebraska

2020 Exhibits

	State	Contacts
4States Irrigation Council <i>January</i>	Colorado	84
Colorado Water Congress <i>January</i>	Colorado	122
Rainwater Basin Joint Venture <i>February</i>	Nebraska	142
Colorado Water Congress <i>September</i>	Colorado	Virtual

Staff Public Presentations

Audience	2019	2020
Irrigators	1	0
Professional Associations	6	0
Natural Resource Districts	2	2
Academic	1	0
Water Conference/Symposium	5	0
Environmental Groups	1	1
General Public	3	1
TOTAL	19	4

One of the key benefits provided by the Program is a streamlined Section 7 Consultation process. During the first increment, the U.S. Fish and Wildlife Service have provided 213 streamlined Section 7 consultations through calendar year 2020.

STREAMLINED SECTION 7 CONSULTATIONS BY USFWS

	Colorado	Wyoming	Nebraska	Total by Year	Federal
2007	11	6	1	17	0
2008	14	4	6	24	1
2009	18	4	2	24	3
2010	14	4	1	19	2
2011	15	1	3	19	6
2012	21	1	1	23	5
2013	14	2	2	18	5
2014	9	0	0	9	3
2015	8	0	0	8	3
2016	17	1	1	19	2
2017	6	1	1	8	2
2018	4	3	1	8	4
2019	6	5	1	12	4
2020	2	2	1	5	2
Total by Entity	159	34	21	213**	*

*Federal numbers are not additive; they are already included in the state totals.

**One project in 2007 occurred in both Colorado and Wyoming. It is included in both state totals but should not be included twice in the overall count. Therefore, by adding Colorado (159), Wyoming (34), and Nebraska (21), the total is one more (214) than the actual total through 2020 (213).

PROGRESS THROUGH FIRST INCREMENT

COMPLETED **INCOMPLETE**

1 The Pathfinder Modification Project will be operational and physically and legally capable of providing water to the Program by no later than the end of Year 4 of the First Increment.

6 The Integrated Monitoring and Research Plan, as may be amended by the Governance Committee, will be implemented beginning Year 1 of the Program.

2 Colorado will complete construction of the Tamarack I and commence full operations by the end of Year 4 of the First Increment.

7 The Wyoming Depletions Plan, as may be amended with the approval of the Governance Committee, will be operated during the First Increment of the Program.

3 CNPPID and NPPD will implement an Environmental Account for Storage Reservoirs on the Platte System in Nebraska as provided in FERC licenses 1417 and 1835.

8 The Colorado Depletions Plan, as may be amended with the approval of the Governance Committee, will be operated during the First Increment of the Program.

4 The Reconnaissance-Level Water Action Plan, as may be amended by the Governance Committee, will be implemented and capable of providing at least an average of 50,000 acre-feet per year of shortage reduction to target flows, or for other Program purposes, by no later than the end of the First Increment.

9 The Nebraska Depletions Plan, as may be amended with the approval of the Governance Committee, will be operated during the First Increment of the Program.

5 The Land Plan, as may be amended by the Governance Committee, will be implemented to protect and, where appropriate, restore 10,000 acres of habitat by no later than the end of the First Increment.

10 The Federal Depletions Plan, as may be amended with the approval of the Governance Committee, will be operated during the First Increment of the Program.

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**Serving the threatened and
endangered species of the Platte
River Basin as well as the people
who live here.**



**PLATTE RIVER
RECOVERY IMPLEMENTATION PROGRAM**

platteriverprogram.org