



# **PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM FISCAL YEAR 2016 BUDGET AND ANNUAL WORK PLAN**

## **Prepared by:**

Executive Director's Office (EDO)  
Platte River Recovery Implementation Program (PRRIP or Program)  
Kearney, Nebraska

## **Prepared for:**

PRRIP Governance Committee  
Gordon "Jeff" Fassett, State of Nebraska, Chair

Draft Budget and Work Plan Recommended by Executive Director  
**December 1, 2015**

Final Budget and Work Plan Revised and Approved by Governance Committee  
**December 1, 2015**





## Table of Contents

<b>Introduction.....</b>	<b>4</b>
<b>Executive Director’s Office (ED)</b>	
ED-1: Salaries/Travel/Office Expenditures.....	5
ED-2: Administrative and Other Support Services.....	6
ED-3: Public Outreach.....	8
<b>Governance Committee/Finance Committee (GFC)</b>	
GFC-1: NCF Fees.....	12
GFC-2: Pulse Flow and Other Insurance.....	13
GFC-3: Expenses, Meeting Rooms, etc.....	14
<b>Program Advisory Committees</b>	
<i>Land Advisory Committee (LAC)</i>	
LAC-1: Expenses, Meeting Rooms, etc.....	16
<i>Water Advisory Committee (WAC)</i>	
WAC-1: Expenses, Meeting Rooms, etc.....	18
<i>Technical Advisory Committee (TAC)</i>	
TAC-1: Expenses, Meeting Rooms, etc.....	20
<b>Land Plan Implementation (LP)</b>	
LP-3: Land Acquisition.....	22
LP-4: Land Management.....	27
LP-6: Land Plan Special Advisors.....	28
LP-7: Public Access Management.....	30
<b>Water Plan Implementation (WP)</b>	
WP-1(a): Active Channel Capacity Improvements (N Platte Channel above CNPPID Diversion Dam) .....	31
WP-1(b): Active Channel Capacity Improvements (CNPPID Diversion Dam to Grand Island) .....	31
WP-4: Water Action Plan.....	34
WP-5: Management Tool.....	46
WP-8: Water Plan Special Advisors.....	48
WP-9: Miscellaneous Water Resources Studies.....	51
<b>Adaptive Management Plan (AMP) Implementation</b>	
<i>AMP Implementation Activities</i>	
LP-2: FSM/MCM Actions on Habitat Complexes.....	53
PD-15: AMP Permits.....	55
PD-18: AMP-Related Equipment.....	56
PD-22: Sediment Augmentation Implementation.....	58



1	<i>Integrated Monitoring &amp; Research Plan Activities</i>		
2	G-1:	LiDAR & Aerial Photography.....	59
3	G-5:	Geomorphology/In-Channel Vegetation Monitoring.....	60
4	H-2:	Program Water Gages.....	62
5	IMRP-2:	AMP Directed Research Projects.....	63
6	IMRP-3:	Adaptive Management Plan Special Advisors.....	65
7	IMRP-6:	Habitat Availability Assessment.....	67
8	PD-8:	Database Management System Development & Maintenance.....	68
9	TP-1:	Tern & Plover Monitoring.....	70
10	WC-1:	Whooping Crane Monitoring.....	72
11	WC-3:	Whooping Crane Telemetry Tracking.....	74
12			
13	<i>AMP Independent Science Review</i>		
14	ISAC-1:	ISAC Stipends & Expenses.....	76
15	PD-3:	AMP & IMRP Peer Review.....	79
16	PD-11:	AMP Reporting.....	81
17	PD-21:	PRRIP Publications.....	83
18			
19			
20	Appedix A:	PRRIP FY2016 Annual Land Work Plan.....	84



# PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM FISCAL YEAR 2016 BUDGET AND ANNUAL WORK PLAN

## 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. 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).

Dr. Jerry Kenny serves as Executive Director of the Program. Dr. Kenny and staff in the Executive Director’s (ED) Office maintain offices in Nebraska and Colorado. The Executive Director’s Office worked closely with the GC, the Advisory Committees and their subcommittees and working groups, Program cooperators and partners, and others to develop the FY 2016 Program Budget and Work Plan based on guidance from the Final Program Document and Program goals and priorities.

This document presents the final FY 2016 Program Annual Work Plan. The Final FY 2016 Program Budget Spreadsheet is a separate document but is incorporated by reference.



**PROGRAM TASK & ID: ED-1. Salaries/Travel/Office Expenditures****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office (Executive Director, Headwaters Corp. staff)

**Task Location**

Kearney, NE; Gretna, NE; Denver, CO; Vestal, NY

**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 and B from 2016 ED Contract/Office Budget and the 2016 Headwaters Corporation Staffing Plan for detailed documentation of effort. Although costs for several items in the 2016 ED-1 budget are increasing from 2015 levels, other adjustments will be implemented to keep the 2016 budget level at the 2015 level. Increases over 2015 budget levels include:

- Rent, health care-related costs, and travel costs have increased.
- Salary adjustments at an average increase of about 2.5% to remain competitive in the labor market.
- The work load of overseeing Program contractors; data compilation, analysis and synthesis; independent science review activities; and activities related to creating suitable habitat for a new complex continues to increase.
- The work load for developing and evaluating additional water action plan alternatives and efforts to support water leasing negotiations will remain high for the foreseeable future, particularly in the wake of J-2 Regulating Reservoir cost increases and the consequent urgent need to find replacement supplies.

Program Task ED-1		
Year	Approved	Estimated
2007	\$ 361,861.00	\$ -
2008	\$1,110,800.00	\$ -
2009	\$1,427,759.00	\$ -
2010	\$1,599,900.00	\$ -
2011	\$1,600,000.00	\$ -
2012	\$1,800,000.00	\$ -
2013	\$1,875,000.00	\$ -
2014	\$2,200,000.00	\$ -
2015	\$2,200,000.00	\$ -
2016	\$ -	\$ 2,200,000.00

**PROGRAM TASK & ID: ED-2. Administrative and Other Support Services****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office

**Task Location**

ED Office

**Task Description**

Assistance to ED Office for administrative and other support services such as publishing public notices including Requests for Proposals and Invitations to Bid, attorneys with land or water specialties, real estate related specialists, and other specialty services not specifically linked to another line item.

**Products**

Contract services support for Program activities.

**Notes on Cost**

The primary use of ED-2 is to cover the expense of contracting for the services of the Program Accounting Database Manager. This requires the unique qualifications of knowledge of Program accounting and disbursement protocols and procedures and knowledge of the Program accounting database. The cost for these services have been locked in at a cost of \$5,000 a month for the duration of the First Increment.

A second common use of line item 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 \$200/hour is a representative rate based on the vetting experience of the past seven years. Given the level of legal support required over the past six years and the anticipated continued need for legal counsel in 2016 at similar levels, 150 hours of legal support is estimated (equivalent to about 1.54 days a month). Based on a fee of \$200/hour, and an estimated 150 hours of service, the estimated legal fees for 2016 are \$30,000. Though the need for legal counsel is anticipated as being slightly reduced from 2015 expenditures in 2016, upcoming water agreements and property boundary disputes are on the horizon and may require an increase in the future.

Program Task ED-2		
Year	Approved	Estimated
2007	\$ 17,000.00	\$ -
2008	\$ 150,000.00	\$ -
2009	\$ 250,000.00	\$ -
2010	\$ 200,000.00	\$ -
2011	\$ 200,000.00	\$ -
2012	\$ 150,000.00	\$ -
2013	\$ 150,000.00	\$ -
2014	\$ 100,000.00	\$ -
2015	\$ 100,000.00	\$ -
2016	\$ -	\$ 100,000.00



A third 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.

Recent actual costs in 2015 to run an announcement in the papers always used, for three days (Friday, Saturday and Sunday) is tabulated below:

Newspaper	Three Day Cost (\$)
Denver Post	1100
Omaha World Herald	700
Wyoming Eagle Tribune	300
Kearney Hub	100
<b>TOTAL</b>	<b>2,200</b>

Assuming four notices or ads based on anticipated number of RFPs/IFBs to be issued (State Channel Restoration, three large earth moving bids for channel widening and sediment augmentation),  $4 \times \$2,200 = \$8,800$ , plus five 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)  $@\$250$ ,  $5 \times \$250 = \$1,250$ ;  $\$8,800 + \$1,250 = \$10,050$  for newspaper ads.

Adding accounting database manager fees, attorney fees, and newspaper notices produced the total estimate, as shown below.

Item	Cost
Accounting Database Manager fees	\$60,000
Attorney fees	\$30,000
Newspaper notices	\$10,050
<b>TOTAL</b>	<b>\$100,050, round down to \$100,000</b>

**PROGRAM TASK & ID: ED-3. Public Outreach****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office

**Task Location**

ED Office (Kearney, NE)

**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 of 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 toward youth-oriented, experience-based programs. Exhibits and sponsorships help the Program spread its message and its brand.

**Products**

Program visibility and communication with the public.

**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 \$5,000.
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: Nebraska Educational Television camera time-lapse project of the Platte River which includes sites in all three states, environmental education programs for Rowe

Program Task ED-3		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ 30,000.00	\$ -
2010	\$ 40,000.00	\$ -
2011	\$ 50,000.00	\$ -
2012	\$ 70,000.00	\$ -
2013	\$ 65,000.00	\$ -
2014	\$ 60,000.00	\$ -
2015	\$ 75,000.00	\$ -
2016	\$ -	\$ 70,000.00



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 2016, \$50,000 is budgeted for major sponsorships including: \$35,000 for the time lapse project, and \$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 2015. The focus of 2016 funding for the timelapse project (PBT) is to cover a portion of direct and labor costs of developing video footage of locations associated with the time lapse camera locations. The intent is to develop video material to use in association with the time lapse footage. In addition, interviews with a number of people associated with conservation lands in the central Platte will be conducted. Telling the story of the Platte, including the Program's role in the recent history is the focus of this effort. The intent of this material development is to produce an hour long PBS documentary suitable for a national audience. This effort could result in tremendous exposure for the Program and its actions to a national and beyond audience in a quality manner. An additional funding focus is the project's development of educational products from the PBT data. The project is developing tern and plover lesson plans utilizing PBT photos, videos, and stories. The following educational package will focus on the central Platte River. The educational efforts are targeted to late elementary school and middle school students and are STEM based curricula. As in previous years, other funding sources will be tapped by the time lapse team, so Program funding represents only a portion of the costs associated with the effort. Additional details of the cost breakdowns for these sponsorships are provided at the end of this section.

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 and Prairie Fire newspapers are estimated for 2016 at about \$3,000
- 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 \$500 to \$1500. Allowing for three to five such sponsorships to be awarded, costs for 2016 are estimated at about \$6,000



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 \$3.25. Examples of giveaways include pens, carabiner key chains, can coolers, stylus, mobile phone cradle, tote bags, shoulder bags, small tools and pocket knives, and water bottles. The Program anticipates distributing about 3,000 items in 2016 for a cost of about \$6,000.

Estimated costs for FY16 include:

Expense Category	Estimated FY16 Cost
Exhibit Fees	\$5,000
Major Sponsorships	\$50,000
NET Time-Lapse Project (\$35,000)	
Rowe Sanctuary Education Program (\$5,000)	
Prairie Loft Education Program (\$5,000)	
Greenway Foundation SPREE Program (\$5,000)	
Other Sponsorships	\$9,000
Promotional Materials	\$6,000
<b>Total</b>	<b>\$70,000</b>

The following tables provide specific cost estimate breakdowns for each of the Major Sponsorship items in FY16:

#### NET Time-lapse Project Cost Estimate Breakdown

Item	Cost (\$)	Comments
Direct costs associated with travel and equipment maintenance.	\$11,000	At this stage in the project, most sites have been established and equipped, but \$3,000 is allocated for minor equipment repair and replacement material costs. The remaining \$8,000 of direct costs are allocated to travel costs for video crews to travel to and spend time at several locations in the Platte Basin, with Program funds to be expended on travel associated with those locations in Nebraska where Program actions are concentrated.
Labor costs	\$24,000	<ul style="list-style-type: none"><li>Labor costs for this project are based on NET video crew labor rates averaging \$80.00 per hour per person. The crews will likely consist of two to three people involved in developing video footage at several locations corresponding to the time-lapse camera locations and conducting taped interviews with a variety of people. A composite of 300 total hours at a rate of \$80 per hour can be supported. Other funding sources will be used to support additional labor costs.</li></ul>
<b>TOTAL</b>	<b>\$35,000</b>	

1 **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.	100	\$3,000	
LABOR TOTAL			\$3,000	
MATERIALS				
Collecting Nets	\$30	14	\$750	
Binoculars	\$80.76	14	\$1,050	
Birds of Nebraska Books	\$8.00	25	\$200	
MATERIALS TOTAL			\$2,000	
TOTAL			\$5,000	

2  
3 **Prairie Loft Education Program Cost Estimate Breakdown**

Category	Unit Rate (\$/hr.)	Quantity	Cost (\$)	Comments
LABOR				Personnel hours include teaching, facilitation curriculum and program development, and outreach to schools, teachers, families, and partner organizations.
Instructor	\$20/hr.	150	\$3,000	
Instructor Assistant	\$10/hr.	50	\$500	
LABOR TOTAL			\$3,500	
MATERIALS				Education program supplies: including items such as books, writing materials, field study equipment, curriculum materials and training printing, tools, and resources for additional and enhanced outdoor learning areas.
MATERIALS TOTAL			\$1,500	
Total			\$5,000	

4  
5 **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 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	
Totals	(\$5,000)	\$5,000	\$0	

6

**PROGRAM TASK & ID: GFC-1. NCF Fees****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office, Nebraska Community Foundation (NCF)

**Task Location**

ED Office; NCF (Lincoln, NE)

**Task Description**

Fees paid to the Nebraska Community Foundation (NCF) for administration of the financial aspects of the Program in 2016.

**Products**

Financial support services for Program.

**Notes on Cost**

The Foundation will be reimbursed 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, the Foundation 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 \$50,000 (1000 hours X \$50/hour), and a provisional indirect cost ratio of 2.4% applied to approximately \$9 million in direct costs (total budget minus J2 funds which will be handled in a different manner and further reduced by 90% to account for potential under spending of budgeted amounts based on experience). Only actual indirect costs will be recouped by the Foundation and the rate will fluctuate from year to year depending on overall total expenditures of the Foundation. Based on verbal discussions, it is estimated that the Foundation will be entitled to \$250,000, hence that is the amount that will be obligated for FY2016.

Program Task GFC-1		
Year	Approved	Estimated
2007	\$ 75,000.00	\$ -
2008	\$ 100,000.00	\$ -
2009	\$ 255,000.00	\$ -
2010	\$ 260,000.00	\$ -
2011	\$ 300,000.00	\$ -
2012	\$ 450,000.00	\$ -
2013	\$ 450,000.00	\$ -
2014	\$ 250,000.00	\$ -
2015	\$ 290,000.00	\$ -
2016	\$ -	\$ 250,000.00

**PROGRAM TASK & ID: GFC-2. Pulse Flow and Other Insurance****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office, Dunbar-Peterson

**Task Location**

ED Office; insurance provider office in Omaha, Nebraska

**Task Description**

Insurance acquired for representatives of the GC and subcommittees (including alternates) and ED Office for certain actions that will be undertaken through Program implementation. Coverage will be for a number of actions that the Program will undertake including short duration high flow releases and because of land and facilities ownership.

**Products**

Program insurance policy.

**Notes on Cost**

Insurance acquired for representatives of the GC and subcommittees (including alternates) and ED Office for certain actions that will be undertaken through Program implementation. Coverage will be for a number of actions that the Program will undertake including short duration high flow releases and because of land and facilities ownership. 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. Because of additional land acquisitions in 2015 and generally increasing insurance costs, the Program has been advised that insurance costs will increase. These increases will be mitigated by our clean claims record and no new major risk additions. 2016 costs are estimated at \$85,000, about 5% above 2015 expenditures.

Program Task GFC-2		
Year	Approved	Estimated
2007	\$ 100,000.00	\$ -
2008	\$ 50,000.00	\$ -
2009	\$ 60,000.00	\$ -
2010	\$ 70,000.00	\$ -
2011	\$ 75,000.00	\$ -
2012	\$ 70,000.00	\$ -
2013	\$ 75,000.00	\$ -
2014	\$ 75,000.00	\$ -
2015	\$ 80,000.00	\$ -
2016	\$ -	\$ 85,000.00

**PROGRAM TASK & ID: GFC-3. Expenses, Meeting Rooms, etc.****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; GC; FC

**Task Location**

Meeting locations in NE, WY, and CO

**Task Description**

Limited budget amount to cover meeting room rentals for GC and FC meetings; other miscellaneous costs for holding meetings (e.g. conference call fees, AV fees).

**Products**

Meeting space and associated needs.

**Notes on Cost**

Governance Committee 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. In addition, for the past three years a special half-day session has been held in Denver, CO focused on budget discussions. This special Budget Session will likely be held annually for the remainder of the First Increment. There is no room charge or equipment charge for the Kearney and Cheyenne locations, just for the Denver locations. 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). Refreshments, one afternoon break, and one morning break provided. Based on 2011-2015 experience and anticipating a small increase, 2016 estimate of room and break expenses is \$1,250/day. Equipment costs are limited to polycom conference phone and screen at \$100, as EDO can provide projector from its Denver office. The November meeting has typically been held in a hotel near the airport, usually the Country Inn and Suites. Based on 2011-2015 experience and anticipating a small increase, 2016 estimate of room and break expenses is \$700/day. Equipment costs are limited to a polycom conference phone and a screen at \$100, as EDO can provide projector from its Denver office.

During the first half of 2016, the GC will be heavily involved in the Structured Decision Making (SDM) process. For this process, the GC (and their TAC representatives) will be involved in a day-long workshop in both March and June associated with the regular quarterly GC meeting. There will be no room or equipment charges for these workshops but lunches and break food for both workshops are estimated at \$1,500/day.

Program Task GFC-3		
Year	Approved	Estimated
2007	\$ 5,000.00	\$ -
2008	\$ 5,000.00	\$ -
2009	\$ 5,000.00	\$ -
2010	\$ 5,000.00	\$ -
2011	\$ 1,000.00	\$ -
2012	\$ 1,500.00	\$ -
2013	\$ 1,500.00	\$ -
2014	\$ 1,700.00	\$ -
2015	\$ 3,100.00	\$ -
2016	\$ -	\$ 7,500.00



The Meeting Expenses table provided below provides a breakdown of costs and additional information for GFC-3:

Line Item	Meeting Room Rental & Break Costs	Meeting Equipment Costs	Conference Call Costs	Total Costs
GFC-3 (regular meetings)	\$4,000 (November Budget GC, half day and December GC, two half days)	\$200 (phone and screen at each meeting)	\$216 (6 FC calls of @2 hours, \$0.30/minute)	\$7,416, say \$7,500
GFC-3 (SDM)	\$3,000 (March and June SDM workshops)	\$0	\$0	

#### General Notes on Meeting Costs

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

**PROGRAM TASK & ID: LAC-1. Expenses, Meeting Rooms, etc.****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; LAC

**Task Location**

All LAC meetings are held in central Nebraska, typically in Kearney, NE.

**Task Description**

Limited budget amount to cover costs for LAC meetings; primarily miscellaneous costs for holding meetings (e.g. conference call fees, site visit expenses).

**Products**

Meeting space and associated needs.

**Notes on Cost**

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 two half days in the field with lunch and drinks (water and sodas) in field provided for 10 to 15 people each day at an average cost of about \$20.00 per person per day, based on 2011-2014 experience, was the basis for the \$500 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 on average of six people. An estimated two site evaluation days will be performed in 2016. Based on 2009-2015 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.

The Meeting Expenses table provided below provides a breakdown of costs and additional information for LAC-1:

Line Item	Meeting Room Rental & Break Costs	Meeting Costs	Conference Call Costs	Total Costs
LAC-1	\$0	\$800 (annual field tour expenses @ \$500 and two land site visits @ \$150 each)	\$288 (4 calls @ 4 hours, \$0.30/minute)	\$1,088 round up to \$1,100

**General Notes on Meetings Costs**

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

**PROGRAM TASK & ID: WAC-1. Expenses, Meeting Rooms, etc.****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; WAC

**Task Location**

Meeting locations in NE, WY, and CO, typically in Ogallala, NE.

**Task Description**

Limited budget amount to cover meeting costs for WAC and WAC Working Group meetings; including miscellaneous costs for holding meetings (e.g. conference call fees, AV fees, site visit expenses).

**Products**

Meeting space and associated needs.

**Notes on Cost**

The WAC meets quarterly at the Visitor's Center near Lake McConaughy in Ogallala for which there is no room or equipment charge, but working groups and subcommittee frequently meet by conference call and at other locations. As progress accelerates on implementation of various Water Action Plan projects, the frequency of project related meetings will increase. All meetings assumed to be focused on J2 Regulating Reservoir Project or other Water Action Plan projects (e.g., Ground Water Recharge Project scoring, Broad-scale Groundwater Recharge, 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 for WAC-1:

Line Item	Meeting Room Rental & Break Costs	Meeting Equipment Costs	Conference Call Costs	Total Costs
WAC-1	\$500 (1 one-day off-site field tour expenses)	\$0	\$648 (4 calls @4 hours and 10 calls @2 hours, \$0.30/minute)	\$1,148 round up to \$1,200

**General Notes on Meeting Costs**

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

**PROGRAM TASK & ID: TAC-1. Expenses, Meeting Rooms, etc.****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; TAC

**Task Location**

Meeting locations in NE, WY, and CO

**Task Description**

Limited budget amount to cover meeting room rentals for TAC and TAC Work Group meetings; other miscellaneous costs for holding meetings (e.g. conference call fees, AV fees).

**Products**

Meeting space and associated needs.

**Notes on Cost**

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 but it is not uncommon for a few meetings to be held at other locations. Meeting room costs for one meeting away from Kearney, meeting for two half days was assumed for 2016. Location assumed in Omaha, NE. Refreshments, morning and afternoon breaks assumed. Four regular TAC conference calls were assumed. Estimated cost for off-site room and breaks/lunch at \$1,200 per day based on experience. Equipment cost of polycom conference phone with microphone extensions and screen estimated at \$100 for two half days.

During the first half of 2016, the TAC will be heavily involved in the Structured Decision Making process. Two, three-day workshops and two day-long meetings held in Kearney, NE at the EDO were assumed. Lunches and break food for those working sessions were estimated at \$500/day, and four, four-hour conference calls were assumed for this process.

Program Task TAC-1		
Year	Approved	Estimated
2007	\$ 5,000.00	\$ -
2008	\$ 5,000.00	\$ -
2009	\$ 5,000.00	\$ -
2010	\$ 5,000.00	\$ -
2011	\$ 1,000.00	\$ -
2012	\$ 1,500.00	\$ -
2013	\$ 4,000.00	\$ -
2014	\$ 2,400.00	\$ -
2015	\$ 2,000.00	\$ -
2016	\$ -	\$ 6,000.00



The Meeting Expenses table provided below provides a breakdown of costs and additional information for TAC-1:

Line Item	Meeting Room Rental & Break Costs	Meeting Equipment Costs	Conference Call Costs	Total Costs
TAC-1 (regular meetings)	\$1,200 (1 off-site meeting, two half days)	\$100	\$288 (4 calls @ 4 hours, \$0.30/minute)	\$5,876, round up to \$6,000
TAC-1 (SDM)	\$4,000 (2 3-day workshops, 2 1-day meetings)	\$0	\$288 (4 calls @ 4 hours, \$0.30/minute)	

#### General Notes on Meeting Costs

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

**PROGRAM TASK & ID: LP-3. Land Acquisition****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; LAC; Land Interest Holding Entity (LIHE)

**Task Location**

Land interest locations TBD

**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 LIHE for the Program, as well as property taxes and other annual fees.

**Products**

Program lands

**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. 2012-2015 charges are provided below:

Quarter	2012 Fee	2013 Fee	2014 Fee	2015 Fee
First	\$14,614	\$14,634	\$16,373	\$11,919
Second	\$11,117	\$11,397	\$11,827	\$11,813
Third	\$14,668	\$12,205	\$18,144	\$12,030
Fourth	\$14,637	\$14,357	\$12,780	
<b>TOTAL</b>	<b>\$55,033</b>	<b>\$52,593</b>	<b>\$59,124</b>	<b>\$35,761</b>
<b>AVERAGE</b>	<b>\$13,755</b>	<b>\$13,148</b>	<b>\$14,781</b>	

Although our portfolio of holdings has increased, the number of transactions has declined (fewer purchases and boundary modifications) with an anticipated decline in fees. Therefore, a smaller quarterly average fee of \$12,500 was used to arrive at the annual number of \$50,000.



**Taxes:** PRRIP is required to pay property taxes. A summary of the property taxes paid in 2012-2014 is provided by county below. All PRRIP properties are located in Nebraska.

Nebraska County	Total Property Tax Paid 2012	Total Property Tax Paid 2013	Total Property Tax Paid 2014	Total Property Tax Paid 2015
Buffalo	\$50,404	\$42,450	\$76,893	\$71,490
Dawson	\$2,086	\$2,086	\$7,755	\$8,512
Gosper	\$0	\$584	\$715	\$969
Hall	\$32,616	\$22,060	\$35,884	\$38,809
Phelps	\$21,619	\$21,619	\$25,119	\$31,621
Kearney	\$0	\$0	\$2,225	\$2,539
<b>TOTAL</b>	<b>\$106,725</b>	<b>\$88,799</b>	<b>\$148,591</b>	<b>\$153,940</b>

It is anticipated that a similar pattern of payments will be made by county in 2016 as in 2015. Based on the 2015 payments, an estimated \$150,000 in property tax payments will be made in 2016.

**Land Acquisition:** Assumptions for land acquisition in 2016:

*Purchase*

- Additional 120 acres by lease or easement of palustrine wetlands and 40 acres off channel sand and water.
- Two possible land trades or tract disposals (Shoemaker Island, Elm Creek Complex).
- **Associated Costs:** These costs are based on experience on 2009-2015 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 one tract acquisitions and two tract disposals in 2016, each in the 120 to 200-acre range, an estimate of \$55,000 was developed ( $3 \times \$18,750 = \$56,250$ , round down to \$55,000). 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 5 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.

A number of surveyors have been used by the Program over the past five 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 25 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 5 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 particular 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



1 complications from riparian boundaries, and occasionally multiple county jurisdictions that arise on  
2 properties that straddle the river and lie in two counties. Based on this market survey rate comparison and  
3 the qualifications of the attorneys being considered, these rates are known to be fair, reasonable, and  
4 competitive.

5  
6 The market survey process is composed of the following steps:

- 7 • Determine which attorneys are qualified to perform riparian real estate transactions. This is  
8 accomplished through asking Advisory Committee or Governance Committee members experienced in  
9 riparian real estate legal issues and that have required the service of such attorneys in the Associated  
10 Habitat Region who they know to be qualified and what their experience has been with various  
11 attorneys, and internet and yellow page searches followed up with phone calls or office visits to  
12 determine qualifications, experience and to assess skill levels. Also, supplementing this information  
13 with the over 25 years of experience working with riparian real estate attorneys in Nebraska represented  
14 by the Program Staff person leading the land acquisition effort. While this search may not be exhaustive  
15 it is extremely comprehensive with virtually all experienced riparian real estate attorneys in the North  
16 Platte to Omaha area considered.
- 17 • As part of the list development process, rates and estimated (by the attorneys) costs of a standard basic  
18 riparian boundary survey were considered.
- 19 • A comparison of qualifications, reputation, specific experience, and assessed skill level together with  
20 rates and estimated costs for a basic riparian real estate transaction formed the basic information basis  
21 for then soliciting surveyor services for specific tracts.
- 22 • The experience gained through 5 years of land acquisition for the Program provides a solid basis for  
23 verification or modification of initial information gathered that is of great value in selecting attorneys.

24  
25 Miscellaneous fees could include items from among the following: Phase I Environmental Site  
26 Assessments (@\$1,000 to \$1,500 per site with one always performed for each tract purchased), additional  
27 title searches, clouds on the title that must be resolved (fence issues, material removal from site, previous  
28 owners or heirs of previous owners that must be tracked down to positively clear titles), copying and  
29 printing fees, and unusual boundary issues that require additional research or surveys. No two acquisitions  
30 are the same, and some peculiarity often arises that must be dealt with. They rarely involve large  
31 expenditures to resolve, but, on the other hand, when they arise they are not trivial, negligible costs either.

32  
33 **Purchase Costs:** Current land prices for the types of non-complex land leases we will be acquiring typically  
34 range from \$50 to \$200 per acre.

35  
36 Acquisitions anticipated for 2016 are as follows:

- 37 • Palustrine wetland – no specific palustrine wetland has yet been identified, but a 120-acre tract will  
38 need to be targeted. Additional off channel sand and water will also be pursued. An estimated lease  
39 cost of \$200/acre for four years with an up-front payment, allowing for up to 300 acres of leased land  
40 will cost an estimated acquisition price of \$245,000.00.
- 41 • Note: NO provision for income generated from land disposal actions is included in the budget estimate.  
42 The budget reflects only anticipated expenditures, not a net of expenditures and income.



- 1 The table below summarizes estimated LP-3 costs for FY16:  
2

Item	Estimated FY16 Cost
LIHE Fees	\$50,000
Property Taxes	\$150,000
Land Acquisition & Disposal Associated Costs	\$55,000
Lease or easement (245 acres)	\$245,000
<b>TOTAL</b>	<b>\$500,000</b>

3

**PROGRAM TASK & ID: LP-4. Land Management****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; LAC; Land Interest Holding Entity (LIHE)

**Task Location**

Land interest locations

**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 2016 is included as **Appendix A** in this document.

**Products**

Program lands managed properly according to Program guidelines and “Good Neighbor” policy.

**Notes on Cost**

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

LP-4		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ 500,000.00	\$ -
2010	\$ 588,800.00	\$ -
2011	\$ 365,500.00	\$ -
2012	\$ 409,800.00	\$ -
2013	\$ 448,400.00	\$ -
2014	\$ 192,500.00	\$ -
2015	\$ 309,100.00	\$ -
2016	\$ -	\$ 305,125.00

**PROGRAM TASK & ID: LP-6. Land Plan Special Advisors****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Contractor

**Task Location**

ED Offices; Contractor Offices

LP-6		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ -	\$ -
2010	\$ 50,000.00	\$ -
2011	\$ 15,000.00	\$ -
2012	\$ 120,000.00	\$ -
2013	\$ 50,000.00	\$ -
2014	\$ 20,000.00	\$ -
2015	\$ 20,000.00	\$ -
2016	\$ -	\$ 20,000.00

**Task Description**

- Land management will be needed by United Farm Management for the Plum Creek Complex, Cottonwood Ranch Complex, and Elm Creek Complex and for non-complex land at the DeBore and Leihs Wetland.
- Land management will be needed by AgriAffiliates for the Shoemaker Island Complex, Fort Kearney Complex and for non-complex lands at Alda pit, Leaman East pit and Broadfoot Newark pits.
- Both advisors shall continue grassland leases for haying and grazing on all properties annually to the end of the First Increment.

**Products**

- Meeting participation
- Memoranda and reports

**Notes on Cost**

Two agricultural management firms will be used to handle tenant leases for Program properties in 2016. 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 work load 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.



1 **General note on all Special Advisor budget line items:** Please refer to the third paragraph in the Exceptions:  
2 section of the Procurement Policy adopted by the Governance Committee in August of 2008, “Retention of  
3 special advisors to the ED of a technical or legal nature is exempt from the procedures provided in this  
4 directive.”

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

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

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

33  
34 During the budgeting process, the special advisors anticipated to be needed and roughly the level of effort  
35 expected to accomplish the work plan for the budget year is scrutinized by and discussed with the  
36 appropriate advisory committees, the Finance Committee, and the Governance Committee. Input is received  
37 and taken under advisement from all these sources as to the appropriateness of the budgets for these line  
38 items with appropriate adjustments made prior to budget approval.

**PROGRAM TASK & ID: LP-7. Public Access Management****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Contractor (Nebraska Game and Parks Commission)

**Task Location**

All Available PRRIF properties

**Task Description**

Cost associated with public recreation access to 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. This program will need to plan for additional costs resulting from increased time commitments as the use of the system increases and more lands are added to the access program. In addition, we can expect increases in unit costs from the provider, Nebraska Game and Parks Commission, to handle inflation and other increased costs to them at some point in the future.

**Products**

Opportunities for the general public to use Program lands for outdoor recreation and access under acceptable guidelines without interfering with Program Goals and primary species needs. Conformance with expectations of America's Great Outdoors initiative.

**Notes on Cost**

Nebraska Game and Parks Commission will manage public access to Program lands in 2016 pursuant to a contract between the Nebraska Community Foundation and the Nebraska Game & Parks Commission.

LP-7		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ -	\$ -
2010	\$ -	\$ -
2011	\$ 50,000.00	\$ -
2012	\$ 50,000.00	\$ -
2013	\$ 55,000.00	\$ -
2014	\$ 50,000.00	\$ -
2015	\$ 50,000.00	\$ -
2016	\$ -	\$ 50,000.00

**PROGRAM TASK & ID: WP-1 (a-b). Active Channel Capacity Improvements****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Contractor

**Task Location**

ED Offices; Contractor Offices; North Platte River and Platte River between Kingsley Dam and Columbus.

**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 managing water for the Short Duration High 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. There are two sub-tasks:

- WP-1(a) will continue efforts toward increasing the North Platte River channel capacity at the National Weather Service (NWS) flood stage upstream of the Central Nebraska Public Power and Irrigation District (CNPPID) diversion dam to at least 3,000 cfs. This includes efforts toward raising the NWS flood stage at North Platte from 6.0 feet to 6.5 feet and increasing by-pass capacity to the South Platte River upstream of North Platte, NE. Additional technical and/or contracting services will be engaged to implement the State Channel Reactivation flood-risk reduction project begun in 2013 and make improvements to by-pass canals on the Suburban and Platte Valley Canals. Specific items associated with this effort and estimated ranges of costs associated with each item are:

1. Implement flood-risk reduction projects	\$125,000 to \$150,000
2. Vegetation clearing and deep tillage	\$14,000 to \$30,000
3. Design and implementation of canal by-pass projects	\$70,000 to \$120,000
<b>TOTAL</b>	<b>\$209,000 to \$300,000</b>
	<b>Budget for \$250,000</b>

Further detail of the cost estimates for the items described in the 2016 Work Plan includes:

1. Implementation of flood-proofing projects: \$125,000 to \$150,000

Contracted engineering design professionals have provided plans, specifications, and estimated costs for the construction of the state channel reactivation project. Based on previous estimates and bids for similar work done for the Program, these estimates are considered fair and reasonable. The state channel work is contingent upon receiving a Section 404 individual permit from the U.S. Army Corps of Engineers, which is expected by the end of 2015. In addition, Lincoln County and local residents have expressed interest in expanding the Whitehorse Creek Drainage Project, which was completed in 2014. Phase II of this project



would include installation of up to 10 additional culverts and creation of approximately 1,000 feet of drainage ditch along North River Road. Discussions with the County are on-going, but not finalized.

State Channel Improvements	\$75,000
Whitehorse Creek Phase II	\$50,000 to \$75,000
<b>TOTAL</b>	<b>\$125,000 to \$150,000</b>

2. Vegetation clearing and deep tillage (disking): \$14,000 to \$30,000

Cost will vary, depending on the number of acres of non-woody vegetation sprayed, shredded, and disked (up to \$200/acre if all operations performed). Unit costs are based on experience and areas are based on preliminary assessment of vegetation removal efforts required. Area estimates are based on map delineation of minimum and maximum areas likely to increase hydraulic conveyance if cleared. Unit cost estimates have been developed from compilations of bids and costs incurred for this type of work over the past seven years. Specific clearing activities have not been identified at this time and additional refinements to these estimates is not currently possible. A low end estimate includes treatment of 70 acres at a cost of \$200/acre. The high end estimate is 150 acres at \$200/acre.

3. Design and implementation of canal by-pass projects: \$70,000 to \$120,000

The following cost estimates are for canal improvements on the North Platte and Suburban Canals. The estimates are based on experience for similar work performed for the Program, awarded through competitive bid processes as well as recent canal improvements undertaken by the Central Platte Natural Resource District (CPNRD), awarded through competitive bid processes. The projects would require hiring a contractor to design and implement.

Design Cost of canal improvements	\$30,000 to \$50,000
Construction Cost of canal improvements	\$40,000 to \$70,000
<b>TOTAL</b>	<b>\$70,000 to \$120,000</b>

- WP-1(b) has in the past been a cost share with Platte Valley and West Central Weed Management Areas to clear biomass from the North Platte River channel between Kingsley Dam and the CNPPID diversion dam and from the Platte River between North Platte and Chapman. At the June 2014 Governance Committee (GC) Meeting, the commitment was made for \$200,000 per year for the years from 2015-2017 in support of a cooperative in-channel maintenance effort associated with a Nebraska Environmental Trust (NET) Grant Application for Platte River Management and Enhancement. The cooperative effort, if the grant is awarded, will be led by the CPNRD with primary support and contributions from other NRDs, the Rain Water Joint Venture, the Program and cooperation from other conservation organizations and individual land owners. The work 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.

Costs breakdowns for allocation of the budget shown in Table 1 are based on the breakdowns in the Grant Application with further elaboration based on experience with expenditures made by the Weed Management Areas in previous years. The actual distribution of expenditures in any given year will vary 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.

Table 1. Cost Assumptions for WP-1(b).

Category	Amount	Unit Cost	Total Cost*
Control (helicopter)	64 hrs	\$1,975/hr	\$126,400
Control (Airboat)	160 hrs	\$140/hr	\$22,400
Survey (helicopter)	5 hrs	\$1,025/hr	\$5,250
Herbicide	390 gals	\$75.13/gal	\$29,300
Meeting & Material Development Support	Lump sum	n/a	16,650
		<b>Total</b>	<b>\$200,000</b>

\*Approximate.

### Products

- Improve conveyance capacity through North Platte Choke Point.
- Complete flood proofing projects in vicinity of Highway 83 Bridge.
- Improve canal by-pass capacity for Suburban and North Platte canals.
- Channel rehabilitation, maintenance and enhancement efforts to improve conveyance and habitat in channel sections between Kingsley Dam and Columbus.

### Notes on Costs

Specific expenditures will require authorization of Finance Committee.

### Budget

Program Task WP-1										
WP	2007 Apprvd (\$1,000)	2008 Apprvd (\$1,000)	2009 Apprvd (\$1,000)	2010 Apprvd (\$1,000)	2011 Apprvd (\$1,000)	2012 Apprvd (\$1,000)	2013 Apprvd (\$1,000)	2014 Apprvd (\$1,000)	2015 Apprvd (\$1,000)	2016 Estimated (total)
1(a)	\$241	\$40	\$80	\$50	\$250	\$100	\$500	\$260	\$240	\$250,000
1(b)*	\$0	\$0	\$0	\$400	\$200	\$200	\$200	\$100	\$200	\$200,000

Notes:

‘Apprvd’ means approved budget. Values from 2007-2015 in thousands of dollars; 2016 estimated budget in dollars.

\* Matching funds in a cost-share program with Platte River Management and Enhancement partners.

**PROGRAM TASK & ID: WP-4 (a-h). Water Action Plan****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Contractor

**Task Location**

ED Offices; Contractor Offices; Nebraska, Colorado, Wyoming

**Task Description**

Under WP-4, the Program intends to advance projects from the 2014 Water Action Plan Update, and/or additional new project concepts, through feasibility into full implementation. The ED Office will work with the Water Advisory Committee (WAC) and associated Work Groups to evaluate the potential yield, permitting requirements, and costs associated with various projects. The potential benefits of joint project operations will also be considered. The following paragraphs provide descriptions of the anticipated sub-tasks included in the 2016 budget:

- WP-4(a) J2 Regulating Reservoir – In 2015, the consultants (RJH Consultants) working on the design of the J-2 Regulating Reservoirs determined the cost of the reservoirs would be significantly more than originally estimated, making the full-scale project of approximately 14,000 acre-feet of storage capacity not financially feasible within the water plan budget. The Program anticipates constructing a smaller design of the J-2 Regulating Reservoirs concept under the Central Nebraska Public Power and Irrigation District (CNPPID) system. In the 2016 budget, it is assumed the cost for the smaller design will approximately equal the cost of the previous design. The 2016 budget for WP-4(a) is \$14,392,000.

The 2016 budget will be used to fund the first increment of construction costs for the J2 Regulating Reservoir. The total construction cost budget of \$57,567,000 is required to be available before construction begins to ensure the full funds to complete the project are reserved. Therefore, the budgeted funds for the project will be acquired and accumulated in 2016, 2017 and 2018. The previous J2 Regulating Reservoir expenditures (2007-2015) included land acquisition, permitting and design costs and support.

The budget estimate for 2016 is based on the first increment of a three-year projected upfront construction cost payment, projected for budgeting in 2016 through 2018. The 2016 portion of the three-year projected upfront cost payment is approximately \$19,189,000 from all parties, which includes approximately \$14,392,000 from the Program and \$4,797,000 from the Nebraska Department of Natural Resources (NDNR). Construction cost payments are anticipated to be reserved in the 2016, 2017 and 2018 budgets so that the full funds are available before reservoir construction commences. The total Program portion of the cost through construction is approximately \$43,175,000 in three years (2016, 2017 and 2018), or

WP-4 (a-h)		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ -	\$ -
2010	\$ -	\$ -
2011	\$ 5,100,000.00	\$ -
2012	\$11,800,000.00	\$ -
2013	\$15,100,000.00	\$ -
2014	\$16,708,323.00	\$ -
2015	\$17,285,100.00	\$ -
2016	\$ -	\$ 17,311,000.00



about \$14,392,000 per year. This covers the Program's portion of base construction cost (general site work, seepage management/liner, embankments, slope protection, tributary work, inlets/outlets, Phelps County Canal work), mobilization/demobilization (1.5% of base construction cost), bonds/insurance (1% of base construction cost), a 20% contingency on the direct construction cost (base construction cost plus mobilization/demobilization and bonds/insurance), construction engineering (8% of the direct construction cost) and a 2.5% administration cost (based on the subtotal cost less CNPPID's share of \$1,500,000). The construction cost estimate is based on the J-2 Regulating Reservoir Conceptual Design Report prepared by RJH Consultants, Inc. in 2013. A summary of estimated costs is shown in Table 1. Note that Table 1 will change after RJH Consultants, Inc. provides updated information on a new reservoir(s) design concept. Consequent revision of the Water Service Agreement will likely include a reduced CNPPID contribution tied to a reduced benefit from a smaller reservoir, which would also cause costs to be further revised. It is assumed that NDNR will remain committed at the 25% of yield level.

**Table 1. J-2 Regulating Reservoir Cost Summary**

Item	Row	Cost
General Site Work	A	\$ 1,468,900
Seepage Management/Liner	B	\$ 13,794,900
Embankments	C	\$ 8,003,450
Slope Protection	D	\$ 10,447,900
Plum Creek/Unnamed Tributary	E	\$ 2,558,000
Inlets and Outlets	F	\$ 5,136,892
Phelps County Canal	G	\$ 2,540,075
<b>Base Construction Cost (BCC)</b>	<b>H</b>	<b>\$ 43,950,117</b>
Mob/Demobilization & Bonds and Insurance (2.5% of BCC)	I	\$ 1,098,753
<b>Direct Construction Cost (DCC)</b>	<b>J</b>	<b>\$ 45,048,870</b>
Contingency (20% of DCC)	K	\$ 9,009,774
Construction Engineering (8% of DCC)	L	\$ 3,603,910
<b>Subtotal</b>	<b>M</b>	<b>\$ 57,662,554</b>
CNPPID Share	N	\$ 1,500,000
NDNR and Program Share	O	\$ 56,162,554
Administration (2.5% of NDNR and Program Share)	P	\$ 1,404,064
<b>NDNR and Program Total Share</b>	<b>Q</b>	<b>\$ 57,566,617</b>
NDNR Share (25%)	R	\$ 14,391,654
Program Share (75%)	S	\$ 43,174,963
<b>Program Three-Year Cost</b>	<b>T</b>	<b>\$ 14,391,654</b>

*Row Notes:*

A through G. Based on RJH Consultants, Inc.'s J-2 Regulating Reservoir Conceptual Design Report (Feb 2013).

H. Sum of Rows A-G.

I. Row H  $\times$  2.5%.

J. Rows H + I.

K. Row J  $\times$  20%.

L. Row J  $\times$  8%.



M. Sum of Rows J-L.

N. Based on the CNPPID's portion in the Three-Party Agreement.

O. Row M - Row N.

P. Row O  $\times$  2.5%.

Q. Row O + Row P.

R. Row Q  $\times$  25%. Based on the NDNR's portion in the Three-Party Agreement.

S. Row Q  $\times$  75%. Based on the Program's portion in the Three-Party Agreement.

T. Row S  $\div$  3 years. Based on estimated payment schedule from 2016-2018.

- 1
- 2 • WP-4(b) Ground Water Recharge Projects – The Phelps County Canal (CNPPID) ground water
- 3 recharge project, Elwood Reservoir recharge project (CNPPID), ground water recharge recapture
- 4 project, broad-scale recharge concepts and Gothenburg/Dawson County Canals ground water recharge
- 5 projects are included in this line item. The 2016 budget for WP-4(b) is \$1,447,000. Individual project
- 6 descriptions are listed below.
- 7

8 *Phelps County Canal Ground Water Recharge Project*

9 The Phelps County Canal ground water recharge project 2016 budget will be used for the 2016-2017

10 recharge season operations. A temporary and/or permanent Water Service Agreement with the CNPPID

11 will be obtained for the full-scale implementation of the project in the fall of 2016 through the spring

12 of 2017. The anticipated 2016 activities include continued water permitting for recharge operations (it

13 is anticipated that the permanent recharge permits may be approved in 2016) and operation and

14 maintenance associated with full-scale canal recharge. A temporary permit for recharge operations may

15 also be submitted, if the permanent permit is not approved in 2016. The permanent recharge permit

16 applications include recharge in the Tri-County Canal, Phelps County Canal and E65 Canal with a

17 maximum total diversion rate of 700 cfs, or 350 cfs in the Phelps County Canal and 350 cfs in the E65

18 Canal. The canal capacity rates are 1,000 cfs and 350 cfs for the Phelps County Canal and the E65

19 Canal, respectively. The permanent recharge permits were submitted to the NDNR in 2012 and are

20 currently pending. The CNPPID filed for an application for a permit to appropriate excess natural

21 streamflow for the purpose of recharge operations for instream uses for the Program. At this time, the

22 Program has decided not to pursue recharge operations in the E65 Canal due to the possibility that a

23 significant portion of recharge accretions returns to the Republican River Basin.

24

25 The Program and the CNPPID intend to divert excess flows into the Phelps County Canal for recharge

26 in the fall of 2016 under the permanent permits, which are anticipated to be approved by the NDNR in

27 the next year. The CNPPID and the Program may also operate under temporary recharge permits during

28 the 2016-2017 season, if the permanent permits have not been approved by that time. The budget cost

29 estimate for diversions into the Phelps County Canal for recharge operations is based on a rate of

30 \$27/acre-foot in 2014, escalating by 4% per year, per the draft long-term Water Service Agreement

31 with the CNPPID. The cost per acre-foot of delivered water in 2016 is \$29. The CNPPID intends to

32 divert excess flows into the canal up to the check structure at Mile Post 13.3, as in previous years.

33 Checking the canal allows excess flows to be held in the canal and seep into the alluvial aquifer and

34 accrete to the Platte River.

35

36 The ED Office estimated a 2016 average volume of 8,147 acre-feet delivered into the Phelps County

37 Canal through the Mile Post 1.6 flume for recharge purposes. The Program intends to purchase 75% of

38 the delivered volume, per the draft final Water Service Agreement with the CNPPID. The volume



delivered is based on the average volume in the Program's Phelps County Canal ground water recharge score model (score accepted by the GC in 2013). The volume of deliveries reflects anticipated recharge operations from mid-September through mid-April. The estimate is based on the excess flows available using OpStudy Hydrology from 1947-1994; therefore, it does not necessarily reflect real-time hydrological conditions from recent years. The unit cost associated with this water is assumed to be about \$29 per acre foot based on previous year's costs. The estimated cost for Phelps County Recharge is calculated as 8,147 acre feet x 0.75 share x \$29 per acre feet = \$177,197, rounded up to \$178,000.

#### Elwood Reservoir Recharge Project

In addition to ground water recharge in the Phelps County Canal, the Program intends to purchase excess flows delivered into Elwood Reservoir in the CNPPID system in 2016. The Program was able to purchase water from the CNPPID in 2015 under this project. Elwood Reservoir is an unlined reservoir that acts as a storage pool to allow excess flows to seep and recharge the alluvial aquifer. Excess flows are either delivered through the E65 Canal or pumped into Elwood Reservoir. The Program pays for excess flows measured at the E65 Canal mile post 2.8 flume or the volume pumped into the reservoir based on pump performance curves. The CNPPID reports the total volume of excess flows measured and delivered for the Program. The Program receives 50% of deliveries for recharge per the draft long-term Water Service Agreement. For 2016, it is assumed the Program will be able to purchase up to 4,500 acre-feet of excess flows at approximately \$44 per acre-foot, for a total cost of 4,500 acre feet x \$44 per acre foot = \$198,000. The volume is based on the CNPPID's maximum estimate for the Program in 2016. This cost is based on the draft long term Water Service Agreement with the CNPPID. Based on modeling completed by the NDNR, a portion of the seepage from Elwood Reservoir returns to the Republican Basin; the Program will not receive credit for this portion. The 2017-2019 budgets assume 1,000 acre-feet of delivery.

#### Ground Water Recapture Project

The ground water recapture project is a potential retiming project utilizing the recharge accretions from the Phelps County Canal ground water recharge project and/or other projects in the CNPPID system such as Elwood Reservoir recharge. The Program intends to construct two wells to pump ground water directly to the Platte River during times of shortages to target flows; it is assumed one well will be constructed in 2015 and one well will be constructed in 2016. The wells would be located between the Phelps County Canal and the Platte River or between Elwood Reservoir and Plum Creek to capture recharge accretions from these projects. Since recharge accretions are not controllable and may return to the river during excesses to target flows, ground water pumping will allow the Program to pump recharged water to the river during shortage periods only to maximize the score. Pumping will also allow the recharged water to return to the river in a timelier manner than recharge alone. The ground water will be pumped into an adjacent drain or creek and return to the river as surface flow. The preliminary score model analysis used the assumption that each well can pump at 1,000 gallons per minute from March through November (the wells will only be operated during shortages to target flows).

In 2015, the Program submitted a permit application with the Tri-Basin Natural Resources District to construct one well on the Program's Cook tract to recapture Phelps recharge accretions; the application is currently pending. The Program intends to pump recharged water to the Platte River via the North Phelps County Ditch during shortages to target flows. The Program anticipates submitting a permit application for an additional well under the CNPPID system to recapture recharged water from Elwood Reservoir in 2016. The 2016 budget includes construction costs and pumping costs for one well to capture seepage of excess flows from Elwood Reservoir, and pumping/maintenance costs associated



1 with one well on the Cook tract to capture Phelps recharge (pending permit approval). The Program's  
2 ground water recapture projects will only recapture the Program's portion of recharged water in the  
3 CNPPID's system.

4  
5 The 2016 budget is to construct one new well and includes one year of maintenance, pumping operation  
6 costs and personnel time to aid in monitoring, testing and maintenance. The estimated construction cost  
7 for one well is approximately \$60,000 and includes: construction, electrical hookup and power lines,  
8 flow meters, monitoring wells, engineering specifications and final design, construction oversight, data  
9 analyses and well testing. The 2016 budget also includes pumping and maintenance costs for one well  
10 anticipated for construction on the Cook tract in 2015 (permit pending). Based on the preliminary  
11 analysis completed by the ED Office, it was assumed the two wells would pump an average of  
12 approximately 1,600 acre-feet per year, collectively. This is based on the modeled Phelps County Canal  
13 ground water recharge operations and the intended ground water pumping operations (based on  
14 OpStudy Hydrology from 1947-1994, utilized in the Program's score model). The estimated cost for  
15 annual pumping for two wells is approximately \$10,000 per year. An additional \$1,000 was included  
16 for maintenance of the future Cook tract well. The total cost for ground water recapture in 2016 is  
17 estimated at \$71,000. The feasibility of a well to recapture Elwood Reservoir seepage is under  
18 evaluation by the Program.

19  
20 In total, the CNPPID system projects, including the Phelps County Canal and Elwood Reservoir ground  
21 water recharge projects, and two ground water recapture projects are approximately \$447,000 in the  
22 2016 budget.

#### 23 Broad-Scale Recharge Concept

24 The Program is evaluating broad-scale recharge projects to make up the yield lost from a smaller J-2  
25 Regulating Reservoirs project. The concept consists of developing a series of recharge ponds in the  
26 Central Platte Basin, focused on the reach between Gothenburg, NE and Odessa, NE to maximize the  
27 benefit to the habitat reach. The Program intends to purchase lands and deliver excess flows onto the  
28 lands into natural or constructed recharge basins. The excess flows would be allowed to seep into the  
29 alluvial aquifer and recharge the Platte River for score credit towards the Program's First Increment  
30 water goal. Depending on the location and configuration of the recharge basins, water may be delivered  
31 during the non-irrigation season (if existing irrigation canals are used to deliver water) or in some cases,  
32 throughout the entire year (if new delivery points are constructed). Using a series of basins, the Program  
33 would be able to recapture recharged water that occurs during excesses to target flows at various  
34 locations throughout the reach; therefore, increasing the efficiency of other implemented recharge  
35 projects under the Water Action Plan. The Program does not receive score credit for projects that return  
36 water to the river during excesses to target flows, so these excesses would be recaptured in this project  
37 concept. The Program could also deliver transferred irrigation water rights that occur during excess  
38 periods into these recharge basins, to increase the efficiency of surface water leasing, such as with the  
39 Central Platte Natural Resources District. New sources of water may also be delivered in the recharge  
40 basins.

41  
42  
43 The ED Office is in the process of evaluating the feasibility, score and costs of potential broad-scale  
44 recharge projects. Analysis of various locations and project configurations will be key in determining  
45 the most cost- and score-efficient sites. Recharge accretions return to the river at different times based  
46 on the site's distance to the river and the alluvial aquifer properties. Information from the Program's  
47 existing recharge projects will be used to assess new project locations, potential seepage capacities and  
48 return flow patterns. Based on the Phelps County Canal annual ground water recharge summary reports,



1 the average seepage rate in the non-irrigation season is approximately 0.5 feet per day. Data from the  
2 Morse Tract wetland pumping efforts over the past three years indicate an average seepage rate in the  
3 0.1 to 0.3 feet per day range. Initial analyses will be focused on the Cottonwood Ranch (CWR) Complex  
4 vicinity in consideration of land and water availability.

5  
6 Land acquisitions for recharge basins will be with willing sellers; however, the Program intends to  
7 focus on low-yield agricultural land when possible. The 2016 budget for the broad-scale recharge  
8 project is \$1,000,000. This cost is to purchase easements on 500 acres of land at \$50 per acre per year  
9 for four years paid as a lump sum (\$100,000). The 500 acres of land acquisition may create several  
10 small recharge basins or a few larger basins, depending on availability of lands. The 2017 and 2018  
11 draft budgets include acquisition of 500 acres per year at \$8,000 per acre, plus an additional \$500,000  
12 for infrastructure costs. The 2019 budget is for projected water delivery costs.

13  
14 Costs for 2016 also include earth work and control structures to create bermed spreading basins for  
15 efficient land flooding (\$500,000), conduits and control structures to convey water from the Phelps  
16 County Canal to the recharge areas in the vicinity of the CWR Complex (\$250,000), and water charges  
17 from the CNPPID (\$30 per acre-foot x 5,000 acre-feet = \$150,000). The land acquisition, infrastructure,  
18 and water costs estimated for 2016 total to \$1,000,000 (\$100,000 for land + \$500,000 for earthwork +  
19 \$250,000 for infrastructure + \$150,000 for water = \$1,000,000). Costs will be refined in 2016 with aid  
20 from Special Advisors and construction could commence as early as July of the summer of 2016.

21  
22 The Program may also expand on recharge operations in canals or basins for other canal systems under  
23 this line item in 2016.

24  
25 *Gothenburg and Dawson County Canals Ground Water Recharge Project*

26 The Program has a draft water service agreement with the Nebraska Public Power District (NPPD) for  
27 excess flow delivery in the Gothenburg and Dawson County Canals for ground water recharge  
28 operations during the non-irrigation season. The proposed fee is \$27 per acre-foot of water delivered  
29 into the canals, per the draft water service agreement through December 31, 2015. It is anticipated a  
30 2016 agreement may be obtained with the NPPD. Additional budget for 2016 has not been included in  
31 WP-4(b) as an estimated volume of water deliveries and associated costs have not been evaluated for  
32 2016 operations. However, it is assumed the total budget for recharge projects has sufficient funds to  
33 operate recharge in the NDDP system, assuming a 2016 water service agreement is executed.

34  
35 Based on the assumptions described above, the total cost of projects under the WP-4(b) is  
36 approximately \$1,477,000 for 2016. This includes the Phelps County Canal ground water recharge  
37 project, recharge in Elwood Reservoir, ground water recharge recapture projects, broad-scale recharge  
38 projects in the Central Platte Basin and Gothenburg/Dawson County Canals ground water recharge  
39 projects. The projected volume of water in WP-4(b) is dependent on water available during actual  
40 operations and is subject to change from the estimate provided in this document. A summary of ground  
41 water recharge project budgets is provided in Table 2.

**Table 2. Summary of Ground Water Recharge Project Budgets.**

Project	Budget (rounded)	Notes
Phelps County Canal (CNPPID)	\$178,000	Budget is for 75% of deliveries into canal at \$29/AF, per the water service agreement
Elwood Reservoir Seepage (CNPPID)	\$198,000	Budget is for 50% of deliveries into reservoir at \$44/AF, per the water service agreement
Groundwater Recapture Project	\$71,000	Construction of 1 well and operation of 2 wells to recapture Phelps and Elwood recharged water
Broad-Scale Recharge	\$1,000,000	Budget for easements on 500 acres of land to construct recharge ponds; includes earthwork, structures and water delivery costs
Gothenburg/Dawson County Canal (NPPD)	\$0	No additional budget included; costs assumed to be encompassed in the total budget available for recharge projects in 2016
<b>Total</b>	<b>\$1,447,000</b>	

- WP-4(f) Nebraska Water Leasing & Acquisition – The Program intends to work with the Central Platte Natural Resources District (CPNRD), the NPPD, and the CNPPID to temporarily lease and/or acquire permanent water supplies in 2016. The 2016 budget for WP-4(f) is \$1,472,000. The following water leases/acquisitions are proposed:
  - The Program and the CPNRD signed a water use lease agreement in 2013. The CPNRD agreement includes 2 components of water leasing: surface water rights with direct returns to the river during the irrigation season and ground water recharge of excess flows during the non-irrigation season. Water leasing operations may occur under the Orchard-Alfalfa, Thirty-Mile, and Cozad Canals.
  - The NPPD lease is a potential project that would allow the Program to lease relinquished surface water rights under the Dawson County Canal, which would be returned to the river for credit. Additional lease water to offset potential increases in groundwater depletions on relinquished surface water lands is included in the cost estimate.
  - There are two potential CNPPID water leasing options. The Program would lease storage water in Lake McConaughy directly from the CNPPID under one option. The Program would lease surface water rights from individual irrigators under the CNPPID system with CNPPID serving as the coordinator/clearing house for these transactions. Both options can be pursued, they are not mutually exclusive.
  - The CPNRD in association with the NDNR is planning on operating a Ground Water Market in late 2015/early 2016. The Program and other entities can bid on water offered by groundwater irrigators within CPNRD boundaries.

#### CPNRD Water Leasing

The CPNRD proposes to transfer the consumptive use from natural flow associated with surface water irrigation rights to instream flow purposes to increase streamflow in the Platte River. The transferred surface irrigation rights are from willing irrigators who may switch to a ground water supply to irrigate their land. Surface water rights from the Orchard-Alfalfa Canal, Thirty-Mile Canal, and Cozad Canal will be



transferred to instream uses for the Program. The CPNRD filed the water right transfer permits for temporary changes of use from irrigation to instream flows with the NDNR; the permits are currently pending. The unit cost and yield volumes are based on the water use lease agreement, which estimates half of the 20,500-acre-foot yield of the project (up to 10,250 acre-feet per year) will be available for the Program.

The CPNRD intends to lease the net consumptive use portion of the surface water rights, which includes the impact from increased groundwater irrigation and subsequent depletions; therefore, the Program does not need to budget additional costs for offsets. The estimated surface water yield of approximately 3,000 acre-feet will be available for the Program at the Platte River where the future return flow structures will be constructed on each canal. The water will be diverted and measured at each headgate and subsequently returned to the river at a location below each canal headgate. The CPNRD will use an accounting system to track the surface water diverted into the canals, the volume returned to the river via return structures and the volume of ground water pumping impacting the river. Daily account records from the return structure will be summed each month and the monthly ground water depletions for the transferred acres will be calculated. The monthly accretions and depletions at the Platte River will be used to determine the volume of water leased. The cost per acre-foot is assumed to be \$150 in 2016 and escalate at 3% per year.

The CPNRD ground water recharge component in the water use lease agreement is for recharged water in the Orchard-Alfalfa, Thirty-Mile, and Cozad Canals. The water supply for recharge operations in the three canals will be flows in excess to target and instream flows in the Platte River. The CPNRD submitted permanent permits for new surface water appropriations of natural flow for the purpose of recharge with the NDNR in 2011 and the permits were approved in 2015. The CPNRD filed for permits for 100 cfs of excess flow diversion in the Thirty-Mile Canal, 100 cfs in the Cozad Canal and 75 cfs in the Orchard-Alfalfa Canal.

The budget for the CPNRD recharge lease is based on \$35 per acre-foot in 2013 and increasing by 7.5% per year, for approximately 3,900 acre-feet of recharged water. This volume is a preliminary estimate based on excess flow availability analyses completed by the ED Office using OpStudy Hydrology from 1947-1994 (dataset used for Program scoring). The water use lease agreement provides information regarding the costs and volumes associated with the CPNRD's ground water recharge leasing and surface water leasing with the Program. The CPNRD estimates half of the 20,500-acre-foot yield of the project (up to 10,250 acre-feet) will be available for the Program. The ground water portion of the lease for the Program is estimated at 3,900 acre-feet for the purpose of the budget. The actual volume of recharge in 2016 is dependent on the excess flows available for diversion into the canals, and is subject to change from the value provided in this document. The actual diversions into recharge will be measured and recorded. The actual surface water returned to the river will be dependent on the availability of flow for diversion, but the actual amounts will be measured. The estimated cost for 2016 is \$167,700 for groundwater recharge (3,900 acre-feet x \$43 per acre foot) and \$450,000 for surface water (3,000 acre-feet x \$150 per acre-foot) for a total of \$617,700, rounded up to \$620,000.

#### NPPD Water Leasing

The NPPD proposes to temporarily transfer the consumptive use portion of the natural flow available from 886.5 relinquished acres under the Dawson Canal Water Appropriation D-622 to an instream use for the Program. Irrigators have willingly relinquished these surface water rights to the NPPD. The NPPD filed for a temporary change of appropriation permit with the NDNR in July 2013. The permit application requested a temporary change from irrigation to instream use for 6 years from May 14, 2014 through 2019 at a rate of a maximum of 7.6 cubic feet per second (cfs) up to a maximum of 761 acre-feet. Based on the NPPD's



analysis of water right availability data from 2001 through 2013, the transfer will yield an average annual volume of 718 acre-feet (and a maximum of 761 acre-feet). The Program submitted a letter of support for the temporary change of use that was included with the permit application. The NPPD filed an amendment to the application in May 2014 and the permit application status is currently pending. For the water leasing project, the NPPD intends to continue diverting Appropriation D-622 into the Dawson County Canal and then return the consumptive use portion to the Platte River. The yield will be available for the Program just downstream of the Dawson County Canal headgate, at a return flow station to be constructed in the future.

The NPPD lease cost per acre-foot is based on a projected cost estimate completed by the ED Office. There are two cost considerations in the per acre-foot cost estimate: (1). Cost associated with the consumptive use credit for relinquished surface water with the NPPD, and (2). Cost associated with offsets to mitigate increased groundwater irrigation from relinquished surface water lands.

For the consumptive use credit cost estimate, the ED Office multiplied the Crop Irrigation Requirement (CIR) per acre by the value of an acre of cropland, estimated at \$125 per acre. The CIR value was calculated by NPPD as 10.3 inches/acre. This is based on a weighted average canal area CIR of 11.1 inches/ acre multiplied by 93%, which is the estimated proportion of natural flow in the canal (storage water will not be transferred), as shown in Table 3.

**Table 3. Summary of NPPD Water Leasing Calculations for Maximum Credit.**

A. Transferred Acres	B. Weighted Average CIR (inches/acre)	C. Proportion of Natural Flow	D. Natural Flow CIR (inches/acre)	E. Maximum Volume of Water for Transfer (AF)
886.5	11.1	93%	10.3	761

A. Relinquished acres historically irrigated with surface water.

B. Average CIR based on cropping patterns in the canal area and CIR values from COHYST.

C. Proportion of natural flow diverted into the canal (the remaining 7% is storage water, which will not be transferred).

D. Natural Flow CIR = Columns (B × C).

E. Transfer Maximum Volume = Columns (A × D) ÷ 12 inches/foot.

The ED Office used \$125 per acre (as agreed upon with the NPPD) to obtain an estimated water leasing cost for the consumptive use portion of the water rights, which equates to a unit cost of approximately \$154 per acre-foot of water. The total volume of water available to the Program is estimated at an average of 718 acre-feet per year, based on the NPPD's historical consumptive use analysis. The 2016 budget is based on the 718 acre-foot annual estimate.

The second cost consideration in the budget is for offset water to mitigate depletions to the Platte River basin due to increased groundwater irrigation on relinquished surface water lands. The NDNR has indicated that either the lease entity or the Program should be responsible for mitigating any increase in depletions from transferring the surface irrigation water to instream uses. In the budget, it is assumed the Program will lease water to offset these depletions; although, the consumptive use credit in the NPPD lease agreement could also be utilized to mitigate offsets.



1 It is anticipated the Program will work with the CPNRD to purchase offset water credits to maintain the  
2 consumptive use portion for the NPPD water leasing project. The required offset water volume was  
3 assumed to equal 20% of the project yield, as a preliminary estimate for budgeting purposes. This will be  
4 refined after an assessment of the potential increase in depletions is completed by the CPNRD in  
5 conjunction with the NPPD and the Program. For the 2016 NPPD lease estimate of 718 acre-feet of  
6 consumptive use credit, it was assumed 144 acre-feet (20% of 718 acre-feet) would be the offset volume  
7 required to replace depletions that occur during shortages to target flows. The cost for offset water was  
8 assumed to equal the CPNRD lease cost for recharge accretions in 2016, or \$43 per acre-foot. It is  
9 anticipated that during excesses to target and instream flows, offsets will not be required. The total lease  
10 cost in the 2016 budget includes \$154 per acre-foot for the consumptive use credit with the NPPD (718  
11 acre-feet) and \$43 per acre-foot for offset water with the CPNRD (144 acre-feet). The estimated cost for  
12 2016 under these assumptions totals to \$116,800 rounded up to \$117,000 (718 acre feet x \$154 per acre  
13 foot + 144 acre feet x \$43 per acre foot. The NPPD lease cost per acre-foot of consumptive use credit was  
14 assumed to escalate by 3.4% per year, beginning in 2016. The CPNRD lease cost for offset water was  
15 assumed to escalate by 7%, beginning in 2016, per the CPNRD recharge project cost schedule. The ED  
16 Office will work the Special Advisor in economics, George Oamek, to determine a reasonable price for  
17 water leasing projects.

#### 18 19 CNPPID Water Leasing

20 The CNPPID has two water leasing options available: the first is for storage water in Lake McConaughy  
21 and the second is surface water from individual irrigators under the CNPPID system. For the storage water  
22 lease, the Program and the CNPPID would enter into an agreement to lease water from a storage pool in  
23 Lake McConaughy, which would be transferred into the EA for subsequent release during shortages or  
24 other Program uses. A long-term draft Water Service Agreement has been proposed between the CNPPID  
25 and the Program. The proposed cost per acre-foot of leased water in the draft agreement is \$250 beginning  
26 in 2015 and escalating at 4% per year (\$260 per acre-foot in 2016). The annual yield of storage water may  
27 change from year to year based on the volume the CNPPID is willing to offer in any given year. For the  
28 2016 budget, it was assumed that no storage water will be leased by the Program. The budget in 2017-2019  
29 assumes the Program leases 2,250 acre-feet per year.

30  
31 The second leasing option under the CNPPID's system would be with individual irrigators interested in  
32 temporarily leasing their surface water rights to the Program. Irrigators would then dryland farm during the  
33 term of the lease agreement. The surface water would be available in Lake McConaughy and transferred  
34 into the EA for the Program. The CNPPID would be involved by managing the individual lease agreements,  
35 processes and operations. For the 2016 budget, the payment will be for the water leased in 2015 but not  
36 received until October 2016. It was assumed the Program could lease 1,500 acre-feet, based on leasing  
37 water rights from 2,000 acres. The CNPPID reports the credit available in Lake McConaughy would be 9  
38 inches per acre during a non-allocation year.

39  
40 The cost per acre for irrigator leases is established at \$220 in 2015, which equates to a cost per acre-foot of  
41 water of \$300 in 2015. However, the per acre cost would be based on a free-market system of willing  
42 irrigators and the Program should it continue in the future. In addition to the per acre payment to the  
43 irrigator, there is a \$10,000 administrative fee to the CNPPID for administrative, monitoring, and  
44 enforcement services. The budget for 2016 for this item is calculated with high certainty as \$450,000 (2,000  
45 acres x \$220 per acre + \$10,000 = \$450,000). In the out-year budget projections, it was assumed the  
46 Program would lease water from 3,000 acres at \$200 per acre, plus a \$10,000 administration fee.



### CPNRD Ground Water Market

The CPNRD in association with the NDNR is sponsoring a pilot groundwater market in the central Platte which will bring groundwater irrigators interested in leasing water together with parties interested in acquiring water. The lease will be for one year and the land leased must not be irrigated from any source. Potential lessors include farmers, municipalities, the State of Nebraska, and the Program. Matching software developed by consultants to CPNRD/NDNR (NERA and Duke University) will assess the offers and bids and match them in accordance with rules and regulations established for the market. The tiered bidding strategy developed by the Program will assist in defining the demand and supply curves in the market. If all the Program bids are successful, 4,000 acre-feet may be acquired at no more than \$285,000 in 2016. The out-year budgets are rounded up to \$300,000 per year.

Based on the assumptions listed above, the total budget for the water leasing is estimated to be \$1,472,000 in 2016. These water supplies include an existing lease with the CPNRD and the CNPPID, existing and potential leases under the NPPD canal systems, and the CPNRD Pilot Groundwater Market. The Program is further evaluating these projects and the water values that are appropriate for this area based on crop prices. George Oamek, ED Office Special Advisor in economics, will be working with the Program to determine appropriate water values for the various the water leasing opportunities described in this WP-4(f). George Oamek, ED Office Special Advisor will be aiding the Program in determining appropriate water leasing values for the various leases described above. The cost associated with the Special Advisor is budgeted under WP-8. Table 4 is a summary of water leasing project budgets in 2016.

**Table 4. Summary of Water Leasing Project Budgets.**

Project	Budget (rounded)	Notes
CPNRD	\$620,000	Budget for surface water transferred and returned at the river, and groundwater recharge accretions, per water service agreement
NPPD	\$117,000	Cost for water lease with NPPD for consumptive use credit and CPNRD for recharge accretions to replace depletions (if required)
CNPPID Irrigators	\$450,000	Assumed to lease water from 2,000 acres at \$220 per acre, plus administrative fee
Pilot Ground Water Market (CPNRD)	\$285,000	Pilot ground water market; budget is for approx. 4,000 AF of water if bids are successful
<b>Total</b>	<b>\$1,472,000</b>	

### **Products**

- J2 Regulating Reservoir: First year of three-year (2016-2018) construction cost for reservoir.
- Nebraska Ground Water Recharge: Water Service Agreement with the CNPPID, temporary and/or permanent permits for recharging excess flows available in the CNPPID's system and ground water recharge day-to-day operations. Construction of one well and operation/maintenance of two wells to pump recharged ground water directly to the Platte River to increase efficiency of existing recharge projects for the Program.



- Land acquisition and infrastructure, earthwork, water costs for recharge basins for broad-scale recharge concepts.
- Nebraska Water Leasing & Acquisition: Lease agreements with the CPNRD, the NPPD, the CNPPID and/or individual irrigators for surface water, storage water, and/or offset water leases or water acquisition.
- Water supply-related permits/proof of ownership, as necessary for projects.
- Water rights evaluations and feasibility studies, as necessary for projects.
- Cost estimates for 2016 and long-term operations and maintenance of projects.

The total estimated budget for WP-4 is \$17,311,000, of which \$2,919,000 is not for J-2 Regulating Reservoir. The J-2 portion of the budget is included for planning purposes but it is not intended to be expended. The remaining estimated costs are dependent on a number of factors, including availability of excess flows and progress on the Broad-scale recharge Project, but have a fairly high probability of being expended in 2016. A breakdown of the Water Action Plan project line items budgets is listed in the table below.

#### Budget

Program Task WP-4							
WP-4	2007-2010 Approved	2011 Approved	2012 Approved	2013 Approved	2014 Approved	2015 Approved	2016 Estimated
(a)	\$0	\$4,500,000	\$9,000,000	\$13,000,000	\$14,392,000	\$14,392,000	\$14,392,000
(b)	\$0	\$600,000	\$200,000	\$200,000	\$88,296	\$330,033	\$1,447,000
(c)	\$0	\$0	\$0	\$1,500,000	\$1,854,667	\$0	\$0
(d)	\$0	\$0	\$2,000,000	\$0	\$0	\$0	\$0
(e)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(f)	\$0	\$0	\$500,000	\$150,000	\$373,360	\$2,569,728	\$1,472,000
(g)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(h)	\$0	\$0	\$100,000	\$250,000	\$0	\$0	\$0
Total	\$0	\$5,100,000	\$11,800,000	\$15,100,000	\$16,708,323	\$17,291,761	\$17,311,000

#### Notes on Cost

Specific expenditures will require authorization of Finance Committee. Cost estimates are based on feasibility study information, ED Office analyses and other project sponsor estimates and will be updated based on any additional studies currently being completed. In general, estimates account for project sponsor contributions.

**PROGRAM TASK & ID: WP-5. Management Tool****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Contractor

**Task Location**

ED Offices; Contractor Offices

**Task Description**

The COHYST Tool, as it is being developed, will provide an integrated surface water, ground water, and watershed model for the Platte River between Lake McConaughy and Duncan, Nebraska. It is anticipated to be a valuable tool for project planning and evaluation efforts under the PRRIP Water Plan. The COHYST Tool is being funded by several PRRIP participants, and in 2009 the PRRIP received authorization from these participants to use the tool for PRRIP purposes. Under this agreement, model enhancements or analyses specifically for PRRIP purposes, as well as any ED Office staff training, must be provided directly by PRRIP funds.

The COHYST technical team began several model upgrades and data extensions in 2015 and developed graphic user interface (GUI) to greatly simplify integrated model runs and data pre and post processing. Members of the COHYST sponsor organizations, including EDO staff, ran modeling scenarios to test model performance and worked closely with the technical team to troubleshoot issues. The technical team began revision of the model documentation to capture changes to the model not included in the previous documentation and to expand upon and clarify aspects of the model's operations and performance. The COHYST Tool is in its final stage of development and completion is anticipated by the end of June, 2016.

Comprehensive model documentation is necessary to ensure the COHYST Tool can be understood and successfully operated by existing and new users. The existing documentation is based on the 2013 version of the model and does not include the changes and updates to the model since 2013. The revised model documentation will include model upgrades, the model's time period extension, and the results of the model recalibration. The documentation will also expand and clarify model operations and provide details about the development of the model components focusing primarily on the surface water model. Documentation of the GUI will also be included in the final model documentation. PRRIP will partner with other COHYST sponsors to fund the model documentation revisions and will contribute \$9,600 to the task.

The model upgrades and time period extension began in 2015 are expected to be completed in the first quarter of 2016. The model upgrades include continued investigations into the model's ability to create or approximate dry river conditions in the Platte River as well as several smaller improvements to model performance. The time period extension expands the modeled time period from 1985 through 2005 to 1947

WC-3		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ -	\$ -
2010	\$ 100,000.00	\$ -
2011	\$ 200,000.00	\$ -
2012	\$ 50,000.00	\$ -
2013	\$ 50,000.00	\$ -
2014	\$ 90,000.00	\$ -
2015	\$ 129,600.00	\$ -
2016	\$ -	\$ 37,600.00



through 2010. The expanded time period covers the full PRRIP scoring time period as well as allowing for simulation of more recent management changes. Once these are completed, the technical team will recalibrate the model as the model was originally calibrated in 2013 and several upgrades have occurred since that time to improve model performance. Calibration ensures the model simulates observed processes and is necessary before the COHYST modeling tool is ready for use. PRRIP funds will not be used for model recalibration. PRRIP will partner with other COHYST sponsors to fund the model upgrade and time period extension effort and will contribute \$9,600 to the task.

The ED Office staff will require technical oversight and training in the operation of the COHYST modeling system as they continue to modify the tool to evaluate PRRIP projects and management scenarios. ED Office staff developed operational competency with the COHYST modeling system but will require additional guidance as they investigate WAP project feasibility and operations and evaluate alternative WAP project concepts. Technical oversight will be provided to ED Office staff by the consultants of the COHYST modeling system. These consultants include HDR for the surface water component of the model, Lee Wilson and Associates (LWA) for the groundwater component of the model, and The Flatwater Group (TFG) for the watershed component of the model. ED Office staff will also participate in two workshop trainings in 2016; one focused on using the GUI and one focused on model recalibration and documentation. PRRIP will partner with other COHYST sponsors to fund this effort and will contribute \$11,200 to the task.

The Program will also fund a portion of the oversight of the COHYST technical team provided by LWA, providing \$2,400 to the task. Costs associated with all COHYST related tasks are estimated based on an average, composite rate for COHYST consultant staff and hour estimates developed in discussion with the COHYST consultants and COHYST Technical and Sponsor Groups. FY16 estimated costs are:

#### COHYST Training, Model Analysis, and Reporting Cost Summary

Task	Hours	Unit Rate (\$/hr)*	Estimated Fee
100 – Model documentation	60	160	\$9,600
200 – Model upgrades and time period extension	60	160	\$9,600
300 – Workshop training for the GUI	30	160	\$4,800
400 – Technical oversight and training from HDR	30	160	\$4,800
500 – Technical oversight and training from LWA	20	160	\$3,200
600 – Technical oversight and training from TFG	20	160	\$3,200
700 – LWA COHYST oversight	15	160	\$2,400
<b>Total Estimated Fee</b>			<b>\$37,600</b>

\*Unit rates include approximately 5% of direct expenses

#### Products

- Finalized COHYST model with comprehensive model documentation.
  - \* Graphic User Interface facilitates integrated model runs and pre- and post-processing of model data.
- Graphic User Interface training workshop for ED Office staff and others.
- Training and technical oversight provided to ED Office staff.
- PRRIP specific model scenarios performed by the ED Office.
- Briefing documents and progress reports.

#### Notes on Cost

Specific expenditures will require authorization of Finance Committee.

**PROGRAM TASK & ID: WP-8. Water Plan Special Advisors****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Contractor

**Task Location**

ED Offices; Contractor Offices

**Task Description**

The ED Office 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: economics, water infrastructure and design, structural, and hydrogeology/ground water. Anticipated Special Advisors include:

**Economics and Water Markets: \$16,000 to \$32,000**

Economic and water market expertise may be required for analysis of costs on the potential water lease agreements with the NPPD, CNPID and the NPNRD. Cost estimates are based on 80 to 160 hours at a billing rate of \$200/hour, for a total of \$16,000 to \$32,000. Billing rates are based on previous contracts awarded in a competitive process and are assumed to be fair and reasonable. George Oamek is contracted as the Program's Special Advisor for economics and water markets.

**Hydrogeology and Ground Water: \$45,000 to \$75,000**

Several projects include hydrogeologic elements that may require further expertise, including the Phelps County Canal ground water recharge and potential ground water pumping projects, the Elwood Reservoir seepage project, the ground water recharge component of the CPNRD lease agreement, the wet meadows hydrologic monitoring project, and COHYST scenario runs and broad-scale recharge concepts. Cost estimates are based on 300 to 500 hours at a billing rate of \$150/hour, for a total of \$45,000 to \$75,000. Billing rates are based on previous contracts awarded in a competitive process and are assumed to be fair and reasonable. Bill Hahn is contracted as the Program's Special Advisor for hydrogeology and ground water.

**Civil Infrastructure: \$48,000 to \$64,000**

Main focus will be peer review of J-2 Regulating Reservoirs concept alternatives, design specifications and cost estimates. Other various water-related small design projects may require civil infrastructure and/or dams and hydraulic structures expertise for input and review in the concept development, design, and construction of these types of projects. Cost estimates are based on approximately 240 to 320 hours at a billing rate of \$200/hour, for a total of approximately \$48,000 to \$64,000. Billing rates are based on previous contracts awarded in a competitive process and are assumed to be fair and reasonable. Ed Toms

WP-8		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ -	\$ -
2010	\$ 150,000.00	\$ -
2011	\$ 200,000.00	\$ -
2012	\$ 150,000.00	\$ -
2013	\$ 125,000.00	\$ -
2014	\$ 100,000.00	\$ -
2015	\$ 100,000.00	\$ -
2016	\$ -	\$ 150,000.00



is contracted as the Program's Special Advisor for civil infrastructure. Table 1 is a summary of the cost estimates per Special Advisor.

**Table 1. Cost Summary for Special Advisors.**

Area of Expertise	Name	Estimated Range of Expenditures
Economics and Water Markets	George Oamek	\$16,000-\$32,000
Hydrology and GW Recharge	Bill Hahn	\$45,000-\$75,000
Civil Infrastructure	Ed Toms	\$48,000-\$64,000
<b>TOTAL</b>		<b>\$109,000-\$171,000</b> <b>Budget not to exceed \$150,000</b>

### Products

- Meeting participation.
- Memorandums and reports.

**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 GC in August of 2008, "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 (ED) based on qualifications – education, relevant experience, expertise and skills, reliability, credibility, and ability to work effectively with the ED and the staff of the ED Office. 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 resides with the ED or ED Office staff. The industry standard of practice rates guidelines used in this process is established based on an on-going market survey process comparing labor rates of similarly qualified professionals in the field.

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

The anticipated level of effort for the upcoming year is also discussed with the special advisors by the ED and members of the ED Office staff, but all work is assigned on an as-needed basis with no guarantee of any minimum level of assignments. During the budgeting process, the Special Advisors anticipated to be needed and roughly the level of effort expected to accomplish the work plan for the budget year is



- 1 scrutinized by and discussed with the appropriate advisory committees, the Finance Committee, and the
- 2 GC. Input is received and taken under advisement from all these sources as to the appropriateness of the
- 3 budgets for these line items with appropriate adjustments made prior to budget finalization.

**PROGRAM TASK & ID: WP-9. Miscellaneous Water Resources Studies****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Contractor

**Task Location**

ED Offices; Contractor Offices

**Task Description**

The Program anticipates utilizing a contractor to refine studies completed on the North Platte River and South Platte River basins to predict relationships of hydroclimatic indices to volumetric river flows. The Program intends to utilize results from these studies to aid in forecasting streamflow in the North and South Platte Rivers in advance of spring high flows. The analysis approach utilizes various predictors of streamflow, including hydroclimatic indices and drought indices, to make a prediction in January regarding the hydrologic condition for spring runoff. The predictions are intended to aid the Program with water management decisions, EA release schedules, target flow designations and implementation of various approaches towards species and habitat recovery.

The North Platte River basin report on analysis results was completed in March 2014 and the South Platte River basin analysis was completed in 2015. Dewberry is the current contractor for the studies described above (completed under previous budgets). The work performed under the 2015 work is nearing completion as draft reports have been reviewed and are being revised. It is anticipated Dewberry will continue the additional hydroclimatic indices work under WP-9 in 2016 as an extension of their competitively awarded contract.

The 2016 budget for the hydroclimatic indices focuses on continued refinements to the North Platte basin and South Platte basin studies and includes, but is not limited to, the following tasks:

- Analyses of data and predictions to define and quantify uncertainties associated with specific inputs and their role in the uncertainty associated with the ultimate predictions.
- Refinements/improvements to the modeling approaches and data analysis to increase the credibility and confidence of the results from the initial phases of the projects, for example: a refocusing on driving forces as causation as opposed to simple correlation analyses.
- Additional tasks and study enhancements may be determined once results are evaluated.
- Annual forecasts of the North Platte basin and South Platte basin conditions.

The Program assumes the Colorado Water Conservation Board (CWC) will co-fund the study, as in previous phases of the hydroclimatic indices work. This assumption is based on conversations with the

WP-9		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ -	\$ -
2010	\$ 200,000.00	\$ -
2011	\$ 100,000.00	\$ -
2012	\$ 50,000.00	\$ -
2013	\$ 25,000.00	\$ -
2014	\$ -	\$ -
2015	\$ 25,000.00	\$ -
2016	\$ -	\$ 25,000.00



1 Section Chief for the CWCB Flood Section, the section which has been the co-sponsor for the previous two  
2 years. For the 2016 budget, the Program will designate \$25,000 towards furthering the hydroclimatic  
3 indices studies under WP-9. This budget estimate assumes the CWCB will partner with the Program and  
4 fund an additional \$25,000 towards the project, for a total contract agreement between the Program and the  
5 CWCB with Dewberry of up to \$50,000.

6  
7 **Products**

- 8 • Meeting participation and correspondence with the project participants.
- 9 • Model refinements and improvements.
- 10 • Memorandums and/or reports to describe model refinements and analysis results.

11  
12 **Notes on Cost**

13 Specific expenditures will require authorization of Finance Committee. Cost estimates are based on  
14 previous expenditures for earlier phases of the hydroclimatic indices scopes of work. The budget estimate  
15 assumes co-funding with the CWCB.

**PROGRAM TASK & ID: LP-2. FSM/MCM Actions at Habitat Complexes****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; contractors

**Task Location**

Plum Creek Complex, Cottonwood Ranch Complex; Elm Creek Complex; Fort Kearny Complex; Shoemaker Island Complex; and non-complex properties.

**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 construction, channel disking, herbicide application, and seeding. See **Appendix A** for a detailed breakdown of LP-2 actions by habitat complex.

**Linkage to AMP and Big Questions**

Habitat complexes for implementation of AMP management actions and testing of priority hypotheses.

**Products**

Tern/plover nesting islands, minimum channel widths, and minimum unobstructed widths at habitat complexes for evaluation of target species use. Cost experience is captured in bid tabulation spreadsheets capturing five years of bid/contracting experience through the Program's competitive procurement process at this point. The appropriate spreadsheets are updated after each competitive bid process is completed. The competitive bid/contracting experience of the Program is also compared to similar information developed by conservation partners in the Lexington to Grand Island area to have a solid handle on the market in the local area. The selection of the firms performing these services will be made through competitive processes as defined in the Procurement Policy. 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, and final negotiation and award of the contracts will be acquired through competition, the estimate for this work is considered fair and reasonable.

LP-2		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$1,400,000.00	\$ -
2009	\$ 200,000.00	\$ -
2010	\$1,270,000.00	\$ -
2011	\$ 483,000.00	\$ -
2012	\$ 639,130.00	\$ -
2013	\$ 890,450.00	\$ -
2014	\$ 432,080.00	\$ -
2015	\$ 773,490.00	\$ -
2016	\$ -	\$ 793,226.00

**Notes on Cost**

**Appendix A** contains more details, but the general breakdown of estimated FY16 costs for proposed FSM/MCM management actions in FY16 is as follows:

Location	Estimated FY16 Cost
New acquisitions	\$50,000
Non-complex	\$108,500
Plum Creek Complex	\$41,800
Cottonwood Ranch Complex	\$64,191
Elm Creek Complex	\$117,340
Pawnee Complex	\$150,000
Fort Kearny Complex	\$146,095
Audubon Rowe Complex	\$29,000
Shoemaker Island Complex	\$108,440
<b>TOTAL</b>	<b>\$815,366</b>

**PROGRAM TASK & ID: PD-15. AMP Permits****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; contractor (HDR)

**Task Location**

ED Office (Kearney, NE and Lincoln, NE)

**Task Description**

Contract services from HDR (extension of existing permit work) to secure site-specific Individual Permits for AMP management actions at the Ft. Kearny Complex.

**Linkage to AMP and Big Questions**

Necessary to ensure implementation of AMP management actions.

**Products**

Permit(s)

**Notes on Cost**

HDR was selected in 2014 through the Program's competitive selection process to provide permitting services for the Program for a three-year period. For 2015, HDR's estimated costs are \$80,000 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.

PD-15		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ 10,000.00	\$ -
2010	\$ 50,000.00	\$ -
2011	\$ 200,000.00	\$ -
2012	\$ 150,000.00	\$ -
2013	\$ 50,000.00	\$ -
2014	\$ 50,000.00	\$ -
2015	\$ 50,000.00	\$ -
2016	\$ -	\$ 80,000.00

**PROGRAM TASK & ID: PD-18. AMP-Related Equipment****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office

**Task Location**

Central Platte River

**Task Description**

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

**Linkage to AMP and Big Questions**

Specific equipment important as management and monitoring tools related to AMP implementation.

**Products**

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.

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 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 \$2.80/gallon is used in developing 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.

PD-18		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ 140,000.00	\$ -
2010	\$ 50,000.00	\$ -
2011	\$ 55,000.00	\$ -
2012	\$ 66,215.00	\$ -
2013	\$ 66,215.00	\$ -
2014	\$ 75,000.00	\$ -
2015	\$ 75,000.00	\$ -
2016	\$ -	\$ 65,160.00

1 **MONTHLY EQUIPMENT COSTS**

Unit	Use & Maintenance (\$)	Fuel (\$)	License & Insurance (\$)	Monthly Total (\$)	Comments
2011 Toyota Tundra	500.00	570.00	200.00	1,270.00	Owned by Headwaters Corp
2009 Chevy Silverado	350.00	470.00	150.00	970.00	Owned by Headwaters Corp
2007 Yukon	350.00	175.00	150.00	675.00	Owned by Headwaters Corp
1987 Toyota 4X4	150.00	90.00	125.00	365.00	Owned by Headwaters Corp
Airboat & Trailer	750.00	245.00	300.00	1,295.00	Owned by Headwaters Corp
Argo & Trailer	350.00	20.00	150.00	520.00	Owned by Headwaters Corp
ATV & Trailer	150.00	20.00	100.00	270.00	Owned by Headwaters Corp
Canoe Trailer	40.00		25.00	65.00	Owned by Headwaters Corp
<b>TOTAL</b>	<b>\$2,640.00</b>	<b>\$1,590.00</b>	<b>\$1,200.00</b>	<b>\$5,430.00</b>	<b>\$65,160 (monthly total of \$5,430 x 12months)</b>

2  
3 The cost of fuel is a significant piece of the equipment costs (nearly 30% of the total), and the unit cost of  
4 gasoline is the most uncertain of all factors used in the development of these costs.

**PROGRAM TASK & ID: PD-22. Sediment Augmentation Implementation****Program First Increment Timeline**

FY2009-FY2019

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; AMWG; TAC; contractor

**Task Location**

ED Office (Kearney, NE and Lincoln, NE); Central Platte River, NE

**Task Description**

Implementation of full-scale sediment augmentation, monitoring, data analysis, and reporting.

**Linkage to AMP and Big Questions**

Integral to learning about physical process priority hypothesis Sediment #1 and Big Question #3.

**Products**

Augmentation and monitoring reports.

**Notes on Cost**

The FY16 tasks and estimated costs for sediment augmentation are as follows:

PD-13		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ 400,000.00	\$ -
2010	\$ 200,000.00	\$ -
2011	\$ 350,000.00	\$ -
2012	\$ 540,888.00	\$ -
2013	\$ 671,404.00	\$ -
2014	\$ 400,000.00	\$ -
2015	\$ 370,000.00	\$ -
2016	\$ -	\$ 250,000.00

Task Description	Estimated FY16 Cost
All monitoring tasks (including impact triggers, sediment transport, topography, modeling, and water quality) and associated reporting	\$100,000
Project implementation – actual augmentation of sediment; contractor acquired through bid package, assumes basic implementation of mechanical manipulation	\$150,000
<b>FY15 ESTIMATED TOTAL</b>	<b>\$250,000</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: G-1 & G-2 (combined). LiDAR & Aerial Photography****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

Contractor (Kucera International, Inc.)

**Task Location**

Central Platte River, NE (Program associated habitats in central Platte)

**Task Description**

Acquire annual LiDAR data and aerial photography.

**Linkage to AMP and Big Questions**

Integral to learning about physical process priority hypotheses Flow #1, Flow #3, Flow #5, Sediment #1, and Mechanical #2 and related Big Questions (#1, #2, #3, and #4). Supporting information for flow-vegetation-sediment relationships and what FSM management strategy will do on the central Platte River.

**Products**

The contract was awarded through a competitive procurement process in conformance with the Procurement policy. Processed LiDAR point data, bare earth digital elevation model including special in-channel processing using break lines (hydro-flattening), 2-foot resolution 4-band (CIR and true-color) aerial photography from May/June, 6-inch resolution CIR aerial photography flown simultaneously with LiDAR in November/December. Increased costs in FY16 are due to the likely acquisition of bathymetric ("green") LiDAR.

G-1 & G-2 (combined)		
Year	Approved	Estimated
2007	\$ 10,000.00	\$ -
2008	\$ 270,000.00	\$ -
2009	\$ 40,000.00	\$ -
2010	\$ 21,000.00	\$ -
2011	\$ 100,000.00	\$ -
2012	\$ 118,100.00	\$ -
2013	\$ 118,100.00	\$ -
2014	\$ 118,100.00	\$ -
2015	\$ 125,000.00	\$ -
2016	\$ -	\$ 200,000.00

**PROGRAM TASK & ID: G-5. Geomorphology/In-Channel Vegetation  
Monitoring****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

Contractor (Tetra Tech)

**Task Location**

Central Platte River

**Task Description**

Implementation of Program geomorphology/in-channel vegetation monitoring protocol; field work, data analysis (analysis of collected data according to performance measures of importance for addressing Big Questions and Tier 1 hypotheses), and reporting.

**Linkage to AMP and Big Questions**

Integral to learning about physical process priority hypotheses Flow #1, Flow #3, Flow #5, Sediment #1, and Mechanical #2 and related Big Questions (#1, #2, #3, and #4). Supporting information for flow-vegetation-sediment relationships and what FSM management strategy will do on the central Platte River.

**Products**

Protocol data – transect surveys, longitudinal profile, vegetation surveys, etc.; data analysis and reporting.

**Notes on Cost**

The contract was awarded through a competitive procurement process in conformance with the Procurement policy but expires at the end of 2014. The EDO is seeking a one-year extension of the agreement with Tetra Tech to perform monitoring, analysis, and reporting services as in past years. In FY16, the Program will evaluate the current monitoring protocol, recommend changes, and seek a new contractor for FY17 and beyond through the Program's competitive selection process.

Specific FY16 tasks include:

- Project management
- Field monitoring (bathymetric and topographic transect surveys, in-channel vegetation surveys, bed material sampling, sediment transport measurements, field data reduction)
- Data analysis (review and revise Data Analysis Plan, present plan at TAC meetings, implement plan)
- Reporting (annual report, TAC meetings, AMP Reporting Session)

G-5		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ 95,000.00	\$ -
2009	\$ 395,000.00	\$ -
2010	\$ 300,000.00	\$ -
2011	\$ 447,500.00	\$ -
2012	\$ 450,000.00	\$ -
2013	\$ 477,738.00	\$ -
2014	\$ 495,000.00	\$ -
2015	\$ 512,990.00	\$ -
2016	\$ -	\$ 513,000.00



- 1 The budget estimate for FY16 is based on the agreed-upon FY15 budget for this monitoring effort, which  
2 is detailed below:  
3

FY16 Task	FY16 Labor Cost	FY16 Direct Cost (travel, equipment, field supplies, lab analysis)	Total by Task
100 – Project Initiation & Management	\$6,194	\$2,321	\$25,256
200 – Field Monitoring	\$269,508	\$101,902	\$379,217
300 – Data Analysis	\$72,917	\$1,738	\$68,932
400 – Reporting	\$37,136	\$1,335	\$39,584
<b>TOTAL COST</b>	<b>\$405,981</b>	<b>\$107,009</b>	<b>\$512,990, rounded up to \$513,000</b>

4

**PROGRAM TASK & ID: H-2. Program Water Gages****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; contractor

**Task Location**

Central Platte River

**Task Description**

Gage maintenance and research gages; real-time Program gage data on Program web site.

**Linkage to AMP and Big Questions**

Stream gages provide data to test priority hypotheses, including all key Tern/Plover, Whooping Crane, Flow, Sediment, and Mechanical hypotheses.

**Products**

Gage maintenance, new gages, and data.

**Notes on Cost**

Stream gages have been installed at the request of the Program. The U.S. Geological Survey (USGS) installed and maintains two gages located on the Cottonwood Ranch Complex. These gages are used primarily in conjunction with geomorphology and sediment augmentation related research. The Nebraska Department of Natural Resources (NDNR) installed and maintains two gages, one at Lexington and one at Shelton. Annual maintenance costs include physical maintenance of the gage, checking and adjusting the rating curve through field measurements, QC/QA of the data, and making data available real-time. The USGS gages were established in a service agreement negotiated and still held by NPPD, but with the costs passed through to the Program. Costs are set at \$20,000 but vary slightly annually if significant equipment components, such as probes or cables, need replacing. Annual maintenance costs for NDNR include the same services as described for the USGS and are set at \$10,000 when data line charges paid directly by the Program are included. In addition, the Program will cost-share with CNPPID for the continued operation of the USGS gage at Overton, NE. The Overton gage is essential to Program decision-making through the availability of real-time data provided by the USGS equipment. Costs for this arrangement are anticipated to be about \$10,000. This arrangement may end in 2016 as the NDNR INSIGHT system becomes fully operational and NDNR data becomes available real-time. There are two entities in Nebraska that can establish official stream gaging stations – the USGS and the NDNR. Because each entity is a government agency bound by their rules and regulations, and there are no other options for establishing an official stream flow record, these rates are considered fair and reasonable.

H-2		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ 29,500.00	\$ -
2009	\$ 30,000.00	\$ -
2010	\$ 50,000.00	\$ -
2011	\$ 50,000.00	\$ -
2012	\$ 40,000.00	\$ -
2013	\$ 40,000.00	\$ -
2014	\$ 38,000.00	\$ -
2015	\$ 38,000.00	\$ -
2016	\$ -	\$ 38,000.00

**PROGRAM TASK & ID: IMRP-2. Adaptive Management Plan Directed Research Projects****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; contractors

**Task Location**

Central Platte River

**Task Description**

- Continue investigation of wet meadow hydrology including groundwater, surface water, soil moisture, precipitation, and evapotranspiration monitoring at four wet meadow sites. Maintain existing equipment and continue with telemetry data systems (\$30,000).
- Second of three planned implementations (2013, 2016, 2019) of the Program's Grassland Vegetation Monitoring Protocol (\$60,000).

**Linkage to AMP and Big Questions**

- 1) The primary linkage is to USFWS target flows. The early and late spring pulse flows include wet meadow hydrology objectives. The water balance network will facilitate quantification of the benefits of those releases.
- 2) The primary linkage is to broad hypothesis WC1. In addition, implementation of the monitoring protocol is intended to track vegetation composition on Program owned and managed wet meadows and grasslands.

**Products**

- Continued and expanded monitoring and reporting on wet meadow hydrology at Program complexes.
- Index of species composition on Program owned wet meadows and grasslands.

**Notes on Cost**

These numbers are estimates based on similar work that has been performed for the Program by contractors selected through the competitive procurement process. Before RFPs or IFBs are advertised, contracts are executed, or money is expended, each step is reviewed by one or more of the following oversight committees: the Water Advisory Committee, the Technical Advisory committee, the Finance Committee, and often the Governance Committee. The selection of contractors is made through a competitive process as defined by the Procurement Policy. The negotiated contract and budget must be approved by the Finance Committee. 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, and final negotiation and award of

IMRP-2		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ 700,000.00	\$ -
2010	\$ 325,000.00	\$ -
2011	\$ 450,000.00	\$ -
2012	\$ 335,000.00	\$ -
2013	\$ 450,000.00	\$ -
2014	\$ 117,000.00	\$ -
2015	\$ 71,000.00	\$ -
2016	\$ -	\$ 90,000.00



the contract will be acquired through competition, the estimate for this work is considered fair and reasonable.

The wet meadows hydrologic monitoring project seeks to characterize the relationships between river discharge/stage, precipitation, evapotranspiration, soil moisture, and groundwater levels at wet meadow sites. Data is collected at several wet meadow sites and will be used to provide decision-makers with information about the potential response of central Platte wet meadows to Program flow releases. Over the course of 2013 to 2015, equipment was installed to monitor surface water, groundwater, precipitation, meteorological parameters, and soil moisture at four wet meadow locations. The equipment requires ongoing maintenance as well as data fees for wireless telemetry in 2016.

The FY16 tasks and estimated costs for *wet meadow hydrology research* are as follows:

Expected Activity	Cost	Task completed by	Explanation/Assumptions
<b>Equipment maintenance</b>	<b>\$13,500</b>		
Data logger maintenance	\$6,000	In-Situ, Inc.	Assumes replacement of 4 data loggers and cables or repair of 8 data loggers and cables (out of a total of 44 data loggers)
Telemetry system maintenance	\$4,000	In-Situ, Inc.	Annual maintenance quote from In-Situ of \$4,000 for 9 telemetry systems
AWDN annual maintenance	\$2,500	HPRCC	Annual maintenance fee based on Program agreement with HPRCC (\$1,000 per AWDN station for 2 stations)
Other equipment maintenance	\$1000	Contractor	Annual maintenance of atmometers and hobo data loggers (4 total by the end of 2015), wetland cameras (2 total), and other monitoring equipment (staff gage replacement, crest stage gage, enclosure damage, etc.)
<b>Data fees</b>	<b>\$5,720</b>		
In-Situ telemetry data fees	\$5,720	In-Situ, Inc.	\$43/month data fees for 12 months for 11 telemetry units
<b>Additional Monitoring Equipment</b>	<b>\$10,000</b>		
CRNP soil moisture sensor	\$10,000	HydroInnova	Large area averaged soil moisture sensors. Annual lease of \$5,000 per sensor for 2 sensors
<b>Total</b>	<b>\$29,220, round up to \$30,000</b>		

Assumptions related to wet meadows hydrology research in 2016:

- Maintenance and data costs will be \$19,220.
- CRNP lease will continue at \$10,000.

**PROGRAM TASK & ID: IMRP-3. Adaptive Management Plan Special Advisors****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; special advisors

**Task Location**

ED Office (Kearney, NE and Lincoln, NE); various locations of advisors

IMRP-3		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ -	\$ -
2009	\$ -	\$ -
2010	\$ 150,000.00	\$ -
2011	\$ 150,000.00	\$ -
2012	\$ 140,000.00	\$ -
2013	\$ 50,000.00	\$ -
2014	\$ 75,000.00	\$ -
2015	\$ 100,000.00	\$ -
2016	\$ -	\$ 160,000.00

**Task Description**

- Advisors on Structured Decision Making (SDM). Assistance with ongoing SDM process for Big Question #1 and potential additional SDM processes.
- Advisor on AMP-related specialty topic of geomorphology. Review Program documents, attend workshops and meetings, assist with development of experimental design, research/monitoring goals and objectives, and data analysis.

**Linkage to AMP and Big Questions**

Special advisors fill important areas of expertise necessary to evaluate effects of Program management actions and progress toward AMP management objectives.

**Products**

Review of Program documents, advice on specific actions related to AMP implementation, and development of process documents as requested.

**Notes on Cost**

This FY 2016 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 Hours	Total
Compass	Structured decision making	Lee Failing - \$200	400	\$130,000
		Associate - \$125	400	
Chester Watson, Ph.D., P.E.	Sediment transport and geomorphology	\$125.00	200	\$25,000
Other Direct Costs (i.e. travel and per diem for attendance at annual AMP Reporting Session and trips to Kearney, NE)				\$5,000
<b>Total not to exceed</b>				<b>\$160,000</b>

The budget estimate for Compass in FY16 is based on the contracted hourly rates and hour estimates for the Big Question #1 SDM process that started in 2015. That work will be covered by FY15 funds but in anticipation of additional SDM processes starting in FY16 this line item includes anticipated costs for



1 continued assistance from Compass. That work will be dependent on GC approval of additional SDM  
2 processes for specific Big Questions or related to broader discussions of the AMP going forward in an  
3 extended First Increment or new Second Increment.

4  
5 ***General note on all Special Advisor budget line items:*** Please refer to the third paragraph in the Exceptions:  
6 section of the Procurement Policy adopted by the Governance Committee in August of 2008, “Retention of  
7 special advisors to the ED of a technical or legal nature is exempt from the procedures provided in this  
8 directive.”

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

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

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

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

**PROGRAM TASK & ID: IMRP-6. Habitat Availability Assessment****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Contractor (RBJV)

**Task Location**

Central Platte River, NE

**Task Description**

Complete habitat availability assessments for terns/plovers and whooping cranes using 2015 data under a new 3-year contract or an amendment to the current contract with Rainwater Basin Joint Venture. Utilize models and equipment from previous 2007-2014 assessments.

**Linkage to AMP and Big Questions**

Critical data for assessing tern/plover priority hypotheses T1, P1, and TP1 and whooping crane priority hypotheses WC1 and WC3. Data utilized to assist with evaluation of Big Questions #5, #6, #7, and #8.

**Products**

Tern and plover summary report presenting acres of on- and off-channel bare-sand habitat and Program defined “suitable” nesting habitat for 2015. Whooping crane summary report presenting acres of WC foraging and roosting habitat by habitat type for 2015.

**Notes on Cost**

Rainwater Basin Joint Venture (RBJV) was contracted during 2011 to complete habitat availability assessments for the Program through 2012. 2007-2012 assessments are completed and the 2014 assessments are now being completed under an amendment to the 2007-2014 contract, so the 2015 assessment will require a new contract or another contract amendment with the RBJV. The cost covers one additional year (2015) of analysis using the same methods and deliverables outlined in the previous agreement for the 2007-2014 analyses between the RWBJV and the Program. The estimated time for completion of the least tern/plover and whooping crane analyses for 2015 is October 1, 2016. Estimated FY16 costs are:

Project Items	FY16 Cost
Terns and Plovers 2015 analysis - technician time	\$11,000.00
Whooping Cranes 2015 analysis – technician time	\$22,000.00
RWBJV Analyst: Quality Assessment/Control for datasets - technician time	\$10,000.00
Computer hardware usage fees	7,000.00
<b>Total</b>	<b>\$50,000.00</b>

**PROGRAM TASK & ID: PD-8. Database Management System Development & Maintenance****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Riverside Technology, Inc. (RTi)

**Task Location**

ED Office (Kearney, NE); contractor (RTi) in Ft. Collins, CO

**Task Description**

Ongoing database development and management by RTi. Tasks include basic maintenance and minimal development.

**Linkage to AMP and Big Questions**

System will house and manage all Program administrative and technical data.

**Products**

Database maintenance, website support and hosting for meeting coordination and interface with Program technical data, public Program website and document library support and hosting. The contract was awarded through a competitive procurement process in conformance with the Procurement policy. The contract was awarded in 2009. 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, and final negotiation and award of the contract was acquired through competition, the estimate for this work is considered fair and reasonable.

Specific FY16 tasks include:

- Website and database hosting with two virtual servers
- Server administration and maintenance
- Website and database administration and maintenance (including SharePoint administration)
- Routine maintenance on SQL server databases
- System support

PD-8		
Year	Approved	Estimated
2007	\$ 150,000.00	\$ -
2008	\$ 159,000.00	\$ -
2009	\$ 200,000.00	\$ -
2010	\$ 370,000.00	\$ -
2011	\$ 140,000.00	\$ -
2012	\$ 165,615.18	\$ -
2013	\$ 130,000.00	\$ -
2014	\$ 105,000.00	\$ -
2015	\$ 110,000.00	\$ -
2016	\$ -	\$ 81,000.00



The table below describes 2016 tasks and costs for database and web site hosting and maintenance:

Task	FY16 Cost	Description
<b>System Support</b>		
FRII Hosting	\$21,603.50	ISP Physical Hosting Cost (Fixed Annual)
Maintenance	\$44,414.40	Support and Maintenance (T&M)
Data Management	\$7,402.40	SDR data maintenance (T&M)
Project Management	\$7,402.40	Task oversight, reporting, meetings, etc. (T&M)
<b>FY16 Total</b>	<b>\$80,822.70 round up to \$81,000</b>	<b>Contract Ceiling</b>

**PROGRAM TASK & ID: TP-1. Tern & Plover Monitoring****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; Program partners; Contractor

**Task Location**

Central Platte River, NE

TP-1		
Year	Approved	Estimated
2007	\$ 14,000.00	\$ -
2008	\$ 20,000.00	\$ -
2009	\$ 100,000.00	\$ -
2010	\$ 150,000.00	\$ -
2011	\$ 300,000.00	\$ -
2012	\$ 215,000.00	\$ -
2013	\$ 290,000.00	\$ -
2014	\$ 325,000.00	\$ -
2015	\$ 280,000.00	\$ -
2016	\$ -	\$ 365,000.00

**Task Description**

Implement monitoring protocol during nesting season; Program staff will coordinate and lead field work, but six (6) seasonal technicians provided by the contractor will be necessary to work with Program staff and partners to properly collect all data. Monitoring effort will remain elevated in FY2016 to: ensure proper data collection at nest sites (elevation, vegetation, etc.); band least tern and piping plover chicks and adults; and to document habitat conditions (availability and elevation of nesting habitat, vegetation establishment on islands, etc.) on the central Platte River.

**Linkage to AMP and Big Questions**

Data for evaluation of tern and plover priority hypotheses T1, P1, TP1, T2, and P2. Data utilized to assist with evaluation of Big Questions #6, #7, #8, and #10.

**Products**

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

**Notes on Cost**

The EDO entered into a four-year contract with the United States Geological Survey (USGS) that was selected through the competitive selection process to provide tern/plover monitoring services for the Program in 2015-2018. 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, the estimate for this work is considered fair and reasonable.

The GC-approved budget for tern and plover monitoring and predator trapping in 2015 was \$280,000. That approved budget amount was based on the budget developed by the EDO at the time (2014) for performing field work and associated data logging and analysis as per previous agreements with the Program. In 2015, budgeted tern/plover monitoring costs were detailed as follows:



Expense Line Item	Budgeted FY15 Cost
Salaries	\$179,139.49
Vehicles & Travel	\$30,000
Equipment & Supplies	\$2,730
Facilities Overhead	\$23263.27
Cost Center Overhead	\$35,382.20
Bureau Overhead	\$32,461.80
<b>Total PRRIP Budget</b>	<b>\$302,976.76, rounded up to \$305,000</b>

The EDO envisions the need for a 6-person crew to assist the EDO and Program Partners in conducting tern/plover monitoring for the Program in 2016. Based on the current agreement with USGS, the EDO estimates the Program monitoring costs to be \$305,000 for FY16. This estimate will cover increased costs and any related eventualities. The specific budget will be negotiated with the contractor and the negotiated budget will not exceed the \$305,000 estimate.

Predator trapping will be conducted under the existing agreement between the Program and USDA; the 2016 trapping effort will require a contract amendment with the USDA. Based on the current agreement with the USDA, trapping costs are expected to increase slightly and are itemized approximately as follows:

Category	Estimated FY16 Cost
Salary/Benefits	\$30,000.00
Vehicle/Transportation	\$5,000.00
Travel Cost	\$3,000.00
Equipment/Supplies	\$6,000.00
<b>Subtotal</b>	<b>\$44,000.00</b>
Pooled Costs (11%)	\$ 4,840.00
Overhead (16.15%)	\$7,887.66
<b>Total not to exceed</b>	<b>\$56,727.66, rounded up to \$60,000</b>

**PROGRAM TASK & ID: WC-1. Whooping Crane Monitoring****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

Contractor (Ecological Solutions, contracted for field work during Fall 2015 – Spring 2016)

**Task Location**

Central Platte River, NE

**Task Description**

Spring and Fall 2016 implementation of the whooping crane monitoring protocol and data analyses associated with the four-year contract (Fall 2015 – Spring 2019) established with Ecological Solutions chosen through the competitive selection process for a multi-year contract.

**Linkage to AMP and Big Questions**

Data for evaluation of whooping crane priority hypotheses WC1 and WC3. Data utilized to assist with evaluation of Big Questions #5 and #10.

**Products**

Spring and fall report; data analysis.

**Notes on Cost**

The Program entered into a four-year contract spanning eight migration seasons (Fall 2015 – Spring 2019) with Ecological Solutions to perform field work (aerial flights, monitoring bird activity, collecting habitat metrics, etc.). This line item includes funds to cover additional costs associated with increasing the spring monitoring season by 15 days. The contract was awarded through the competitive procurement process in conformance with the Procurement policy. As the budget estimate was developed using rates proposed during the competitive selection process, the estimate for this work is considered fair and reasonable.

WC-1		
Year	Approved	Estimated
2007	\$ 130,000.00	\$ -
2008	\$ 130,000.00	\$ -
2009	\$ 150,000.00	\$ -
2010	\$ 150,000.00	\$ -
2011	\$ 170,000.00	\$ -
2012	\$ 225,091.00	\$ -
2013	\$ 290,000.00	\$ -
2014	\$ 275,000.00	\$ -
2015	\$ 310,000.00	\$ -
2016	\$ -	\$ 215,000.00



The negotiated budget for spring and fall field work by Ecological Solutions in 2016 is detailed below:

<b>FY16 Spring Whooping Crane Monitoring</b>	
<b>Expense Category</b>	<b>Estimated FY16 Cost</b>
Personnel	\$83,980
Direct Costs (aircraft rental, mileage, GPS unit rental, radios, camera rental, PRRIP meeting attendance)	\$47,638
Subtotal	\$131,618
<b>FY16 Fall Whooping Crane Monitoring</b>	
Personnel	\$50,430
Direct Costs (aircraft rental, mileage, radios, camera rental, PRRIP meeting attendance)	\$30,014
Subtotal	\$85,444
<b>FY16 TOTAL</b>	<b>\$212,062, round up to \$215,000</b>

**PROGRAM TASK & ID: WC-3. Whooping Crane Telemetry Tracking****Program First Increment Timeline**

FY2011-FY2016

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

Whooping Crane Tracking Partnership including Canadian Wildlife Service, Crane Trust, U.S. Fish and Wildlife Service, Platte River Recovery Implementation Program, and U.S. Geological Survey.

**Task Location**

Whooping crane migration route; central Platte River, NE

**Task Description**

As per the Whooping Crane Tracking Project Partnership Agreement budget, these costs are for data download and data management costs.

**Linkage to AMP and Big Questions**

Data for evaluation of whooping crane priority hypotheses WC1 and WC3. Data utilized to assist with evaluation of Big Questions #5 and #10.

**Products**

Spring and fall migration reports and database through 2016.

**Notes on Cost**

This FY 2016 budget line item is for Program participation in the multi-year Whooping Crane Tracking Partnership. The Program entered into an agreement (2011-2019) with the Partnership during 2011 that allows the Program access to telemetry data and reports through 2019 and the ability to evaluate whooping crane response to management actions along the central Platte River. The Partnership and the telemetry project are led by the United States Geological Survey (USGS). Permission to sole source this contract was granted in 2011 by the Governance Committee due to the unique capabilities of the entities performing the work. Cost is a consideration in the sole source process and justification was provided to the Governance Committee. Although permission was granted to sole source this contract, the rates and level of effort were compared to contracts for similar work acquired by the Program through the competitive procurement process in order to ensure that the cost of this work is fair and reasonable.

As per the Whooping Crane Tracking Project Partnership Agreement signed by the Program, the table below describes estimated Program costs for each year of the project, including FY16. Even though the project extends through 2019, Program costs will only be incurred through 2016. The years 2017-2019 will focus on data reduction, analysis, and reporting.

WC-3		
Year	Approved	Estimated
2007	\$ -	\$ -
2008	\$ 125,000.00	\$ -
2009	\$ 125,000.00	\$ -
2010	\$ 125,000.00	\$ -
2011	\$ 125,000.00	\$ -
2012	\$ 167,100.00	\$ -
2013	\$ 95,000.00	\$ -
2014	\$ 35,500.00	\$ -
2015	\$ 23,500.00	\$ -
2016	\$ -	\$ 11,400.00



A detailed cost breakdown for Program expenditures on this project is outlined in the table below:

Description	2011	2012	2013	2014	2015	2016	Total
Helicopter contract/Summer trapping	\$42,000	\$50,000	\$0	\$0	\$0	\$0	\$92,000
GPS-PTT transmitters	\$0	\$90,000	\$45,000	\$0	\$0	\$0	\$135,000
Logistical support for Texas trapping	\$0	\$10,000	\$10,000	\$0	\$0	\$0	\$20,000
Data costs	\$0	\$12,100	\$35,000	\$30,500	\$18,500	\$6,400	\$102,500
Data management	\$0	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000
<b>Total</b>	<b>\$42,000</b>	<b>\$167,100</b>	<b>\$95,000</b>	<b>\$35,500</b>	<b>\$23,500</b>	<b>\$11,400</b>	<b>\$374,500</b>

**PROGRAM TASK & ID: ISAC-1. ISAC Stipends & Expenses****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office

Independent Scientific Advisory Committee (ISAC)

**Task Location**

Basin meeting locations TBD

**Task Description**

ISAC-1		
Year	Approved	Estimated
2007	\$ 75,000.00	\$ -
2008	\$ 115,000.00	\$ -
2009	\$ 70,000.00	\$ -
2010	\$ 150,000.00	\$ -
2011	\$ 185,000.00	\$ -
2012	\$ 185,000.00	\$ -
2013	\$ 221,000.00	\$ -
2014	\$ 200,000.00	\$ -
2015	\$ 200,000.00	\$ -
2016	\$ -	\$ 203,400.00

ISAC Cost Item	Estimated FY16 Cost
ISAC meetings (face-to-face) – 6 members x 2 meetings x 4-day meetings (3 days of meeting, one day of travel) x \$1,400 per member per day (\$175/hour x 8-hour day)	\$67,200
ISAC chair – additional stipend to complete report to GC after both 2016 ISAC meetings (10 days x \$1,400/day)	\$14,000
Document review – 10 days of review x 6 members x \$1,400/day	\$84,000
ISAC travel and other meeting expenses: <ul style="list-style-type: none"><li>AMP Reporting Session – 6 members (4 days x \$200 per diem/person + \$800 travel) = \$9,600</li><li>Spring/Summer Meeting – 6 members (4 days x \$200 per diem/person + \$800 travel) = \$9,600</li></ul>	\$19,200, round up to \$20,000
<b>Total</b>	<b>\$185,200</b>

The EDO proposes the following 2016 ISAC meeting schedule:

- 1) **ISAC meeting in Kearney, Nebraska (March 9-11, 2016)** – in conjunction with GC meeting and second GC SDM workshop.
- 2) **AMP Reporting Session in Omaha, NE (October 18-20, 2016)** – ISAC interaction with EDO staff, Program participants, and contractors; review and discussion of 2015 “State of the Platte” Report; review and discussion of latest drafts of AMP documents.

**Linkages to AMP and Big Questions**

Key element of independent scientific review of AMP, IMRP, management strategies, Big Questions, and associated priority hypotheses. Annual review of “State of the Platte” report.



## Products

ISAC review of Adaptive Management Plan (AMP) implementation, experimental design, and other Program products and activities; work will culminate in reports to GC after the Spring/Summer ISAC meeting and after the AMP Reporting Session. ISAC members will attend GC meetings to deliver those reports to the GC.

## 2016 ISAC Members

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

ISAC Member	Current Term Expires	Contract Action in 2016
Ned Andrews	December 2016	None
<b>Brian Bledsoe</b>	<b>December 2015</b>	<b>1-year extension (through 2016)</b>
<b>Adrian Farmer</b>	<b>December 2015</b>	<b>1-year extension (through 2016)</b>
<b>David Galat</b>	<b>December 2015</b>	<b>1-year extension (through 2016)</b>
Jennifer Hoeting	December 2016	None
David Marmorek	December 2017	None

The ISAC terms of service for David Galat, Brian Bledsoe, and Adrian Farmer expire at the end of 2015. All three indicated to the EDO a willingness to stay on the ISAC for at least one more year (through 2016). The EDO recommends the GC retain Galat, Bledsoe, and Farmer on the ISAC through 2016 to provide continuity of service and specific expert advice on large river ecology and adaptive management (Galat), geomorphology and vegetation (Bledsoe), and target species ecology (Farmer).

At the end of 2016, the ISAC terms of service for Galat, Bledsoe, Farmer, Hoeting, and Andrews will expire. The GC will have to decide whether to retain some or all of these current ISAC members for a new 3-year term starting in 2017 or rotate off one or more to be replaced by a new member. In anticipation of this, costs for the Program's independent science review advisor (Louis Berger) for identifying up to three potential new ISAC members is built into the FY16 budget estimate for this line item. Louis Berger estimates the total cost for their services in this regard would be \$18,200 in FY16.

## Notes on Cost

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 \$250 on an hourly basis. We were able to negotiate an equivalent rate of \$175/hour which is at the low end of that range.

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.

Travel costs are compiled based on air fares from the location the ISAC member starts their travel from to the location of the meetings, together with any mileage or surface travel costs that will be incurred. For ISAC members serving for more than one year, these costs can be estimated with great certainty based on the costs incurred from previous years. The locations for the ISAC meetings are always either Denver, CO; Kearney, NE; or Omaha, NE. Meal and lodging expenses are based on government per diem rates for



- 1 specific cities or general regions adjusted as necessary to accommodate solicited quotes from the potential,
- 2 probable venues for the meetings This compilation is made for each ISAC member for each meeting to
- 3 arrive at the total. Costs are based on a market survey of lodging, meals, and transportation costs accounting
- 4 for different points of origination of each individual and different locations for each session. Cost data from
- 5 previous years factored into the process to develop a simplified, average cost approach.

**PROGRAM TASK & ID: PD-3. AMP & IMRP Peer Review****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

Contractor; peer review panelists

**Task Location**

Various locations of peer reviewers

**Task Description**

Peer review of up to three (3) Program documents:

**Linkage to AMP and Big Questions**

Independent peer review of key documents to ensure projects are consistent with Program goals and objectives.

**Products**

Peer review reports for each reviewed document.

**Notes on Cost**

The Program utilizes a third-party independent contractor, Louis Berger, to assist with identifying potential peer review candidates and helping the EDO manage the peer review process. Louis Berger was selected in 2014 through the Program's competitive selection process to provide these Independent Science Review (ISR) services through 2016.

Peer review services under the contract will include:

- Recommend candidates for each panel according to appropriate areas of expertise
- Provide background information for all potential candidates
- Recommend panelists and provide conflict of interest statements for all panelists
- Communicate with panelists (Program provides scope of work and handles contracting for payment)
- Summarize comments from each panel
- Deliver final report to EDO for each panel

Cost estimates are based on prior years' experience with peer review panels and with Atkins as the ISR contractor. Estimated costs for the ISR contractor to assist with peer review are \$14,800/review. Peer review panel members are expected to be of the same caliber and stature as ISAC members. Thus, we used the ISAC rate of \$1,400/day for roughly a five-day period to estimate the stipend for serving as a Program

PD-3		
Year	Approved	Estimated
2007	\$ 50,000.00	\$ -
2008	\$ 105,000.00	\$ -
2009	\$ 50,000.00	\$ -
2010	\$ 50,000.00	\$ -
2011	\$ 115,000.00	\$ -
2012	\$ 90,000.00	\$ -
2013	\$ 108,000.00	\$ -
2014	\$ 318,500.00	\$ -
2015	\$ 233,260.00	\$ -
2016	\$ -	\$ 107,400.00



peer review member – three days to review document(s) in question and two days to compile comments and submit those comments to the Program’s ISR contractor.

For FY16, estimated peer review expenses are:

<b>FY16 PRRIP Document for Peer Review</b>	<b># Reviewers</b>	<b>per Reviewer Cost</b>	<b>Total Review Panel Cost</b>	<b>ISR Contractor Costs</b>	<b>Total Cost</b>
Whooping crane habitat synthesis chapters	3	\$7,000	\$21,000	\$14,800	\$35,800
Whooping crane data analysis/habitat selection report	3	\$7,000	\$21,000	\$14,800	\$35,800
Tern/plover off-channel nest site selection and survival	3	\$7,000	\$21,000	\$14,800	\$35,800
<b>Total</b>					<b>\$107,400</b>

**PROGRAM TASK & ID: PD-11. AMP Reporting****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; TAC

**Task Location**

ED Office (Kearney, NE and Lincoln, NE); Omaha, NE

**Task Description**

AMP Reporting Session in Omaha, NE

**Linkage to AMP and Big Questions**

Evaluation of AMP experimental design, data analysis, and discussion of likely outcomes of management actions will help to keep monitoring, research, and data analysis on target for evaluation of priority hypotheses and AMP management activities. Group discussion of all Big Questions and 2015 “State of the Platte” Report with ISAC, TAC, Program contractors, Program special advisors, and EDO.

**Products**

AMP Reporting Session in Omaha, NE on October 18-20, 2016 and 2015 State of the Platte Report.

**Notes on Cost**

Evaluation of AMP experimental design, data analysis, and discussion of likely outcomes of management actions will help to keep monitoring, research, and data analysis on target for evaluation of priority hypotheses and AMP management activities. Group discussion of all Big Questions and the 2015 “State of the Platte” Report with ISAC, TAC, Program contractors, Program special advisors, and EDO. AMP-related contractors will be required to attend the AMP Reporting Session so travel and associated meeting expenses will generally be covered if not already covered under existing contracts/agreements. Cost estimate based on previous years’ costs. Estimated FY16 costs include:

Expense Category	Estimated FY16 Cost
Room rental/equipment	\$2,000
Breaks/working meals	\$5,000
Lodging/travel for contractors (2 contractors x \$1,500/contractor – \$1,000 airfare/parking/mileage, \$300 lodging, \$200 meals and miscellaneous)	\$3,000
<b>Total</b>	<b>\$10,000</b>

**General Notes on Meeting Costs**

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

**PROGRAM TASK & ID: PD-21. PRRIP Publications****Program First Increment Timeline**

Annual

**FY 2016 Start Date**

January 1, 2016

**FY 2016 End Date**

December 31, 2016

**Task Completed by**

ED Office; TAC

**Task Location**

ED Office (Kearney, NE)

**Task Description**

Development of PRRIP-related manuscripts for publication in refereed journals.

**Linkage to AMP and Big Questions**

Manuscript publication is at the discretion of the GC and may provide an additional review step beyond the PRRIP peer review process for important Program documents to be used in the decision-making process.

**Products**

Published journal manuscripts.

**Notes on Cost**

Estimate \$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. For 2016, the EDO expects to seek GC approval to publish at least three manuscripts including:

Potential Manuscript	Author	Manuscript Type	Target Journal	FY16 Cost
PRRIP AM cycle/getting to "Adjust"/use of SDM	EDO	Synthesis and decision making	<i>Frontiers in Ecology and the Environment</i>	\$3,000
Tern/plover habitat synthesis chapters	EDO	Synthesis	<i>Ecological Applications</i>	\$3,000
Tern/plover and whooping crane habitat availability assessment methods	EDO	Methods	<i>Journal of Wildlife Management</i>	\$3,000
<b>TOTAL</b>				<b>\$9,000</b>



## APPENDIX A

### PRRIP FY2016 Annual Land Work Plan

1  
2  
3



## 2016 Land Budget Overview

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

---

#### ***2016 Budget Overview by Budget Line Item***

<b>Budget Line Item</b>	<b>Description</b>	<b>Estimated Expenditure</b>
LP-2	Adaptive Management Species Habitat Actions*	\$815,366
LP-3	New Land Acquisitions	\$500,000
LP-4	Property Maintenance & Agricultural Operations**	\$346,125
LP-6	Land Plan Special Advisors	\$20,000
LP-7	Public Access Management	\$50,000
PD-22	Sediment Augmentation Management Experiment***	\$250,000

\*Includes \$50,000 in LP-2 for new acquisitions in 2016.

\*\*Includes \$50,000 in LP-4 for new acquisitions in 2016.

\*\*\*These budget items have not been reviewed by the LAC and may be revised subsequent to LAC approval of land budget items.

---

### ***2016 Budget Overview by Complex***

<b>Complex</b>	<b>Estimated Expenditure</b>	<b>Estimated Income</b>
Non- Complex Tracts	\$126,000	\$35,600
Plum Creek "Complex"	\$305,800	\$9,250
Cottonwood Ranch Complex	\$109,091	\$25,000
Elm Creek Complex	\$165,840	\$17,950
Pawnee Complex	\$256,000	\$720
Fort Kearny Complex	\$200,320	\$53,200
Audubon Rowe Complex	\$29,000	N/A
Shoemaker Island Complex	\$119,400	\$38,000
New Acquisitions (Estimated 4)	\$100,000*	N/A
<b>Total</b>	<b>\$1,411,491</b>	<b>\$179,720</b>

*\*\$50,000 for maintenance and \$50,000 for species habitat*

---

## ***2016 Budget Priority Areas by Budget Line Item***

**LP-2 – Adaptive Management Species Habitat Actions:** Species habitat priorities for 2016 are focused on maintenance of complex and non-complex habitat as well as enhancement of off-channel palustrine wetland habitat for whooping cranes at newly acquired palustrine wetland sites.

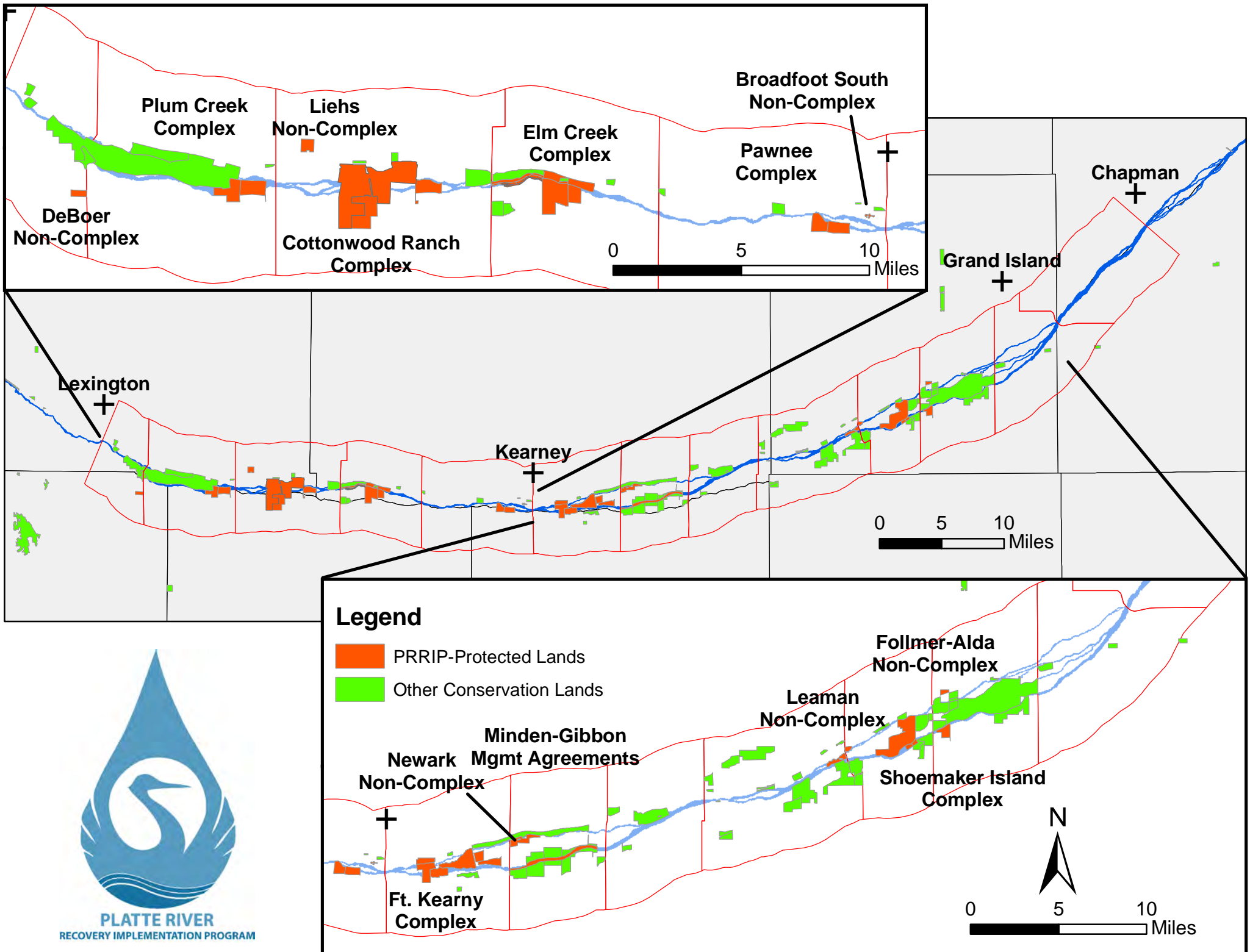
**LP-3 – New Land Acquisitions:** The majority of complex and non-complex sandpit habitat lands have been acquired. As such, 2016 priorities will include acquisition of lands for non-complex palustrine wetlands as well as acquisition of remaining complex habitat acres in a bridge segment that currently does not have a habitat complex.

**LP-4 – Property Maintenance & Agricultural Operations:** 2016 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 in 2016.

**PD-22 – Sediment Augmentation:** The 2016 priority for sediment augmentation is implementation of full-scale augmentation at the Plum Creek and Cottonwood Ranch complexes. The augmentation will be rigorously monitored to determine if augmentation methods are performing satisfactorily and/or there are negative in-channel impacts from augmentation.



# NON-COMPLEX PROPERTIES

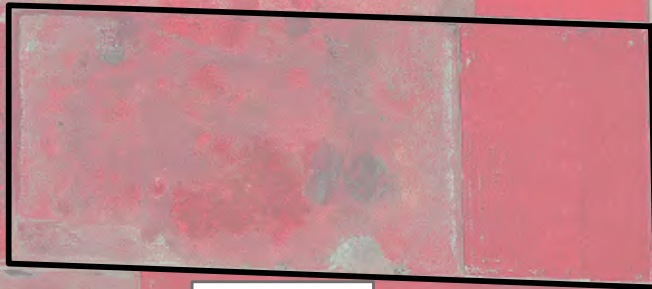
2009008

2010002

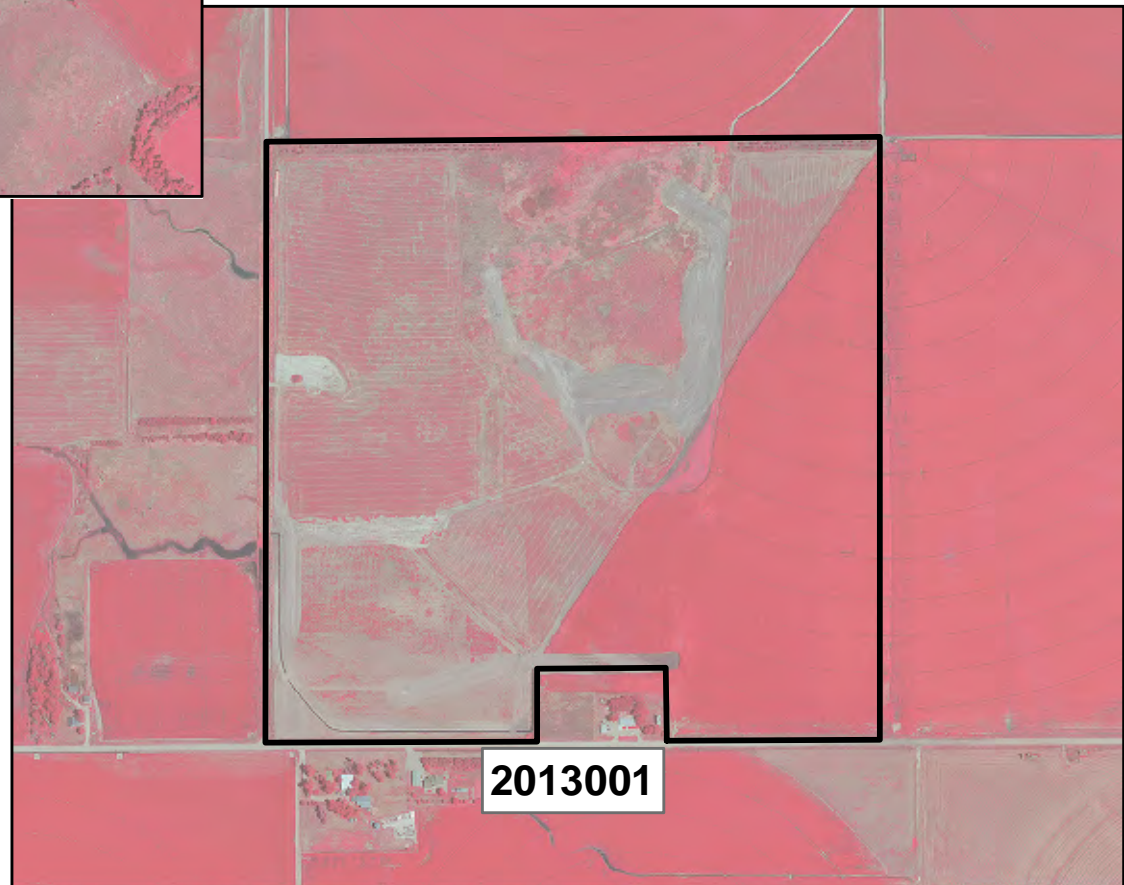
2011001

2011002

# NON-COMPLEX PROPERTIES



2012004



2013001

## Legend



PRRIP-Protected Lands



Other Conservation Lands



## 2016 Non-Complex Properties Annual Work Plan (2009008, 2010002, 2011001, 2011002 2012004 & 2013001)

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

---

#### General Priorities

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

#### Adaptive Management Priorities

- ***Riverine versus Off-Channel Whooping Crane Roosting*** – *Monitor whooping crane use on Program riverine habitat and non-complex off-channel palustrine wetland habitat.*
  - ***Riverine versus Off-Channel Tern and Plover Nesting*** – *Monitor tern and plover use and productivity on Program riverine habitat and nearby non-complex off-channel sand & water nesting habitat.*
- 

#### Species Habitat Priorities

- ***Maintain Suitable Off-Channel Sand and Water Nesting Habitat*** – *Apply pre-emergent herbicide on Tracts 2009008, 2010002, and 2011001 OCSW nesting habitat to prevent vegetation encroachment into nesting areas.*
  - ***Maintain Suitable Palustrine Wetland Roosting Habitat*** – *Manage woody vegetation in the palustrine wetland areas of Tracts 2012004 and 2013001 and maintain suitable herbaceous vegetation height 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.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC2	Herbicide applications on OCSW peninsulas to maintain bare sand nesting habitat <sup>1</sup>	4/2016 & 9/2016	TT	\$7,000	LP-2
NC3	Tract 2011002 sand & gravel mining debris cleanup <sup>2</sup>	1/1/16 - 4/15/16	TT	\$20,000	LP-2
NC4	Predator Fence at NW OCSW area on east sandpit <sup>3</sup>	1/1/16 - 4/15/16	TT	\$3,000	LP-2

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC5	Tract 2013001 replace west irrigation pump and install underground pipe <sup>4</sup>	1/1/16 – 4/15/16	TT	\$30,000	LP-2
NC6	Irrigation well pumping to augment water level in wetland area of Tract 2013001 <sup>5</sup>	3/1/16 - 4/15/16	TT	\$5,000	LP-2
NC7	Palustrine wetland seeding on Tract 2013001 <sup>6</sup>	1/16/16-7/1/16	TT	\$20,000	LP-2
NC8	Palustrine wetland seeding on Tract 2012004 <sup>7</sup>	1/16/16-7/1/16	TT	\$20,000	LP-2
NC9	Brush, tree, cattail herbicide spraying <sup>8</sup>	1/16/16-11/1/16	TT	\$3,500	LP-2

---

**Priority Area: *Species Habitat***

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC10	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
NC11	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with 2015 land activities	1/1/16 – 4/1/16	TBD	N/A	N/A

**Priority Area: *Operations and Maintenance***

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC12	Fence and road maintenance <sup>9</sup>	Annual	TT	\$12,500	LP-4
NC13	Noxious weed control <sup>10</sup>	6/1/16 – 8/31/16	TT	\$3,000	LP-4
NC14	Mowing <sup>11</sup>	7/15/16- 10/15/16	TT	\$2,000	LP-4

**Priority Area: *Operations and Maintenance***

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC15	Oversight of grazing and cropland leases	Annual	TT	N/A	N/A
NC16	Oversight of sand and gravel mining operations	Annual	BS	N/A	N/A

---

<sup>1</sup> Based on 2015 herbicide application costs

<sup>2</sup> Estimation

<sup>3</sup> Based on similar work at Tract 2009008. 120 LF @ \$25/ LF

<sup>4</sup> Based on similar work at Tract 2009001 in 2015

<sup>5</sup> Based on cost of pumping at Tract 2010001 in 2015

<sup>6</sup> Estimation

<sup>7</sup> Estimation

<sup>8</sup> Estimation

<sup>9</sup> Based on \$12,000 for miscellaneous fence repair/ construction and \$500 for road grading

<sup>10</sup> Based on 2015 noxious weed control costs

<sup>11</sup> Based on 2015 mowing costs

#### **Personnel Responsibility Key:**

BS – Bruce Sackett (Land Specialist)

DB – David Baasch (Biologist)

JB – Justin Brei (Biosystems Engineer)

KW – Kevin Werbylo (Water Resource Engineer)

TT – Tim Tunnell (Land Manager)

JF – Jason Farnsworth (Technical Support Services)

#### **Property Identification Key:**

2009008 – PRRIP Broadfoot Newark Tract

2010002 – Broadfoot Kearney South Tract

2011001 – PRRIP Leaman Tract

2011002 – PRRIP Follmer Tract

2012004 – PRRIP DeBore Tract

2013001 – PRRIP Liehs Tract

---

## 2016 Non-Complex Tracts Budget Summary

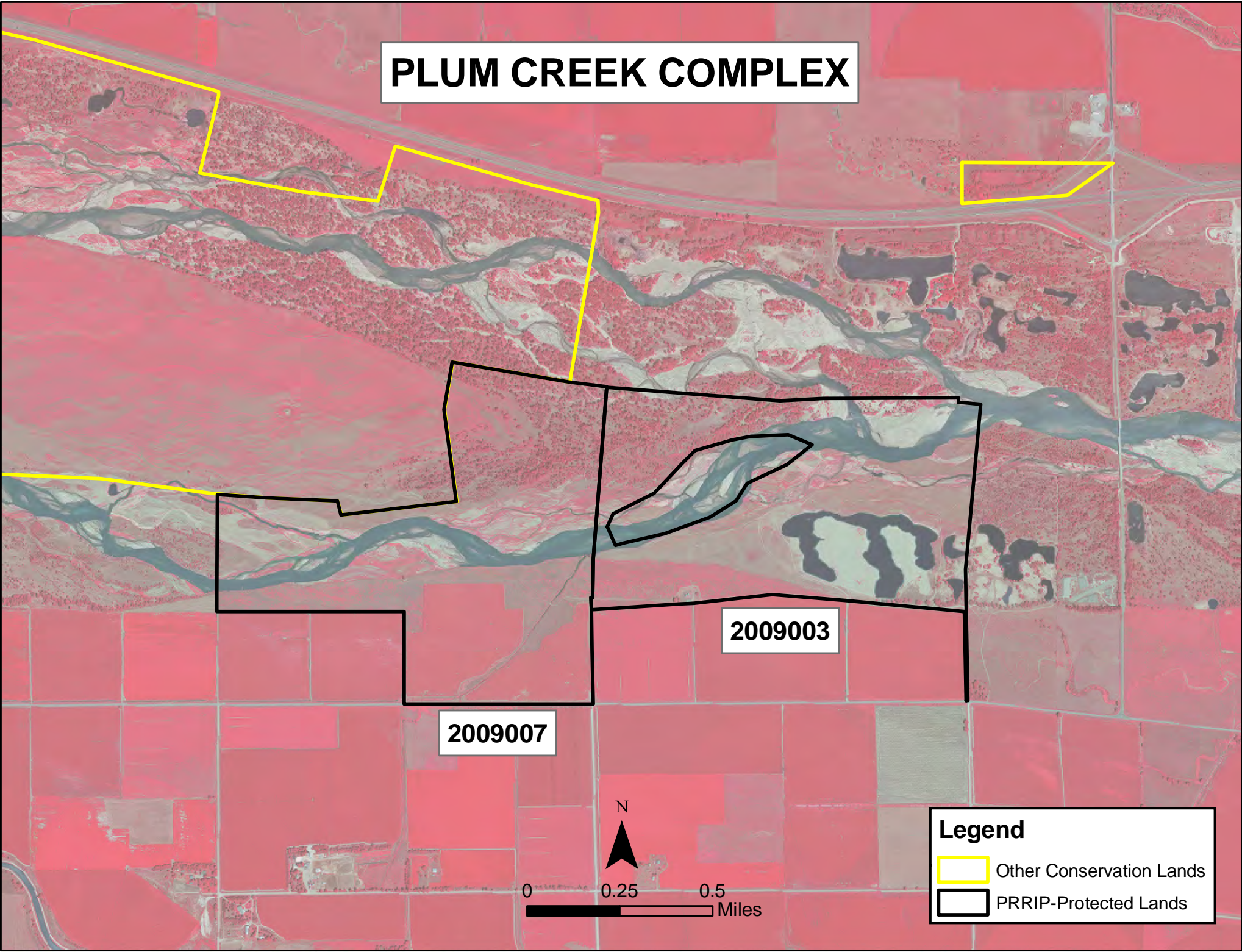
### *Estimated 2016 Expenditures by Program Budget Line Item*

Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Create and Maintain Off-Channel Sand and Water Habitat	LP-2	\$30,000
Species Habitat	Create and Maintain Suitable Palustrine Wetland Habitat	LP-2	\$78,500
		<b>Subtotal</b>	\$108,500
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$17,500
		<b>Total</b>	<b>\$126,000</b>

### *Estimated 2016 Revenues*

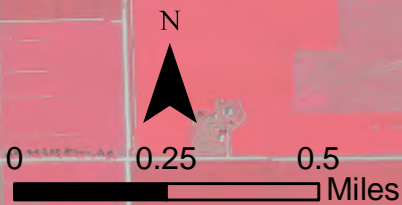
Priority Area	Item	Estimated Income
Operations and Maintenance	Tract 2009008 Sand & Gravel Royalties	\$12,000
Operations and Maintenance	Tract 2009008 Cropland Income (43 acres)	\$8,600
Operations and Maintenance	Tract 2011002 Sand & Gravel Royalties	\$4,000
Operations and Maintenance	Tract 2012004 Cropland Income	\$3,000
Operations and Maintenance	Tract 2012004 Grazing Income	\$3,000
Operations and Maintenance	Tract 2013001 Cropland Income	\$5,000
	Total	\$35,600

# PLUM CREEK COMPLEX





2009003

2009007



**Legend**

-  Other Conservation Lands
-  PRRIP-Protected Lands



## 2016 Plum Creek “Complex” Annual Work Plan

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

---

#### General Priorities

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

#### Adaptive Management Priorities

- **Sediment Augmentation** – *Implementation of full-scale sediment augmentation to offset sediment deficit.*
- 

#### Species Habitat Priorities

- **Improve Target Species Sand and Water Habitat** – *Application of pre-emergent herbicide on OCSW peninsulas and in-channel islands to maintain tern and plover nesting habitat. Control in-channel vegetation to 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 lodge and Quonset maintenance, 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 this complex. As such, complex-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.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A
PC2	Coordinate with NPPD to identify and mitigate potential impacts to leased NPPD nesting islands	1/1/16 – 4/1/16	JF	N/A	N/A

**Priority Area: Adaptive Management**

**Item(s): Sediment Augmentation Experiment**

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC3	Implementation of full-scale sediment augmentation management experiment <sup>1</sup>	1/1/16 – 5/31/16	JF	\$250,000	PD-22

**Priority Area: Species Habitat**

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC4	Herbicide applications on OCSW peninsulas and island to maintain bare sand nesting habitat <sup>2</sup>	4/2016 & 9/2016	TT	\$3,500	LP-2
PC5	Disking if necessary to provide in-channel vegetation control <sup>3</sup>	9/1/16 – 10/1/16	TT	\$14,500	LP-2

---

**Priority Area: Species Habitat**

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC6	Prescribe burn of grassland units south of the channel <sup>4</sup>	3/15/16 – 4/7/16	TT	\$13,800	LP-2
PC7	Spray herbicide on brush in grassland and accretion <sup>5</sup>	7/15/16 – 10/31/16	TT	\$10,000	LP-2

**Priority Area: Species Habitat**

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC8	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
PC9	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with 2016 land activities	1/1/16 – 4/1/16	TBD	N/A	N/A

**Priority Area: Operations and Maintenance**

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC10	Fence and road maintenance <sup>6</sup>	Annual	TT	\$2,500	LP-4
PC11	Noxious weed control <sup>7</sup>	6/1/16 – 8/31/16	TT	\$4,500	LP-4
PC12	Lodge and Quonset utilities and maintenance <sup>8</sup>	Annual	TT	\$5,000	LP-4
PC13	Mowing <sup>9</sup>	7/15/16 – 10/15/16	TT	\$2,000	LP-4

---

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC14	Oversight of grazing and cropland leases	Annual	TT	N/A	N/A

---

<sup>1</sup>Based on estimated typical unit cost of mechanical augmentation

<sup>2</sup>Based on 2015 herbicide application costs

<sup>3</sup>Approx. 80 hours of in-channel disking at \$181.25/hr.

<sup>4</sup>Burn unit area of 230 acres at \$60/ac

<sup>5</sup>Based on 20?? herbicide application costs

<sup>6</sup>Based on 2015 maintenance costs for Plum Creek Complex

<sup>7</sup>Based on 2015 noxious weed control costs for Plum Creek Complex

<sup>8</sup>Based on 2015 lodge and Quonset utility costs and estimated cost for interior and exterior repairs and maintenance

<sup>9</sup>Based on 2015 mowing costs

**Personnel Responsibility Key:**

BS – Bruce Sackett (Land Specialist)

DB – David Baasch (Biologist)

TT – Tim Tunnell (Land Manager)

JF – Jason Farnsworth (Technical Support Services)

**Property Identification Key:**

2009003 – PRRIP Dyer Tract

2009007 – PRRIP Cook Tract

---

## 2016 Plum Creek Complex Budget Summary

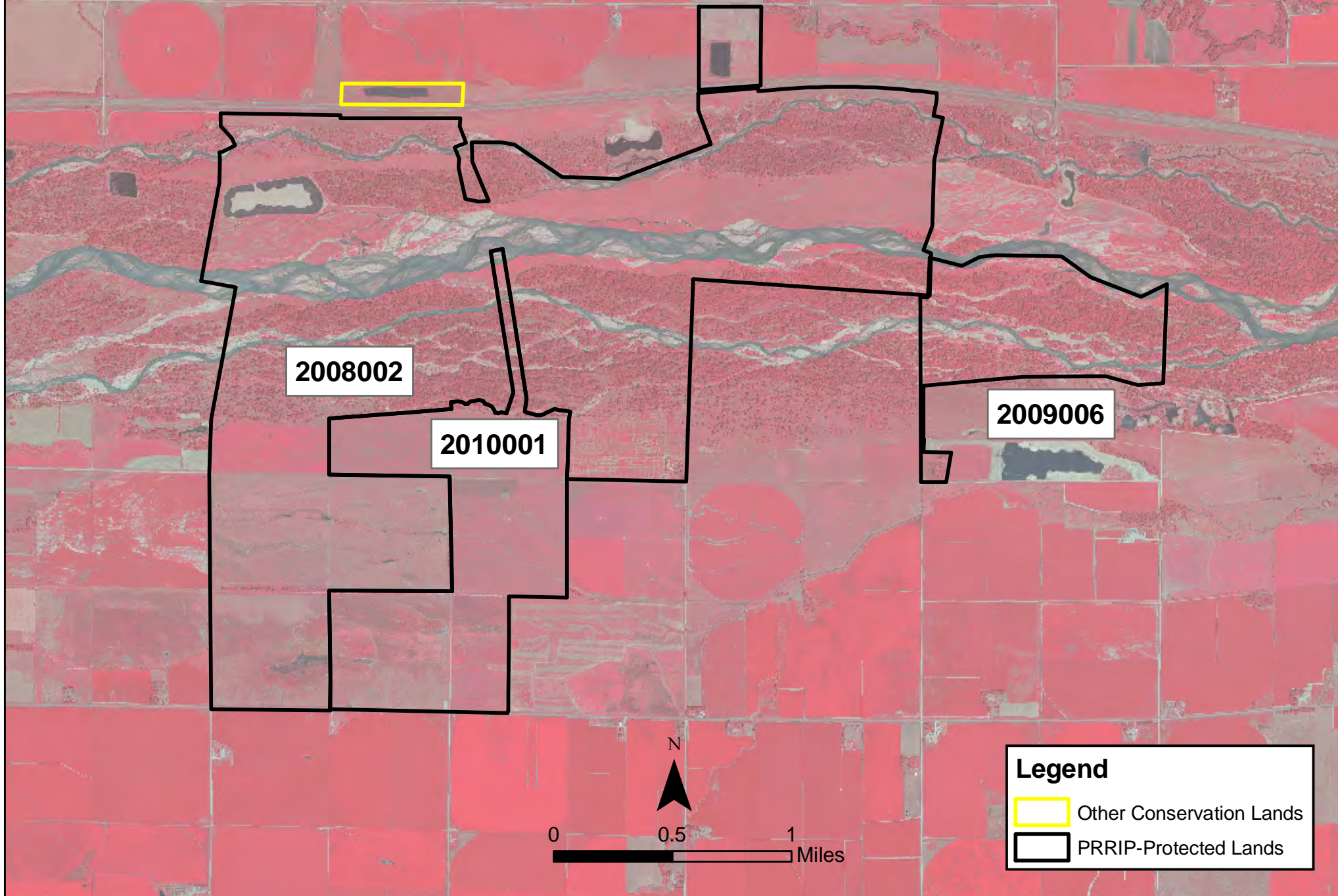
### *Estimated 2016 Expenditures by Program Budget Line Item*

Priority Area	Item	Budget Line Item	Estimated Expenditure
Adaptive Management	Sediment Augmentation Management Experiment	PD-22	\$250,000
Species Habitat	Target Species Sand and Water Habitat	LP-2	\$18,000
Species Habitat	Whooping Crane Wet Meadow/Grassland Habitat	LP-2	\$23,800
		<b>Subtotal</b>	<b>\$41,800</b>
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	\$14,000
		<b>Total</b>	<b>\$305,800</b>

### *Estimated 2016 Revenues*

Priority Area	Item	Estimated Income
Operations and Maintenance	Tract 2009003 Grazing Income	\$2,000
Operations and Maintenance	Tract 2009007 Haying Income	\$1,700
Operations and Maintenance	Tract 2009007 Cropland Income	\$5,550
	Total	\$9,250

# COTTONWOOD RANCH COMPLEX





## 2016 Cottonwood Ranch Complex Annual Work Plan

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

---

#### General Priorities

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

#### Adaptive Management Priorities

- ***Riverine versus Off-Channel Tern and Plover Nesting*** – Monitor tern and plover use and productivity on Program riverine habitat and nearby off-channel sand & water nesting habitat (OCSW nesting complex on CWR property).
- 

#### Species Habitat Priorities

- ***Maintain Target Species Sand and Water Habitat*** – Application of pre-emergent herbicide on cleared areas and tern and plover nesting islands, and in-channel disking as necessary to control vegetation.
  - ***Management of grassland/wet meadow habitat for whooping cranes and sandhill cranes*** – Implementation of prescribed fire and grazing rotation in Section 16 T8N R19W (Tracts 2008002 and 2010001) to provide short grassland structure on ¼ of area during spring and fall crane migrations. Drain check structures to improve wetland hydrology.
  - ***Protecting Other Species of Concern*** – Identify presence of and determine methods to protect and/or benefit other species of concern while implementing 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.
  - **Bridge Repair** – Repair culvert bridge across Spring Creek
- 

*NOTE: The budget section of this work plan only contains information for work items that are specific to this complex. As such, complex-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.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR1	Coordination of Program land actions with neighboring landowners	1/1/16 – 12/31/16	BS	N/A	N/A

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR3	Tract 2008002 Pre-emergent herbicide application on in-channel tern and plover nesting habitat and OCSW complex <sup>1</sup>	4/1/16 – 4/30/16	TT, JJ	\$5,000	LP-2
CR4	Disking if necessary to provide in-channel vegetation control <sup>2</sup>	9/1/16 – 10/1/16	TT	\$9,000	LP-2

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR6	Tract 2010001 Annual electrical service fee at two irrigation wells to supplement water to wetland <sup>3</sup>	3/15/16 – 5/15/16, 10/1/16 – 11/15/16	TT	\$10,000	LP-2
CR7	Tract 2010001- SW pasture herbicide treatment <sup>4</sup>	10/15/16 – 11/15/16	TT	\$4,131	LP-2
CR8	Tract 2010001 - Prescribed burn on Morse-middle pasture <sup>5</sup>	3/15/16 – 5/15/16	TT	\$9,600	LP-2

CR9	Tract 2008002 Prescribed burn on area south of OCSW <sup>6</sup>	3/15/16 – 5/15/16	TT	\$5,160	LP-2
CR10	Tract 2008002 Prescribed burn on Lloyd island <sup>7</sup>	3/15/16 – 5/15/16	TT	\$11,700	LP-2
CR10	Tract 2008002 Prescribed burn on NW ¼ Section 16 <sup>8</sup>	3/15/16 – 5/15/16	TT	\$9,600	LP-2

**Priority Area: *Species Habitat***

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR11	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
CR12	Coordination with NPPD, USFWS and NGPC to identify and mitigate potential impacts associated with 2016 land activities	As Needed	TBD	N/A	N/A

---

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR13	Replace boundary fence on Middle pasture of Tract 2010001 <sup>9</sup>	2/1/16 – 5/15/2015	TT	\$26,400	LP-4
CR14	Boundary fence and road maintenance <sup>10</sup>	1/1/16 – 12/31/16	TT, JJ	\$4,500	LP-4
CR15	Noxious weed control <sup>11</sup>	4/1/16 – 9/30/16	TT, JJ	\$11,000	LP-4
CR16	Mowing <sup>12</sup>	7/15/16 – 11/1/16	TT	\$3,000	LP-4

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR17	Tract 2009006 grazing lease oversight	5/15/16 – 10/15/16	TT	N/A	N/A
CR18	Tract 2010001 grazing lease oversight	5/15/16 – 10/15/16	TT	N/A	N/A
CR19	Tract 2010001 haying lease oversight	7/15/16 – 10/15/16	TT	N/A	N/A

---

<sup>1</sup> Based on 2015 costs

<sup>2</sup> Approx. 49 hours of in-channel disking at \$181.25/hr.

<sup>3</sup> Based on 2015 costs

<sup>4</sup> Roundup application at \$27/ac. Based on 2014 application on Tract 2009007.

<sup>5</sup> Burn unit area of 160 acres at \$60/AC

<sup>6</sup> Burn unit area of 86 acres at \$60/AC

<sup>7</sup> Burn unit area of 196 acres at \$60/AC

---

<sup>8</sup> Burn unit area of 160 acres at \$60/AC

<sup>9</sup> Replace perimeter fence, 10,560 LF @ 2.50/ LF

<sup>10</sup> Based on 2015 costs

<sup>11</sup> Based on 2015 costs

<sup>12</sup> Based on 2015 costs

### **Personnel Responsibility Key:**

JJ – Jim Jenniges (NPPD)

BS – Bruce Sackett (Land Specialist)

DB – David Baasch (Wildlife Biologist)

TT – Tim Tunnell (Land Manager)

JB – Justin Brei (Biosystem Engineer)

KW – Kevin Werbylo (Water Resource Engineer)

JF – Jason Farnsworth (Technical Support Services)

CS – Chad Smith (Director of Natural Resources)

### **Property Identification Key:**

2008002 – NPPD Cottonwood Ranch

2009006 – PRRIP Stall Tract

2010001 – PRRIP Morse Tract

---

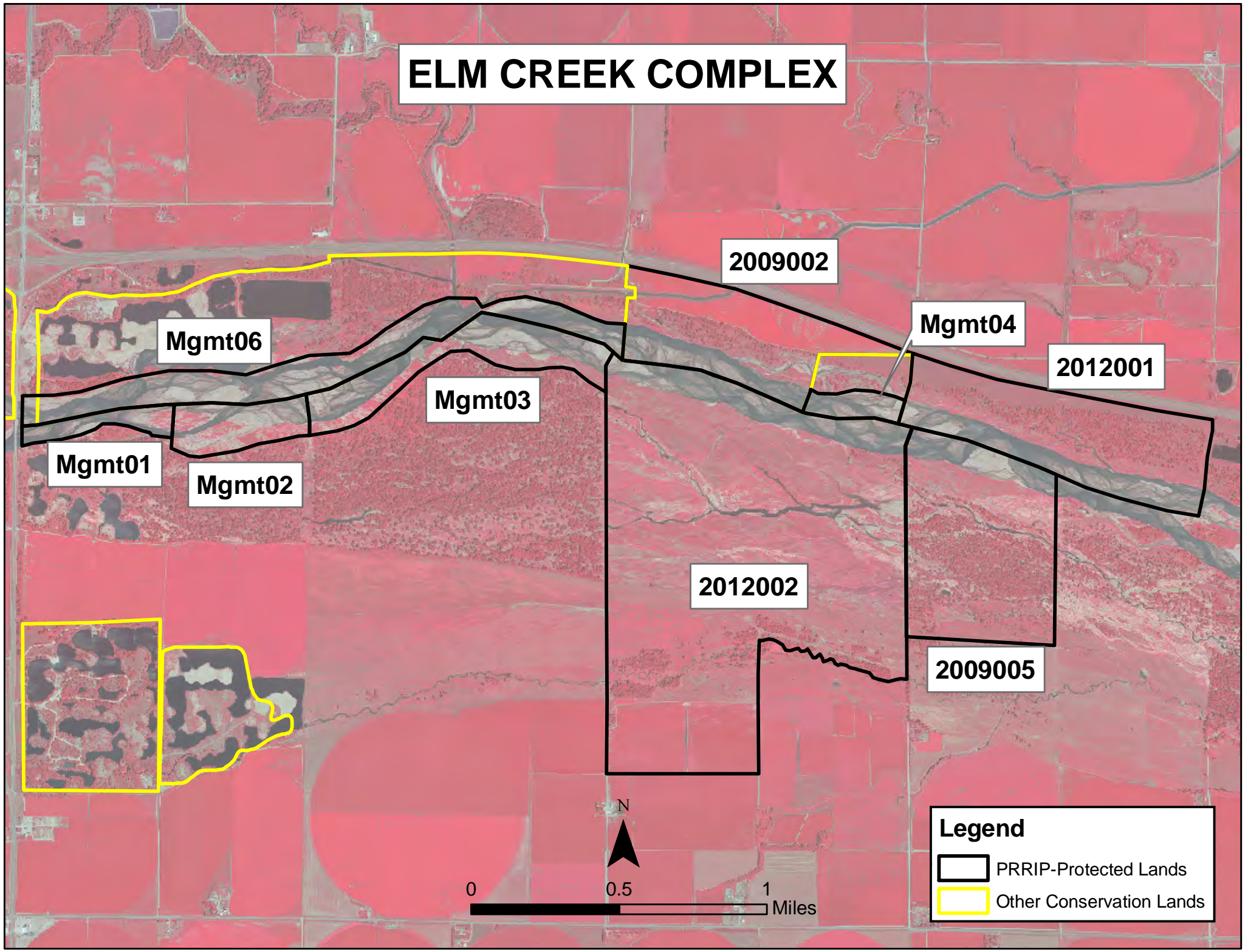
**2016 Cottonwood Ranch Budget Summary**  
***Estimated 2016 Expenditures by Program Budget Line Item***

Priority Area	Item	Budget Line Item	Estimated Expenditure
Adaptive Management & Species Habitat	Target Species Sand and Water Habitat	LP-2	\$14,000
Species Habitat	Grassland / Wet Meadow Habitat	LP-2	\$50,191
		<b>Subtotal</b>	<b>\$64,191</b>
Operations and Maintenance	Property Maintenance Obligations and Needs	LP-4	\$44,900
		<b>Total</b>	<b>\$109,091</b>

***Estimated 2016 Revenues to Program***

Priority Area	Item	Estimated Income
Agricultural Operations	Tract 2009006 Grazing Lease Income	\$4,000
Agricultural Operations	Tract 2010001 Grazing Lease Income	\$16,000
Agricultural Operations	Tract 2010001 Haying Lease Income	\$5,000
<b>Total</b>		<b>\$25,000</b>

# ELM CREEK COMPLEX



2009002

Mgmt06

Mgmt04

2012001

Mgmt03

Mgmt01

Mgmt02

2012002

2009005



0 0.5 1 Miles

**Legend**

PRRIP-Protected Lands

Other Conservation Lands



## 2016 Elm Creek Complex Annual Work Plan

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

---

#### General Priorities

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

#### Adaptive Management Priorities

- **Whooping Crane Riverine Habitat Experiment** – *Vegetation control in and adjacent to channel to maintain a range of unobstructed view widths above Program suitability criteria.*
  - **Riverine versus Off-Channel Tern and Plover Nesting** – *Monitor tern and plover use and productivity on Program riverine habitat and nearby off-channel sand & water nesting habitat (NPPD’s Blue Hole sandpit and Johnson Sandpit).*
- 

#### Species Habitat Priorities

- **Maintain Target Species Sand and Water Habitat** – *Create and maintain sand and water habitat for species through construction of in-channel nesting islands and vegetation control to maintain active channel width and unobstructed view widths.*
  - **Protecting Other Species of Concern** – *Identify presence of and determine methods to protect and/or benefit other species of concern while implementing 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.*
  - **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 this complex. As such, complex-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.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC1	Coordination of Program land actions with neighboring landowners	1/1/16 – 12/31/16	BS	N/A	N/A

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC2	Herbicide applications on islands to maintain bare sand nesting habitat <sup>1</sup>	4/2016 & 9/2016	TT	\$4,500	LP-2
EC3	In-channel cross disking (below diversion) and overbank mowing to maintain active channel and unobstructed view widths <sup>2</sup>	9/1/16 – 10/1/16	TT	\$15,500	LP-2
EC4	Island Reconstruction <sup>3</sup>	8/15/16 – 10/15/16	JB	\$40,000	LP-2

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC5	Tract 2009002 Prescribed burn (41 ac) <sup>4</sup>	3/15/16 – 5/15/16	TT	\$2,460	LP-2
EC6	Tract 2015003 Prescribed burn (27 ac) <sup>5</sup>	3/15/16 – 5/15/16	TT	\$1,620	LP-2
EC7	Tract 2009005 Prescribed burn (63 ac) <sup>6</sup>	3/15/16 – 5/15/16	TT	\$3,780	LP-2
EC8	Tract 2012002 Prescribed burn (158 ac) <sup>7</sup>	3/15/16 – 5/15/16	TT	\$9,480	LP-2
EC9	Tract 2009002 & Tract 2015003 mulching treatment <sup>8</sup>	8/15/16 – 10/15/16	TT	\$20,000	LP-2

EC10	Tract 2012002 mulching treatment <sup>9</sup>	8/15/16 – 10/15/16	TT	\$20,000	LP-2
------	---	--------------------	----	----------	------

**Priority Area: *Species Habitat***

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC11	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
EC12	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with 2016 land activities	As Needed	TBD	N/A	N/A

**Priority Area: *Operations and Maintenance***

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC13	Tract 2009002 building utilities and maintenance <sup>10</sup>	1/1/16 – 12/31/16	TT	\$1,500	LP-4
EC14	Fence and road maintenance <sup>11</sup>	4/1/16 – 10/1/16	TT	\$6,000	LP-4
EC15	Mowing <sup>12</sup>	7/15/16 – 11/1/16	TT	\$1,000	LP-4
EC16	Noxious weed control <sup>13</sup>	6/1/16 – 8/31/16	TT	\$20,000	LP-4
EC17	Tract 2012002 repair flood-damaged west access road	6/1/16 – 7/31/16	JB	\$20,000	LP-4

---

**Priority Area: Operations and Maintenance**

**Item(s): Agricultural Operations**

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC18	Tract 2009002 crop oversight	5/15/16 – 10/15/16	TT	N/A	N/A
EC19	Tract 2009005 grazing lease oversight	5/15/16 – 10/15/16	TT	N/A	N/A
EC20	Tract 2012001 haying lease oversight	5/15/16 – 10/15/16	TT	N/A	N/A
EC21	Tract 2012002 grazing lease oversight	5/15/16 – 10/15/16	TT	N/A	N/A

---

<sup>1</sup> Based on 2015 costs

<sup>2</sup> Approx. 86 hours of in-channel disking at \$181.25/hr.

<sup>3</sup> Based on 2014 costs of 184.5 hrs @ \$215/ hr for 2 dozers

<sup>4</sup> Burn unit area of 41 acres at \$60/ac

<sup>5</sup> Burn unit area of 27 acres at \$60/ac

<sup>6</sup> Burn unit area of 63 acres at \$60/ac

<sup>7</sup> Burn unit area of 158 acres at \$60/ac

<sup>8</sup> Based on a cost estimate of \$100/ acre for mulching on 200 acres

<sup>9</sup> Based on a cost estimate of \$100/ acre for mulching on 200 acres

<sup>10</sup> Based on 2015 costs

<sup>11</sup> Based on 2015 costs

<sup>12</sup> Based on 2015 costs

<sup>13</sup> Based on 2015 costs

---

**Personnel Responsibility Key:**

BS – Bruce Sackett (Land Specialist)

DB – David Baasch (Wildlife Biologist)

TT – Tim Tunnell (Land Manager)

JB – Justin Brei (Biosystems Engineer)

JF – Jason Farnsworth (Technical Support Services)

**Property Identification Key:**

2009002 – PRRIP Bartels Tract

2009005 – PRRIP McCormick Tract

2012001 – PRRIP Sullwold Tract

2012002 – PRRIP Johns Tract

---

## 2016 Elm Creek Complex Budget Summary

### *Estimated 2016 Expenditures by Program Budget Line Item*

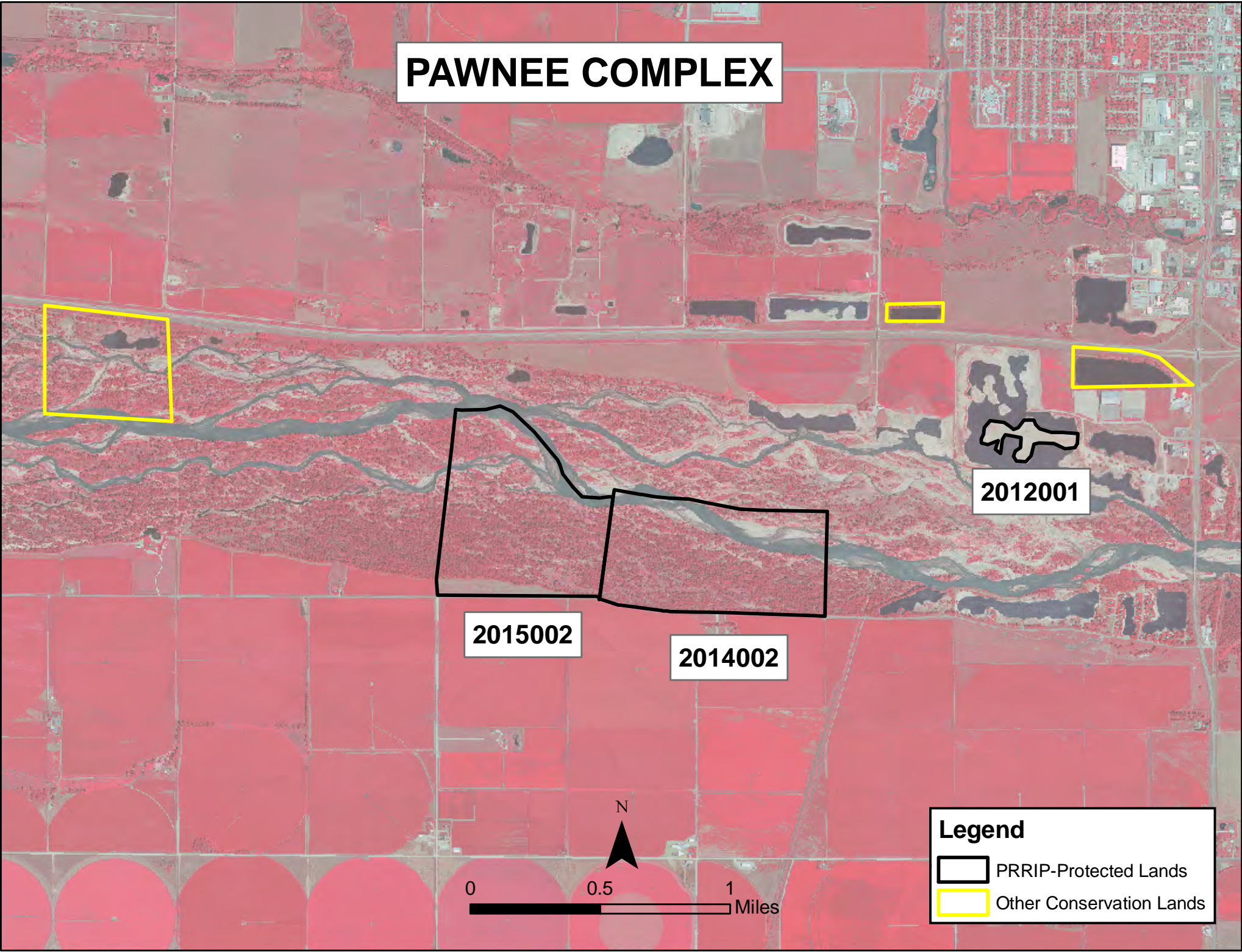
Priority Area	Item	Budget Line Item	Estimated Expenditure
Adaptive Management & Species Habitat	<i>Tern, Plover and Whooping Crane Habitat Experiments</i>	LP-2	\$60,000
Species Habitat	<i>Whooping Crane Grassland / Wet Meadow Habitat</i>	LP-2	\$57,340
		<b>Subtotal</b>	<b>\$117,340</b>

Operations and Maintenance	Property Maintenance Obligations and Needs	LP-4	\$48,500
		<b>Total</b>	<b>\$165,840</b>

### *Estimated 2016 Revenues*

Priority Area	Item	Estimated Income
Operations and Maintenance	Tract 2009002 Crop income	\$4,350
Operations and Maintenance	Tract 2009005 Grazing Lease Income	\$2,500
Operations and Maintenance	Tract 2012001 Haying lease income	\$3,000
Operations and Maintenance	Tract 2012002 Grazing lease income	\$8,100
<b>Total</b>		<b>\$17,950</b>

# PAWNEE COMPLEX





## 2016 Pawnee Complex Annual Work Plan

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

---

#### General Priorities

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

#### Adaptive Management Priorities

- ***Whooping Crane Riverine Habitat Experiment*** – Vegetation control in and adjacent to channel to maintain a range of unobstructed view widths above Program suitability criteria.
- 

#### Species Habitat Priorities

- ***Maintain Target Species Sand and Water Habitat*** – Create and maintain sand and water habitat for species through maintenance of active channel width and unobstructed view widths.
  - ***Protecting Other Species of Concern*** – Identify presence of and determine methods to protect and/or benefit other species of concern while implementing 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 lessee on Tracts 2014002 and 2015002.
- 
-

---

*NOTE: The budget section of this work plan only contains information for work items that are specific to this complex. As such, complex-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.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC1	Coordination of Program land actions with neighboring landowners	1/1/16 – 12/31/16	BS	N/A	N/A
EC2	Develop Complex Restoration and Management Plan	1/1/16 – 8/1/16	JB	N/A	N/A

**Priority Area: Adaptive Management & Target Species Habitat**

**Item(s): Tern, Plover and Whooping Crane Riverine Habitat Experiments**

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC3	2016 Habitat Enhancement – woody vegetation clearing and disking	7/1/16 – 10/31/16	TT	\$150,000	LP-2

**Priority Area: Species Habitat**

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC4	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
EC5	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with 2016 land activities	As Needed	TBD	N/A	N/A

---

**Priority Area: Operations and Maintenance**

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC6	Identify boundaries of Tract 2014002 & 2015002 by tree/brush mulching	7/15/16 – 11/1/16	TT	\$60,000	LP-4
EC7	Fence and road maintenance <sup>1</sup>	4/1/16 – 10/1/16	TT	\$25,000	LP-4
EC8	Mowing <sup>2</sup>	7/15/16 – 11/1/16	TT	\$1,000	LP-4
EC9	Noxious weed control <sup>3</sup>	6/1/16 – 8/31/16	TT	\$20,000	LP-4

**Priority Area: Operations and Maintenance**

**Item(s): Agricultural Operations**

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC10	Tract 2014002 Oversight	5/15/16 – 10/15/16	TT	N/A	N/A
EC11	Tract 2015002 Oversight	5/15/16 – 10/15/16	TT	N/A	N/A

---

<sup>1</sup> Based on \$1/LF of repair on Tract 2015002 (7,500 LF) and \$3/LF on new construction on Tract 2014002 (5,775 LF)

<sup>2</sup> Based on 2015 costs

<sup>3</sup> Based on 2015 costs

---

**Personnel Responsibility Key:**

BS – Bruce Sackett (Land Specialist)

DB – David Baasch (Wildlife Biologist)

TT – Tim Tunnell (Land Manager)

JB – Justin Brei (Biosystems Engineer)

JF – Jason Farnsworth (Technical Support Services)

**Property Identification Key:**

2014002 – PRRIP Volentine Tract

2015002 – PRRIP BELF Tract

---

## 2016 Pawnee Complex Budget Summary

### *Estimated 2016 Expenditures by Program Budget Line Item*

Priority Area	Item	Budget Line Item	Estimated Expenditure
Adaptive Management & Species Habitat	<i>Tern, Plover and Whooping Crane Habitat Experiments/ Whooping Crane Grassland / Wet Meadow Habitat</i>	LP-2	\$150,000
Operations and Maintenance	Property Maintenance Obligations and Needs	LP-4	\$106,,000
		<b>Total</b>	<b>\$256,000</b>

### *Estimated 2016 Revenues*

Priority Area	Item	Estimated Income
Operations and Maintenance	Tract 2015002 Crop income	\$720
Operations and Maintenance	Tract 2015002 Grazing Lease Income?	\$?
Operations and Maintenance	Tract 2014002 Grazing lease income?	\$?
<b>Total</b>		<b>\$720</b>

# FORT KEARNY COMPLEX

2012003

2009001

2009004

2015001

2010003

2008001

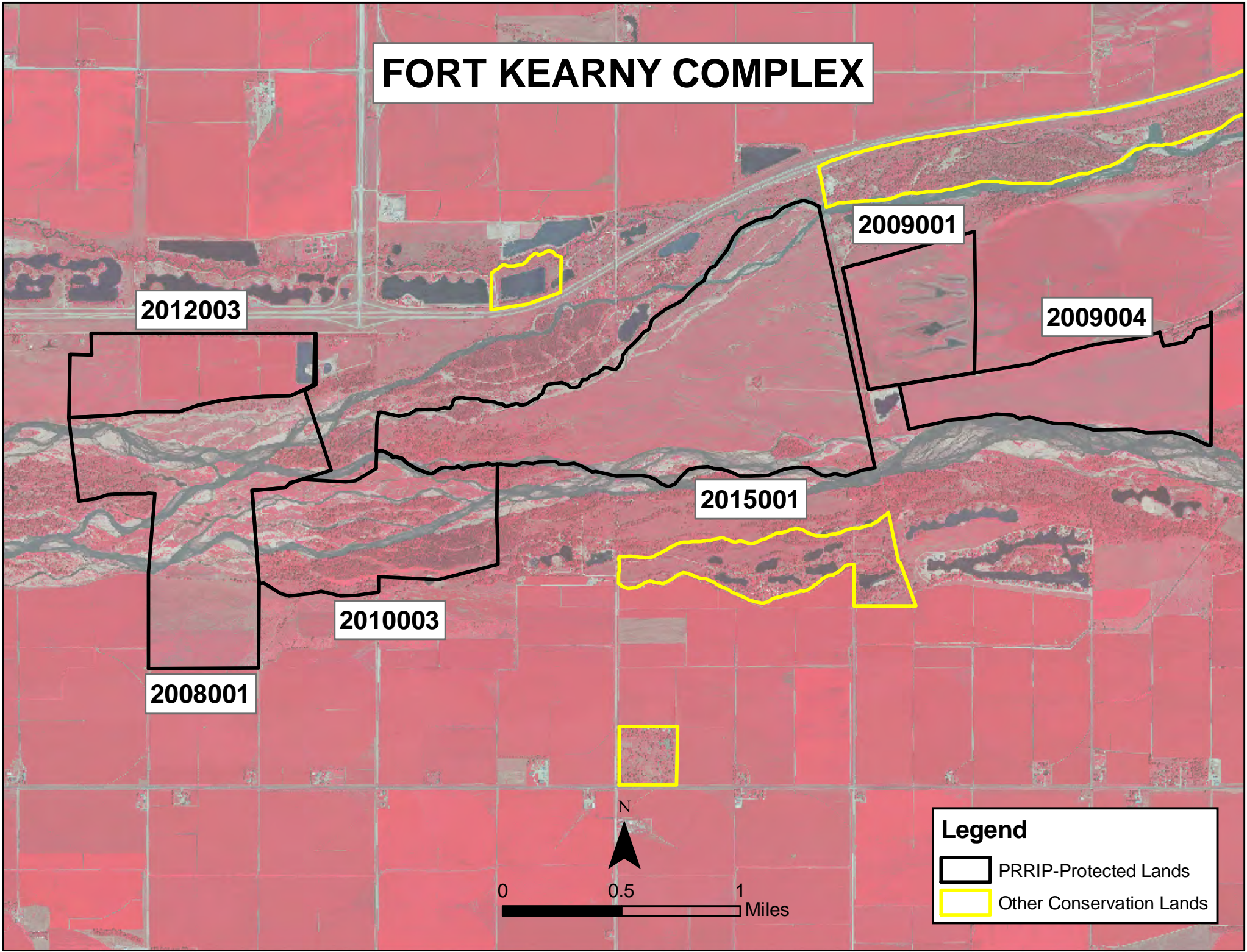


0 0.5 1 Miles

**Legend**

PRRIP-Protected Lands

Other Conservation Lands





## 2016 Fort Kearny Complex Annual Work Plan

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

---

#### General Priorities

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

#### Adaptive Management Priorities

- **Whooping Crane Riverine Habitat Experiment** – *Design of vegetation clearing to provide a range of unobstructed view widths above Program suitability criteria.*
- 

#### Species Habitat Priorities

- **Improve Target Species Sand and Water Habitat** – *Increase available sand and water habitat for species through vegetation control to ensure that channel meets whooping crane suitability criteria.*
  - **Protecting Other Species of Concern** – *Identify presence of and determine methods to protect and/or benefit other species of concern while implementing 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.*
  - **Agricultural Operations** – *Development of grazing plan and oversight of grazing 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 this complex. As such, complex-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.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK1	Coordination of Program land actions with neighboring landowners	1/1/16 – 12/31/16	BS	N/A	N/A

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK2	Disking if necessary to provide in-channel vegetation control <sup>1</sup>	9/1/16 – 10/1/16	TT	\$19,575	LP-2

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK3	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
FK4	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with 2016 land activities	1/1/16 – 4/1/16	TBD	N/A	N/A

---

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK5	2016 Habitat Enhancement – woody vegetation clearing	7/15/16 – 2/15/17	TT	\$100,000	LP-2
FK6	Tract 2008001 North & Middle Island Prescribe burn (146 ac) <sup>2</sup>	3/15/16 – 5/15/16	TT	\$8,760	LP-2
FK7	Tract 2008001-South Prescribe burn (92 ac) <sup>3</sup>	3/15/16 – 5/15/16	TT	\$5,520	LP-2
FK8	Tract 2015001 SW unit Prescribe burn (204 ac) <sup>4</sup>	3/15/16 – 5/15/16	TT	\$12,240	LP-2

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK9	Tract 2015001 East Fence Replacement (~4,890 LF)	1/1/16 – 5/1/16	TT	\$12,225	LP-4
FK10	Tract 2009001 & 2015001 Groundwater monitoring well enclosures (18 wells) <sup>5</sup>	1/1/16 – 5/1/16	TT	\$14,000	LP-4
FK11	Tract 2009004 livestock well & tank enclosure <sup>6</sup>	1/1/16 – 5/1/16	TT	\$2,000	LP-4
FK12	Noxious weed control <sup>7</sup>	6/1/16 – 8/31/16	TT	\$15,000	LP-4
FK13	Boundary fence and road maintenance <sup>8</sup>	1/1/16 – 12/31/16	TT	\$9,000	LP-4
FK14	Mowing <sup>9</sup>	8/15/16 – 9/15/16	TT	\$2,000	LP-4

---

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

<b>No.</b>	<b>Activities for 2016</b>	<b>Target Dates</b>	<b>Person Responsible</b>	<b>Cost (Estimated)</b>	<b>Budget Line Item</b>
FK15	Tract 2008001 grazing lease oversight	5/15/16 – 10/15/16	TT	N/A	N/A
FK16	Tract 2012003 grazing lease oversight and input costs	5/15/16 – 10/15/16	TT	N/A	N/A
FK17	Tract 2015001 grazing lease oversight and input costs	5/15/16 – 10/15/16	TT	N/A	N/A

---

<sup>1</sup> Approx. 107 hours of in-channel disking at \$181.25/hr.

<sup>2</sup> Burn unit area of 146 acres at \$60/AC

<sup>3</sup> Burn unit area of 92 acres at \$60/AC

<sup>4</sup> Burn unit area of 204 acres at \$60/AC

<sup>5</sup> Based on estimate of \$726/ enclosure

<sup>6</sup> Based on estimate of \$726/ enclosure

<sup>7</sup> Based on 2015 costs

<sup>8</sup> Based on 2015 costs

<sup>9</sup> Based on 2015 costs

---

**Personnel Responsibility Key:**

BS – Bruce Sackett (Land Specialist)

DB – David Baasch (Wildlife Biologist)

TT – Tim Tunnell (Land Manager)

JF – Jason Farnsworth (Technical Support Services)

JB – Justin Brei (Biosystems Engineer)

**Property Identification Key:**

2008001 – PRRIP Wyoming Property

2009001 – PRRIP Fox Tract

2009004 – PRRIP Hostetler Tract

2010003 – PRRIP Sherrerd/Clark Easement

2012003 – PRRIP Blessing Tract

2015001 – PRRIP Speidell Tract

---

## 2016 Fort Kearny Complex Budget Summary

### *Estimated 2016 Expenditures by Program Budget Line Item*

Priority Area	Item	Budget Line Item	Estimated Expenditure
Species Habitat	Improve Sand and Water Habitat	LP-2	\$19,575
Species Habitat	Whooping Crane Grassland / Wet Meadow Habitat	LP-2	\$126,520
		<b>Subtotal</b>	<b>\$146,095</b>

Operations and Maintenance	Property Maintenance Obligations and Needs	LP-4	\$54,225
		<b>Total</b>	<b>\$200,320</b>

### *Estimated 2016 Revenues*

Priority Area	Item	Estimated Income
Operations and Maintenance	Tract 2008001 and Tract 2012003 Grazing Income	\$7,700
Operations and Maintenance	Tract 2009001 Income	\$7,000
Operations and Maintenance	Tract 2009004 Income	\$14,000
Operations and Maintenance	Tract 2015001 Grazing Income	\$24,500
	Total	\$53,200

# MINDEN - GIBBON MANAGEMENT AGREEMENT

2009008

Mgmt00?

N

0 0.5 1 Miles

## Legend

- PRRIP-Protected Lands
- Other Conservation Lands



## 2016 Minden – Gibbon Management Agreement Annual Work Plan

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

---

#### Species Habitat Priorities

- ***Improve Target Species Sand and Water Habitat*** – Increase available sand and water habitat for species through design and construction of tern and plover and whooping crane experiments that will create habitat meeting Program suitability criteria.
  - ***Protecting Other Species of Concern*** – Identify presence of and determine methods to protect and/or benefit other species of concern while implementing land-related activities.
-

---

**Priority Area:** *Species Habitat*

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 2	Disking if necessary to provide in-channel vegetation control <sup>1</sup>	9/1/16 – 10/1/16	TT	\$29,000	LP-2

---

<sup>1</sup> Approx. 160 hours of in-channel disking at \$181.25/hr.

**Personnel Responsibility Key:**

BS – Bruce Sackett (Land Specialist)

DB – David Baasch (Wildlife Biologist)

TT – Tim Tunnell (Land Manager)

JF – Jason Farnsworth (Technical Support Services)

JB – Justin Brei (Biosystems Engineer)

---

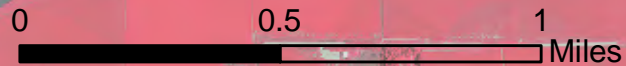
## 2016 Minden – Gibbon Management Agreement Budget Summary

### *Estimated 2016 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	\$29,000
		<b>Total</b>	<b>\$29,000</b>

# SHOEMAKER ISLAND COMPLEX

2010004



**Legend**

-  PRRIP-Protected Lands
-  Other Conservation Lands



## 2016 Shoemaker Island Complex Annual Work Plan

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

---

#### General Priorities

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

#### Adaptive Management Priorities

- ***Tern and Plover Riverine Habitat Experiment*** – Reconstruction and maintenance of in-channel nesting islands.
  - ***Whooping Crane Riverine Habitat Experiment*** – Implement vegetation clearing to provide a range of unobstructed view widths that meet Program suitability criteria
  - ***Riverine versus Off-Channel Tern and Plover Nesting*** – Monitor tern and plover use and productivity on Program riverine habitat and nearby OCSW habitat.
- 

#### Species Habitat Priorities

- ***Improve Target Species Sand and Water Habitat*** – Increase available sand and water habitat for species through design and reconstruction of tern and plover nesting islands and maintenance of suitable unvegetated widths for whooping crane use.
  - ***Protecting Other Species of Concern*** – Identify presence of and determine methods to protect and/or benefit other species of concern while implementing land-related activities.
-

---

## Operations and Maintenance Priorities

- ***Basic Property Maintenance Obligations and Needs*** – *Fulfill basic property ownership obligations and needs on Tract 2010004.*
  - ***Agricultural Operations*** – *Oversight of grazing and haying leases on Tract 2010004.*
- 

*NOTE: The budget section of this work plan only contains information for work items that are specific to this complex. As such, complex-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.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 1	Coordination of Program land actions with neighboring landowners	1/1/16 – 12/31/16	BS	N/A	N/A

**Priority Area: Species Habitat**

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 2	Disking if necessary to provide in-channel vegetation control <sup>1</sup>	9/1/16 – 10/1/16	TT	\$21,000	LP-2

**Priority Area: Adaptive Management**

**Item(s): Tern, Plover and Whooping Crane Habitat Experiments**

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 3	Pre-emergent herbicide application on in-channel nesting islands. <sup>2</sup>	3/1/16 – 4/1/16	TT	\$10,000	LP-2
SI 4	Island Reconstruction <sup>3</sup>	8/15/16 – 10/15/16	JB	\$40,000	LP-2

---

**Priority Area: *Species Habitat***

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 6	Tract 2010004 Prescribe burn South ½ -East & West Pastures (280 ac) <sup>4</sup>	3/15/16 – 5/15/16	TT	\$16,800	LP-2
SI 7	Tract 2010004 Prescribe burn-South of alfalfa meadow (25ac) <sup>5</sup>	3/15/16 – 5/15/16	TT	\$1,500	LP-2
SI 8	Tract 2010004 Prescribe burn-North Pasture (319 ac) <sup>6</sup>	3/15/16 – 5/15/16	TT	\$19,140	LP-2

**Priority Area: *Species Habitat***

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 10	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
SI 11	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with 2016 land activities	1/1/16 – 4/1/16	TBD	N/A	N/A

---

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 12	Noxious weed control <sup>7</sup>	6/1/16 – 8/31/16	TT	\$5,000	LP-4
SI13	Boundary fence and road maintenance <sup>8</sup>	1/1/16 – 12/31/16	TT	\$4,000	LP-4
SI 14	Mowing <sup>9</sup>	8/15/16 – 9/15/16	TT	\$2,000	LP-4

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

No.	Activities for 2016	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 15	Tract 2010004 grazing, haying lease oversight	5/15/16 – 10/15/16	TT	N/A	N/A

---

<sup>1</sup> Approx. 114 hours of in-channel disking at \$181.25/hr.

<sup>2</sup> Based on 2014 costs

<sup>3</sup> Based on 2014 costs of 184.5 hrs @ \$215/ hr for 2 dozers at Tract 2009002

<sup>4</sup> Burn unit area of 280 acres at \$60/ac

<sup>5</sup> Burn unit area of 25 acres at \$60/ac

<sup>6</sup> Burn unit area of 319 acres at \$60/ac

<sup>7</sup> Based on 2015 costs

<sup>8</sup> Based on 2015 costs

<sup>9</sup> Based on 2015 costs

---

**Personnel Responsibility Key:**

BS – Bruce Sackett (Land Specialist)

DB – David Baasch (Wildlife Biologist)

TT – Tim Tunnell (Land Manager)

JF – Jason Farnsworth (Technical Support Services)

JB – Justin Brei (Biosystems Engineer)

**Property Identification Key:**

2010004 – PRRIP Binfield Tract

---

## 2016 Shoemaker Island Complex Budget Summary

### *Estimated 2016 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	\$21,000
Adaptive Management & Species Habitat	Tern, Plover and Whooping Crane Habitat Experiments	LP-2	\$50,000
Species Habitat	Whooping Crane Grassland/Wet Meadow Habitat	LP-2	\$37,440
		<b>Subtotal</b>	<b>\$108,440</b>
Operations and Maintenance	Property Maintenance Obligations and Needs	LP-4	\$11,000
		<b>Total</b>	<b>\$119,440</b>

### *Estimated 2016 Revenues*

Priority Area	Item	Estimated Income
Operations and Maintenance	Tract 2010004 Grazing and Haying Income	\$38,000
	<b>Total</b>	<b>\$38,000</b>