



# PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

## FISCAL YEAR 2021 BUDGET AND ANNUAL WORK PLAN

### Prepared by:

Executive Director's Office (EDO)  
Platte River Recovery Implementation Program (PRRIP or Program)  
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### Prepared for:

PRRIP Governance Committee (GC)  
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Final Budget and Work Plan Revised and Approved by Governance Committee  
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### Introduction

The Platte River Recovery Implementation Program (“Program” or “PRRIP”) initiated on January 1, 2007 as a basin-wide effort between the states of Colorado, Wyoming, and Nebraska and the Department of Interior to provide land, water, and scientific monitoring and research to evaluate Program benefits for the target species. The Program is being implemented in an incremental manner, with the First Increment covering the 13-year period from 2007 through 2019 and the First Increment Extension covering a 13-year period from 2021 through 2032. In general, the purpose of the Program is to implement certain aspects of the U.S. Fish and Wildlife Service’s (Service) recovery plans for the target species that relate to the Program’s identified “associated habitats” in the central Platte River by securing defined benefits for those species and their habitats. The Program will also provide ESA compliance for existing and certain new water-related activities in the Platte basin upstream of the Loup River confluence for potential effects on the target species; help prevent the need to list more Platte River species under the ESA; mitigate the adverse effects of certain new water-related activities through approved depletions plans; and establish and maintain an organizational structure that will ensure appropriate state and federal government and stakeholder involvement in the Program.

The Program is led by a Governance Committee (GC) consisting of representatives of Colorado, Wyoming, Nebraska, the Bureau of Reclamation, the Service, South Platte River water users, North Platte River water users, Nebraska water users, and environmental groups. The Program established key standing Advisory Committees to assist the GC in implementing the Program. Those committees include the Technical Advisory Committee (TAC), the Land Advisory Committee (LAC), the Water Advisory Committee (WAC), the Finance Committee (FC), and the Independent Scientific Advisory Committee (ISAC).

Jason Farnsworth serves as Executive Director (ED) of the Program. Farnsworth and staff in the Executive Director’s Office (EDO) maintain offices in Nebraska and Colorado. The EDO worked closely with the GC, the Advisory Committees and their subcommittees and working groups, Program cooperators and partners, and others to develop the FY 2021 Program Budget and Work Plan based on guidance from the Final Program Document and Program goals and priorities.

This document presents a quick reference snapshot of the FY 2021 Program Budget Spreadsheet (which is a separate document that is incorporated by reference) and the final FY 2021 Program Annual Work Plan.





**Table 1.** Quick-reference snapshot of the FY 2021 PRRIP Budget Spreadsheet, including a Table of Contents reference page number corresponding to the beginning page location for each budget line item in this FY2021 work plan. Line item numbers in red indicate new line items or items that have been modified.

PRRIP Budget ID	PRRIP Line Item Description	FY 2021 Estimated New Money	FY 2021 Work Plan Page #
<b>ADMINISTRATION</b>			
ED-1	EDO Salaries/Travel/Office Expenditures	\$ 2,219,000	5
ED-2	Legal Services & Public Notices	\$ 53,400	6
ED-3	Public Outreach	\$ 25,000	8
GFC-1	Financial Services	\$ 439,000	11
GFC-2	Program Insurance	\$ 90,000	12
PD-8	Program Website and Database	\$ 90,000	13
CTE-1	Committee Meeting Expenses	\$ 5,400	14
<b>Administration Sub-Total</b>		<b>\$ 2,921,800</b>	
<b>LAND</b>			
LP-3	Land Acquisition, LIHE Fees, and Property Taxes	\$ 1,500,000	16
LP-4	Land Operations and Maintenance	\$ 306,150	20
LP-6	Land-Related Special Advisors	\$ 20,000	21
LP-7	Public Access Program Management	\$ 40,000	23
<b>Land Sub-Total</b>		<b>\$ 1,866,150</b>	
<b>WATER</b>			
WPCP-1	North Platte Choke Point	\$ 10,000	24
WPRT-1	Retiming Projects: Canal Recharge	\$ 465,000	25
WPRT-2	Retiming Projects: Elwood Reservoir Recharge	\$ 772,000	28
WPRT-3	Retiming Projects: Broad-Scale Recharge	\$ 75,000	29
WPRT-4	Retiming Projects: Recapture Wells	\$ 80,000	31
WPRT-5	Retiming Projects: Surface Storage	\$ -	32
WPST-1	Storage Leases: Lake McConaughy	\$ 1,648,000	33
WPST-2	Storage Leases: Upstream Sources	\$ 624,000	34
WPIR-1	Irrigator Leases	\$ 310,000	35
WPLW-1	General maintenance of land-for-water properties	\$ 38,400	36
WPWM-1	Water Monitoring Activities	\$ 41,000	37
WPMT-1	Water Management Tools (COHYST)	\$ 5,000	39
WPSA-1	Water-Related Special Advisors	\$ 60,000	40
<b>Water Sub-Total</b>		<b>\$ 4,128,400</b>	



ADAPTIVE MANAGEMENT			
<b>LP-2</b>	Habitat Restoration and Management Actions on Program Lands	\$ 907,000	<b>42</b>
<b>LP-2-P</b>	Trapping Projects	\$ 89,000	<b>43</b>
<b>PD-22</b>	Sediment Augmentation Implementation	\$ 150,000	<b>44</b>
<b>WP-1(b)</b>	Phragmites Control	\$ 200,000	<b>45</b>
<b>G-1</b>	Remote Sensing Data Collection	\$ 387,000	<b>46</b>
<b>TP-1</b>	Tern and Plover Monitoring & Research	\$ 59,000	<b>47</b>
<b>WC-1</b>	Whooping Crane Monitoring & Research	\$ 130,000	<b>49</b>
<b>PS-1</b>	Pallid Sturgeon Monitoring & Research	\$ 186,000	<b>50</b>
<b>G-5</b>	Geomorphology and Vegetation Monitoring and Research	\$ 4,000	<b>51</b>
<b>PD-15</b>	Environmental Permitting	\$ 50,000	<b>52</b>
<b>PD-18</b>	AMP-Related Equipment	\$ 108,000	<b>53</b>
<b>IMRP-3</b>	Adaptive Management Plan Special Advisors	\$ 130,000	<b>55</b>
<b>ISAC-1</b>	ISAC Stipends & Expenses	\$ 180,000	<b>57</b>
<b>PD-3</b>	AMP & IMRP Peer Review and PRRIP Publications	\$ 9,000	<b>59</b>
<b>PD-11</b>	AMP-related Workshops	\$ 9,000	<b>60</b>
<b>AM Sub-Total</b>		<b>\$ 2,598,000</b>	

<b>FY2021 PRRIP BUDGET TOTAL</b>	<b>\$ 11,514,350</b>
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**PROGRAM TASK & ID: ED-1. Salaries/Travel/Office Expenditures**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$2,219,000		

**Task Description**

Salaries, travel, and other direct costs associated with ED and staff in ED Offices (EDO). ED and EDO responsible for implementation of all items detailed in remainder of the Work Plan.

**Products**

Staff support for all Program activities.

**Notes on Cost**

See Exhibits A, B, and C from Amendment 2 to the 2019-2023 EDO Contract for detailed documentation of effort. Overall, the ED-1 cost estimate decreased by \$188,000 from 2020. Specific items of note include:

- Labor costs include 14.5 full-time equivalent (FTE) staff. Salary adjustments average about 3% to remain competitive in the labor market.
- The workload of data compilation, analysis, and synthesis is ongoing; EDO staff are now implementing the whooping crane, least tern and piping plover, and geomorphology/vegetation monitoring protocols; initiation of new fronts of species and physical process investigations continues to increase; and the EDO will continue development of the Adaptive Management Plan for the Extension in 2021.
- The workload for developing and evaluating additional Water Action Plan alternatives and efforts to support water leasing negotiations will remain high for at least one more year.
- The workload for land acquisitions is nearly complete. Approximately 95% of PRRIP property has been acquired.
- Other direct costs will decrease by 9% in FY2021 due to utility savings and reduced travel.

**PROGRAM TASK & ID: ED-2. Legal Services and Public Notices**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$53,400		

**Task Description**

Administrative support in the form of legal advice and review of contracts associated with land and water acquisitions as well as other contract- and legal issues as well as procurement-related notices in newspapers.<sup>1</sup> ED-2 costs are summarized by item below.

Item	Cost
Attorney fees	\$ 50,000
Newspaper notices	\$ 3,400
<b>TOTAL</b>	<b>\$53,400</b>

**Notes on Cost**

The primary use of ED-2 is for attorneys with expertise in Nebraska water rights; water service/leasing agreement contract law; environmental law covering NEPA, ESA, or CWA; Nebraska NRD processes; and county statutory authorities. These are very specialized areas of practice, limiting our options and commanding, in many cases, a premium rate. Attorneys for work in the arenas cited above are selected based on knowledge and experience in these arenas, availability, reputation, quality of work, and previous direct dealings with EDO staff. Rates are compared to customary and standard rates for the Denver/Lincoln/Omaha areas, and based on a comparative, extensive vetting process are known to be fair and reasonable. An average rate of \$250/hour is a representative rate based on the vetting experience of the past ten years. Several long-term water-related leases and agreements will need to be negotiated in 2021. This will require substantial input from legal counsel. It is estimated that approximately 300 hours of legal support (equivalent to about 3 days a month) will be necessary assist in lease/agreement renewal efforts. Based on a fee of \$250/hour (ranging from \$190 to \$300/ hour), and an estimated 200 hours of service, the estimated legal fees for 2021 are \$50,000.

A second common use of line item ED-2 is to cover the expense of publishing public notices or Request for Proposals/Invitations for Bid (RFP/IFB) in local and regional newspapers. The Denver Post, Omaha World Herald, Wyoming Eagle Tribune (Cheyenne, WY), and the Kearney Hub are the newspapers that are always used to run notices and RFP/IFB announcements. When appropriate for specific, local interest projects, other papers may also be added, such as the Grand Island Independent, North Platte Telegraph, Lincoln Journal Star, or Keith County News.

<sup>1</sup> During the First Increment accounting database management services were included in ED-2. Those costs have been moved to line item GFC-1 to consolidate financial management costs into one line item.



Recent costs to run a three-day (Friday, Saturday, and Sunday) announcement in the papers is tabulated below:

Newspaper	Three Day Cost (\$)
Denver Post	\$ 910
Omaha World Herald	\$ 761
Wyoming Eagle Tribune	\$ 94
Kearney Hub	\$ 48
<b>TOTAL</b>	<b>\$ 1,813</b> <b>(Round to \$1,900)</b>

We do not have and RFPs/IFBs planned for 2021 but are budgeting for one advertisement as a contingency (\$1,900). Six additional newspapers notices (either for IFBs published exclusively in local papers or supplemental ads in local papers for RFPs/IFBs also published in regional papers) are also anticipated at a cost of \$250 each,  $6 \times \$250 = \$1,500$ . The total for three major and six supplemental advertisements is: \$3,400 (\$1,900 + \$1,500).

**PROGRAM TASK & ID: ED-3. Public Outreach**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$25,000		

**Task Description**

Communication of information about the Platte River Recovery Implementation Program and general education-oriented activities are an important function to gain and advance acceptance of the Program in all our stakeholder communities. The Program stakeholders include; residents of the three states, the Department of the Interior agencies, farmers and ranchers, recreational users of the Platte, the biological sciences community, national and international conservation and environmental groups, and bird watchers from around the world. The education-oriented sponsorships are focused on youth-oriented, experience-based programs. Exhibits and sponsorships help the Program spread its message and its brand. ED-3 costs are summarized by item below.

Item	Cost
Exhibit Fees	\$ 2,000
Major Sponsorships	
<i>Rowe Sanctuary Education Program</i>	\$ 5,000
<i>Prairie Loft Education Program</i>	\$ 5,000
<i>Greenway Foundation SPREE Program</i>	\$ 5,000
Other Sponsorships	\$ 3,000
Promotional Materials	\$ 5,000
<b>Total</b>	<b>\$25,000</b>

**Notes on Cost**

To reach our audiences, the Program utilizes the following:

1. “Exhibit Fees” is a category covering Program exhibit booths at scientific and professional conferences, community events, farm shows and nature centers. Venues are chosen based on both location (i.e. coverage of the three states) and the ability to reach our target audience of stakeholders. There are several annual events at which the Program exhibits; Husker Harvest Days in Nebraska, Colorado Water Congress in Colorado, and the Four States Irrigation Council Annual Meeting (held in Colorado and includes Wyoming and Nebraska). Exhibits provide written information about the Program as well as Program giveaways. Typically, the Program exhibits at five to six events per year and booth costs vary from no charge to \$1,250 per event. Including display costs and printed material an approximate annual expenditure for exhibits is \$2,000.
2. “Major Sponsorship” is a category covering educational programs oriented specifically for young people at nature and agricultural centers and special projects that are presented to the Program. Sponsorships are chosen based on both location and the ability to reach our target audience of stakeholders. Examples include environmental education programs for Rowe Sanctuary, Prairie Loft





Center for young people in Nebraska, and the Greenway Foundation South Platte River Environmental Education program for young people in Colorado. The education programs we sponsor focus support on youth-oriented, experience-based activity programs. For 2021, \$15,000 is budgeted for major sponsorships including \$5,000 each for public educational programs for Rowe Sanctuary in Nebraska, Prairie Loft Center for agricultural education for children in Nebraska, and for the South Platte River Environmental Education (SPREE) children's educational program by The Greenway Foundation in Colorado. The nature of the expenditures and associated activities for Rowe Sanctuary, Prairie Loft, and SPREE remain largely the same as for 2020.

3. "Other Sponsorship" is a category used to allow the Program to participate in known events that are smaller in magnitude than the Major Sponsorships covered above, were not anticipated at the time of budget development, or events that were under consideration, but decisions had not been made as to which events to support. These sponsorships assist in defraying the cost of a conference or event. The Program receives higher visibility and recognition at these conferences and events as a result. Program staff is at these conferences or events to interact with the participants and capitalize on the increased visibility achieved by the sponsorships. Depending on the organization and event, sponsorships provides recognition in the event program and proceedings, recognition by emcees during meals, the ability to display banners, recognition for sponsoring specific breaks or meals, and other similar types of enhanced visibility and recognition. Examples include:

- Program logo and tagline ads in newspapers when special edition sections are printed, such as the Earth Day and Migration editions in the Kearney Hub newspapers are estimated for 2021 at about \$500.
- Break or event sponsorships at conferences such as National Committee of Ecological Restoration, Society for Ecological Restoration, Collaborative Adaptive Management Network, Nebraska Association of Resource Districts Conference, Nebraska Water Resources/Nebraska Irrigation Association Conference, Colorado Water Foundation for Education events, and Colorado Summer Water Congress are typical of the events that are considered for sponsorships. The decision on which events to sponsor depend on the relevance of the group or conference theme to the Program, which can vary from year to year. Such sponsorships can range from \$250 to \$750. Allowing for three to five such sponsorships to be awarded, costs for 2021 are estimated at about \$2,500

4. "Promotional Materials" is a category covering materials distributed to increase awareness of the Program. The distinctive Program logo is utilized in all Program communications, reports, and on all promotional materials including fact sheets, brochures, biennial reports, and giveaways. Promotional materials are chosen for their uniqueness and compatibility with the overall goals and objectives of the Program. Chosen items are branded with the Program logo and/or the Program website address and all items must cost below \$4.00 an item. On average, the cost of the promotional material is approximately \$2.00. Examples of giveaways include pens, carabiner key chains, can coolers, stylus, mobile phone cradle, tote bags, shoulder bags, small tools, and water bottles. The Program anticipates distributing about 2,500 items in 2021 for a cost of about \$2,500. An additional \$2,500 is included in this category to cover printing costs for the 2019/2020 biennial report.



The following tables provide specific cost estimate breakdowns for each of the Major Sponsorship items in FY21:

**Rowe Sanctuary Education Program Cost Estimate Breakdown**

Category	Unit Rate (\$/hr.)	Quantity	Cost (\$)	Comments
LABOR				Personnel hours include planning preparation, and in-field instructor time
Sr. Instructor	\$30/hr.	150	\$4,500	
LABOR TOTAL			<b>\$4,500</b>	
MATERIALS				
Virtual Programming Equipment	\$250	2	\$500	
MATERIALS TOTAL			<b>\$500</b>	
<b>TOTAL</b>			<b>\$5,000</b>	

**Prairie Loft Education Program Cost Estimate Breakdown**

Category	Unit Rate (\$/hr.)	Quantity	Cost (\$)	Comments
LABOR				Personnel hours include teaching, facilitation, curriculum and program development, professional development, and outreach to schools, teachers, families, and partner organizations.
Lead Educator	\$14/hr.	200	\$2,800	
Assistant Educators	\$10/hr.	68	\$680	
LABOR TOTAL			\$3,480	
MATERIALS			\$1,220	Education program supplies includes items such as books, writing materials, field study equipment, printing, tools, and resources for additional and enhanced outdoor learning areas.
Program Evaluation			\$300	Evaluation includes surveys and assessment to establish measurement tools to prove and enhance program impact.
<b>Total</b>			<b>\$5,000</b>	

**The Greenway Foundation, SPREE Program**

SPREE Program	Expenses	Income	Total	
<b>Expenses</b>				
Labor	(\$4,400)		(\$4,400)	Seasonal educator to lead school-based field trips and virtual programs for classroom groups, family friendly weekend events, and day off school camps
Program Supplies	(\$600)		(\$600)	Supplies include printed materials, field study equipment, scientific discovery supplies, etc.
<b>Income</b>				
PRRIP		\$5,000	\$5,000	
<b>Totals</b>	<b>(\$5,000)</b>	<b>\$5,000</b>	<b>\$0</b>	

**PROGRAM TASK & ID: GFC-1. Financial Services**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$439,000		

**Task Description**

Fees paid to the Nebraska Community Foundation (NCF) for administration of the financial aspects of the Program in 2021 and costs associated with maintenance of a financial database for the Program.<sup>2</sup> GFC-1 costs are summarized by item below.

Item	Cost
Nebraska Community Foundation Fees	\$ 379,000
Financial Database Services	\$ 60,000
<b>TOTAL</b>	<b>\$ 439,000</b>

**Notes on Cost**

The primary use of this budget will be reimbursement of NCF for its direct and indirect costs pursuant to the Department of the Interior's acquisition services requirements. In addition to the direct and indirect costs prescribed by this Agreement, NCF will be reimbursed at actual cost of extraordinary expenses incurred at the request of Parties to the Agreement, such as overnight express mail services, and/or reasonable travel expenses for travel at the request of the Governance Committee, Finance Committee, or a Party to the Agreement. The estimated cost associated with Financial Management Services rendered by the NCF is based on estimated direct costs of approximately \$49,000 (700 hours X \$70/hour), and an estimated provisional indirect cost ratio of 2.2% applied to approximately \$15 million in direct costs based on PRRIP expenditures over the last several years. Only actual indirect costs will be recouped by NCF and the rate will fluctuate from year to year depending on overall total expenditures of the NCF.

In addition, this budget includes professional financial services costs (\$60,000) associated with populating and maintaining the Program's newly updated financial accounting database (IT costs are in PD-8). The database contains a record of all invoices submitted by Program contractors for payment and all income the program generates from its holdings. The database produces both monthly and annual reports showing breakdowns by year, budget items, contractors, and balances for each participant (Colorado, Wyoming and DOI). Database information is shared with DOI and reconciled monthly with Nebraska Community Foundation.

<sup>2</sup> Accounting database services have been moved from ED-2 to this line item for the Extension and the line item has been renamed from NCF Fees to Financial Services.

**PROGRAM TASK & ID: GFC-2. Program Insurance**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$90,000		

**Task Description**

Insurance acquired for representatives of the GC and subcommittees (including alternates) and ED Office for activities that will be undertaken through Program implementation. Major insurance coverages include property/crime insurance associated with Program land and associated infrastructure, public officials and management liability, cyber liability, and general/umbrella liability which would cover damages caused by implementation of Program management actions including flow releases.

**Notes on Cost**

The estimated cost of insurance is based upon previous year's expenses, experience, and previous negotiations with insurance providers conducted by the Program's insurance agent. Despite generally increasing insurance costs, the Program has been advised by our agent that insurance costs will remain relatively stable. Our clean claims record and no new major risk additions have mitigated the factors pushing toward increased costs and will keep the Program expenditure for this item at nearly the same level as 2020.

**PROGRAM TASK & ID: PD-8. Database Management System Development & Maintenance**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$90,000		

**Task Description**

Ongoing website and species database development and management by D.J. Case & Associates. Tasks include basic maintenance, hosting, and minor site improvements. This task also includes hosting and support for the Program financial tracking and disbursement database.

**Notes on Cost**

The contract was awarded through a competitive procurement process in conformance with the Procurement policy. The contract was awarded in 2018. The budget estimate is developed by using rates and the level of effort for similar work acquired for the Program through the competitive procurement process, and final negotiation and award of the contract was acquired through competition, the estimate for this work is considered fair and reasonable.

Specific FY21 tasks include:

- Web and Database hosting through Digital Ocean hosting service, 99.9% uptime, 24/7 support, daily & weekly backups.
- Security, including Drupal platform updates and upgrades, SSL technology.
- On-call support, including troubleshooting, content management, consultation, user assistance.
- Ongoing site improvements, including:
  - Content review & redevelopment
  - Adaptive management content structure consultation
  - Other site improvements & functionality
- Support, refinement, and hosting for new Program financial tracking and disbursement database, developed in 2020.

**PROGRAM TASK & ID: CTE-1. Committee Meeting Expenses**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$5,400		

**Task Description**

Budget to cover costs related to committee meetings (GC, FC, LAC, TAC, and WAC). Costs include room rentals, audio-visual fees, refreshments, etc.<sup>3</sup> CTE-1 costs are summarized by committee below.

Item	Cost
Governance Committee	\$ 3,300
Land Advisory Committee	\$ 600
Water Advisory Committee	\$ 1,000
Technical Advisory Committee	\$ 500
<b>TOTAL</b>	<b>\$ 5,400</b>

**Notes on Cost**

General Note: This budget line item assumes in-person committee meetings will not resume until July 2021 due to COVID-19 restrictions.

**Governance Committee**

GC meetings are held quarterly, two are held in Kearney, NE at the EDO, one in Cheyenne, WY at the Wyoming Water Development Commission, and one in Denver, CO. There is no room charge or equipment charge for the Kearney and Cheyenne locations, just for the Denver location. The Denver December meeting has recently been held in downtown Denver, CO at the Warwick Hotel for two half days (Tuesday afternoon and Wednesday morning). Meeting room costs, and refreshments, for one afternoon break and one morning break are included in the cost. Based on 2011-2019 experience, 2021 estimate of room and break expenses is \$1,500/day. Equipment costs are limited to Polycom conference phone and screen at \$250, as EDO can provide projector from its Denver office. The meeting expense table provided below provides a breakdown of costs.

Meeting Room Rental & Break Costs	Meeting Equipment Costs	Total Costs
\$3,000 (December GC, two half days)	\$250 (phone and screen at each Denver meeting)	<b>\$3,250 (Round up to 3,300)</b>

**Land Advisory Committee**

The LAC meets quarterly at in Kearney, NE at the EDO which has no room charge. Two activities associated with LAC do have costs specifically associated to them, an annual field tour for LAC members and site evaluation of potential properties. The annual field tour for LAC members typically consists of a half day in the field with lunch and drinks (water and sodas) in field provided for 10 to 15 people at an average

<sup>3</sup> This is a new line item that incorporates the budgets from First Increment line items GFC-3, LAC-1, WAC-1, and TAC-1.



cost of about \$20.00 per person, based on 2011-2019 experience, provide the basis for the \$300 estimate. Land evaluation site visits (typically multiple sites per day) costs consist of refreshments (water and sodas), break snacks (fruit and granola/energy bars) and working lunches. Each site evaluation team consists of an average of six people. An estimated two site-evaluation days for off-channel sand and water sites and a potential complex near Chapman, NE will be performed in 2021. Based on 2009-2019 experience, a cost of \$25 per person per site visit was used to develop the \$150 per site visit estimate and the corresponding \$300 total for two site visits.

Meeting Room Rental & Break Costs	Meeting Costs	Total Costs
\$0	\$600 (annual field tour expenses @ \$300 and two land site visits @ \$150 each)	\$600

### **Water Advisory Committee**

The WAC meets quarterly. We assume the first and second quarter meetings will be virtual and the third and fourth quarter meetings will be held at the Visitor's Center near Lake McConaughy in Ogallala for which there is no room or equipment charge but due to its remote location working lunches are provided (25 people/meeting x \$20/person = \$500/meeting). Working groups and subcommittee frequently meet by conference call and at other locations. All meetings are assumed to be focused on Water Action Plan projects (e.g., Water Project scoring, broad-scale groundwater recharge, slurry wall storage, hydrologic monitoring, or other candidate topics) with meetings involving a mix of technical/administrative topics.

The Meeting Expenses table provided below provides a breakdown of costs and additional information.

Meeting Room Rental & Break Costs	Meeting Equipment Costs	Total Costs
\$1,000 (working lunches at two quarterly meetings)	\$0	\$1,000

### **Technical Advisory Committee**

The TAC generally meets quarterly but working group and sub-committee meetings can meet more frequently. Most of these regular TAC meetings are held in Kearney, NE at the EDO or via conference call. Four regular TAC meetings were assumed; two virtual and two in-person. Refreshments, morning and afternoon breaks and conference line assumed.

Meal Costs	Meeting Equipment Costs	Total Costs
\$500 (2 meetings @ \$250/meeting)	\$0	\$500

**PROGRAM TASK & ID: LP-3. Land Acquisition**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$1,500,000		

**Task Description**

Funding for acquisition of interest in land (own, lease, easements, other agreements) according to implementation of the Land Plan and the AMP; fees for Platte River Recovery Implementation Foundation, the land interest holding entity (LIHE) for the Program, as well as property taxes and other annual fees. LP-3 costs are summarized by item below. LP-3 costs are summarized by item below.

Item	Cost
LIHE Fees	\$ 55,000
Property Taxes	\$ 163,900
Land Acquisition Associated Costs	\$ 18,750
Revenue Replacement at NPPD Cottonwood Ranch	\$ 17,000
Buy, Lease or Easement (200 acres)	\$ 1,200,000
<b>TOTAL</b>	<b>\$ 1,454,650</b> <b>Round up to \$ 1,500,000</b>

**Notes on Cost****LIHE Fees**

LIHE fees are charged to the Program by the Platte River Recovery Implementation Foundation. The fees are assessed based on actual incurred direct expenses (attorney fees and insurance), baseline fee, number of parcels held in various categories (fee simple, easement, lease, or management agreement), and number of transactions. The insurance cost is for General Liability to provide specific protection to PRRIF as title holder for any claims that might arise associated with injury or damage incurred on or associated with the properties. This is separate and distinct from the insurance carried by the Program covered in Program line item GFC-2. The fees are billed quarterly. Charges for 2013-2019 are provided below. It is estimated that 2021 fees will be slightly higher than 2019, on the order of \$55,000.

Quarter	2014 Fee	2015 Fee	2016 Fee	2017 Fee	2018 Fee	2019 Fee
First	\$16,373	\$11,919	\$9,300	\$10,094	\$14,170	\$14,000
Second	\$11,827	\$11,813	\$12,384	\$13,178	\$11,165	\$13,800
Third	\$18,144	\$12,030	\$18,052	\$19,312	\$21,014	\$17,763
Fourth	\$12,780	\$12,200	\$12,725	\$13,755	\$14,100	\$13,925
<b>AVERAGE</b>	<b>\$14,781</b>	<b>\$11,991</b>	<b>\$13,115</b>	<b>\$14,085</b>	<b>\$15,112</b>	<b>\$14,872</b>
<b>TOTAL</b>	<b>\$59,124</b>	<b>\$47,962</b>	<b>\$52,461</b>	<b>\$56,339</b>	<b>\$60,449</b>	<b>\$52,488</b>





### Property Taxes

PRRIP is required to pay property taxes. A summary of the property taxes paid in 2016-2019 is provided by county below. All PRRIP properties are in Nebraska.

Nebraska County	Total Property Tax Paid 2016	Total Property Tax Paid 2017	Total Property Tax Paid 2018	Total Property Tax Paid 2019
Buffalo	\$72,289	\$50,614.28	\$50,760.52	\$71,224.60
Dawson	\$7,972	\$8,094.72	\$7,965.52	\$12,558.70
Gosper	\$1,048	\$1,064.40	\$1,092.34	\$1,101.64
Hall	\$34,904	\$35,158.82	\$34,527.26	\$26,018.30
Phelps	\$28,495	\$29,945.18	\$29,125.78	\$26,360.78
Kearney	\$22,680	\$14,367.68	\$14,190.96	\$14,416.46
<b>TOTAL</b>	<b>\$167,388</b>	<b>\$139,245.08</b>	<b>\$137,662.38</b>	<b>\$151,680.48</b>

It is anticipated that an 8% increase of payments will be made to the counties in 2021. Based on the 2019/2020 payments, an estimated \$163,900 in property tax payments will be made in 2021.

### Land Acquisition Associated Costs

These costs are based on experience on 2009-2019 acquisitions. The associated costs per transaction are provided in the table below:

Item	Fee
Appraiser fee	\$5,000
Surveyor fee	\$4,000
Attorney fee (@\$200/hr for 40 hours)	\$8,000
Miscellaneous costs and fees (@8-10% of total other fees)	\$1,750
<b>TOTAL</b>	<b>\$18,750</b>

Assuming acquisition of one tract in 2021, in the 100 to 200-acre range, an estimate of \$18,750 was developed ( $1 \times \$18,750 = \$18,750$ ). Appraisers are selected through mutual agreement with the seller based on knowledge of real estate in specific locales, reputation, ability to meet “Yellow Book” standards, and previous direct experience of EDO staff with the appraisers. Appraisals must meet “Yellow Book” Uniform Appraisal Standards for Federal Land Acquisitions in conformance with Federal Law 91-646 of the Uniform Appraisal Act. This criterion limits the number of appraisers qualified to perform appraisals for the Program and increases the cost. Rates are compared against customary and standard rates for appropriately qualified appraisers in the Lexington to Grand Island, NE area. A fee of \$5,000 per appraisal is the average fee for a relatively straightforward appraisal of rural land in the Lexington to Grand Island area. Based on this market survey rate comparison and the qualifications of the potential appraisers, these rates are known to be fair, reasonable, and competitive.

The market survey process is composed of the following steps:

- Determine which appraisers are qualified to do a “Yellow Book” Uniform Appraisal Standard. This is accomplished through asking LAC members experienced in real estate transactions in the Associated Habitat Region who they know to be qualified and what their experience has been with various appraisers, and internet and yellow page searches followed up with phone calls or office visits to determine qualifications, experience, and assess skill levels. While this search may not be exhaustive



it is extremely comprehensive with virtually all “Yellow Book” qualified appraisers in the Lexington to Grand Island area considered. Appraisers outside of this region would not have sufficient local knowledge to be considered qualified.

- As part of the list development process, rates and estimated (by the appraisers) costs of a standard basic appraisal were solicited.
- A comparison of qualifications, reputation, specific experience, and assessed skill level together with rates and estimated cost formed the basic information basis for then soliciting appraiser services for specific tracts. Acceptability by the selling party is also a critical factor.
- The experience gained through 10 years of land acquisition for the Program provides a solid basis for verification or modification of initial information gathered and is of great value in selecting appraisers.

Several surveyors have been used by the Program over the past nine years, but one has emerged as far superior in quality of work, responsiveness, and overall level of service. Unless there are special circumstances that require use of a different surveyor, the Program always uses Land Services LLC for property boundary surveys. Charges are based on time and materials, with hourly rates of approximately \$75/hr. for research, \$85/hr. for drafting, and \$125/hr. for in-field surveying. A fee of \$4,000 per survey is an average fee for a basic boundary survey of a 160 to 240-acre parcel with the Platte River as one boundary, including basic research and a filed, stamped survey document. Based on a market survey of surveyor rates in the eastern half of Nebraska, these rates are known to be fair, reasonable, and competitive.

The market survey process is composed of the following steps:

- Determine which surveyors are qualified to perform riparian boundary surveys. This is accomplished through asking LAC members experienced in surveying issues and that have required the service of riparian boundary surveyors in the Associated Habitat Region who they know to be qualified and what their experience has been with various surveyors, and internet and yellow page searches followed up with phone calls or office visits to determine qualifications, experience, and to assess skill levels. Also, supplementing this information with the over 35 years of experience working with surveyors in Nebraska represented by the Program Staff person leading the land acquisition effort. While this search may not be exhaustive it is extremely comprehensive with virtually all experienced riparian boundary surveyors in the North Platte to Omaha area considered.
- As part of the list development process, rates and estimated (by the surveyors) costs of a standard basic riparian boundary survey were considered
- A comparison of qualifications, reputation, specific experience, and assessed skill level together with rates and estimated cost formed the basic information basis for then soliciting surveyor services for specific tracts.
- The experience gained through 12 years of land acquisition and associated surveys for the Program provides a solid basis for verification or modification of initial information gathered that is of great value in selecting surveyors.

Attorneys for real estate work are selected based on knowledge and experience in riparian boundary law, specific experience in a section of river, reputation, quality of work, lack of conflict of interest, and previous direct dealings with EDO staff. Rates are compared to customary and standard rates for the South Central and Eastern Nebraska areas. A fee based on 40 hours per transaction is a conservative estimate of time required for legal efforts, assuming some unique issues will need resolution, such as complications



from riparian boundaries, and occasionally multiple county jurisdictions that arise on properties that straddle the river and lie in two counties. Based on this market survey rate comparison and the qualifications of the attorneys being considered, these rates are known to be fair, reasonable, and competitive. The market survey process is composed of the following steps:

- Determine which attorneys are qualified to perform riparian real estate transactions. This is accomplished through asking Advisory Committee or Governance Committee members experienced in riparian real estate legal issues and that have required the service of such attorneys in the Associated Habitat Region who they know to be qualified and what their experience has been with various attorneys, and internet and yellow page searches followed up with phone calls or office visits to determine qualifications, experience and to assess skill levels. Also, supplementing this information with the over 25 years of experience working with riparian real estate attorneys in Nebraska represented by the Program Staff person leading the land acquisition effort. While this search may not be exhaustive it is extremely comprehensive with virtually all experienced riparian real estate attorneys in the North Platte to Omaha area considered.
- As part of the list development process, rates and estimated (by the attorneys) costs of a standard basic riparian boundary survey were considered.
- A comparison of qualifications, reputation, specific experience, and assessed skill level together with rates and estimated costs for a basic riparian real estate transaction formed the basic information basis for then soliciting surveyor services for specific tracts.
- The experience gained through 10 years of land acquisition for the Program provides a solid basis for verification or modification of initial information gathered that is of great value in selecting attorneys.

Miscellaneous fees could include items from among the following: Phase I Environmental Site Assessments (@\$1,000 to \$1,500 per site with one always performed for each tract purchased), additional title searches, clouds on the title that must be resolved (fence issues, material removal from site, previous owners or heirs of previous owners that must be tracked down to positively clear titles), copying and printing fees, and unusual boundary issues that require additional research or surveys. No two acquisitions are the same, and some peculiarity often arises that must be dealt with. They rarely involve large expenditures to resolve, but, on the other hand, when they arise they are not trivial, negligible costs.

#### ***Revenue Replacement at NPPD Cottonwood Ranch***

Lost grazing revenue at Cottonwood Ranch due to recharge of water will continue to reduce dollars available from cattle leasing at Cottonwood Ranch. Those lost revenues will be replaced for 2021 grazing year. In 2020 approximately \$16,000.00 were needed to compensate NPPD under the Sponsorship Agreement. Unknown rent revenue income will affect the needed dollars to offset lost dollars in the lease.

#### ***Land Purchase Costs (Buy, Easement or Lease)***

Current land prices for the types of non-complex lands we will be acquiring typically range from \$4,500 to \$8,000 per acre. It is estimated that approximately 200 acres of land will be acquired in complex habitat plus-up acres. At an approximate average cost of 6,000 per acre, total acquisition cost would be \$1,200,000.

**Note:** NO provision for income generated from land disposal actions is included in the budget estimate. The budget reflects only anticipated expenditures, not a net of expenditures and income.

**PROGRAM TASK & ID: LP-4. Land Management**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$306,150		

**Task Description**

Funding for non-AMP related management activities (fencing, routine agricultural operations, weed management, property maintenance, day-to-day management, non-AMP tree and channel clearing, etc.). Specific land management activities for the year are defined in the Land Management Plans developed through the LAC and approved by the GC. A summary of Program land work proposed for 2021 is included as **Appendix A** in this document.

**Notes on Cost**

See **Appendix A** in this document for specific details.

**PROGRAM TASK & ID: LP-6. Land Plan Special Advisors**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$20,000		

**Task Description**

Negotiation and drafting of agricultural leases on Program properties as well as oversight of sharecropping agreements and marketing of sharecropping commodities. Special expertise is necessary for development and negotiation of appropriate crop and pasture rental rates as well as decision-making related to sharecropping arrangements.

**Notes on Cost**

Two agricultural management firms will be used to handle tenant leases for Program properties in 2021. The properties will be divided geographically between the two firms, with the properties at and east of Kearney handled by AgriAffiliates and the properties to the west of Kearney handled by United Farm Management. The workload will be generally equal between the two firms. Labor costs are billed at \$75 per hour by each firm. The breakdown of hours and costs estimated for each firm based on experience and discussions with each firm are tabulated below:

Firm	Direct Costs	Hours	Labor Costs	Total
AgriAffiliates	\$1,000	120 hrs @\$75/hr	\$9,000	\$10,000
United Farm Mgmt.	\$1,000	120 hrs @\$75/hr	\$9,000	\$10,000
<b>TOTAL</b>				<b>\$20,000</b>

The firms were selected based on a comparative vetting process involving most of the firms that provide such services that were located within the Lexington to Grand Island corridor. The selection was made based on qualifications, reputation, capacity, and competitive labor rates/time estimates.

**General note on all Special Advisor budget line items:** Please refer to the third paragraph in the Exceptions: section of the Procurement Policy adopted by the Governance Committee in June 2016, “Retention of special advisors to the ED of a technical or legal nature is exempt from the procedures provided in this directive.”

Consequently, special advisors are not selected through a competitive process involving advertised RFQs or RFPs. Special advisors are selected by the Executive Director based on qualifications – education, relevant experience, expertise and skills, reliability, credibility, and ability to work effectively with the ED and the staff of the EDO. Special Advisors and the firms they are associated with cannot do any other work for the Program, individually or as part of a team. This is a critical restriction and generally orients special advisor selection to individuals who are sole proprietors or part of small firms that would not likely be doing significant levels of work for the Program on other specific, larger projects.

The billing rates are negotiated with the special advisors by the ED and are kept within the industry standard of practice based on each individual’s qualifications. While industry standard of practice may not be precisely defined, anyone who is a practicing member of that professional community understands the limits of reasonableness associated with those boundaries. Appropriate expertise to make this assessment



1 resides with the ED or EDO staff. The industry standard of practice rates guidelines used in this process is  
2 established based on an on-going market survey process comparing labor rates of similarly qualified  
3 professionals in the field.

4  
5 In the case of Special Advisors, individuals with similar experience and qualifications have been part of  
6 consultant teams selected through the Program's competitive procurement process over an eight-plus-  
7 year period. Comparison of the Special Advisor rates to the rates charged by comparable individuals  
8 through the competitive procurement process provides an indisputable basis for comparison. In all cases  
9 the Special Advisor rates are not only within the range of rates seen on the consultant teams which have  
10 been selected competitively, but typically at the middle to lower end of the range. As rates charged by  
11 Special Advisors are at the middle to low end of the range of rates for similar work acquired through the  
12 Program's competitive procurement process, the estimate for Special Advisors is considered fair and  
13 reasonable.

14 The anticipated level of effort for the upcoming year is also discussed with the special advisors by the ED  
15 and members of the EDO staff, but all work is assigned on an as-needed basis with no guarantee of any  
16 minimum level of assignments.

17  
18 During the budgeting process, the special advisors anticipated to be needed and roughly the level of effort  
19 expected to accomplish the work plan for the budget year is scrutinized by and discussed with the  
20 appropriate advisory committees, the Finance Committee, and the Governance Committee. Input is  
21 received and taken under advisement from all these sources as to the appropriateness of the budgets for  
22 these line items with appropriate adjustments made prior to budget approval.

**PROGRAM TASK & ID: LP-7. Public Access Management**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$40,000		

**Task Description**

Cost associated with management of public recreation access program on Program lands. Costs are for the maintenance and administration of an on-line reservation system and the on the ground monitoring of recreational use of the properties.

**Notes on Cost**

Nebraska Game and Parks Commission will manage public access to Program lands in 2021 pursuant to a contract between the Nebraska Community Foundation and the Nebraska Game & Parks Commission. The annual cost of this agreement is \$40,000.

**PROGRAM TASK & ID: WPCP-1. North Platte Choke Point**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$10,000		

**Task Description**

The objective of this task is to increase and maintain an active river channel capacity of 3,000 cfs on the North Platte river at North Platte. Channel capacity improvements will provide the Program with more flexibility in implementing flow tests made under the Adaptive Management Plan and in delivery of Program water to meet shortage reduction to target flow goals under the Water Plan. WPCP-1 costs are summarized by item below.

Item	Cost
State Channel Berm Maintenance	\$ 5,000
In-Channel Vegetation Control	\$ 5,000
<b>TOTAL</b>	<b>\$ 10,000</b>

**Notes on Cost**

Routine maintenance and repair of the state channel berm and the Albrecht property following the 2020 choke point capacity test will include tasks such as mowing, minor earthwork repair, culvert cleanout, and channel debris maintenance, as needed to maintain project function. An additional \$5,000 has been budgeted for disking of in-channel vegetation adjacent to the berm in locations where phragmites has established on small islands, reducing channel capacity.



**PROGRAM TASK & ID: WPRT-1. Retiming Projects. Canal Recharge**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$465,000		

**Task Description**

Retiming of excess flows through intentional groundwater recharge in CNPPID, NPPD and CPNRD canal systems.<sup>4</sup> Recharge operations will occur during the non-irrigation season as conditions allow, subject to the availability of excess flows, groundwater elevations below designated thresholds, and ice-free operating conditions. Estimated WPRT-1 recharge costs are summarized by district/canal below.

Item	Cost
CNPPID Phelps Canal	\$ 115,000
NPPD Canals	\$ 180,000
CPNRD Canals	\$ 170,000
<b>TOTAL</b>	<b>\$ 465,000</b>

**Notes on Cost****Phelps County Canal Ground Water Recharge**

The Program intends to continue retiming excess flows through intentional groundwater recharge in the Phelps County Canal in 2021, as it has done each year since 2011. Recharge operations can occur during the non-irrigation season as conditions allow, subject to the availability of excess flows, groundwater elevations below designated thresholds, and ice-free operating conditions. To facilitate recharge, a check structure at Mile Post (MP) 13.3 allows water to pool in the canal and seep into the aquifer. The CNPPID will obtain a temporary permit to divert unappropriated excess flows for groundwater recharge.

The project budget will be used for recharge operations during the winter, spring, and fall of calendar year 2021. The anticipated expenditures by the Program include the cost of divertible excess flows as measured at the CNPPID's flume at MP 1.6 of the Phelps County Canal. A Water Service Agreement (WSA) with the CNPPID is in place, the terms of which specify that the Program's share is 75% of the total amount diverted. Details of anticipated 2021 Phelps County Canal groundwater recharge are shown in the table below. Actual expenditures in 2021 will be based on the measured deliveries into the canal for recharge operations.

Item	Value
Water Service Agreement	Expires December 31, 2023
Unit Cost	\$33.86 per acre-foot
Estimated Volume <sup>1</sup>	3,300 acre-feet
<b>Budget<sup>2</sup></b>	<b>\$112,000</b>

<sup>1</sup> Estimated volume based on 2015-2019 excess flow diversions (range = 712 to 5,182 acre-feet, average = 3,290 acre-feet).

<sup>2</sup> Unit Cost × Estimated Volume, rounded to the next \$1,000.

<sup>4</sup> This line item combines recharge operations that were previously included in WP-4(b)i, WP-4(f)i, and WP-4(f)ii.



In 2016, the Program constructed a well on the Cook tract to recapture groundwater intentionally recharged through the Phelps County Canal. The well was permitted through the Tri-Basin Natural Resources District. The well is equipped with an 800 gallon per minute pump and is used by the Program to extract recharged water from the alluvium. The extracted water is pumped into the North Phelps County Ditch as surface water (via a pipeline) and returns to the Platte River as measurable returns at a point location during shortages to target flows.

The 2021 budget includes funds for continued operation and maintenance of the existing Cook tract recapture well. The Cook well pumped a maximum of 152 acre-feet in 2017 and was pumped minimally in 2019 due to generally wet conditions. For budget purposes, 200 AF of Cook well pumping will be assumed in 2021, well below the 660 acre-feet assumed for budgeting in past years. The estimated cost of pumping is \$5.20 per acre-foot, based on the discharge rate, TDH (total dynamic head), pump efficiency, motor efficiency and electrical power costs (approximately \$1,000 budget). A maintenance budget of \$1,500 is included for general upkeep of the well in 2021. The total 2021 budget for pumping, operating and maintenance of the Cook well is \$2,500. Overall total budget for the Phelps County Canal groundwater recharge project is rounded to \$115,000.

#### NPPD Gothenburg and Dawson County Canal Ground Water Recharge

The Program has a WSA with the NPPD effective January 1, 2021 for diversion of excess flows into the Gothenburg and Dawson County Canals for groundwater recharge operations during the non-irrigation season. Per the terms of the WSA, the Program will pay NPPD for a Net Amount Diverted, which is defined as “the flow measured by NPPD using the Gothenburg Canal and Dawson County Canal measuring flumes located near the river head gates...and subtracting each canal’s river returns as measured by NPPD.” To facilitate the project, NPPD will obtain the necessary temporary permits to divert unappropriated excess flows for groundwater recharge. Details of anticipated 2021 CPNRD canals groundwater recharge are shown in the table below. Actual expenditures by the Program will be based on measured diversions into the Gothenburg and Dawson County Canals for groundwater recharge in 2021.

Item	Value
Water Service Agreement	Expires December 31, 2025
Unit Cost	\$33.86 per acre-foot
Estimated Volume <sup>1</sup>	5,300 acre-feet
<b>Budget<sup>2</sup></b>	<b>\$180,000</b>

<sup>1</sup> Estimated volume based on 2015-2019 net recharge (range 2,701 to 9,433 acre-feet, average = 5,293 acre-feet).

<sup>2</sup> Unit Cost × Estimated Volume, rounded to the next \$1,000.

#### CPNRD Orchard-Alfalfa, Thirty Mile and Cozad Canal Groundwater Recharge

The CPNRD diverts excess flows for non-irrigation season recharge through the Orchard-Alfalfa, Thirty Mile, and Cozad canals. Permanent appropriations for recharge diversions (100 cfs each at Thirty Mile and Cozad, 75 cfs at Orchard-Alfalfa) were approved by the Nebraska DNR in 2015. Details of anticipated 2021 CPNRD canals groundwater recharge are shown in the table below. Actual expenditures in 2021 will be based on the measured deliveries.



Item	Value
Water Service Agreement	Expires December 31, 2024
Unit Cost	\$33.86 per acre-foot
Estimated Volume <sup>1</sup>	5,000 acre-feet
<b>Budget<sup>2</sup></b>	<b>\$170,000</b>

- 1 <sup>1</sup> Maximum Total Amount Diverted specified in the WSA.
- 2 <sup>2</sup> Unit Cost × Estimated Volume, rounded to the next \$1,000.

**PROGRAM TASK & ID: WPRT-2. Retiming Projects. Reservoir Recharge**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$772,000		

**Task Description**

Retiming of excess flows through intentional groundwater recharge in CNPPID's Elwood Reservoir.<sup>5</sup> Recharge operations will occur during the non-irrigation season as conditions allow, subject to the availability of excess flows, groundwater elevations below designated thresholds, and ice-free operating conditions.

**Notes on Cost**

The Program intends to continue purchasing excess flows delivered into Elwood Reservoir in the CNPPID system for recharge in 2021, as it has done each year since 2015. Elwood Reservoir is an unlined reservoir that acts as a holding basin to allow excess flows to seep and recharge the alluvial aquifer. Excess flows are delivered through the E-65 Canal to the Carl T. Curtis Pump Station, which pumps the water into Elwood Reservoir. A WSA with the CNPPID is in place, the terms of which specify that the Program's share is 50% of the total amount diverted up to a maximum of 30,000 acre-feet per year. Details of anticipated 2021 Elwood Reservoir groundwater recharge are shown in the table below. Actual expenditures in 2021 will be based on the measured deliveries into the reservoir for recharge operations.

Item	Value
Water Service Agreement	Expires December 31, 2023
Unit Cost	\$51.42 per acre-foot
Estimated Volume <sup>1</sup>	15,000 acre-feet
<b>Budget<sup>2</sup></b>	<b>\$772,000</b>

<sup>1</sup> Based on maximum annual diversions of 30,000 acre-feet and a 50% Program share.

<sup>2</sup> Unit Cost × Estimated Volume, rounded to the next \$1,000.

<sup>5</sup> This line item includes budget previously allocated to WP-4(b)i.

**PROGRAM TASK & ID: WPRT-3. Retiming Projects. Broad-Scale Recharge**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$75,000		

**Task Description**

This project concept consists of developing a series of large, shallow recharge ponds in the Central Platte Basin, focused on the reach between Gothenburg, NE and Odessa, NE to maximize the benefit to the habitat reach. The Program recently completed construction of its first broad-scale recharge project at the Cottonwood Ranch Complex, which included the construction of a series of earthen berms and water control structures to allow for the ponding of water and subsequent recharge of the alluvial aquifer.<sup>6</sup> The water is delivered to the property via a constructed pipeline from the Phelps County Canal at times when the Platte River flow at Grand Island is in excess of USFWS target flows, and the infiltrated water returns to the Platte River over time. Estimated WPRT-3 recharge costs are summarized by item below.

Item	Cost
Rubicon Gate/SCADA Service & Maintenance	\$ 6,000
Electricity	\$ 400
Berm maintenance	\$ 62,500
Groundwater monitoring	\$ 6,000
<b>TOTAL</b>	<b>\$ 74,900</b> <b>Rounded to \$ 75,000</b>

**Notes on Cost**

The Program will begin operation of the recharge project in the spring of 2021, ideally during the spring whooping crane migration. The CNPPID will charge the Program \$27.06 per acre-foot (with a 2% annual escalator) for water diverted to the delivery pipeline in 2021. However, the Program will not be responsible for a cash payment to the CNPPID until the cost of water deliveries exceeds the cost of the design and construction of the delivery pipeline (estimated by CNPPID to be \$1,074,900). At 2021 rates, the estimated pipeline costs are equivalent to approximately 40,500 acre-feet of water deliveries. This far exceeds anticipated deliveries to Cottonwood Ranch in 2021, so no additional budget is included for water deliveries.

Seven of the eight water control structures at the Cottonwood Ranch project are solar powered, self-regulating gates manufactured by Rubicon. Gates are linked to a cellular SCADA system allowing EDO staff to remotely operate the gates and monitor their performance. Annual Rubicon gate maintenance will cost \$1,400 (~\$200 per gate). The annual cost of the subscription to the remote-control software is \$4,600 (~\$650 per gate). The annual maintenance and subscription will be budgeted for each year.

Electrical power service from Southern Power to power pipeline valves and other equipment is estimated to be approximately \$400 (~\$33.00 per month).

<sup>6</sup> This line item includes budget previously allocated to WP-4(b)ii.



1 Some amount of annual maintenance will be necessary at the project. This could include fixing berms or  
2 spillways that are damaged from high flows or precipitation events, re-seeding berms, replacing riprap, or  
3 other things of this nature. The Nebraska Resources Development Fund Guidelines recommends  
4 budgeting 1.25% of the constructions costs per year for maintenance for projects similar to the broad-  
5 scale recharge project. Given the capital cost of the project (\$5,000,000), \$62,500 has been budgeted for  
6 maintenance.

7  
8 Project water accounting for the Program and for regulatory agencies (Department of Natural Resources  
9 and Tri-Basin Natural Resources District) will be accomplished through detailed monitoring of water  
10 surface levels in the recharge basins and the Peterson Drain. It is estimated that about \$6,000 will be  
11 needed for new and/or repaired equipment, which equates to about four new data loggers.

**PROGRAM TASK & ID: WPRT-4. Retiming Projects. Recapture Wells**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$80,000		

**Task Description**

Groundwater recapture projects are retiming projects utilizing the water from existing recharge operations, such as the Phelps County Canal groundwater recharge project and Elwood Reservoir recharge. Since recharge accretions are not controllable and may return to the river during excesses to target flows, groundwater recapture allows the Program to pump intentionally recharged water to the river during shortage periods to maximize the score of the already recharged water.<sup>7</sup>

**Notes on Cost**

The Program intends to move forward the design, permitting, and construction of a network of additional wells to recapture water recharged through the Phelps County Canal, Elwood Reservoir, and the broad-scale recharge project at Cottonwood Ranch. Construction of approximately 8 to 10 recapture wells is anticipated in 2021. Per the Program's water service agreement with Tri-Basin NRD, all project operations costs will be reimbursed by the Program with no markup. Given the project has not yet been constructed, estimated 2021 operations costs in the table below are highly uncertain.

Item	Cost
Electricity	\$ \$52,000
Well/Pipeline Maintenance	\$ 11,000
Tri-basin NRD Staff Time and Indirect Costs	\$ 17,000
<b>TOTAL</b>	<b>\$ 80,000</b>

<sup>7</sup> This line item includes budget previously allocated to WP-4(b)i.

**PROGRAM TASK & ID: WPRT-5. Retiming Projects. Surface Storage/Infrastructure (Slurry Wall Pits)**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$0		

**Task Description**

Surface water storage sites like slurry wall gravel pits and the J-2 regulating reservoir would store water diverted during times of excess to target flows and release the water back to the river during times of shortage. The J-2 reservoir has been put into a permanent hold status. The Program has completed engineering design for a slurry wall storage facility at an existing gravel pit mine on the Lakeside property (Tract W1606).<sup>8</sup> It has also been put on hold in favor of other projects that provide more controllable water to the Program. As such, there are no expected expenditures associated with this line item in 2021.

<sup>8</sup> This line item includes budget previously allocated to WP-4(i).



**PROGRAM TASK & ID: WPST-1. Storage Leases. Lake McConaughy Sources**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$1,648,000		

**Task Description**

In 2019, an agreement was reached between CPNRD, NPPD, CNPPID the Nebraska DNR, to test a “pilot exchange project” in which surface water would not be used by CPNRD and NPPD irrigation districts and a portion of that water would be transferred to the EA at the end of the irrigation season.<sup>9</sup> The pilot exchange projects continued in 2020. There is the potential to transition to long-term agreements in 2021 as well as lease additional storage water from CNPPID. Estimated WPST-1 leasing costs are summarized by source below.

Item	Cost
CPNRD Exchange	\$1,350,000
NPPD Exchange	\$298,000
CNPPID Storage Lease	\$ -
<b>TOTAL</b>	<b>\$1,648,000</b>

**Notes on Cost**

The money included in this line item assumes a one-year continuation of the CPNRD and NPPD pilot exchange projects in 2021. CNPPID storage leasing is not anticipated in 2021. Details of anticipated 2021 CPNRD surface water leasing are shown in the table below. Actual expenditures will be based on the volume credited to the Lake McConaughy EA in October 2021.

Item	Value
Unit Cost	\$90.00 per acre-foot
Assumed Volume <sup>1</sup>	15,000 acre-feet
<b>Budget<sup>2</sup></b>	<b>\$1,350,000</b>

<sup>1</sup> Based on maximum lease volume specified in the WSA for the 2020 pilot exchange project.

<sup>2</sup> Unit Cost × Estimated Volume, rounded to the next \$1,000

Details of anticipated 2021 NPPD surface water leasing are shown in the table below. Actual expenditures will be based on the volume credited to the Lake McConaughy EA in October 2021.

Item	Value
Unit Cost	\$90.00 per acre-foot
Assumed Volume <sup>1</sup>	3,306 acre-feet
<b>Budget<sup>2</sup></b>	<b>\$298,000</b>

<sup>1</sup> Based on maximum lease volume specified in the WSA for the 2020 pilot exchange project.

<sup>2</sup> Unit Cost × Estimated Volume, rounded to the next \$1,000.

<sup>9</sup> This line item includes budget previously allocated to WP-4(f)i, WP-4(f)ii, and WP-4(f)iii.

**PROGRAM TASK & ID: WPST-2. Storage Leases. Upstream Sources**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$624,000		

**Task Description**

This line item includes leasing of surface water from sources upstream of Lake McConaughy. This includes water leased from Wyoming's Pathfinder Municipal Account as well as potential leases of North Platte Glendo storage water from irrigation districts upstream of Lake McConaughy.<sup>10</sup> Estimated WPST-2 leasing costs are summarized by source below.

Item	Cost
Pathfinder Municipal Account Lease	\$ 624,000
North Platte Glendo Storage Water	\$ TBD
<b>TOTAL</b>	<b>\$ 624,000</b>

**Notes on Cost***Pathfinder Municipal Account*

The Program has a new contract with the Wyoming Water Development Office (WWDO) for water from the Municipal Account in Pathfinder Reservoir. The contract is effective on January 1, 2021 and the term extends until December 31, 2032. For 2021, the maximum water available from the Pathfinder Municipal Account is 9,600 acre-feet at a unit cost of \$65 per acre-foot. The resulting 2021 budget is \$624,000.

*North Platte Glendo Storage Water*

Appendix C of the Final Settlement Stipulation for the 2001 Modified North Platte Decree is an Amendment of the 1953 Order to Provide for Use of Glendo Storage Water (Amendment). Glendo Reservoir includes an account for the storage of up to 40,000 acre-feet of natural flow water, of which 15,000 acre-feet is available to water users in Wyoming and 25,000 acre-feet is available to water users in Nebraska. This water is contracted to users through the U.S. Bureau of Reclamation.

The Nebraska allocation of Glendo storage water is contracted to four entities, including Enterprise Irrigation District (3,000 acre-feet); Mitchell Irrigation District (12,000 acre-feet); Bridgeport Irrigation District (2,000 acre-feet); and Central Nebraska Public Power and Irrigation District (8,000 acre-feet). A desirable outcome would be agreements under which the Program can lease Glendo water or other sources from one or more irrigation districts diverting from the North Platte River between the Nebraska-Wyoming state line and Lake McConaughy and store that water in the Lake McConaughy EA downstream.

In 2020, the Program continued to have productive discussions with one of the Glendo contractors, resulting in the completion of an evaluation of critical structures in that irrigation system. Specific details necessary for developing a 2021 budget for this task are not yet available.

<sup>10</sup> This line item includes budget previously allocated to WP-4(d) and WP-4(f)viii.

**PROGRAM TASK & ID: WPIR-1. Irrigator Leases**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$310,000		

**Task Description**

The Program can temporarily lease surface water rights from individual irrigators under the CNPPID system. Irrigators then dryland farm the enrolled parcels, which are generally odd-shaped or hard-to-irrigate lands, during the term of the lease agreement. The consumptive use portion of the surface water—9 inches per acre during a full-allocation year—is available in Lake McConaughy and transferred into the EA for the Program.<sup>11</sup> The CNPPID serves as the administrator, managing the individual lease agreements, processes, and operations. The Program and the CNPPID agreed upon a 5-year extension of the irrigator lease, beginning with the 2019 irrigation season, and continuing through the 2023 irrigation season. The table below provides details of the CNPPID irrigator lease for 2021.

Item	Value
Water Leasing Agreement	Expires December 31, 2023
Unit Cost <sup>1</sup>	\$100 per enrolled acre
Assumed Enrollment <sup>2</sup>	3,000 acres
CNPPID Administration Fee	\$10,000
<b>Budget<sup>3</sup></b>	<b>\$310,000</b>

<sup>1</sup> Pricing Addendum for 2021 reduced the unit cost from \$220 per acre to \$100 per acre.

<sup>2</sup> Maximum acreage specified in the Water Leasing Agreement.

<sup>3</sup> Unit Cost × Estimated Enrollment, plus CNPPID Administration Fee.

With full enrollment, the CNPPID irrigator lease would result in 2,250 acre-feet credited to the Lake McConaughy EA in October 2021. Actual cost and project yield will be based on irrigator lease enrollment for the 2021 irrigation season.

<sup>11</sup> This line item includes budget previously allocated to WP-4(f)iv.

**PROGRAM TASK & ID: WPLW-1. Land for Water Property Maintenance**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	38,400		

**Task Description**

This line item includes the funds necessary for general land management and maintenance activities at Program properties acquired for developing Water Action Plan projects, including the Lindstrom, Edlund, and Lakeside tracts.<sup>12</sup>

**Notes on Cost**

Associated tasks and individual budgets are shown in the table below. See **Appendix A** in this document for more detail.

Item	Cost
Fence & Road Maintenance	\$ 5,000
Tract W201701 Boundary Fence	\$ 13,200
Noxious Weed Control	\$ 10,000
Mowing	\$ 1,000
Tracts W2016002 and W2017001 Electricity	\$ 200
Taxes	\$ 9,000
<b>BUDGET</b>	<b>\$ 38,400</b>

<sup>12</sup> This line item includes budget previously allocated to WP-4(j).

**PROGRAM TASK & ID: WPWM-1. Water Monitoring Activities**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$41,000		

**Task Description**

The Program maintains a network of surface and groundwater monitoring locations equipped with manual and automated data loggers. Data from this network provides information on regional groundwater levels, river and wetland stage, and surface/groundwater interactions. In addition, the Program leases two weather stations on its Binfield South and Morse properties and shares in the expense of maintaining three stream gages in the upper portion of the AHR.<sup>13</sup> Estimated WPWM-1 costs are summarized by item below.

Item	Cost
Groundwater Monitoring	\$ 15,856
Cottonwood Ranch Stream Gages	\$ 20,000
Overton Stream Gage	\$ 5,000
<b>BUDGET</b>	<b>\$ 40,856</b> <b>Round to \$ 41,000</b>

**Notes on Cost**

The Program maintains a network of surface and groundwater monitoring locations equipped with manual and automated data loggers. Data from this network provides information on regional groundwater levels, river and wetland stage, and surface/groundwater interactions. In addition, the Program leases two weather stations on its Binfield South and Morse properties. All monitoring equipment supports WAP reporting, accounting, and decision making as well as future WAP design. Data loggers and other equipment require ongoing maintenance and replacement, as shown in the following table.

Item	Unit cost	Units	Quantity	Total
Hydro Vu subscription	\$ 513.60	ea.	3	\$ 1,540.80
Desiccant: Interra sSorb blue indicating silica gel	\$ 30.00	lbs.	5	\$ 150.00
Additional large desiccant containers	\$ 195.00	ea.	5	\$ 975.00
Upgrade winter precipitation gage at CWR AWDN	\$ 5,500.00	ea.	1	\$ 5,500.00
AWDN Annual Maintenance	\$ 2,800.00	ea.	2	\$ 5,600.00
Staff gage replacements	\$ 35.00	ea.	4	\$ 140.00
Channel posts, 6'	\$ 10.00	ea.	10	\$ 100.00
In Situ Level Troll maintenance	\$ 350.00	ea.	3	\$ 1,050.00
In Situ Tube telemetry maintenance	\$ 400.00	ea.	2	\$ 800.00
<b>BUDGET</b>				<b>\$ 15,855.80</b>

<sup>13</sup> This line item includes budget previously allocated to H-2 and IMRP-2.



1 In addition to the items in this table, stream gages have been installed at the request of the Program. The  
2 U.S. Geological Survey (USGS) installed and maintains two gages located on the Cottonwood Ranch  
3 Complex. These gages are used primarily in conjunction with geomorphology and sediment augmentation  
4 related research. Annual maintenance costs include physical maintenance of the gage, checking and  
5 adjusting the rating curve through field measurements, QC/QA of the data, and making data available  
6 real-time. The USGS gages were established in a service agreement negotiated and still held by NPPD, but  
7 with the costs passed through to the Program. Costs are set at \$20,000 but vary slightly annually if  
8 significant equipment components, such as probes or cables, need replacing.

9  
10 The Program will also cost-share with CNPPID for the continued operation of the USGS gage at Overton,  
11 NE. The Overton gage is essential to Program decision-making through the availability of real-time data  
12 provided by the USGS equipment. Costs for this arrangement are anticipated to be about \$5,000 based  
13 on 2014-2018 experience.

14  
15 There are two entities in Nebraska that can establish official stream gaging stations, the USGS and the  
16 NDNR, and these stations must be official gaging stations to establish scientific rigor and credibility.  
17 Because there are no other options for establishing an official stream record through a competitive  
18 selection process, and because each entity is a government agency bound by their rules and regulations  
19 for providing their services and the associated costs, and because the USGS costs are comparable to the  
20 NDNR costs; therefore, these rates (total \$25,000) are considered fair and reasonable.

**PROGRAM TASK & ID: WPMT-1. Water Management Tools (COHYST)**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$5,000		

**Task Description**

The COHYST Tool provides an integrated surface water, ground water, and watershed model for the Platte River between Lake McConaughy and Duncan, Nebraska. It is a tool used by the NDNR for water planning and administration, and it is anticipated to be a valuable tool for project planning and evaluation efforts under the PRRIP Water Plan.<sup>14</sup> The COHYST Sponsors Group is outlining its Phase 3 workplan now that the modeling tool is fully developed and documented. As a user of the modeling tool, the PRRIP may require additional training or support from the consultants that developed the model. The PRRIP may also contribute funds to ongoing model updates and model support through the COHYST Sponsors Group.

<sup>14</sup> This line item includes budget previously allocated to WP-5.

**PROGRAM TASK & ID: WPSA-1. Water-Related Special Advisors**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$60,000		

**Task Description**

The EDO may rely on Special Advisors to assist in Water Plan-related issues beyond staff expertise or to assist with short-term schedule challenges. These areas may include but are not limited to water infrastructure and design, structural, and hydrogeology/ground water.<sup>15</sup> Estimated WPSA-1 costs are summarized by item below.

Item	Cost
Hydrogeology and Ground Water	\$ 40,000
Civil Infrastructure	\$ 20,000
<b>BUDGET</b>	<b>\$ 60,000</b>

**Notes on Cost***Hydrogeology and Ground Water*

Several projects include hydrogeologic elements that may require further expertise, including ground water recharge projects, ground water recapture pumping projects and other projects with a ground water component. Projects may include the Elwood Reservoir recharge project, the Phelps, CPNRD, and NPPD canal recharge projects, the proposed recapture well network, and any COHYST or other groundwater model scenario runs. Bill Hahn (Hahn Water Resources) is contracted as the Program's Special Advisor for hydrogeology and ground water. Cost estimates are based on approximately 228 hours at a billing rate of \$175/hour, for a total of \$40,000. Billing rates are based on previous contracts awarded in a competitive process and are assumed to be fair and reasonable.

*Civil Infrastructure*

Brad Anderson (Anderson Consulting Engineers) will continue to serve as Special Advisor for civil infrastructure. Brad has extensive experience with civil design and construction engineering for water-related projects as well as planning and economic analysis of irrigation system infrastructure rehabilitation. Mike Applegate will also be retained as a Special Advisor with a focus on slurry wall gravel pits or other types of civil infrastructure projects. The table below summarizes costs by advisor.

Area of Expertise	Name	Estimated Range of Expenditures
Hydrogeology and Groundwater	Bill Hahn	\$40,000
Civil Infrastructure	Brad Anderson Mike Applegate	\$20,000
<b>BUDGET</b>		<b>\$60,000</b>

<sup>15</sup> This line item includes budget previously allocated to WP-8.





1 **General note on all Special Advisor budget line items:** Please refer to the third paragraph in the  
2 Exceptions: section of the Procurement Policy adopted by the GC in June 2016, “Retention of special  
3 advisors to the ED of a technical or legal nature is exempt from the procedures provided in this directive.”  
4

5 Consequently, Special Advisors are not selected through a competitive process involving advertised RFQs  
6 or RFPs. Special Advisors are selected by the Executive Director (ED) based on qualifications – education,  
7 relevant experience, expertise and skills, reliability, credibility, and ability to work effectively with the ED  
8 and the staff of the ED Office. Special Advisors and the firms they are associated with cannot do any other  
9 work for the Program, individually or as part of a team. This is a critical restriction and generally orients  
10 special advisor selection to individuals who are sole proprietors or part of small firms that would not likely  
11 be doing significant levels of work for the Program on other specific, larger projects.  
12

13 The billing rates are negotiated with the special advisors by the ED and are kept within the industry  
14 standard of practice based on each individual’s qualifications. While industry standard of practice may not  
15 be precisely defined, anyone who is a practicing member of that professional community understands the  
16 limits of reasonableness associated with those boundaries. Appropriate expertise to make this assessment  
17 resides with the ED or ED Office staff. The industry standard of practice rates guidelines used in this  
18 process is established based on an on-going market survey process comparing labor rates of similarly  
19 qualified professionals in the field.  
20

21 In the case of Special Advisors, individuals with similar experience and qualifications have been part of  
22 consultant teams selected through the Program’s competitive procurement process over an eight-plus-  
23 year period. Comparison of the Special Advisor rates to the rates charged by comparable individuals  
24 through the competitive procurement process provides an indisputable basis for comparison. In all cases  
25 the Special Advisor rates are not only within the range of rates seen on the consultant teams which have  
26 been selected competitively, but typically at the middle to lower end of the range. As rates charged by  
27 Special Advisors are at the middle to low end of the range of rates for similar work acquired through the  
28 Program’s competitive procurement process, the estimate for Special Advisors is considered fair and  
29 reasonable.

30 The anticipated level of effort for the upcoming year is also discussed with the special advisors by the ED  
31 and members of the EDO staff, but all work is assigned on an as-needed basis with no guarantee of any  
32 minimum level of assignments. During the budgeting process, the Special Advisors anticipated to be  
33 needed and roughly the level of effort expected to accomplish the work plan for the budget year is  
34 scrutinized by and discussed with the appropriate advisory committees, the Finance Committee, and the  
35 GC. Input is received and taken under advisement from all these sources as to the appropriateness of the  
36 budgets for these line items with appropriate adjustments made prior to budget finalization.

**PROGRAM TASK & ID: LP-2. AMP-Related Management Actions at Habitat Complexes**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$907,000		

**Task Description**

Implementation of target species habitat restoration and maintenance activities at Program habitat complexes and non-complex properties. Activities generally include creation and maintenance of tern and plover on and off-channel nesting habitats and creation and maintenance of on and off-channel whooping crane roosting habitat. Some of the specific management actions are tree clearing, nesting island maintenance, channel diking, herbicide application, and seeding. See **Appendix A** for a detailed breakdown of LP-2 management actions by habitat complex.

**Notes on Cost**

Appendix A contains more details, but the general breakdown of estimated costs for proposed AMP-related management actions in 2021 is as follows:

Location	Estimated FY21 Cost
New acquisitions	\$50,000
Non-complex	\$298,010
Plum Creek Complex	\$31,000
Cottonwood Ranch Complex	\$43,089
Elm Creek Complex	\$19,323
Pawnee Complex	\$29,557
Fort Kearny Complex	\$50,240
Audubon Rowe Complex	\$22,500
Clark Island Complex	\$71,559
Shoemaker Island Complex	\$19,095
Chapman Complex	\$272,000
<b>TOTAL</b>	<b>\$906,553</b> <b>Round up to \$907,000</b>

**PROGRAM TASK & ID: LP2-P. Trapping Projects**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$89,000		

**Task Description**

Mammalian predator trapping will be conducted under the existing agreement between the Program and USDA-APHIS. The 2021 trapping effort will require a contract amendment with the USDA. Mammalian predator trapping occurs at all managed tern and plover nesting sites to increase productivity within the AHR and beaver trapping occurs in and around the North Platte Choke Point channel to maintain or increase flow conveyance.

**Notes on Cost**

Based on the current agreement with the USDA within the AHR, including two newly acquired or reformed sites (Lexington OSG and Alda-Folmer) for FY21, and additional trapping needs at the North Platte Choke Point, trapping costs are expected to increase slightly and are itemized as follows:

Category	Estimated FY21 Cost
Salary/Benefits	\$50,497.00
Vehicle/Transportation	\$13,500.00
Travel Cost	\$1,000.00
Equipment/Supplies	\$4,500.00
<b>Subtotal</b>	<b>\$69,497.00</b>
Pooled Costs (11%)	\$ 7,644.67
Overhead (16.15%)	\$ 11,223.77
<b>Trapping Total</b>	<b>\$88,365.44, round up to \$89,000</b>

**Products**

- Increased tern and plover productivity from the AHR.
- Increased flow conveyance at the North Platte Choke Point.
- Predator trapping data that will be summarized and included in the annual tern and plover monitoring report.

**PROGRAM TASK & ID: PD-22. Sediment Augmentation Implementation**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$150,000		

**Task Description**

Implementation of full-scale sediment augmentation, monitoring, data analysis, and reporting. Implementation will occur in the south channel of the Platte River along Jeffrey Island (the J-2 Return channel) in an attempt to arrest continued channel incision.

**Notes on Cost**

The FY21 tasks and estimated costs for sediment augmentation are as follows:

Task Description	Estimated FY21 Cost
80,000 tons of sediment augmentation in the south channel above the Overton bridge	\$150,000
<b>FY21 ESTIMATED TOTAL</b>	<b>\$150,000</b>

Project oversight, including project planning and design, development of bid package to secure augmentation contractor, and final project evaluation and reporting will be conducted by the EDO. This estimate assumes basic implementation of mechanical manipulation (not sand pumping) and monitoring and cost estimates based on pilot study experience. As the budget estimate is developed by using rates and the level of effort for similar work acquired for the Program through the competitive procurement process, final negotiation and award of the augmentation and monitoring contracts will be acquired through competition and the estimate for this work is considered fair and reasonable.

**PROGRAM TASK & ID: WP-1 (b). Active Channel Capacity Improvements**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$200,000		

**Task Description**

The objective of the Active Channel Capacity Improvements task is to increase and maintain the active river channel capacity. Channel capacity improvements will assist the Program in maintaining suitable on-channel roosting habitat for whooping cranes as well as make it easier to deliver Program water to and through the AHR.

**Notes on Costs**

The Platte Valley and West Central Weed Management Areas estimates it will cost on the order of \$600,000 annually to control phragmites within the Platte River Basin into perpetuity. It is estimated that \$200,000/year will be requested of and likely required by the Program for phragmites control to maintain or improve flow conveyance throughout the Platte River Basin to allow the Program to test FWS target flows and other AMP-related flow management activities.

Annual cost breakdowns for allocation of the budget shown in Table below are based on control expenditures made by the Platte Valley Weed Management Area in previous years. The actual distribution of expenditures in any given year varies among categories and may include other categories associated with channel maintenance and enhancement such as river tillage operations for vegetation control in addition to herbicide-based control efforts.

Category	Amount	Approximate Unit Cost	Total Cost
Control (helicopter)	4,800 acres	\$70/acre	\$336,000
Control (Airboat)	600 hrs	\$150/hr	\$90,000
Herbicide	2,325 gals	\$75/gal	\$174,375
<b>Total (Rounded)</b>			<b>\$600,000</b>

Annual work activities will consist of control, removal, and monitoring of invasive vegetation within Platte River channels and its tributaries in Keith, Lincoln, Deuel, Dawson, Buffalo, Phelps, Hall, Merrick, and Polk counties. The activities will promote channel conveyance and desired vegetation communities by controlling invasive vegetation within the Platte River. By focusing on the entire system, the project will maximize resources through a collaborative partnership focused on rehabilitation of the active channel, promoting long-term maintenance, and developing an early detection and rapid response protocol to prevent re-infestations.

An endowment is currently being established to provide long-term funding for this effort. Once the endowment is fully funded, phragmites and other noxious weed control within Platte River Channels would be perpetually funded. The Program supports this concept. It is anticipated that the Program will spend \$2.6 million on phragmites control over Extension. Once an endowment is in place, the Governance Committee supports the concept of pledging these funds and contributing them to the endowment.

**PROGRAM TASK & ID: G-1. Remote Sensing Data Collection**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$387,000		

**Task Description**

Bathymetric LiDAR and aerial photography data collection for all Platte River channels within the Associated Habitat Reach (AHR) during the summer and fall. Field data collection and data reduction and analyses will be performed by the EDO.

**Notes on Cost**

FY2021 budget estimates are based on an existing 3-year contract. The FY21 tasks and contracted costs for data collection are as follows:

Task Description	Estimated FY21 Cost
Summer aerial imagery and bathymetric LiDAR subset	\$138,000
Fall aerial imagery and full reach bathymetric LiDAR	\$237,000
Reprocessing of past LiDAR data to improve utility for volume change analyses	\$12,000
<b>FY21 ESTIMATED TOTAL</b>	<b>\$387,000</b>

**Products**

Processed LiDAR point data, three digital elevation models including topo-bathymetric bare earth, hydro-flattened bare earth, and highest hit, and 6-inch resolution 4-band (CIR and true-color) aerial photography. Collection specifications are identical for summer and fall acquisitions. Summer imagery acquisition coverage encompasses entire AHR within 3.5 miles of the channel. LiDAR coverage limited to reach above Odessa. Fall imagery acquisition limited to channel areas. LiDAR coverage for all channels within the entire AHR.

**PROGRAM TASK & ID: TP-1. Tern & Plover Monitoring and Research**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$59,000		

**Task Description**

The EDO will implement the PRRIP tern and plover monitoring protocol during the 2021 nesting season. Monitoring efforts will be similar to 2019 and will include implementation of the monitoring protocol through outside monitoring efforts. Additional camera monitoring of nests, shorelines and predator fencing will be implemented to document predator presence and nest and/or brood predation. The research protocol for predator management, including turtle trapping, turtle enclosure fencing and predator deterrent lights will continue in 2021 to increase tern and plover nest and chick survival within the AHR. The funding included in this line item provide the personnel and equipment required for improving productivity of terns and plovers within the AHR.

**Notes on Cost**

FY21 funding in this line item includes 2 seasonal employees to assist with tern and plover monitoring and implementing the predator management research protocol at off-channel sites, with 2 additional sites (Lexington and Alda) being reformed for use as habitat in 2021. Direct costs are largely based on cost estimates for replacing turtle traps that were damaged during the 2020 season, buying additional cameras for quantifying predator presence and the impacts of predation on tern and plover productivity, and lighting to deter predators away from nesting sites. Results from the 2020 pilot study to determine the feasibility and effectiveness of partial turtle enclosure fencing were positive for wire mesh fencing, demonstrating no harm to the birds and effective at deterring turtles from reaching nesting habitat. Materials to construct a single total enclosure turtle wire mesh fence at 1 off-channel nesting sites during 2021 has been added to the LP-2 line item budget to investigate the efficacy of turtle management activities on improving tern and plover productivity at off-channel nesting sites within the AHR.

Expense Category	Estimated FY21 Cost
<b>Personnel</b>	<b>\$25,600</b>
<b>Direct Costs</b>	
Turtle Traps	\$1,000
Nest, shoreline, site-level, fence/wing panel cameras	\$27,400
Camera supplies (SD cards, batteries, posts, avian spikes, zip ties)	\$2,500
Predator deterrent lights	\$2,390
<b>Direct Cost Subtotal</b>	<b>\$33,290</b>
<b>FY21 TOTAL</b>	<b>\$58,890</b> <b>Round up to \$59,000</b>

**Products**

- Annual report detailing nest activity, bird activity, and habitat conditions; data for long-term analysis of effects of Program actions.



- Data quantifying predator presence and potential impact on tern and plover productivity at off-channel sites within the AHR.
- Data on efficacy of turtle exclosure fencing, turtle trapping, and predator deterrent lights for reducing predator presence on off-channel nesting sites and improving reproductive success of terns and plovers within the AHR. Data will be summarized in annual reports and final results will be published during the First Increment Extension.



**PROGRAM TASK & ID: WC-1. Whooping Crane Monitoring**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$130,000		

**Task Description**

Spring and Fall 2021 implementation of the whooping crane monitoring protocol, data analyses, and reporting will be conducted by the EDO.

**Notes on Cost**

The EDO will implement the whooping crane monitoring protocol and perform data analyses and reporting for the spring and fall 2021 monitoring seasons. Costs are based on past technician rates and aerial flight services contracted through a competitive selection process. The budget for spring and fall 2021 field work to be completed by the EDO is as follows:

Expense Category	Estimated FY21 Cost
<b>FY21 Spring Whooping Crane Monitoring</b>	
Personnel	\$18,000
Direct Costs (aircraft rental, mileage, GPS unit rental, radios, equipment, liability insurance, etc.)	\$60,000
<b>Subtotal</b>	<b>\$78,000</b>
<b>FY21 Fall Whooping Crane Monitoring</b>	
Personnel	\$15,000
Direct Costs (aircraft rental, mileage, equipment, liability insurance, etc.)	\$37,000
<b>Subtotal</b>	<b>\$52,000</b>
<b>FY21 TOTAL</b>	<b>\$130,000</b>

**Products**

- Spring and Fall 2020 Whooping Crane Reports detailing monitoring effort, whooping crane use locations, numbers of individuals sighted, and habitat conditions associated with sightings; data for long-term analysis of effects of Program actions.

**PROGRAM TASK & ID: PS-1. Pallid Sturgeon Monitoring & Research**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$186,000		

**Task Description**

Year 1 costs for pallid sturgeon genetics research study designed to address issues with pallid sturgeon identification, demographics, and hybridization. *Expenditure of funds from this line item contingent upon USFWS determination that funding of this study qualifies as PRRIP's contribution to benefit pallid sturgeon during the Extension. This will be discussed with the GC in anticipation of a determination prior to mid-2021.*

**Notes on Cost**

This research program includes costs associated with genetic sequencing equipment, supplies, and a graduate student research assistantship. The budget for 2021 is as follows:

Expense Category	Estimated FY21 Cost
Equipment	\$131,000
Laboratory Supplies	\$14,000
Personnel & Support	\$23,500
Indirect Costs	\$17,700
<b>FY21 TOTAL</b>	<b>\$186,200 (Round to \$186,000)</b>

**Products**

- Products will include annual report of results, accomplishments, and interpretations. Overall, the research program is expected to address important issues related to species identification, hybridization, population structure and population demographics. Results will be widely applicable to the conservation stocking program, field efforts to characterize pallid sturgeon habitat, and population viability assessments. As such, we expect this research to contribute to a more focused and efficient management plan for this species.

**PROGRAM TASK & ID: G-5. Geomorphology and Vegetation Monitoring and Research**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$4,000		

**Task Description**

Time-lapse camera data will be collected annually to monitor the efficacy of natural flows, target flows, and all AMP-related flow management activities at reducing vegetation establishment or removing vegetation from the channel to maintain or improve whooping crane roosting habitat suitability throughout the AHR. Data collection and analyses will be performed by the EDO.

**Notes on Cost**

The FY21 estimated cost for acquiring and installing time-lapse cameras on the bank line of Program Habitat Complexes is estimated to be \$4,000.

**PROGRAM TASK & ID: PD-15. Environmental Permitting**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$50,000		

**Task Description**

Contract services from HDR to secure or maintain environmental permits associated with adaptive management and/or water projects.

**Notes on Cost**

HDR was awarded a sole source contract for permitting services in 2018 that expires on 12/31/2021. The contract is to provide permitting services for adaptive management and/or water projects that require coordination with and approval from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (Section 404) and from the Nebraska Department of Environmental Quality (NDEQ) under Section 401 of the Clean Water Act (Section 401). The multi-year contract amount is \$150,000 and specific dollar amounts are developed for specific services, as needed. For 2021, HDR's estimated costs are \$50,000 based on previous permitting work for the Program and are high enough to ensure enough budget is available to account for unforeseen eventualities in the permitting process that could slow down permit acquisition.

**PROGRAM TASK & ID: PD-18. AMP-Related Equipment**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$108,000		

**Task Description**

Headwaters Corporation owns equipment and will charge the Program a use rate for Program-related activities.

**Notes on Cost**

Equipment charges are calculated on an annual basis and then converted into monthly rates. The basic methodology was described in detail in a memo to the Finance Committee/Governance Committee dated 11/02/11. The categories and associated calculation methods are summarized, and the corresponding values tabulated below.



Unit	Use & Maintenance (\$)	Fuel (\$)	License & Insurance (\$)	Monthly Total (\$)	Comments	Insurance	Miles/Year
2017 Toyota Tacoma	500	650	250	1,400	Owned by Headwaters Corporation	204.42	28,966
2016 Toyota Tundra	500	650	225	1,375	Owned by Headwaters Corp.	187.75	28,448
2011 Toyota Tundra	500	650	175	1,325	Owned by Headwaters Corp.	143.00	27,414
2009 Chevrolet Silverado	400	400	150	950	Owned by Headwaters Corp.	122.83	19,655
2008 SUV	500	400	160	1,060	Owned by Headwaters Corp.	134.92	21,931
Airboat & Trailer	750	275	300	1,325	Owned by Headwaters Corp.		
Argo & Trailer	350	20	150	520	Owned by Headwaters Corp.		
ATV & Trailer	150	20	100	270	Owned by Headwaters Corp.		
Side-by-Side	400	30	100	530	Owned by Headwaters Corp.		
Zodiac Boat	100	10	50	160	Owned by Headwaters Corp.		
Canoe Trailer	30	-	15	45	Owned by Headwaters Corp.		
<b>TOTAL</b>	<b>\$4,180.00</b>	<b>\$3,105.00</b>	<b>\$1,675.00</b>	<b>\$8,960.00</b>	<b>\$107,520 (monthly total of \$8,960 x 12 months) Rounded up to \$108,000</b>		

The cost categories used, and the calculation methodologies are as follows:

- Use & Maintenance – the use portion is calculated on an annualized replacement cost for the equipment and the maintenance portion is calculated based on experience data and known periodic significant maintenance items (e.g., replacement of the bottom shield or engine of the airboat) that are annualized to stabilize equipment costs between years.
- Fuel – the anticipated fuel costs based on anticipated miles, known miles per gallon rates, and anticipated cost of gasoline in Kearney, NE (weighted toward summer prices because that is the season of heaviest equipment use). A rate of \$3.00/gallon is used in developing these costs. The cost of fuel is a significant piece of the equipment costs (about 30% of the total), and the unit cost of gasoline is the most uncertain of all factors used in the development of these costs.
- License/Insurance – the cost of licensing (trucks, airboats, and trailers all require licenses) and insuring the equipment, including liability insurance, is included in this cost.

**PROGRAM TASK & ID: IMRP-3. AMP Special Advisors**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$130,000		

**Task Description**

- **Target Flows** – Compass will be retained as a Special Advisor to the EDO to continue facilitation of the ongoing target flow process, including the “mock” Second Increment negotiations.
- **SDM** – Compass will be retained as a Special Advisor to work with the EDO on potential development of an SDM process to assist with the Assess and Adjust phases of adaptive management in development of the Extension AMP.
- **Geomorphology** – Bob Mussetter will be retained as a Special Advisor to the EDO on AMP-related specialty topic of geomorphology. Review Program documents, attend workshops and meetings, research/monitoring design, modeling, and data analysis.

**Notes on Cost**

This FY21 budget line item is for expert assistance for the Executive Director’s Office (EDO) on key topics for the Program. The budget breakdown for this line item is as follows:

Name	Area of Expertise	Hourly Rate	Estimated 8- hour Days	FY21 Total
Philip Halteman (Compass)	Facilitation for Target Flow Process, development/use of SDM as part of Extension AMP	\$200	60	\$100,000
Bob Mussetter, P.E.	Sediment transport & geomorphology	\$200	12	\$20,000
Other Direct Costs (i.e. travel and per diem for AMP Reporting Session, trips to Kearney, NE, etc.)				\$10,000
<b>Total not to exceed</b>				<b>\$130,000</b>

**General note on all Special Advisor budget line items:** Please refer to the third paragraph in the Exceptions: section of the Procurement Policy adopted by the Governance Committee in June 2016, “Retention of special advisors to the ED of a technical or legal nature is exempt from the procedures provided in this directive.”

Consequently, special advisors are not selected through a competitive process involving advertised RFQs or RFPs. Special advisors are selected by the Executive Director based on qualifications – education, relevant experience, expertise and skills, reliability, credibility, and ability to work effectively with the ED and the staff of the EDO. Special Advisors and the firms they are associated with cannot do any other work for the Program, individually or as part of a team. This is a critical restriction and generally orients special advisor selection to individuals who are sole proprietors or part of small firms that would not likely be doing significant levels of work for the Program on other specific, larger projects.



1 The billing rates are negotiated with the special advisors by the ED and are kept within the industry  
2 standard of practice based on each individual's qualifications. While industry standard of practice may not  
3 be precisely defined, anyone who is a practicing member of that professional community understands the  
4 limits of reasonableness associated with those boundaries. Appropriate expertise to make this assessment  
5 resides with the ED or EDO staff. The industry standard of practice rates guidelines used in this process is  
6 established based on an on-going market survey process comparing labor rates of similarly qualified  
7 professionals in the field.

8  
9 In the case of Special Advisors, individuals with similar experience and qualifications have been part of  
10 consultant teams selected through the Program's competitive procurement process over an eight-plus-  
11 year period. Comparison of the Special Advisor rates to the rates charged by comparable individuals  
12 through the competitive procurement process provides an indisputable basis for comparison. In all cases  
13 the Special Advisor rates are not only within the range of rates seen on the consultant teams which have  
14 been selected competitively, but typically at the middle to lower end of the range. As rates charged by  
15 Special Advisors are at the middle to low end of the range of rates for similar work acquired through the  
16 Program's competitive procurement process, the estimate for Special Advisors is considered fair and  
17 reasonable.

18 The anticipated level of effort for the upcoming year is also discussed with the special advisors by the ED  
19 and members of the EDO staff, but all work is assigned on an as-needed basis with no guarantee of any  
20 minimum level of assignments. During the budgeting process, the special advisors anticipated to be  
21 needed and roughly the level of effort expected to accomplish the work plan for the budget year is  
22 scrutinized by and discussed with the appropriate advisory committees, the Finance Committee, and the  
23 Governance Committee. Input is received and taken under advisement from all these sources as to the  
24 appropriateness of the budgets for these line items with appropriate adjustments made prior to budget  
25 approval.

## 26 27 **Products**

28 Review of Program documents, advice on specific actions related to AMP implementation, development  
29 of process documents as requested, and facilitation of the AMP update and target flow processes.



**PROGRAM TASK & ID: ISAC-1. ISAC Stipends & Expenses**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$180,000		

**Task Description**

The EDO proposes the following 2021 ISAC activities:

- 1) 2021 Virtual AMP Reporting Session in Omaha, NE; February 2021
- 2) Quarterly series of virtual ISAC meetings (one-day meetings in MS Teams) based on topics of interest and GC direction – preparation for the AMP Reporting Session, review of the Extension AMP and associated technical content, review of the 2020/21 State of the Platte, target flows/flow management actions, other specific areas of GC interest.
- 3) Written reports and virtual presentations to the GC – summary report and presentation from the AMP Reporting Session, written commentary from the ISAC from quarterly virtual meetings and associated virtual presentation to the GC at GC Quarterly Meetings.

**Notes on Cost**

The budget for work to be completed by the ISAC during 2021 is detailed below:

ISAC Cost Item	Estimated FY21 Cost
<b>2021 Virtual AMP Reporting Session (February 2021)</b> – 3-day meeting in MS Teams x \$1,600 per member per day (\$200/hour x 8-hour day) x 6 ISAC members	<b>\$28,800</b>
<b>Quarterly Virtual ISAC Meetings</b> – 4 meetings in MS Teams x 1-day meeting x \$1,600 per member (\$200/hour x 8-hour day) x 6 ISAC members	<b>\$38,400</b>
<b>Additional Document Review and/or Specific ISAC Member Input</b> – 10 days of review x 6 members x \$1,600/day (review Program documents/products and provide specific guidance)	<b>\$96,000</b>
<b>ISAC Co-Chairs</b> – additional \$14,400 for ISAC coordination and preparation of reports for the GC (10 days x \$1,600/day, split evenly between co-chairs)	<b>\$16,000</b>
<b>Total</b>	<b>\$179,200, round up to \$180,000</b>

The daily service rate for ISAC members is based on industry standard rates for individuals of the caliber and stature required for the ISAC. A review of standard rates for PhD-level independent science experts revealed rates routinely in the range of \$150 to \$300 on an hourly basis. The EDO proposes a rate of \$200/hour for 2021, an increase over the FY20 rate but in the low middle of that range and in line with



the rate paid to EDO Special Advisors.

Labor rates for ISAC members is compared against individuals of similar qualifications and experience that are part of consultant teams that are awarded contracts with the Program through competitive processes in conformance with the Procurement Policy. The level of effort is established by comparison of level of effort for similar tasks contained in contracts with consultants for the Program that were awarded through competitive processes in conformance with the Procurement Policy.

Considering the ongoing COVID-19 pandemic, all ISAC meetings in 2021 (including the AMP Reporting Session) will be virtual so no travel costs are estimated for this line item in the FY21 PRRIP budget.

### 2021 ISAC Members

The table below provides details on the contract status of all six current ISAC members:

ISAC Member	Contract Action in 2021
Ned Andrews	2021 Amendment
Brian Bledsoe	2021 Amendment
Adrian Farmer	2021 Amendment
David Galat	2021 Amendment
Jennifer Hoeting	2021 Amendment
David Marmorek	2021 Amendment

All ISAC work in 2021 will be virtual. In 2021, the EDO will work with the AMWG, TAC, and GC to set a course for the ISAC during the remainder of the Extension (2022-2032) regarding ISAC members, areas of expertise, length of terms, process of member replacement, etc.

### Products

ISAC review of Adaptive Management Plan (AMP) implementation, experimental design, and other Program products and activities; work will culminate in reports and presentations to the GC after the AMP Reporting Session and the quarterly virtual ISAC meetings.

**PROGRAM TASK & ID: PD-3. PRRIP Peer Review & Publications**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$9,000		

**Task Description**

Publication of three (3) Program manuscripts.

**Products**

Three publications in refereed journals.

**Notes on Cost**

Publication estimate of \$3,000 per manuscript for open-access publication based on professional publication experience of EDO staff; costs could be higher or lower depending on the journal. The EDO expects to seek GC approval to:

- Prepare Cross-section Volume Change Analysis manuscript; will seek GC approval to publish.
- Prepare manuscript on wet meadows and hydrology based on Program research; will seek GC approval to publish.
- Submit and publish Adaptive Management as an Honest Broker manuscript.

For FY21, estimated publication expenses are:

Potential Manuscript	Author	Manuscript Type	Target Journal	FY21 Cost
Cross-section Volume Change Analysis	EDO	Geomorphology	<i>Geomorphology</i>	\$3,000
Wet Meadows Hydrology Research	EDO	Ecology/behavior	<i>TBD</i>	\$3,000
Adaptive Management as an Honest Broker	EDO	Governance & Decision-Making Process	<i>Journal of Environmental Management</i>	\$3,000
<b>TOTAL</b>				<b>\$9,000</b>

**PROGRAM TASK & ID: PD-11. AMP-related Workshops**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$9,000		

**Task Description**

AMWG workshops related to development of the Extension AMP. GC workshops for the target flow process/mock Second Increment negotiations. EDO virtual facilitation of all workshops through at least August 2021, in-person facilitation of workshops from September through the end of 2021.

**Notes on Cost**

EDO subscriptions for virtual facilitation tools will allow for more productive and meaningful virtual workshops through the summer of 2021 (and beyond). Estimated FY21 costs include:

Expense Category	Estimated FY21 Cost
<b>GC &amp; AMWG Virtual Workshops (January-August)</b>	
Subscriptions (Mentimeter, Mural)	\$500
MS Teams Toll Charges for Dial-In Users	\$1,000
<b>GC &amp; AMWG In-Person Workshops (September-December)</b>	
5 workshops @ \$1500/workshop (room rental, refreshments, screen rental, phone charges, etc.)	\$7,500
<b>Total</b>	<b>\$9,000</b>

**General Notes on Meeting Costs**

Due to the ongoing COVID-19 pandemic, the EDO expects that all AMWG and GC workshops will be conducted virtually through summer 2021. We are hopeful that in-person workshops and meetings will begin happening again by September 2021, if not sooner based on local and interstate public health guidelines and conditions.

For virtual workshop expenses – The EDO is becoming more adept and confident utilizing a host of tools to successfully facilitate virtual meetings. We use Mentimeter to gather rapid-response data to questions, and to allow workshop participants to provide honest and open answers and feedback anonymously. We use Mural as an online whiteboard tool to allow workshop participants to contribute to in-meeting brainstorming and work sessions and to help facilitate between-meeting homework. We use Microsoft Teams as our preferred virtual meeting platform and have added an option to participate via phone only with a call-in number and Conference ID for anyone without video access for a particular workshop. If that feature is used, there is a per-minute toll charge while the phone line is open during the virtual meeting.

For in-person workshop expenses – Because each meeting may be held in a different location (different cities and different hotels) a range of meeting room costs are possible. The typical range of room rental rates is \$500 to \$750/day. The typical rate for providing refreshments (coffee, sodas, juices), morning or afternoon break foods (rolls, fruit, cookies), and box lunches (if the agenda calls for a working lunch) can vary considerably by location, the range of options selected, and the number of people attending. For planning purposes, a rate range of \$250 to \$500 per meeting is used. Equipment costs for projector and



1 screens and polycom conference phones vary considerable depending on location. Projector/screen costs  
2 can range from \$50 to \$250 per day. Polycom conference phones with microphone extension costs can  
3 range from \$50 to \$100 per day. Conference call costs are broken down in the table by number, rate, and  
4 duration of calls, the number and duration are estimated based on experience and the rate is set by  
5 contract with the provider.

#### 6 7 **Products**

- 8 • DRAFT Extension Adaptive Management Plan (AMP)
- 9 • Conclusion of target flow process/mock Second Increment negotiation process



## APPENDIX A

### PRRIP FY2021 Annual Land Work Plan

## 2021 Land Budget Overview

### Platte River Recovery Implementation Program

For More Information Contact: Jason Farnsworth, [farnsworthj@headwaterscorp.com](mailto:farnsworthj@headwaterscorp.com) (308) 237-5728

### *2021 Land Budget Overview By Budget Line Item*

Budget Line Item	Description	Estimated Expenditure***
LP-2	Adaptive Management Species Habitat Actions*	\$906,553
LP-3	New Land Acquisitions, LHIE Fees, & Property Taxes	\$1,454,650
LP-4	Property Maintenance & Agricultural Operations**	\$306,150
LP-6	Land Plan Special Advisors	\$20,000
LP-7	Public Access Management	\$40,000
WPLW-1	Property Maintenance for Water Properties	\$38,400

\* Includes \$50,000 in LP-2 for new acquisitions in 2021.

\*\* Includes \$50,000 in LP-4 for new acquisitions in 2021.

\*\*\* The budget items have been reviewed and approved by the LAC on November 3, 2020.

## 2021 Budget Overview By Complex

Complex	Estimated Expenditure	Estimated Income
Non-Complex Tracts	\$304,210	\$24,220
Plum Creek "Complex"	\$45,600	\$12,350
Cottonwood Ranch Complex	\$174,589	\$14,135
Elm Creek Complex	\$36,823	\$17,950
Pawnee Complex	\$59,057	\$585
Fort Kearny Complex	\$66,570	\$37,700
Minden-Gibbon Complex	\$22,500	\$0
Clark Island Complex	\$85,059	\$32,290
Shoemaker Island Complex	\$24,795	\$42,595
Chapman Complex	\$293,500	\$3,640
Water Properties	\$38,400	\$9,000
New Acquisitions (Estimated 2)*	\$100,000	\$0
<b>Total</b>	<b>\$1,251,103</b>	<b>\$194,465</b>

\* \$50K for maintenance & \$50K for species habitat



## 2021 Budget Priority Areas by Budget Line Item

**LP-2 – Adaptive Management Species Habitat Actions:** Species habitat priorities are focused on creation and maintenance of suitable complex and non-complex habitat for Program target species. Includes Habitat Enhancement at Tract 2020002 & Chapman Complex

**LP-3 – New Land Acquisitions:** Land acquisition priorities include identification and acquisition of lands for construction of an additional 60 acres of off-channel sand and water habitat for least tern and piping plover nesting habitat and identification and acquisition of lands that could count towards the First Increment Extension habitat land "plus up" of 1,500 acres.

**LP-4 – Property Maintenance & Agricultural Operations:** 2020 priorities include maintenance of basic land infrastructure such as facilities, roads, and fences as well as fulfilling basic ownership obligations like noxious weed control and ROW mowing.

**LP-6 – Land Plan Special Advisors:** Priorities for special advisors include administration of agricultural leases and associated FSA obligations, crop management and marketing, and assistance in cropland conversions.

**LP-7 – Public Access Management:** Nebraska Game and Parks Commission will manage public access to Program lands.

**WPLW-1 – Property Maintenance for Water Properties:** 2020 priorities include maintenance of basic land infrastructure such as facilities, roads, and fences as well as fulfilling basic ownership obligations like noxious weed control and ROW mowing.

**Property Identification Key:**

2008001 – PRRIP Wyoming Property  
2008002 - NPPD Cottonwood Ranch  
2009001 – PRRIP Fox Tract  
2009002 – PRRIP Bartels Tract  
2009003 - PRRIP Dyer Tract  
2009004 – PRRIP Hostetler Tract  
2009005 – PRRIP McCormick Tract  
2009006 - PRRIP Stall Tract  
2009007 - PRRIP Cook Tract  
2009008 - PRRIP Broadfoot Newark Tract  
2010001 - PRRIP Morse Tract  
2010002 - Broadfoot Kearney South Tract  
2010003 – PRRIP Sherrerd/Clark Easement  
2010004 – PRRIP Binfield Tract  
2011001 - PRRIP East Leaman Tract  
2011002 - PRRIP Follmer Alda Tract  
2012001 – PRRIP Sullwold Tract  
2012002 – PRRIP Johns Tract  
2012003 – PRRIP Blessing Tract  
2012004 - PRRIP DeBore Tract  
2013001 - PRRIP Liehs Tract  
2014002 - PRRIP Volentine Tract  
2015001 – PRRIP Speidell Tract  
2015002 - PRRIP BELF Tract  
2015003 – Blue Hole East  
2018001 – PRRIP Dippel Tract  
2019001 – PRRIP Robinson Tract  
2020001 – PRRIP Bergren Tract  
2020002 - PRRIP Lex Pit Tract  
Agreement #10 (1605) - P. Broadfoot  
Agreement #11 (1008) - NE DOR Lease

W201602 – PRRIP Lindstrum Tract  
W201701 – PRRIP Edlund Tract  
W201702 - PRRIP Albrecht Tract  
W201703 - PRRIP Lakeside Tract

**Personnel Responsibility Key**

JB – Justin Brei (Biosystems Engineer)  
MH – Malinda Henry (Director of Biological and Ecological Services)  
JJ – Jim Jenniges (NPPD)  
BS – Bruce Sackett (Director of Acquisitions)  
TT – Tim Tunnell (Senior Land Manager)  
ST – Seth Turner (Senior Water Resources Engineer)  
KW – Kevin Werbylo (Water Resource Engineer)

LP-2	Priority Area: <i>Adaptive Management</i>		Total	%
	Item(s): <i>Turtle Fencing</i>	Installation of 5,000 LF of Turtle Fencing	\$15,000	2%
	Priority Area: <i>Species Habitat</i>			
	Item(s): <i>Create Least Tern &amp; Piping Plover OCSW Habitat</i>	Tract 2020002 (Lex pit) Predator Fence (1,200 LF)	\$11,500	
		Tract 2020002 (Lex pit) LT/PP OCSW Habitat Enhancement	\$250,000	
		Subtotal	\$261,500	29%
	Item(s): <i>Maintain Suitable In- and Off-Channel Sand &amp; Water Habitat</i>	Herbicide applications on OCSW peninsulas to maintain bare sand nesting habitat	\$19,500	
		Tract 2010002 Remove Piles, Smooth, & Dynamite	\$1,000	
		Subtotal	\$20,500	2%
	Item(s): <i>Maintain Suitable Palustrine Wetland Habitat</i>	Irrigation Well Pumping	\$8,400	
		Brush, tree, cattail herbicide spraying	\$24,500	
		Prescribed Burning	\$3,010	
		Subtotal	\$35,910	4%
	Item(s): <i>Improve Target Species Sand and Water Habitat</i>	Remove Blow Sand from Predator Fences	\$10,000	
		Herbicide treatment on south bank to kill vegetation prior to disking	\$5,000	
		Disking if necessary to provide in-channel vegetation control	\$134,350	
		Clear Island in Main Channel	\$15,000	
		Clear Islands on Neighbors	\$30,000	
		Tract 2019001 Habitat Enhancement	\$50,000	
		Tract 2020001 Habitat Enhancement	\$222,000	
		Subtotal	\$466,350	51%
	Item(s): <i>Whooping Crane Grassland / Wet Meadow Habitat</i>	Prescribed Burning	\$42,293	
		Russian olive & Tree Pile Removal	\$15,000	
		Subtotal	\$57,293	6%
		Existing Land Subtotal	\$856,553	94%
		2020 New Acquisitions	\$50,000	6%
		LP-2 Budget Total	\$906,553	100%

LP-3	Priority Area: Land Acquisitions		Total	%
	Item(s): <i>Land Acquisition, Property Taxes and Associated Fees</i>	Land interest holding entity (LIHE)	\$55,000	4%
		Property Taxes	\$163,900	11%
		Cottonwood Ranch Sponsorship Agreement	\$17,000	1%
		Land Acquisition Associated Costs	\$18,750	1%
		Buy, Lease or Easement (400 acres)	\$1,200,000	82%
		<b>LP-3 Budget Total</b>	<b>\$1,454,650</b>	<b>100%</b>

LP-4	Priority Area: Operations and Maintenance		Total	%
	Item(s): <i>Basic Property Maintenance Obligations and Needs</i>	Fence & Road Maintenance	\$43,000	14%
		Noxious Weed Control	\$48,500	16%
		Mowing	\$17,000	6%
		Lodge & Quonset Utilites & maintenance	\$5,600	2%
		Cabin Utilites & maintenance	\$2,500	1%
		CWR BSR Project Fence	\$111,500	36%
		Electricity for Livestock wells	\$3,050	1%
		NE Forest Service Costshare Pilot Fuel Reduction Project	\$25,000	8%
		<b>Existing Land Subtotal</b>	<b>\$256,150</b>	<b>76%</b>
		2020 New Acquisitions	\$50,000	16%
		<b>LP-4 Budget Total</b>	<b>\$306,150</b>	<b>100%</b>

WPLW-1	Priority Area: Water Tract Operations and Maintenance		Total	%
	Item(s): <i>Basic Property Maintenance Obligations and Needs</i>	Fence & Road Maintenance	\$5,000	13%
		Fence Replacement	\$13,200	34%
		Noxious Weed Control	\$10,000	26%
		Mowing	\$1,000	3%
		Electricity for Livestock wells	\$200	1%
		Property Taxes	\$9,000	23%
		<b>WPLW-1 Budget Total</b>	<b>\$38,400</b>	<b>100%</b>

## 2021 Non-Complex Properties Annual Work Plan

### General Priorities

- \* **Good Neighbor Policy** - *Conduct all actions in accordance with Program's good neighbor policy.*

### Adaptive Management Priorities

- \* **Species Monitoring** – Monitor whooping crane use of non-complex palustrine wetlands and least tern and piping plover use and productivity at off-channel sand and water nesting sites.

### Species Habitat Priorities

- \* **Maintain Suitable Off-Channel Sand and Water Nesting Habitat** – Apply pre-emergent herbicide on Tracts 2009008, 2010002, 2011001, and 2011002 OCSW nesting habitat to prevent vegetation encroachment into nesting areas.
- \* **Maintain Suitable Palustrine Wetland Roosting Habitat** – Manage vegetation height in the palustrine wetland areas of Tracts 2012004 and 2013001 to maintain suitable unobstructed view widths for whooping crane roosting.
- \* **Protecting Other Species of Concern** – Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.

### Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs including boundary fence signage, road maintenance, and noxious weed control.
- \* **Agricultural Operations** – Oversight of crop leases on Tracts 2009008, 2012004 and 2013001 and hay lease on Tract 2011001.
- \* **Sand and Gravel Mining Operations** – *Monitor sand and gravel mining operations on Tracts 2009008 and 2011002.*

*NOTE: The budget section of this work plan only contains information for work items that are specific to these tracts. As such, tract-specific research and monitoring actions are presented but system-scale actions like target species and geomorphology/vegetation monitoring are not.*

**Priority Area: *General*****Item(s):** *Land Interest and Tract-Level Restoration and Maintenance Planning*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A
NC 2	Tract 2020002 Restoration and Management Plan Development	11/1/20 - 3/1/22	TT, JB	N/A	N/A

**Priority Area: *Aaptive Manangement*****Item(s):** *Turtle Fencing*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 3	Installation of 5,000 LF of Turtle Fencing	1/1/21 - 4/15/21	MH, TT	\$15,000	LP-2

**Priority Area: *Species Habitat*****Item(s):** *Create Least Tern & Piping Plover OCSW Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 4	Tract 2020002 (Lex pit) Permanet & Temporary Predator Fence (1,200 LF)	1/1/21 - 4/15/21	TT	\$11,500	LP-2
NC 5	Tract 2020002 (Lex pit) LT/PP OCSW Habitat Enhancement	1/1/21 - 4/15/21	KW & JB	\$250,000	LP-2

**Priority Area: *Species Habitat*****Item(s):** *Maintain Suitable In- and Off-Channel Sand & Water Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 6	Herbicide applications on OCSW peninsulas to maintain bare sand nesting habitat	4/2021 & 9/2021	TT	\$11,000	LP-2
NC 7	Tract 2010002 Remove Piles, Smooth & Dynamite	1/1/21 - 4/15/21	TT	\$1,000	LP-2

**Priority Area: *Species Habitat*****Item(s):** *Maintain Suitable Palustrine Wetland Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 8	Irrigation well pumping to augment water level in wetland area of Tract 2013001	3/1/21 - 4/15/21 & 10/1/21-11/15/21	TT	\$3,000	LP-2
NC 9	Tract 2012004 Prescribed burn (70 ac)	3/15/21 – 5/15/21	TT	\$3,010	LP-2
NC 10	Brush, tree, cattail herbicide spraying	1/16/21-11/1/21	TT	\$3,500	LP-2

**Priority Area: *Species Habitat*****Item(s):** *Other Species of Concern*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 11	Habitat and species surveys on properties where work will occur	As Needed	MH	N/A	N/A
NC 12	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	Annual	MH	N/A	N/A

**Priority Area: Operations and Maintenance****Item(s):** *Basic Property Maintenance Obligations and Needs*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 13	Fence and road maintenance	Annual	TT	\$1,500	LP-4
NC 14	Noxious weed control	6/1/21 – 8/31/21	TT	\$2,000	LP-4
NC 15	Mowing	7/15/21 - 10/15/21	TT	\$1,500	LP-4
NC 16	Tract 2012004 Electricity	7/15/21 - 10/15/21	TT	\$1,200	LP-4

**Priority Area: Operations and Maintenance****Item(s):** *Agricultural Operations*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 17	Oversight of grazing and cropland	Annual	TT	N/A	N/A
NC 18	Oversight of sand and gravel mining	Annual	BS	N/A	N/A



## 2021 Non-Complex Tracts Budget Summary

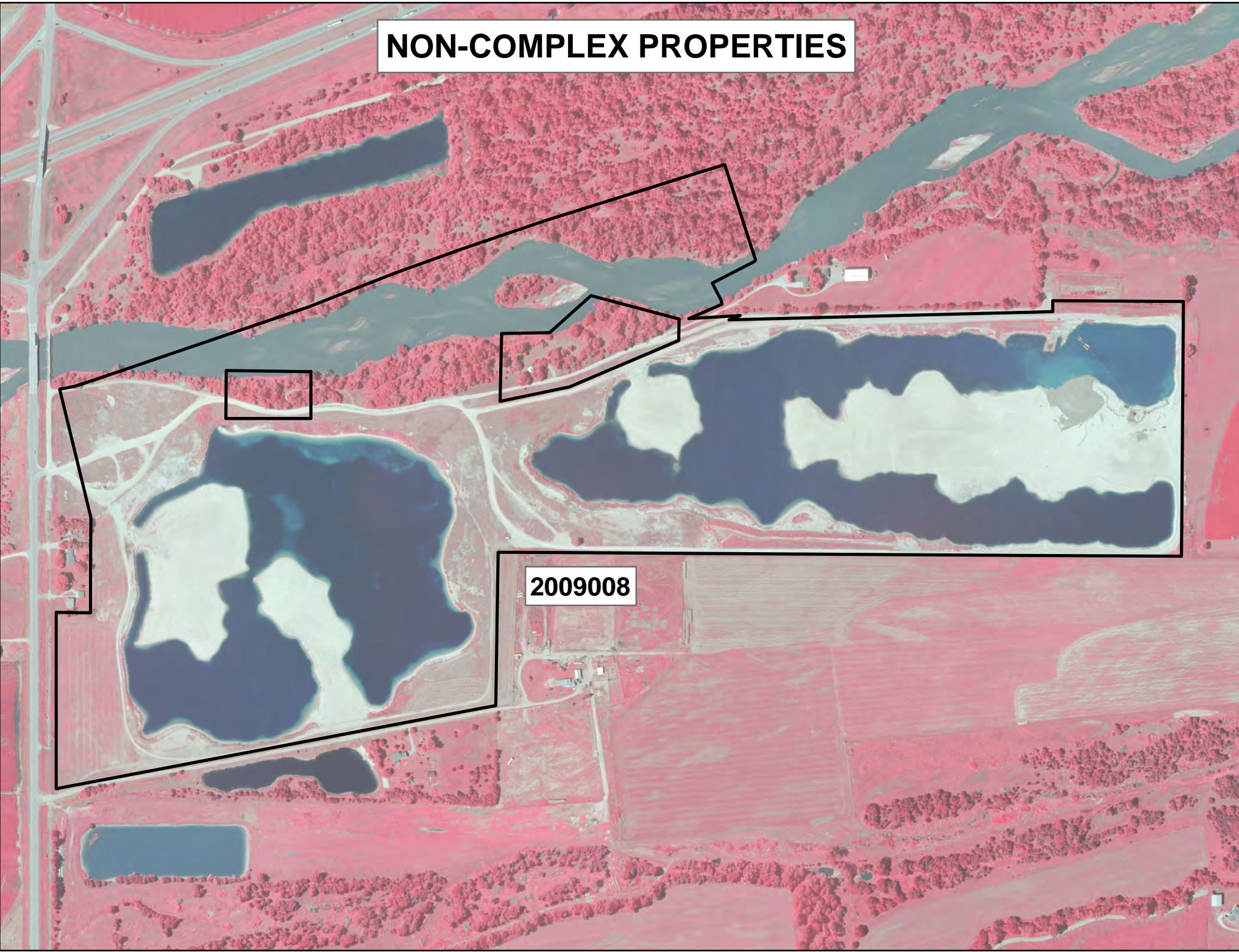
### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Adaptive Management	Turtle Fencing	LP-2	\$15,000
Species Habitat	Create Least Tern & Piping Plover OCSW Habitat	LP-2	\$261,500
Species Habitat	Maintain Off-Channel Sand & Water Habitat	LP-2	\$12,000
Species Habitat	Create & Maintain Palustrine Wetland Habitat	LP-2	\$9,510
<b>Subtotal</b>			<b>\$298,010</b>
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$6,200
<b>Total</b>			<b>\$304,210</b>

### Estimated 2021 Revenues

Tract	Item	Estimated Income
Tract 2009008	Hay Income	\$400
Tract 2011001	Hay Income	\$500
Tract 2011002	Sand & Gravel Royalties	\$5,000
Tract 2011002	Cropland Cash Rent Income	\$3,060
Tract 2012004	Cropland Cash Rent Income	\$3,000
Tract 2012004	Grazing Income	\$2,000
Tract 2013001	Irr. Cropland Cash Rent Income	\$6,600
Tract 2013001	Dry Cropland Cash Rent Income	\$3,660
<b>Total</b>		<b>\$24,220</b>

# NON-COMPLEX PROPERTIES



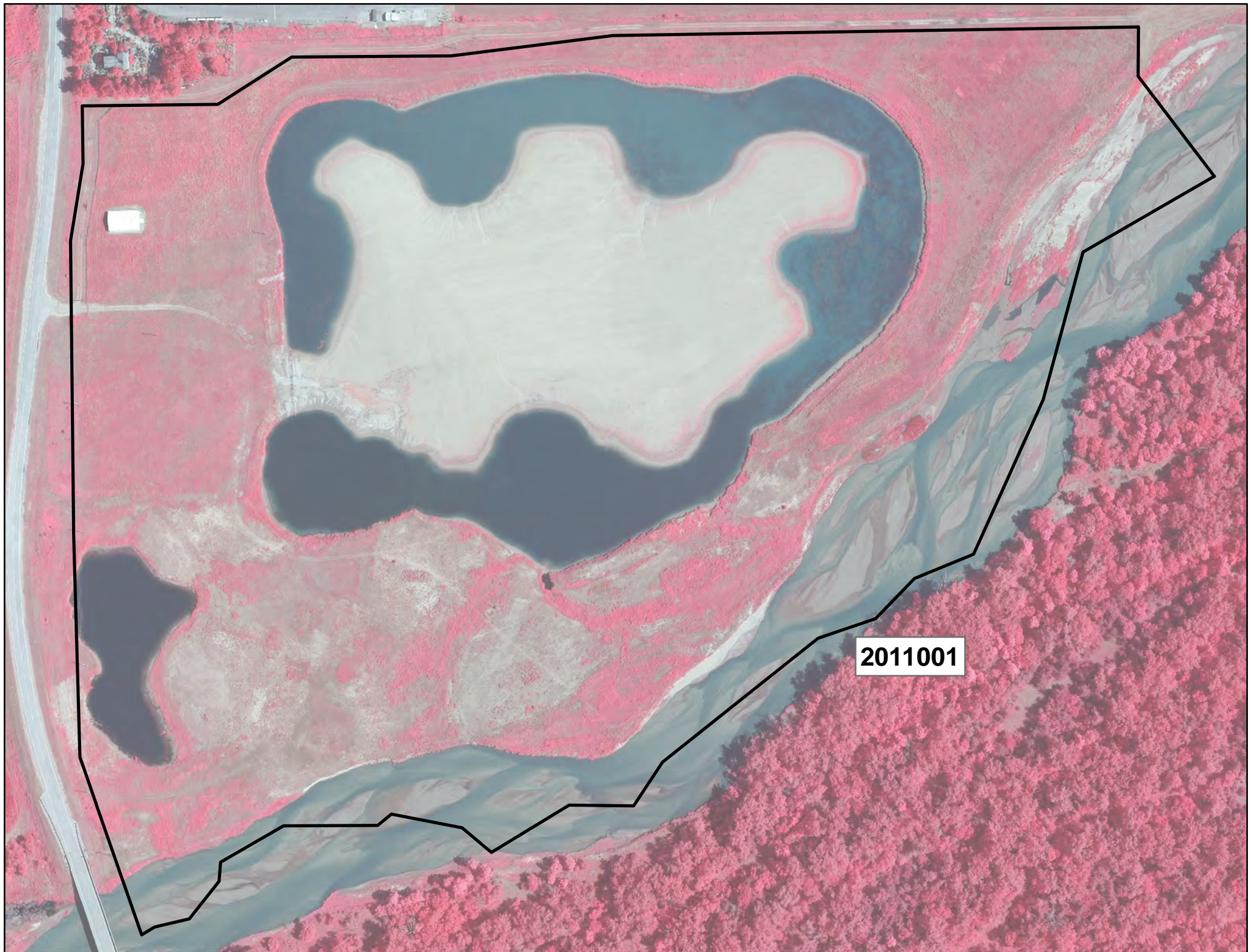
2009008





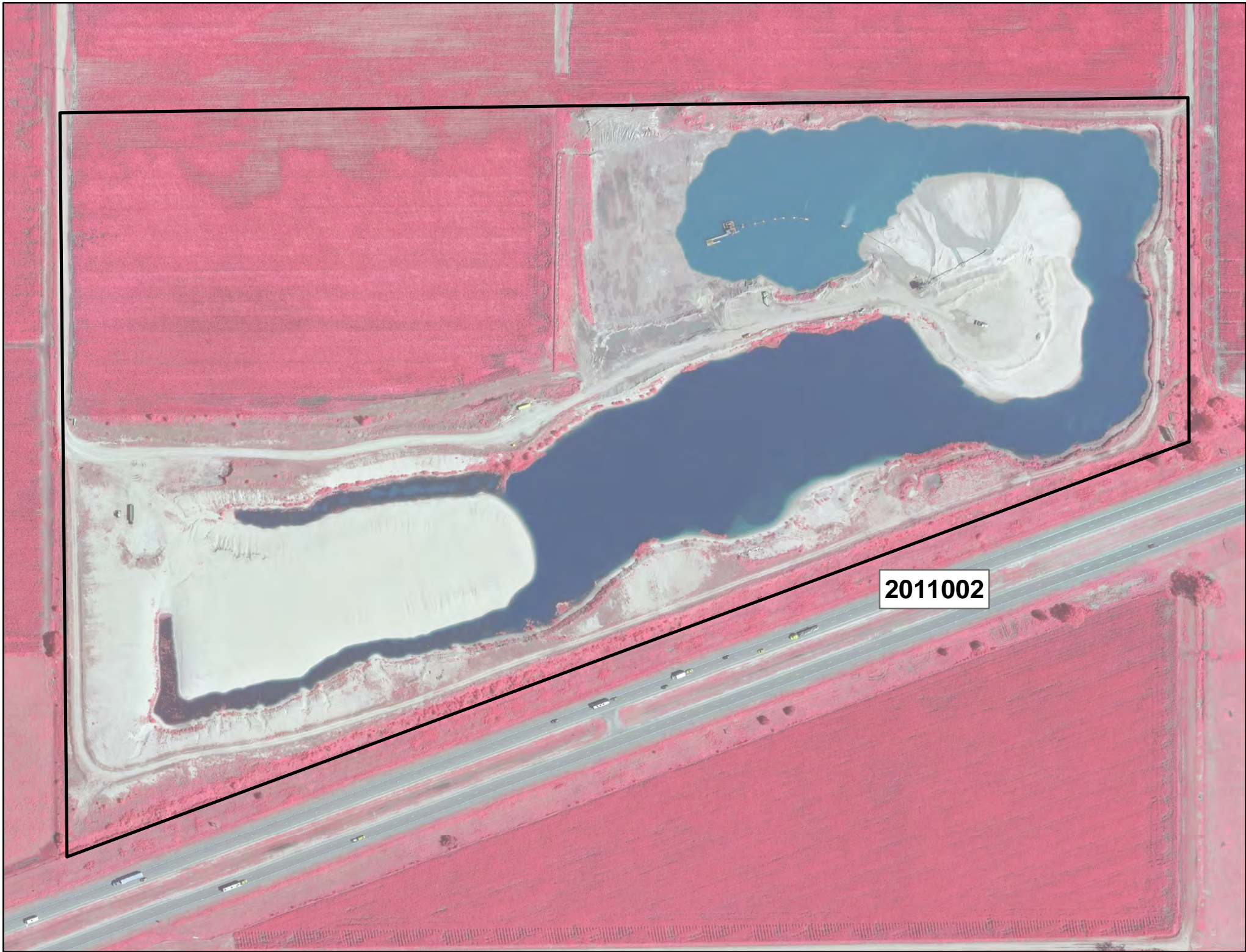
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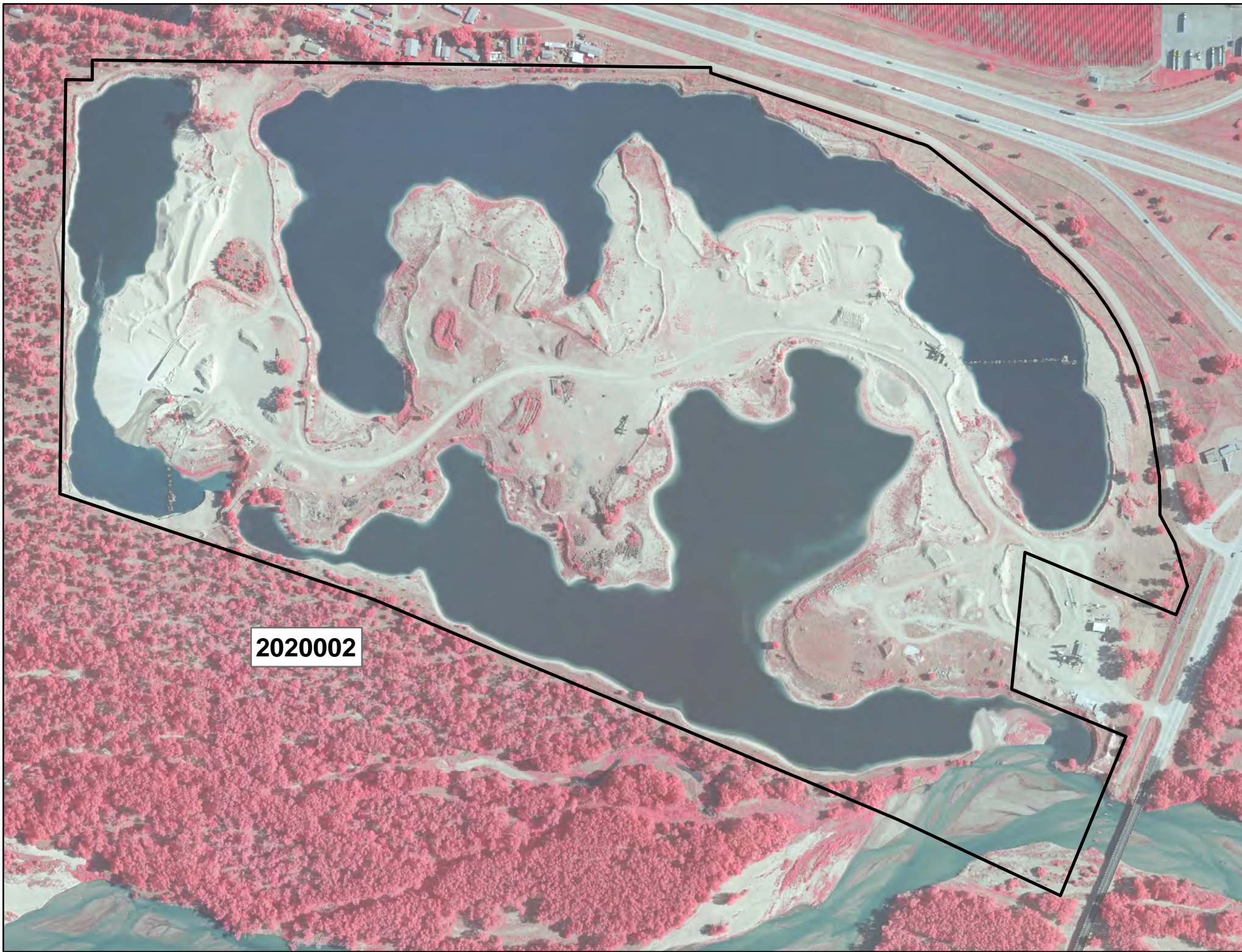
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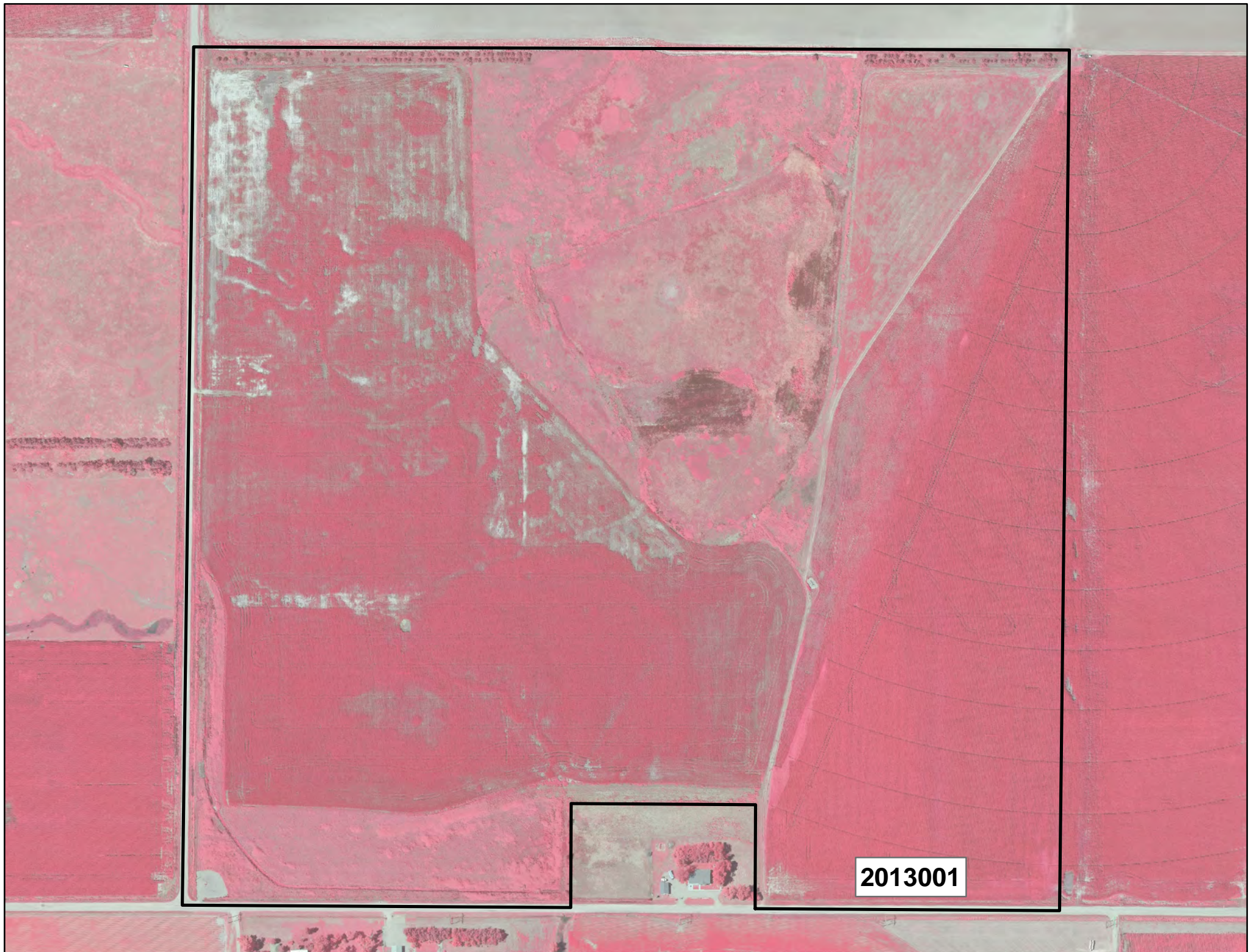
2020002





2012004





2013001



## 2021 Plum Creek "Complex" Annual Work Plan

### General Priorities

- \* **Good Neighbor Policy** - Conduct all actions in accordance with Program's good neighbor policy.

### Adaptive Management Priorities

- \* **Implementation of full scale sediment augmentation** - Augment 60,000 cubic yards of sediment through mechanical augmentation. Augmentation will occur upstream of the Plum Creek Complex near the J-2 Return.
- \* **Species Monitoring** – Monitor whooping crane use of riverine roosting habitat and least tern and piping plover use and productivity at off-channel sand and water nesting sites.

### Species Habitat Priorities

- \* **Improve Target Species Sand and Water Habitat** – Application of pre-emergent herbicide on OCSW peninsulas to maintain tern and plover nesting habitat. Control in-channel vegetation to maintain suitable unobstructed view widths for whooping cranes.
- \* **Protecting Other Species of Concern** – Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.

### Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs including boundary fence signage, road maintenance, and noxious weed control.
- \* **Agricultural Operations** – Oversight of grazing lease on Tract 2009003. Oversight of cropland/hay leases on Tract 2009007.

*NOTE: The budget section of this work plan only contains information for work items that are specific to these tracts. As such, tract-specific research and monitoring actions are presented but system-scale actions like target species and geomorphology/vegetation monitoring are not.*

**Priority Area: General****Item(s):** *Complex Land Interest and Complex-Level Planning*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A
PC 2	Coordinate with NPPD to identify and mitigate potential impacts to leased NPPD nesting islands	Annual	MH	N/A	N/A

**Priority Area: Species Habitat****Item(s):** *Improve Target Species Sand and Water Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 3	Herbicide applications on OCSW peninsulas to maintain bare sand nesting habitat	4/21 & 9/21	TT	\$5,000	LP-2
PC 4	Remove blow sand from predator fences	9/1/21 – 10/1/21	TT	\$10,000	LP-2
PC 5	Disking if necessary to provide in-channel vegetation control (71 ac)	9/1/21 – 10/1/21	TT	\$16,000	LP-2

**Priority Area: Species Habitat****Item(s):** *Whooping Crane Grassland / Wet Meadow Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 6	No items	N/A	N/A	N/A	N/A

**Priority Area: *Species Habitat*****Item(s): *Other Species of Concern***

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 7	Habitat and species surveys on properties where work will occur	As Needed	MH	N/A	N/A
PC 8	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	1/1/21 – 4/1/21	MH	N/A	N/A

**Priority Area: Operations and Maintenance****Item(s): *Basic Property Maintenance Obligations and Needs***

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 9	Fence and road maintenance	Annual	TT	\$1,500	LP-4
PC 10	Noxious weed control	6/1/21 – 8/31/21	TT	\$2,500	LP-4
PC 11	Lodge & Quonset utilities and maintenance	Annual	TT	\$5,600	LP-4
PC 12	Mowing	7/15/21-10/15/21	TT	\$5,000	LP-4

**Priority Area: Operations and Maintenance****Item(s): *Agricultural Operations***

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 13	Oversight of grazing and cropland leases	Annual	TT	N/A	N/A

## 2021 Plum Creek Complex Budget Summary

### Estimated 2021 Expenditures by Program Budget Line Item

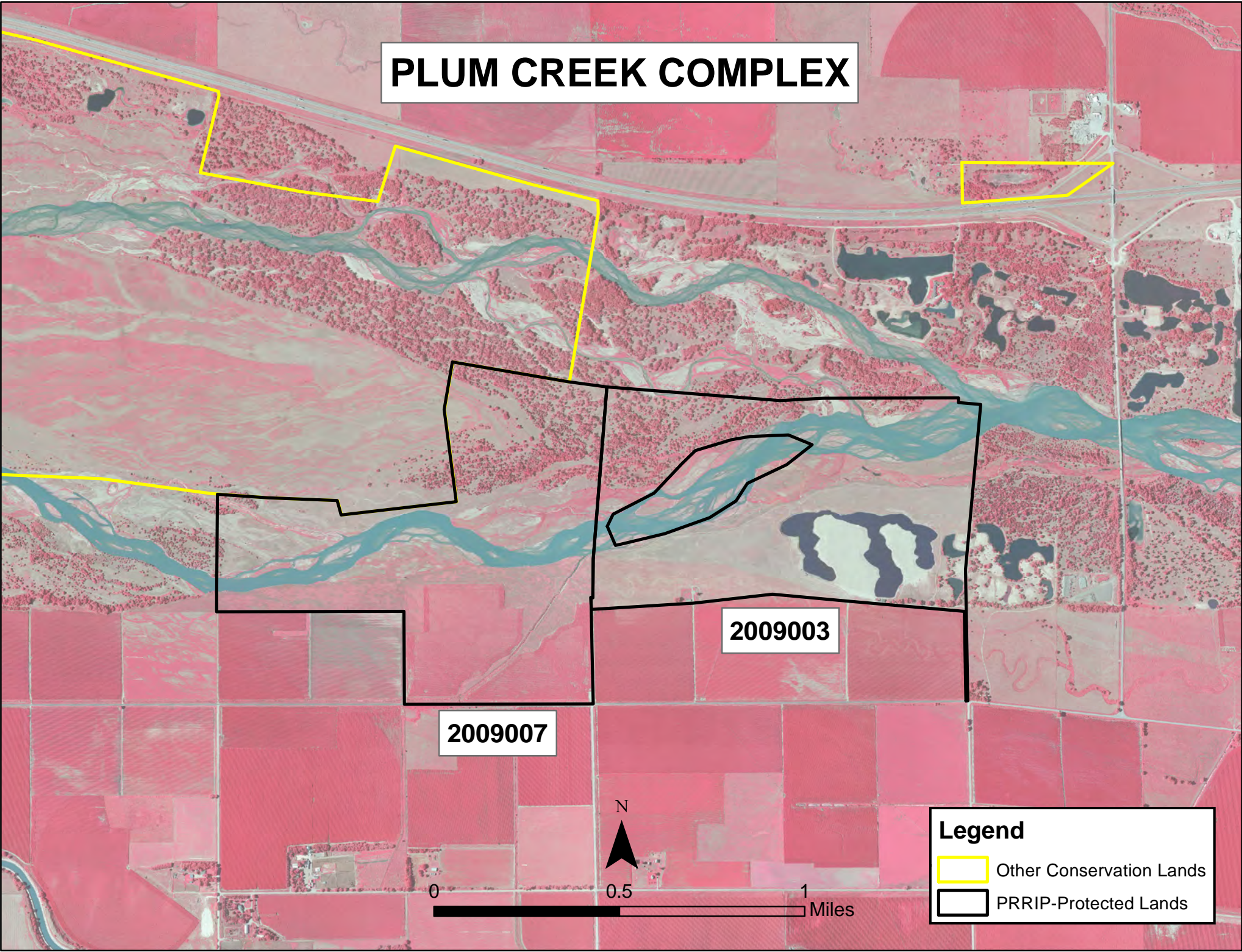
Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Target Species Sand and Water Habitat	LP-2	\$31,000
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	\$0
<b>Subtotal</b>			<b>\$31,000</b>
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$14,600
<b>Total</b>			<b>\$45,600</b>

### Estimated 2021 Revenues

Tract	Item	Estimated Income
Tract 2009003	NPPD Habitat Lease	\$500
Tract 2009003	Grazing Income	\$3,300
Tract 2009007	Haying Income	\$3,000
Tract 2009007	Cropland Income	\$5,550
<b>Total</b>		<b>\$12,350</b>



# PLUM CREEK COMPLEX



2009003

2009007



0 0.5 1 Miles

**Legend**

-  Other Conservation Lands
-  PRRIP-Protected Lands

## 2021 Cottonwood Ranch Complex Annual Work Plan

### General Priorities

- \* **Good Neighbor Policy** - Conduct all actions in accordance with Program's good neighbor policy.

### Adaptive Management Priorities

- \* **Species Monitoring** – Monitor whooping crane use of riverine and off-channel palustrine wetland roosting habitat and least tern and piping plover use and productivity at off-channel sand and water nesting sites.

### Species Habitat Priorities

- \* **Maintain Target Species Sand and Water Habitat** – Application of pre-emergent herbicide on OCSW peninsula to maintain tern and plover nesting habitat. Control in-channel vegetation to maintain suitable unobstructed view widths for whooping cranes.
- \* *Broad-Scale Recharge Water Supply and Whooping Crane Habitat Project* – Operation of the broad-scale recharge project will occur in 2021 with targeted fills during the fall and spring whooping crane migrations, and during other times of excess flows in the Platte River.
- \* *Management of grassland/wet meadow habitat for whooping cranes and sandhill cranes* – Grazing will continue on Lloyd Island for the 2020 grazing season. Wet meadow areas in Section 16 T8N R19W (Tracts 2008002 and 2010001) will not be grazed/hayed during the 2020 due to Broad -Scale Recharge Water Supply and Whooping Crane Habitat Project construction. Grazing/haying management will resume as soon as project is complete.
- \* **Protecting Other Species of Concern** – Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.



## Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs on Tracts 2008002, 2009006, and 2010001 including fence and road maintenance and noxious weed control.
- \* **Agricultural Operations** – Oversight of grazing/ haying leases on Tracts 2009006 and 2010001.

*NOTE: The budget section of this work plan only contains information for work items that are specific to these tracts. As such, tract-specific research and monitoring actions are presented but system-scale actions like target species and geomorphology/vegetation monitoring are not.*

### Priority Area: General

**Item(s):** *Complex Land Interest and Complex-Level Planning*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

### Priority Area: Species Habitat

**Item(s):** *Improve Target Species Sand and Water Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR 2	Tract 2008002 Pre-emergent herbicide application on plover nesting habitat and OCSW complex	4/1/21 – 4/30/21	TT, JJ	\$3,500	LP-2
CR 3	Disking if necessary to provide in-channel vegetation control -(~50 acres)	9/1/21 – 10/1/21	TT	\$12,000	LP-2

## Priority Area: Species Habitat

**Item(s):** *Whooping Crane Grassland / Wet Meadow Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR4	Brush, tree, cattail herbicide spraying	1/16/21-11/1/21	TT	\$15,000	LP-2
CR 5	Tract 2008002 Prescribed burn (232 ac)	3/15/21 – 5/15/21	TT	\$9,545	LP-2
CR 6	Tract 2010001 Prescribed burn (74 ac)	3/15/21 – 5/15/21	TT	\$3,044	LP-2

## Item(s): Other Species of Concern

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR 7	Habitat and species surveys on properties where work will occur	As Needed	MH	N/A	N/A
CR 8	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	As Needed	MH	N/A	N/A

## Priority Area: Operations and Maintenance

**Item(s):** *Basic Property Maintenance Obligations and Needs*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR 9	Broadscale Recharge Project Fence	1/1/21 – 12/31/21	TT	\$111,500	LP-4
CR 10	Fence and road maintenance	1/1/21 – 12/31/22	TT, JJ	\$5,000	LP-4
CR 11	Noxious weed control	6/1/21 – 8/31/21	TT, JJ	\$12,000	LP-4
CR 12	Mowing	7/15/21 - 10/15/21	TT	\$2,000	LP-4
CR 13	Tract 2010001 Electricity	5/15/21 – 10/15/21	TT	\$1,000	LP-4



**Priority Area: Operations and Maintenance****Item(s):** *Agricultural Operations*

<b>No.</b>	<b>Management Activities</b>	<b>Target Dates</b>	<b>Person Responsible</b>	<b>Cost (Estimated)</b>	<b>Budget Line Item</b>
CR 14	Tract 2009006 grazing lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A
CR 15	Tract 2010001 grazing lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A
CR 16	Tract 2010001 haying lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A
CR 17	Tract 20008002 grazing & haying lease planning & oversight	5/15/21 – 10/15/21	TT,JJ	N/A	N/A

## 2021 Cottonwood Ranch Complex Budget Summary

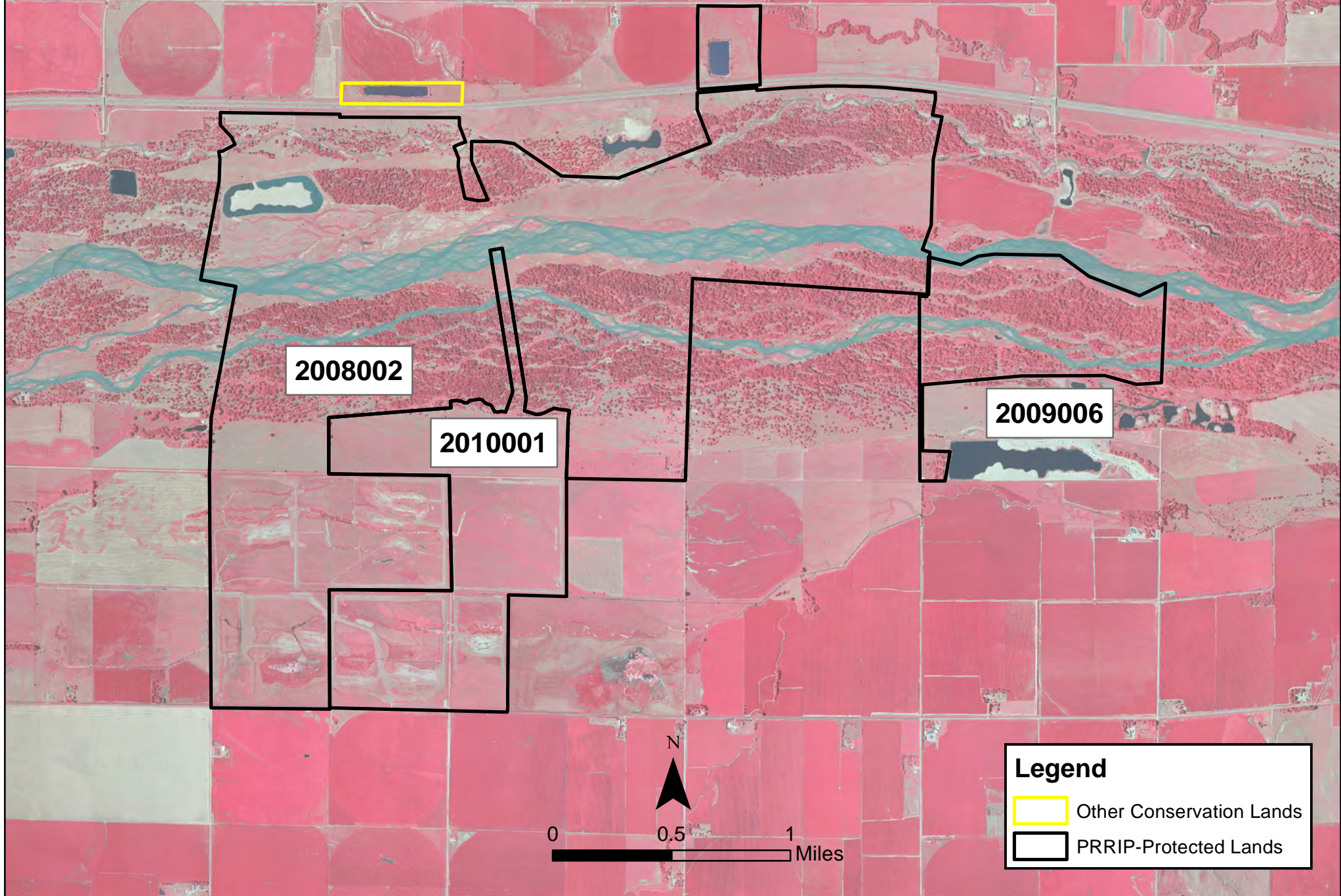
### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Target Species Sand and Water Habitat	LP-2	\$15,500
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	\$27,589
<b>Subtotal</b>			<b>\$43,089</b>
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$131,500
<b>Total</b>			<b>\$174,589</b>

### Estimated 2021 Revenues

Tract	Item	Estimated Income
Tract 2009006	Grazing Income	\$2,000
Tract 2010001	Grazing Income	\$5,775
Tract 2010001 SE 1/4	Grazing Income	\$3,360
Tract 2010001	Haying Income	\$3,000
<b>Total</b>		<b>\$14,135</b>

# COTTONWOOD RANCH COMPLEX



## 2021 Elm Creek Complex Annual Work Plan

### General Priorities

- \* **Good Neighbor Policy** – Conduct all actions in accordance with Program's good neighbor policy.

### Adaptive Management Priorities

- \* **Species Monitoring** – Monitor whooping crane use of in-channel roosting habitat and least tern and piping plover use and productivity at off-channel sand and water nesting sites.

### Species Habitat Priorities

- \* **Maintain Target Species Sand and Water Habitat** – Control in-channel vegetation to maintain suitable unobstructed view widths for whooping cranes.
- \* **Protecting Other Species of Concern** – Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.

### Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs on Tracts 2009002, 2009005, 2012001 and 2012002 including fence and road maintenance and noxious weed control.
- \* **Agricultural Operations** – Oversight of grazing/ haying leases on Tracts 2009005, 2012001 and 2012002.

*NOTE: The budget section of this work plan only contains information for work items that are specific to these tracts. As such, tract-specific research and monitoring actions are presented but system-scale actions like target species and geomorphology/vegetation monitoring are not.*

**Priority Area: General****Item(s):** *Complex Land Interest and Complex-Level Planning*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

**Priority Area: Species Habitat****Item(s):** *Improve Target Species Sand and Water Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC 2	In-channel cross disking (below diversion) and overbank mowing to maintain active channel and unobstructed view widths (50 acres)	9/1/21 – 10/1/21	TT	\$12,000	LP-2

**Priority Area: Species Habitat****Item(s):** *Whooping Crane Grassland / Wet Meadow Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC 3	Tract 2009002 Prescribed burn (35 ac)	3/15/21 – 5/15/21	TT	\$1,440	LP-2
EC 4	Tract 2012002 Prescribed burn (143 ac)	3/15/21 – 5/15/21	TT	\$5,883	LP-2



**Priority Area: Species Habitat**  
**Item(s): Other Species of Concern**

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC 5	Habitat and species surveys on properties where work will occur	As Needed	MH	N/A	N/A
EC 6	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	As Needed	MH	N/A	N/A

**Priority Area: Operations and Maintenance**  
**Item(s): Basic Property Maintenance Obligations and Needs**

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC7	Tract 2009002 building utilities and maintenance	1/1/21 – 12/31/21	TT	\$2,500	LP-4
EC 8	Fence and road maintenance	4/1/21 – 10/1/21	TT	\$2,000	LP-4
EC 9	Mowing	7/15/21 - 10/15/21	TT	\$3,000	LP-4
EC 10	Noxious weed control	6/1/21 – 8/31/21	TT	\$10,000	LP-4

**Priority Area: Operations and Maintenance**  
**Item(s): Agricultural Operations**

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC 11	Tract 2009002 Crop oversight	5/15/21 – 10/15/21	TT	N/A	N/A
EC 12	Tract 2009005 grazing lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A
EC 13	Tract 2012001 haying lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A
EC 14	Tract 2012002 grazing lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A

## 2021 Elm Creek Complex Budget Summary

### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Target Species Sand and Water Habitat	LP-2	\$12,000
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	\$7,323
<b>Subtotal</b>			<b>\$19,323</b>
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$17,500
<b>Total</b>			<b>\$36,823</b>

### Estimated 2021 Revenues

Tract	Item	Estimated Income
Tract 2009002	Crop Income	\$4,350
Tract 2009005	Grazing Income	\$3,500
Tract 2012001	Haying Income	\$2,000
Tract 2012002	Grazing Income	\$8,100
<b>Total</b>		<b>\$17,950</b>

# ELM CREEK COMPLEX

Mgmt06

Mgmt01

2009002

2015003

2012001

2012002

2009005

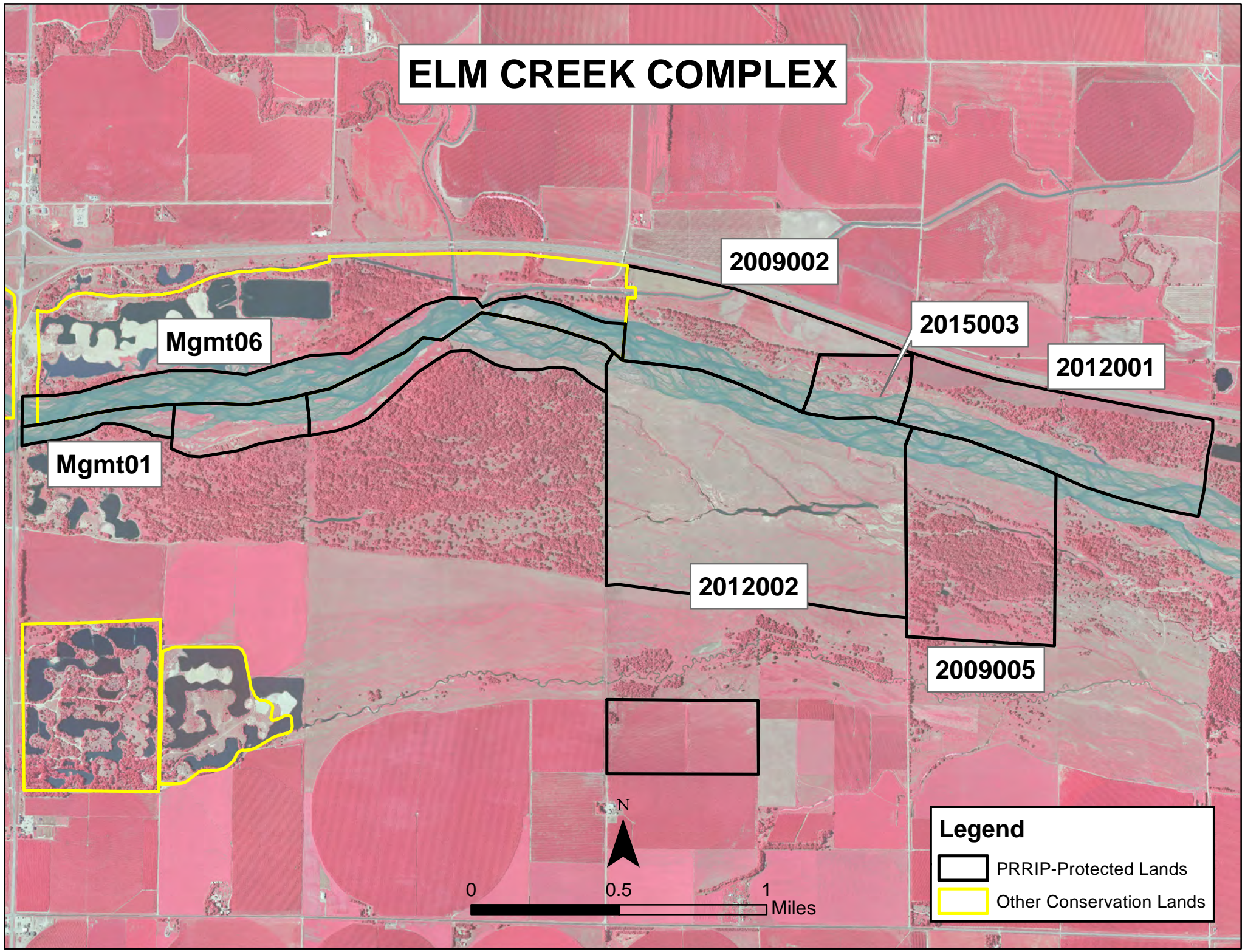


0 0.5 1 Miles

**Legend**

PRRIP-Protected Lands

Other Conservation Lands





## 2021 Pawnee Complex Annual Work Plan

### General Priorities

- \* **Good Neighbor Policy** - Conduct all actions in accordance with Program's good neighbor policy.

### Adaptive Management Priorities

- \* **Species Monitoring** – Monitor whooping crane use of in-channel roosting habitat.

### Species Habitat Priorities

- \* **Maintain Target Species Sand and Water Habitat** – Control in-channel vegetation to maintain suitable unobstructed view widths for whooping cranes. Remove vegetation from overbank areas adjacent to the channel to promote channel widening through lateral erosion.
- \* **Protecting Other Species of Concern** – Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.

### Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs on Tracts 2014002 and 2015002.
- \* **Agricultural Operations** – Oversight of grazing/ haying leases on Tracts 2014002 and 2015002.

*NOTE: The budget section of this work plan only contains information for work items that are specific to these tracts. As such, tract-specific research and monitoring actions are presented but system-scale actions like target species and geomorphology/vegetation monitoring are not.*

**Priority Area: General****Item(s):** *Complex Land Interest and Good Neighbor Policy*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

**Priority Area: Adaptive Management & Target Species Habitat****Item(s):** *Tern, Plover and Whooping Crane Riverine Habitat Experiments*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 2	Herbicide treatment on south bank to kill vegetation prior to disking	4/15/21 – 5/15/21	TT	\$5,000	LP-2
PAW 3	In-channel cross disking and overbank mowing to maintain active channel and unobstructed view widths (100 ac)	4/15/21 – 5/15/21 & 9/1/21 – 10/1/21	TT	\$22,500	LP-2

**Priority Area: Species Habitat****Item(s):** *Whooping Crane Grassland / Wet Meadow Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 4	Tract 2014002 Prescribed burn (42 ac)	3/15/21 – 5/15/21	TT	\$1,728	LP-2
PAW 5	Tract 2015002 Prescribed burn (8 ac)	3/15/21 – 5/15/21	TT	\$329	LP-2

\$2,057

## Priority Area: Species Habitat

**Item(s):** *Other Species of Concern*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 6	Habitat and species surveys on properties where work will occur	As Needed	MH	N/A	N/A
PAW 7	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	As Needed	MH	N/A	N/A

## Priority Area: Operations and Maintenance

**Item(s):** *Basic Property Maintenance Obligations and Needs*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 8	Noxious weed control - (~675 acres)	6/1/21 – 8/31/21	TT	\$2,500	LP-4
PAW 9	Fence and road maintenance	4/1/21 – 10/1/21	TT	\$2,000	LP-4
PAW 10	NE Forest Service Cost share Pilot Fuel Reduction Project	7/15/21 – 2/1/22	TT	\$25,000	LP-4

## Priority Area: Operations and Maintenance

**Item(s):** *Agricultural Operations*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 11	Tract 2014002 oversight	5/15/21 – 10/15/21	TT	N/A	N/A
PAW 12	Tract 2015002 oversight	5/15/21 – 10/15/21	TT	N/A	N/A

## 2021 Pawnee Complex Budget Summary

### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Adaptive Management & Species Habitat	Target Species Sand and Water Habitat	LP-2	\$27,500
Species Habitat	Whooping Crane Grassland / Wet Meadow Habitat	LP-2	\$2,057
		<b>Subtotal</b>	<b>\$29,557</b>
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$29,500
		<b>Total</b>	<b>\$59,057</b>

### Estimated 2021 Revenues

Tract	Item	Estimated Income
Tract 2015002	Crop Income	\$585
Tract 2015002	Grazing Income	\$0
Tract 2014002	Grazing Income	\$0
<b>Total</b>		<b>\$585</b>



# PAWNEE COMPLEX

Agreement # 10 (1605)

Agreement # 11 (1008)

2012001

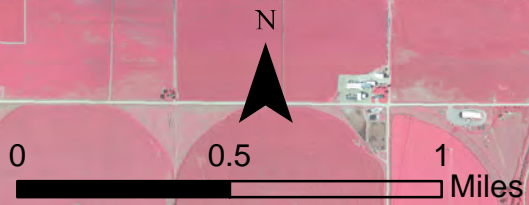
2015002

2014002

**Legend**  

PRRIP-Protected Lands

Other Conservation Lands



## 2021 Fort Kearny Complex Annual Work Plan

### General Priorities

- \* **Good Neighbor Policy** - Conduct all actions in accordance with Program's good neighbor policy.

### Adaptive Management Priorities

- \* **Species Monitoring** – Monitor whooping crane use of off-channel palustrine wetlands and in-channel roosting habitat.

### Species Habitat Priorities

- \* **Maintain Target Species Sand and Water Habitat** – Control in-channel vegetation to maintain suitable unobstructed view widths for whooping cranes. Remove vegetation from overbank areas adjacent to the channel to promote channel widening through lateral erosion.
- \* **Protecting Other Species of Concern** – Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.

### Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs on Tracts 2008001, 2009001, 2009004, 2010003, 2012003 and 2015001 including fence and road maintenance and noxious weed control.
- \* **Agricultural Operations** – Oversight of grazing/haying leases on Tracts 2008001, 2012003, 2009001, 2009004, and 2015001.

*NOTE: The budget section of this work plan only contains information for work items that are specific to these tracts. As such, tract-specific research and monitoring actions are presented but system-scale actions like target species and geomorphology/vegetation monitoring are not.*

**Priority Area: General****Item(s):** *Complex Land Interest and Good Neighbor Policy*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

**Priority Area: Species Habitat****Item(s):** *Improve Target Species Sand and Water Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 2	Disking if necessary to provide in-channel vegetation control (~83 ac)	9/1/21 – 10/1/21	TT	\$18,500	LP-2
FK 3	Clear IIsand upstream of Hike/Bike Bridge on Main Channel (12.5 ac)	7/15/21 – 2/1/22	TT	\$15,000	LP-2

**Priority Area: Species Habitat****Item(s):** *Whooping Crane Grassland / Wet Meadow Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 4	Tract 2009001 Annual electrical service fee at irrigation well to supplement water to wetland	3/1/21 - 4/15/21 & 10/1/21-11/15/21	TT	\$5,400	LP-2
FK 5	Tract 2009004- Prescribe burn (225 ac)	3/15/21 – 5/15/21	TT	\$9,257	LP-2
FK 6	Tract 2015001 NE unit Prescribe burn (55 ac)	3/15/21 – 5/15/21	TT	\$2,263	LP-2

**Priority Area: Species Habitat****Item(s):** *Other Species of Concern*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 7	Habitat and species surveys on properties where work will occur	As Needed	MH	N/A	N/A
FK 8	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	As Needed	MH	N/A	N/A

**Priority Area: Operations and Maintenance****Item(s):** *Basic Property Maintenance Obligations and Needs*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 9	Tract 2009004 & 2015001 Electricity	1/1/21 – 12/31/21	TT	\$650	LP-4
FK 10	Noxious weed control	6/1/21 – 8/31/21	TT	\$10,000	LP-4
FK 11	Fence and road maintenance	4/1/21 – 10/1/21	TT	\$4,500	LP-4
FK 12	Mowing	7/15/21-10/15/21	TT	\$1,000	LP-4

**Item(s):** *Agricultural Operations*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 13	Tract 2008001 grazing lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A
FK 14	Tract 2012003 grazing lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A
FK 15	Tract 2015001 grazing lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A



## 2021 Ft Kearny Complex Budget Summary

### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Improve Sand and Water Habitat	LP-2	\$33,500
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	\$16,920
<b>Subtotal</b>			<b>\$50,420</b>
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$16,150
<b>Total</b>			<b>\$66,570</b>

### Estimated 2021 Revenues

Tract	Item	Estimated Income
Tract 2008001 N & 2012003	Grazing Income	\$5,250
Tract 2008001 S	Haying Income	\$7,000
Tract 2009001	Grazing Income	\$0
Tract 2009004	Grazing Income	\$11,825
Tract 2012003	Cropland Income	\$1,800
Tract 2015001	Grazing Income	\$11,825
<b>Total</b>		<b>\$37,700</b>

# FORT KEARNY COMPLEX

2012003

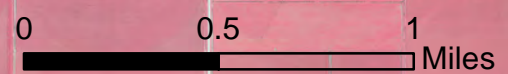
2009001

2009004



2015001

2010003

2008001



**Legend**

-  PRRIP-Protected Lands
-  Other Conservation Lands

## 2021 Minden – Gibbon Management Agreement Annual Work Plan

### Adaptive Management Priorities

- \* **Species Monitoring** – Monitor whooping crane use of in-channel roosting habitat.

### Species Habitat Priorities

- \* **Maintain Target Species Sand and Water Habitat** – Control in-channel vegetation to maintain suitable unobstructed view widths for whooping cranes.

### Priority Area: Species Habitat

Item(s): *Improve Target Species Sand and Water Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
M-G 1	Disking if necessary to provide in-channel vegetation control (~80 ac)	9/1/21 – 10/1/21	TT	\$16,500	LP-2
M-G 2	Brush, tree, cattail herbicide spraying	9/1/21 – 10/30/21	TT	\$6,000	LP-2

## 2021 Minden-Gibbon Management Agreement Budget Summary

### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Improve Target Species Sand and Water Habitat	LP-2	\$22,500
		<b>Total</b>	<b>\$22,500</b>



# MINDEN - GIBBON MANAGEMENT AGREEMENT



2009008

09 Rowe



0 0.5 1 Miles

## Legend

-  PRRIP-Protected Lands
-  Other Conservation Lands

## 2021 Clark Island Complex Annual Work Plan

### General Priorities

- \* **Complex Land Interest** - Execute management agreements with conservation and private landowners that will allow the Program to implement necessary construction, maintenance and research/monitoring activities.
- \* **Good Neighbor Policy** - Conduct all actions in accordance with Program's good neighbor policy.

### Adaptive Management Priorities

- \* **Whooping Crane Riverine Habitat** – Design and implement vegetation clearing to provide a range of unobstructed view widths above the Programs minimums
- \* **Species Monitoring** – Monitor whooping crane use of palustrine wetlands and in-channel roosting habitat.

### Species Habitat Priorities

- \* **Maintain Target Species Sand and Water Habitat** – Control in-channel vegetation to maintain suitable unobstructed view widths for whooping cranes.
- \* **Protecting Other Species of Concern** – Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.

### Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs on Tract 2010004 including fence and road maintenance and noxious weed control.
- \* **Agricultural Operations** – Oversight of cropland, grazing/ haying leases on Tract 2010004

*NOTE: The budget section of this work plan only contains information for work items that are specific to these tracts. As such, tract-specific research and monitoring actions are presented but system-scale actions like target species and geomorphology/vegetation monitoring are not.*

**Priority Area: General****Item(s):** *Complex Land Interest and Complex-Level Planning*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CI 1	Execution of management agreements w/ other private landowners for in-channel research and habitat construction activities	1/1/21 – 6/30/21	BS	N/A	N/A
CI 2	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

**Priority Area: Species Habitat****Item(s):** *Improve Target Species Sand and Water Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CI 3	Clear Trees & Burn, Bury on Islands of neighboring properties pending mgmt	7/15/21 – 2/1/22	JB	\$30,000	LP-2
CI 4	Disking if necessary to provide in-channel vegetation control (~90 ac)	9/1/21 – 10/1/21	TT	\$20,100	LP-2

**Priority Area: Species Habitat****Item(s):** *Whooping Crane Grassland / Wet Meadow Habitat*

CI 5	Tract 2018001 Russian Olive & Tree Pile Removal	1/15/21 – 5/15/21	TT	\$15,000	LP-2
CI 6	Tract 2018001 Prescribe burn (157 ac)	3/15/21 – 5/15/21	TT	\$6,459	LP-2

**Priority Area: Species Habitat**  
**Item(s):** *Other Species of Concern*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CI 7	Habitat and species surveys on properties where work will occur	As Needed	MH	N/A	N/A
CI 8	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	As Needed	MH	N/A	N/A

**Priority Area: Operations and Maintenance**  
**Item(s):** *Basic Property Maintenance Obligations and Needs*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CI 9	Fence and road maintenance	1/1/21 – 12/31/21	TT	\$10,000	LP-4
CI 10	Noxious weed control	6/1/21 – 8/31/21	TT	\$2,000	LP-4
CI 11	Mowing	7/15/21- 10/15/21	TT	\$1,500	LP-4

**Priority Area: Operations and Maintenance**  
**Item(s):** *Agricultural Operations*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CI 12	Tract 2018001 grazing & haying lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A

## 2021 Clark Island Complex Budget Summary

### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Improve Target Species Sand and Water Habitat	LP-2	\$50,100
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	\$21,459
<b>Subtotal</b>			<b>\$71,559</b>
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$13,500
<b>Total</b>			<b>\$85,059</b>

### Estimated 2021 Revenues

Tract	Item	Estimated Income
Tract 2018001	Meadow Grazing Income	\$7,150
Tract 2018001	Accretion Grazing Income	\$6,000
Tract 2018001	Cropland Cash Rent Income	\$19,140
<b>Total</b>		<b>\$32,290</b>





# CLARK ISLAND COMPLEX

2018001



0 0.5 1 Miles

## Legend

-  PRRIP-Protected Lands
-  Other Conservation Lands

## 2021 Shoemaker Island Complex Annual Work Plan

### General Priorities

- \* **Good Neighbor Policy** - Conduct all actions in accordance with Program's good neighbor policy.

### Adaptive Management Priorities

- \* **Species Monitoring** – Monitor whooping crane use of palustrine wetlands and in-channel roosting habitat.

### Species Habitat Priorities

- \* **Maintain Target Species Sand and Water Habitat** – Control in-channel vegetation to maintain suitable unobstructed view widths for whooping cranes.
- \* **Protecting Other Species of Concern** – Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.

### Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs on Tract 2010004 including fence and road maintenance and noxious weed control.
- \* **Agricultural Operations** – Oversight of grazing/ haying leases on Tract 2010004

*NOTE: The budget section of this work plan only contains information for work items that are specific to these tracts. As such, tract-specific research and monitoring actions are presented but system-scale actions like target species and geomorphology/vegetation monitoring are not.*

**Priority Area: General****Item(s):** *Complex Land Interest and Complex-Level Planning*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

**Priority Area: Species Habitat****Item(s):** *Improve Target Species Sand and Water Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 2	Disking if necessary to provide in-channel vegetation control (~75 ac)	9/1/21 – 10/1/21	TT	\$16,750	LP-2

**Priority Area: Species Habitat****Item(s):** *Whooping Crane Grassland / Wet Meadow Habitat*

SI 3	Tract 2010004-South Meadow Prescribe burn (57 ac)	3/15/21 – 5/15/21	TT	\$2,345	LP-2
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**Priority Area: Species Habitat****Item(s):** *Other Species of Concern*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 4	Habitat and species surveys on properties where work will occur	As Needed	MH	N/A	N/A
SI 5	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	As Needed	MH	N/A	N/A

**Priority Area: Operations and Maintenance**

**Item(s):** *Basic Property Maintenance Obligations and Needs*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 6	Fence and road maintenance	1/1/21 – 12/31/21	TT	\$1,500	LP-4
SI 7	Noxious weed control	6/1/21– 8/31/21	TT	\$2,500	LP-4
SI 8	Mowing	7/15/21- 10/15/21	TT	\$1,500	LP-4
SI 9	Tract2010004 Electricty	5/15/21 – 10/15/21	TT	\$200	LP-4

**Priority Area: Operations and Maintenance**

**Item(s):** *Agricultural Operations*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 10	Tract 2010004 grazing & haying lease oversight	5/15/21 – 10/15/21	TT	N/A	N/A



## 2021 Shoemaker Island Complex Budget Summary

### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Improve Target Species Sand and Water Habitat	LP-2	\$16,750
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	\$2,345
<b>Subtotal</b>			<b>\$19,095</b>

Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$5,700
<b>Total</b>			<b>\$24,795</b>

### Estimated 2021 Revenues

Tract	Item	Estimated Income
Tract 2010004	Grazing & Haying Income	\$42,595
<b>Total</b>		<b>\$42,595</b>

# SHOEMAKER ISLAND COMPLEX

2010004



0 0.5 1 Miles

**Legend**

-  PRRIP-Protected Lands
-  Other Conservation Lands

## 2021 Chapman Complex Annual Work Plan

### General Priorities

- \* **Restoration and Management Planning** – Development of restoration and management plan for Chapman Complex.
- \* **Complex Land Interest** - Execute management agreements with conservation and private landowners that will allow the Program to implement necessary construction, maintenance and research/monitoring activities.
- \* **Good Neighbor Policy** - Conduct all actions in accordance with Program's good neighbor policy.

### Adaptive Management Priorities

- \* **Whooping Crane Riverine Habitat** – Design and implement vegetation clearing to provide a range of unobstructed view widths above the Programs minimums
- \* **Species Monitoring** – Monitor whooping crane use of palustrine wetlands and in-channel roosting habitat.

### Species Habitat Priorities

- \* **Improve Target Species Sand and Water Habitat** – Control in-channel vegetation to maintain suitable unobstructed view widths for whooping cranes.
- \* **Protecting Other Species of Concern** – Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.

### Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs on Tracts including fence and road maintenance and noxious weed control.
- \* **Agricultural Operations** – Oversight of grazing/ haying leases

*NOTE: The budget section of this work plan only contains information for work items that are specific to these tracts. As such, tract-specific research and monitoring actions are presented but system-scale actions like target species and geomorphology/vegetation monitoring are not.*

**Priority Area: General****Item(s):** *Complex Land Interest and Complex-Level Planning*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CC 1	Restoration and Management Planning for Chapman Complex	1/1/21 - 10/1/21	TT, JB	N/A	N/A
CC 2	Execution of management agreements w/ other private landowners for in-channel research and habitat construction activities	1/1/21 – 6/30/21	BS	N/A	N/A
CC 3	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

**Priority Area: Species Habitat****Item(s):** *Improve Target Species Sand and Water Habitat*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CC 4	Tract 2019001 Habitat Enhancement	7/15/21 – 1/1/22	TT	\$50,000	LP-2
CC 5	Tract 2020001 Habitat Enhancement	7/15/21 – 1/1/22	TT	\$222,000	LP-2



**Priority Area: Species Habitat**  
**Item(s):** *Other Species of Concern*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CC 6	Habitat and species surveys on properties where work will occur	As Needed	MH	N/A	N/A
CC 7	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	As Needed	MH	N/A	N/A

**Priority Area: Operations and Maintenance**  
**Item(s):** *Basic Property Maintenance Obligations and Needs*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CC 8	Fence and road maintenance	1/1/21 – 12/31/21	TT	\$15,000	LP-4
CC 9	Noxious weed control	6/1/21 – 8/31/21	TT	\$5,000	LP-4
CC 10	Mowing	7/15/21- 10/15/21	TT	\$1,500	LP-4

**Priority Area: Operations and Maintenance**  
**Item(s):** *Agricultural Operations*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CC 11	Tract 2019001 grazing lease oversight	5/15/21 – 10/15/21	N/A	N/A	N/A

## 2021 Chapman Complex Budget Summary

### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Create In-channel Sand & Water Habitat	LP-2	\$272,000
			<b><i>\$272,000</i></b>
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$21,500
		<b><i>Total</i></b>	<b><i>\$293,500</i></b>

### Estimated 2021 Revenues

Tract	Item	Estimated Income
2019001	Grazing lease	\$3,640
	<b>Total</b>	<b>\$3,640</b>

# CHAPMAN COMPLEX

2020001

2019001

N



0

0.5

1

Miles

## Legend

-  PRRIP-Protected Lands
-  Other Conservation Lands

## 2021 Water Properties Annual Work Plan

### General Priorities

- \* **Good Neighbor Policy** - Conduct all actions in accordance with Program's good neighbor policy.

### Operations and Maintenance Priorities

- \* **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs on Tracts W2016001, W2016002, W2017001, & W2017002 including fence and road maintenance, irrigation management and noxious weed control.
- \* **Agricultural Operations** – Oversight of grazing/ haying lease on Tract W2016001 and custom farming on Tract W2016002

### Priority Area: General

**Item(s):** *Complex Land Interest and Complex-Level Planning*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
WP 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

### Priority Area: Operations and Maintenance

**Item(s):** *Basic Property Maintenance Obligations and Needs*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
WP 2	Fence and road maintenance	1/1/21–12/31/21	TT	\$5,000	WPLW-1
WP 3	Tract W201701 Boundary Fence	1/1/21–12/31/21	TT	\$13,200	WPLW-1
WP 4	Noxious weed control	6/1/21 – 8/31/21	TT	\$10,000	WPLW-1
WP 5	Mowing	7/15/21–10/15/21	TT	\$1,000	WPLW-1
WP 6	Tracts W2016002 & W2017001 Electricity	5/15/21 – 10/15/21	TT	\$200	WPLW-1
WP 7	Taxes	5/15/21 – 10/15/21	BS	\$9,000	WPLW-1

## Priority Area: Operations and Maintenance

**Item(s):** *Agricultural Operations*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
WP 8	TractW 2016002 Lease Oversight	5/15/21 – 10/15/21	TT	N/A	WPLW-1

## 2021 Water Properties Budget Summary

### Estimated 2021 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditure
Operations and Maintenance	Property Maintenance and Agricultural Operations	WPLW-1	\$38,400
		<b>Total</b>	<b>\$38,400</b>

### Estimated 2020 Revenues

Tract	Item	Estimated Income
Tract W201602	Crop Income	\$9,000
Tract W201701	N/A	\$0
Tract W201702	N/A	\$0
	<b>Total</b>	<b>\$9,000</b>



W201701

# WATER PROPERTIES

Dawson County

W201703

Phelps County

W201602

Buffalo County

W201702

Lincoln County