PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
FISCAL YEAR 2017 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
Don Ament, State of Colorado, Chair

Draft Budget and Work Plan Recommended by Executive Director
December 6, 2016

Final Budget and Work Plan Revised and Approved by Governance Committee
December 6, 2016

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PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM FISCAL YEAR 2017 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 (ED) of the Program. Dr. Kenny and staff in the Executive Director's Office (EDO) 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 2017 Program Budget and Work Plan based on guidance from the Final Program Document and Program goals and priorities.

This document presents the final FY 2017 Program Annual Work Plan. The Final FY 2017 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 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office (Executive Director, Headwaters Corp. staff)

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	$ -
2017	$ -	$ 2,200,000.00

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 2017 ED Contract/Office Budget and the 2017 Headwaters Corporation Staffing Plan for detailed documentation of effort. Although costs for several items in the 2017 ED-1 budget are increasing from 2016 levels and workload has increased in many areas, other adjustments will be implemented to keep the 2017 budget level at the 2016 level. Increases over 2016 budget levels have occurred in many areas, including:

- Rent, health care-related costs, and travel costs have increased.
- Salary adjustments at an average increase of about 3% to remain competitive in the labor market.
- The work load of data compilation, analysis, and synthesis; independent science review activities; and initiation of new fronts of species and physical process investigations continues to increase.
- The work load for developing and evaluating additional Water Action Plan alternatives; efforts to support water leasing negotiations; and efforts to acquire land will remain high for the foreseeable future, particularly in the wake of J-2 Regulating Reservoir on-hold decision and the consequent urgent need to find replacement supplies.

Efforts at cost control to counter these cost increase will be implemented in key areas, including:

- Tighter control of Other Direct Cost whenever possible.
- Not passing all cost increases on to the Program.
- Shifting workloads among personnel to achieve higher execution efficiency.

PROGRAM TASK & ID: ED-2. Administrative and Other Support Services

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office

Task Location
ED Office

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	$ -
2017	$ -	$ 99,000.00

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 eight years. Given the level of legal support required over the past four years and the anticipated continued need for legal counsel in 2017 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 2017 are $30,000. The average expenditures for legal services under ED-2 for the period 2013 to 2015 have been about $30,000.

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	800
Omaha World Herald	800
Wyoming Eagle Tribune	200
Kearney Hub	65
TOTAL	**$1,865**

Assuming four notices or ads based on anticipated number of RFPs/IFBs to be issued (Engineering Services for Broad-Scale Recharge, Engineering Services for Slurry Wall Storage, Implementation Services for Sediment Augmentation, Tree Clearing/Channel Widening Project), 4 x $1,865 = $7,460, plus six additional newspapers notices (either for IFBs published exclusively in local papers or supplemental ads in local papers for RFPs/IFBs also published in regional papers) @$250, 6 x $250 = $1,500; $7,460 + $1,500 = $8,960 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	$8,960
TOTAL	**$98,960, round up to $99,000**

PROGRAM TASK & ID: ED-3. Public Outreach

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office

Task Location
ED Office (Kearney, NE)

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	$ -
2017	$ -	$ 55,000.00

Task Description
Communication of information about the Platte River Recovery Implementation Program and general education oriented activities are an important function to gain and advance acceptance of the Program in all our stakeholder communities. The Program stakeholders include; residents of the three states, the Department of the Interior agencies, farmers and ranchers, recreational users of the Platte, the biological sciences community, national and international conservation and environmental groups, and bird watchers from around the world. The education-oriented sponsorships are focused 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 $4,000.

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

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 2017, $40,000 is budgeted for major sponsorships including: $25,000 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 2016. The focus of 2017 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. Installation of equipment allowing development of time-lapse footage chronicling the development of the broad-scale recharge project on and near Cottonwood Ranch is planned for 2017. In addition, interviews with several people associated with conservation lands in the central Platte will be conducted. The intent is to develop video material to use in association with the time lapse footage. 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 2017 at about $1,000.
   - 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 $250 to $750. Allowing for three to five such sponsorships to be awarded, costs for 2017 are estimated at about $2,000

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. The cost for development and printing of the 2015/2016 Program Biennial Report will be $2,500. 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 $5,500.

Estimated costs for FY17 include:

Expense Category	Estimated FY17 Cost
Exhibit Fees	$4,000
Major Sponsorships	$40,000
NET Time-Lapse Project ($25,000)	
Rowe Sanctuary Education Program ($5,000)	
Prairie Loft Education Program ($5,000)	
Greenway Foundation SPREE Program ($5,000)	
Other Sponsorships	$3,000
Promotional Materials	$8,000
Total	**$55,000**

The following tables provide specific cost estimate breakdowns for each of the Major Sponsorship items in FY17:

NET Time-lapse Project Cost Estimate Breakdown

Item	Cost ($)	Comments
Direct costs associated with travel and equipment maintenance.	$5,000	At this stage in the project, most sites have been established and equipped, but $1,000 is allocated for minor equipment repair and replacement material costs. The remaining $4,000 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	$20,000	Labor costs for this project are based on NET video crew labor rates averaging $80 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 250 total hours at a rate of $80 per hour can be supported. Other funding sources will be used to support additional labor costs.
TOTAL	**$25,000**	

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**	

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**	

The Greenway Foundation, SPREE Program

SPREE Program	Expenses	Income	Total	
Expenses				
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.
Income				
PRRIP		$5,000	$5,000	
Totals	**($5,000)**	**$5,000**	**$0**	

PROGRAM TASK & ID: GFC-1. NCF Fees

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office, Nebraska Community Foundation (NCF)

Task Location
ED Office; NCF (Lincoln, NE)

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	$ -
2017	$ -	$ 450,000.00

Task Description
Fees paid to the Nebraska Community Foundation (NCF) for administration of the financial aspects of the Program in 2017.

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 an estimated provisional indirect cost ratio of 3% applied to approximately $19 million in direct costs reduced by 70% to account for potential under-spending of budgeted amounts based on uncertainty associated primarily with land acquisitions and water project start dates. 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, the above calculations were further refined and it is estimated that the Foundation will be entitled to $450,000, hence that is the amount that will be obligated for FY2017.

PROGRAM TASK & ID: GFC-2. Flow Releases and Other Insurance

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office, Dunbar-Peterson

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	$ -
2017	$ -	$ 85,000.00

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 several 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 several 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. Despite additional land acquisitions in 2016 and generally increasing insurance costs, the Program has been advised by our agent that insurance costs will remain relatively stable. Out clean claims record and no new major risk additions have mitigated the factors pushing toward increased costs and will keep the Program expenditure for this item at roughly the same level as 2016.

PROGRAM TASK & ID: GFC-3. Expenses, Meeting Rooms, etc.

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; GC; FC

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	$ -
2017	$ -	$ 9,000.00

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 2011-2016 experience and anticipating a small increase, 2017 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 2011-2016 experience and anticipating a small increase, 2017 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.

Additional special GC meetings may also be required to advance the First Increment Extension. For the purposes of estimation, it is assumed that two, two-hour conference calls and two, one-day face-to-face meetings in Denver, CO near the airport will be required. The same cost assumptions made for the November budget meeting apply to these special GC meetings.

In 2017, the GC will begin the incremental pallid sturgeon process approved in September 2016. For this process, the GC (and their TAC representatives) will be involved in a two-day workshop. The EDO

estimates a total of $3,000 for room charges, equipment charges, and breakfast/lunch/break food and beverage charges associated with this workshop. The workshop location will likely be either Denver, CO or Omaha, NE.

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)	**$9,088, round down to $9,000**
GFC-3 (pallid sturgeon process)	$2,800 (GC internal workshop)	$200 (screen rental)	$0	
GFC-3 (additional GC meetings on Extension)	$1,400 (two one-day meetings in Denver, CO)	$400 (two meetings)	$72 (2 GC calls)	

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 or buffet 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 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; LAC

Program Task LAC-1		
Year	Approved	Estimated
2007	$ 7,500.00	$ -
2008	$ 7,500.00	$ -
2009	$ 7,500.00	$ -
2010	$ 7,500.00	$ -
2011	$ 1,000.00	$ -
2012	$ 1,500.00	$ -
2013	$ 2,000.00	$ -
2014	$ 1,600.00	$ -
2015	$ 1,100.00	$ -
2016	$ 1,100.00	$ -
2017	$ -	$ 700.00

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 a half day in the field with lunch and drinks (water and sodas) in field provided for 10 to 15 people at an average cost of about $20.00 per person, based on 2011-2016 experience, provide the basis for the $300 estimate. Land evaluation site visits (typically multiple sites per day) costs consist of refreshments (water and sodas), break snacks (fruit and granola/energy bars), and working lunches. Each site evaluation team consists on average of six people. An estimated two site evaluation days for off-channel sand and water sites will be performed in 2017. Based on 2009-2016 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	$600 (annual field tour expenses @$300 and two land site visits @$150 each)	$72 (4 calls @1 hours, $0.30/minute)	$672, round up to $700

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 or buffet 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: WAC-1. Expenses, Meeting Rooms, etc.

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; WAC

Program Task WAC-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	$ 6,000.00	$ -
2014	$ 3,500.00	$ -
2015	$ 2,700.00	$ -
2016	$ 1,200.00	$ -
2017	$ -	$ 2,500.00

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 due to its remote location working lunches are provided (25 people/meeting x $20/person = $500/meeting). Working groups and subcommittee frequently meet by conference call and at other locations. As progress accelerates on implementation of various Water Action Plan projects, the frequency of project related meetings will increase. All meetings are assumed to be focused on Water Action Plan projects (e.g., Water Project scoring, broad-scale groundwater recharge, slurry wall storage, hydrologic monitoring, or other candidate topics) with meetings involving a mix of technical/administrative topics.

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

Line Item	Meeting Room Rental & Break Costs	Meeting Equipment Costs	Conference Call Costs	Total Costs
WAC-1	$2000 (working lunches at quarterly meetings)	$0	$432 (4 calls @4 hours and 4 calls @2 hours, $0.30/minute)	$2,432, round up to $2,500

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 or buffet 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: TAC-1. Expenses, Meeting Rooms, etc.

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; TAC

Task Location
Meeting locations in NE, WY, and CO

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	$ -
2017	$ -	$ 6,000.00

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 2017. 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.

In 2017, the TAC will be involved in the incremental pallid sturgeon process. Two, two-day workshops involving the TAC and ISAC are anticipated, likely in Denver, CO or Omaha, NE. Lunches and break food for those working sessions was estimated at $500/day with total room and equipment charges for each workshop estimated at $1,200 per meeting. Four, two-hour conference calls were assumed for this process for organizational purposes.

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)	$6,132, round down to $6,000
TAC-1 (pallid sturgeon process)	$4,000 (2, 2-day workshops)	$400 (screen for two workshops)	$144 (4 calls @ 2 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 or buffet 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 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; LAC; Land Interest Holding Entity (LIHE)

LP-3		
Year	Approved	Estimated
2007	$ -	$ -
2008	$6,000,000.00	$ -
2009	$7,000,000.00	$ -
2010	$6,000,000.00	$ -
2011	$5,000,000.00	$ -
2012	$5,000,000.00	$ -
2013	$3,000,000.00	$ -
2014	$1,500,000.00	$ -
2015	$1,535,000.00	$ -
2016	$ 500,000.00	$ -
2017	$ -	$ 1,255,000.00

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. Charges for 2012-2015 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	$12,200
TOTAL	$55,033	$52,593	$59,124	$47,962
AVERAGE	$13,755	$13,148	$14,781	$11,991

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 $12,000 was used to arrive at the annual number of $48,000.

Taxes: PRRIP is required to pay property taxes. A summary of the property taxes paid in 2012-2016 is provided by county below. All PRRIP properties are in Nebraska.

Nebraska County	Total Property Tax Paid 2012	Total Property Tax Paid 2013	Total Property Tax Paid 2014	Total Property Tax Paid 2015	Total Property Tax Paid 2016
Buffalo	$50,404	$42,450	$76,893	$71,490	$72,289
Dawson	$2,086	$2,086	$7,755	$8,512	$7,972
Gosper	$0	$584	$715	$969	$1,048
Hall	$32,616	$22,060.	$35,884	$38,809	$34,904
Phelps	$21,619	$21,619	$25,119	$31,621	$28,495
Kearney	$0	$0	$2,225	$2,539	$22,680
TOTAL	$106,725	$88,799	$148,591	$153,940	$167,388

It is anticipated that a similar pattern of payments will be made by county in 2017 as in 2016. Based on the 2016 payments, an estimated $170,000 in property tax payments will be made in 2017.

Land Acquisition: Assumptions for land acquisition in 2017:

Purchase

- Additional 160 acres by lease or easement of off-channel sand and water.
- One possible land trade or tract disposal (Leaman West).
- ***Associated Costs:*** These costs are based on experience on 2009-2016 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
TOTAL	$18,750

Assuming one tract acquisition and one tract disposal in 2017, each in the 120 to 200-acre range, an estimate of $37,500 was developed (2 x $18,750 = $37,500). 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 8 years of land acquisition for the Program provides a solid basis for verification or modification of initial information gathered and is of great value in selecting appraisers.

Several surveyors have been used by the Program over the past 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 8 years of land acquisition and associated surveys for the Program provides a solid basis for verification or modification of initial information gathered that is of great value in selecting surveyors.

Attorneys for real estate work are selected based on knowledge and experience in riparian boundary law, specific experience in a section of river, reputation, quality of work, lack of conflict of interest, and previous direct dealings with EDO staff. Rates are compared to customary and standard rates for the South Central and Eastern Nebraska areas. A fee based on 40 hours per transaction is a conservative estimate of time required for legal efforts, assuming some unique issues will need resolution, such as complications from riparian boundaries, and occasionally multiple county jurisdictions that arise on properties that straddle the river and lie in two counties. Based on this market survey rate comparison and the qualifications of the attorneys being considered, these rates are known to be fair, reasonable, and competitive.

The market survey process is composed of the following steps:

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

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

Purchase Costs: Current land prices for the types of non-complex lands we will be acquiring typically range from $4,500 to $8,000 per acre.

Acquisitions anticipated for 2017 for habitat are as follows:

- Note: NO provision for income generated from land disposal actions is included in the budget estimate. The budget reflects only anticipated expenditures, not a net of expenditures and income.
- Off-Channel Sand and Water (OCSW) – to develop the GC-specified acquisition of 60 acres of OCSW, 160 acres will be acquired to properly buffer the actual sand and water habitat. The estimate purchase price of land suitable for development as OCSW habitat is $6,250/acre based on recent comparables. The acquisition cost is therefore estimated at $1,000,000 (160 acres x $6,250/acre).

The table below summarizes estimated LP-3 costs for FY17:

Item	Estimated FY17 Cost
LIHE Fees	$48,000
Property Taxes	$170,000
Land Acquisition & Disposal Associated Costs	$37,500
Lease or easement (245 acres)	$1,000,000
TOTAL	**$1,255,500, round down to $1,255,000**

PROGRAM TASK & ID: LP-4. Land Management

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; LAC; Land Interest Holding Entity (LIHE)

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	$ -
2017	$ -	$ 197,000.00

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 2017 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.

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

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

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	$ -
2017	$ -	$ 20,000.00

Task Description

- Land management will be needed by United Farm Management for the Plum Creek Complex, Cottonwood Ranch Complex, Elm Creek Complex, and Pawnee 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 and cropland leases as appropriate 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 2017. 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
AgriAfiliates	$1,000	120 hrs @$75/hr	$9,000	$10,000
United Farm Mgmt.	$1,000	120 hrs @$75/hr	$9,000	$10,000
			TOTAL	**$20,000**

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

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

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

The billing rates are negotiated with the special advisors by the ED and are kept within the industry standard of practice based on each individual's qualifications. While industry standard of practice may not be precisely defined, anyone who is a practicing member of that professional community understands the limits of reasonableness associated with those boundaries. Appropriate expertise to make this assessment resides with the ED or EDO 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 an eight-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 EDO 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 scrutinized by and discussed with the appropriate advisory committees, the Finance Committee, and the Governance Committee. Input is received and taken under advisement from all these sources as to the appropriateness of the budgets for these line items with appropriate adjustments made prior to budget approval.

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

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; Contractor (Nebraska Game and 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	$ -
2017	$ -	$ 50,000.00

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. Program conformance with the expectations of America's Great Outdoors initiative.

Notes on Cost
Nebraska Game and Parks Commission will manage public access to Program lands in 2017 pursuant to a contract between the Nebraska Community Foundation and the Nebraska Game & Parks Commission.

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

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; Contractor

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

WP-1 (a-b)		
Year	Approved	Estimated
2007	$ 241,000.00	$ -
2008	$ 40,000.00	$ -
2009	$ 80,000.00	$ -
2010	$ 450,000.00	$ -
2011	$ 450,000.00	$ -
2012	$ 300,000.00	$ -
2013	$ 700,000.00	$ -
2014	$ 360,000.00	$ -
2015	$ 440,000.00	$ -
2016	$ 450,000.00	$ -
2017	$ -	$ 800,000.00

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 under WP-1.

Line Item: **WP-1(a)**
Description: Active channel capacity improvements (N. Platte channel above CNPPID diversion dam)
Estimated Cost: $500,000

The first sub-task is WP-1(a):
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. The Program intends to acquire easements or fee simple title to property vulnerable to flooding for removal of out building structures and potential implementation of floodway improvements. Additional technical and/or contracting services will be engaged to implement the State Channel Reactivation flood-risk reduction project begun in 2013. Specific items associated with this effort and estimated ranges of costs associated with each item are:

1. Implement flood-risk reduction projects	$100,000
2. Vegetation clearing and deep tillage	$150,000
3. Property easements and management agreements	$250,000
TOTAL	**$500,000**

Further detail of the cost estimates for the items described in the 2017 Work Plan includes:
1. Implementation of flood-proofing projects: $100,000
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 received a Section 404 individual permit from the U.S. Army Corps of Engineers.

2. Vegetation clearing and deep tillage (disking): $150,000

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 data 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 several years. Specific clearing activities have not been identified now and additional refinements to these estimates is not currently possible. An estimate includes treatment of 750 acres at a cost of $200/acre. When specific areas and operations have been defined, the work will be bid through a competitive process and actual costs established.

3. Property easements and management agreements: $250,000

Easements and management agreements with landowners to improve flood prone properties by removing structures and providing other potential floodway improvements. Preliminary analyses have shown that there are a small number of properties with structures that are vulnerable to flooding. Easements and management agreements with the landowners of these properties, through a willing landowner process, and removal of the structures in some instances would lower the flood risk in the critical stretch of the choke point area. Exploratory conversations with these landowners have indicated in many cases a willingness to enter serious negotiations for easements and management agreements. The discussions have not been advanced beyond an exploratory nature, so cost estimates have been made based on a percentage of assessed values obtained from Lincoln county. When discussion and negotiations begin in earnest, costs will be established by the market.

Line Item: **WP-1(b)**
Description: Active channel capacity improvements (CNPPID diversion dam to Grand Island)
Estimated Cost: $300,000

The second sub-task is WP-1(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 NET Grant application was not successful, but the cooperative effort represented in the Grant Application relied on support and contributions from NRDs, the Rain Water Joint Venture, the Program, irrigation and power districts and cooperation from other conservation organizations and individual land owners. While the Grant Application was not successful, the spirit of collaborative effort remains and continues to function. At the June 2016 GC meeting, a request was made on behalf of the PVWMA and approved that the 2016 expenditure be increased from $200,000 to $300,000, that the one-for-one match be waived for 2016, and that funding at the $200,000 level be maintained through 2019 to support the work necessary to maintain the channel. While the request was for a single year, funding shortfalls from other sources are projected for 2017. To ensure the channel maintenance work does not falter and result in a disastrous Phragmites resurgence, funding has been maintained at the $300,000 level for 2017. 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.

Cost 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)	96 hrs	$1,975/hr	$189,600
Control (Airboat)	240 hrs	$140/hr	$33,600
Survey (helicopter)	8 hrs	$1,025/hr	$8,200
Herbicide	585 gals	$75.13/gal	$44,000
Meeting & Material Development Support	Lump sum	n/a	$25,000
		Total	**$300,000**

*Approximate.

Products

- Improve conveyance capacity through North Platte Choke Point.
- Land easements and management agreements for flood-prone properties for North Platte Choke Point activities.
- Complete flood proofing projects in vicinity of Highway 83 Bridge.
- 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 Apprvd (1,000)**	**2017 Estimated (total)**
1(a)	$241	$40	$80	$50	$250	$100	$500	$260	$240	$250	$500,000
1(b)*	$0	$0	$0	$400	$200	$200	$200	$100	$200	$200	$300,000

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

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	$ 2,919,000.00	$ -
2017	$ -	$ 11,755,100.00

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.

Line Item: **WP-4(a)**
Description: J-2 Regulating Reservoir
Estimated Cost: $0

- WP-4(a) J-2 Regulating Reservoir – on hold.

Line Item: **WP-4(b)**
Description: Water Action Plan (Ground water recharge)
Estimated Cost: $3,682,900

- WP-4(b) Ground Water Recharge Projects – The Phelps County Canal (CNPPID) ground water recharge project, Elwood Reservoir recharge project (CNPPID), ground water recharge recapture projects and broad-scale recharge concepts are included in this line item. The 2017 budget for WP-4(b) is $3,682,900. Individual project descriptions are listed below.

Line Item: **WP-4(b)i**
Description: Water Action Plan (CNPPID system ground water recharge projects)
Estimated Cost: $234,500

Phelps County Canal Ground Water Recharge Project
The Phelps County Canal ground water recharge project 2017 budget will be used for the 2017-2018 recharge season operations. A temporary and/or permanent Water Service Agreement with the CNPPID will be obtained for the full-scale implementation of the project in the fall of 2017 through the spring of

2018. The anticipated 2017 activities include continued water permitting for recharge operations (it is anticipated that the permanent recharge permits may be approved in 2017) and operation and maintenance associated with full-scale canal recharge. A temporary permit for recharge operations may also be submitted, if the permanent permit is not approved in 2017.

The permanent recharge permit applications include recharge in the Tri-County Canal, Phelps County Canal and E65 Canal with a maximum total diversion rate of 700 cfs, or 350 cfs in the Phelps County Canal and 350 cfs in the E65 Canal. The canal capacity rates are 1,000 cfs and 350 cfs for the Phelps County Canal and the E65 Canal, respectively. The permanent recharge permits were submitted to the NDNR in 2012 and are currently pending. The CNPPID filed for an application for a permit to appropriate excess natural streamflow for recharge operations for instream uses for the Program. At this time, the Program has decided not to pursue recharge operations in the E65 Canal due to the possibility that a significant portion of recharge accretions returns to the Republican River Basin.

The Program and the CNPPID intend to divert excess flows into the Phelps County Canal for recharge in the fall of 2017 under the permanent permits, which are anticipated to be approved by the NDNR in the next year. The CNPPID and the Program may also operate under temporary recharge permits during the 2017-2018 season, if the permanent permits have not been approved by that time.

The budget cost estimate for diversions into the Phelps County Canal for recharge operations is based on a rate of $27/acre-foot in 2014, escalating by 4% per year, per the draft long-term Water Service Agreement with the CNPPID. The cost per acre-foot of delivered water in 2017 is $30. The CNPPID intends to divert excess flows into the canal up to the check structure at Mile Post 13.3, as in previous years. Checking the canal allows excess flows to be held in the canal and seep into the alluvial aquifer and accrete to the Platte River.

The ED Office estimated an average volume of 8,147 acre-feet delivered into the Phelps County Canal through the Mile Post 1.6 flume for recharge purposes, per the scoring analysis using the OpStudy hydrology data. The Program intends to purchase 75% of the delivered volume, per the draft permanent Water Service Agreement and the 2016-2017 annual temporary 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, or 6,110 acre-feet per year (75% of 8,147 acre-feet). The score for the Phelps recharge project was accepted by the GC in 2013, based on a 50% interest in the project; the GC accepted a revised score in 2016 to represent a 75% interest. 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 total budget for 2017 is $183,800 ($30.08 per acre-foot × 6,110 acre-feet). Expenditures in 2017 will be based on the measured deliveries into the canal for recharge operations.

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 2017. The Program was able to purchase water from the CNPPID beginning in 2015 under this project. Elwood Reservoir is an unlined reservoir that acts as a holding basin to allow excess flows to seep and recharge the alluvial aquifer. Excess flows are 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 and the 2016-2017 annual temporary Water Service Agreement with the CNPPID. For the 2017 budget, it is assumed the Program will be able to purchase 1,000 acre-feet of excess flows at approximately $46 per acre-foot. This cost is based on the annual 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 total budget is approximately $45,700 ($45.68 per acre-feet × 1,000 acre-feet).

Ground Water Recapture Additions to Projects

Ground water recapture projects are retiming projects utilizing the recharge accretions from existing recharge operations, such as the Phelps County Canal ground water recharge project and/or other projects in the CNPPID system and 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; one well was already constructed in 2016 (Cook tract) and one well is anticipated to be constructed in 2018 (Elwood system).

In 2016, the Program constructed one recapture well on the Cook tract to recapture Phelps recharge accretions, per a permit through the Tri-Basin Natural Resources District. The Program pumps recharged water to the Platte River via the North Phelps County Ditch during shortages to target flows. Future budget costs for this well include actual pumping costs and maintenance.

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 well constructed on the Cook tract to recapture Phelps County Canal ground water recharge is equipped with an 800 gallon per minute pump. The accepted score by the GC was an additional 160 acre-feet per year to be added to the Phelps County Canal ground water recharge score. The 2017 budget is for operations and maintenance of the Cook tract recapture well. A well under the Elwood system may be constructed in 2018; there are no Elwood recapture well costs included in the 2017 budget.

The calculated average pumping in the Cook recapture score model is approximately 660 acre-feet per year, based on the OpStudy hydrology from 1947-1994. Note that the pumping volume is approximately 660 acre-feet and the associated score at Grand Island is 160 acre-feet. The calculated cost of pumping per acre-foot is $5.20, based on the discharge rate, TDH (total dynamic head), pump efficiency, motor efficiency and electrical power costs (approximately $3,500 budget). A well maintenance budget of $1,500 is included in 2017. The maintenance budget may also be used to install a telemetry system to retrieve instantaneous readings from the well. The total annual budget is $5,000.

Line Item: **WP-4(b)ii**
Description: Water Action Plan (Broad scale recharge projects)
Estimated Cost: $3,448,000

Broad-Scale Recharge Concept

This project concept consists of developing a series of recharge ponds in the Central Platte Basin, focused on the reach between Gothenburg, NE and Odessa, NE to maximize the benefit to the habitat reach. The Program intends to create a broad-scale recharge project at the Cottonwood Ranch Complex, with allocated budget beginning in 2017. It is assumed that additional land for the project (224 acres) would be secured

through a long-term lease of the Anderson/Peterson property, directly east of the existing Program-owned or managed lands. Land acquisition of 320 acres for future phases of broad-scale recharge is also included in the 2017 budget (note: this is not part of the Cottonwood Ranch broad-scale recharge project).

Preliminary evaluation of the broad-scale recharge concept was initiated in August 2015, and has proceeded through various stages of feasibility assessment and field testing over the course of the past year. The project would involve the construction of a series of low berms at the Cottonwood Ranch Complex to allow for the ponding of water and subsequent recharge of the alluvial aquifer. The water to be recharged would be delivered by pipeline from the Phelps County Canal at times when the Platte River flow at Grand Island is in excess of USFWS target flows. The infiltrated water would return to the Platte River over time, and the Program would receive score credit when these returns occur during shortages to USFWS target flows.

Based on the analyses to date, dam safety requirements, and other factors, the properties of the constructed berms are assumed to be as shown in Table 1.

Table 1. Properties of berms to be constructed for broad-scale recharge at Cottonwood Ranch.

Berm Dimension	Quantity	Units
Top Width	8	ft
Average Height	6	ft
Side Slope (H: V = X:1)	4	ft
Bottom Width	56	ft
Cross-Sectional Area	192	ft^2
Length	40,000	ft
Volume	7,680,000	ft^3
	284,444	cy

The ponded area behind the berms is estimated at 400 acres. Additional assumed and estimated infiltration and recharge properties are presented in Table 2. These values are subject to revision based on the results of ongoing infiltration testing using bermed and excavated pits at the property, as well as the results of a geophysical survey recently completed by the USGS at the property.

Table 2. Estimated infiltration and recharge properties at Cottonwood Ranch.

Infiltration/Recharge Parameter	Quantity	Units
Inside Berm Area	400	acres
Infiltration Rate[1]	0.26	ft/day
Recharge Rate[2]	104	AF/day
Delivery Rate[3]	62	cfs
Operational Period at Full Service Level[4]	90	days
Water Delivery and Recharge Volume[5]	9,360	AF
Estimated Score[6]	3,744	AF

1 Assumed based on 20% low-lying lands and 80% uplands
2 Calculated as [inside berm area] x [infiltration rate]
3 Calculated by converting recharge rate in AF/day to flow rate in cfs, [recharge rate]/1.9835, and adding 10 cfs for losses (i.e., evaporation, delivery losses, etc.)

4 Assumed to occur during the shoulder months between winter and the irrigation season, March-May or September-November.
5 Calculated as [recharge rate] x [operational period]
6 Based on preliminary scoring runs, it is assumed that the Program would receive score credit for 40% of recharged water.

Table 3 is a cost breakdown for the 2017 budget for broad-scale recharge at Cottonwood Ranch, including additional land acquisition, permitting, and the design and construction of the berms and a water delivery pipeline from the Phelps County Canal to Cottonwood Ranch. The cost of delivery for excess flow water via the Phelps County Canal is assumed to be $15 per acre-foot. Contingencies are assumed to be 40% of construction and "other" costs, and annual operation and maintenance (O&M) costs are assumed to be 1.25% of construction costs. The total cost for construction of the broad-scale recharge project at Cottonwood Ranch and adjacent properties is assumed to be split over two years.

Table 3. Summary of Approximate Costs for Broad-Scale Recharge at Cottonwood Ranch.

Land Costs	**Est. Quantity**	**Est. Cost**	**Units**	**Est. Total Cost**	**Notes**
Land Acquisition	224	$ 200	acre	$ 44,800	Assume $20 per acre per year for Anderson lease over 10 years.
Administration/Permits	1	$ 1,120	LS	$ 1,120	Assumed 2.5% of land cost.
Total Land Costs				*$ 45,920*	*Sum of Land Costs.*
Construction Costs	**Est. Quantity**	**Est. Cost**	**Units**	**Est. Total Cost**	**Notes**
Mobilization	1	$ 20,000	LS	$ 20,000	Estimate by EDO, based on Fox project bids.
Clearing and Grubbing	51.4	$ 2,000	acre	$ 102,847	Berm area to be cleared and grubbed.
Berm Construction	284,444	$ 5	cy	$ 1,422,222	Conservative estimate by EDO.
Water Control Structure	6	$ 20,000	each	$ 120,000	High-capacity structure.
Delivery Pipeline	1	$ 500,000	LS	$ 500,000	Assume $300,000 for pipeline and $200,000 for on-property energy dissipation, etc.
Subtotal Construction Costs				$ 2,165,069	Sum of Construction Costs.
Total Construction Costs w/ 40% Contingency				*$ 3,031,096*	*Sum of Construction Costs with contingency.*
Annual O&M Costs				*$ 37,889*	*1.25% of Construction.*
Other Costs	**Est. Quantity**	**Est. Cost**	**Units**	**Est. Total Cost**	**Notes**
Environmental Mitigation	0			$ -	No anticipated mitigation.
Permitting	0		LS	$ 60,000	Estimate by EDO.
Engineering Design	1		LS	$ 303,110	Estimate by EDO.
Construction Admin.	1		LS	$ 303,110	Estimate by EDO.
Surveying	1	$ 5,000	LS	$ 5,000	Estimate by EDO.
Subtotal Other Costs				$ 671,219	Sum of Other Costs.
Total Other Costs w/ 40% Contingency				*$ 939,707*	*Sum of Other Costs with contingency.*
Total Costs to Build CWR Broad Scale Recharge				*$ 4,016,723*	*Sum of Land, Construction and Other Costs.*
2017 Budget, Based on 2-Year Payment				**$ 2,008,362**	**50% of cost, based on 2-year schedule.**
Annual O&M and Water Delivery Cost				*$ 204,771*	*Estimated annual O&M and water delivery costs.*

NOTE: The land acquisition cost is for a long-term lease of the Anderson/Peterson property.

An additional land acquisition cost of $1,440,000 is included in the 2017 budget, in addition to the Cottonwood Ranch broad-scale recharge budget in Table 3. The additional land acquisition is for future phases of broad-scale recharge after 2017. The land cost is $4,500 per acre for 320 acres.

Based on all the projects and assumptions described above, the total cost of projects under the WP-4(b) is approximately $3,682,900 for 2017. This includes the Phelps County Canal ground water recharge project, recharge in Elwood Reservoir and broad-scale recharge projects in the Central Platte Basin. The projected

volume of water in WP-4(b) is dependent on water available during actual operations and is subject to change from the estimate provided in this document.

Line Item: **WP-4(f)**
Description: Water Action Plan (Water leasing and acquisition)
Estimated Cost: $4,112,700

- WP-4(f) Nebraska Water Leasing and 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 2017. This line item also includes Acquire and Retire proposed water projects. The 2017 budget for WP-4(f) is $4,112,700. 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 CPNRD also established a ground water leasing market in 2016 that is included in WP-4(f).
    - There are two potential NPPD leases. The first is a potential project 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. The second is a lease for ground water recharge operations in the Dawson County and Gothenburg Canals with annual agreements. The Program leased recharged water in 2016.
    - 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. A lease for the CNPPID irrigator water executed in 2016. Both options can be pursued, as they are not mutually exclusive.
    - For acquire and retire projects, the Program would lease or purchase surface water rights and transfer the consumptive use to instream rights on a temporary basis. For projects above Lake McConaughy, the transferred surface water rights could be added to the EA.

Line Item: **WP-4(f)i**
Description: Water Action Plan (CPNRD surface and ground water leasing)
Estimated Cost: $1,145,800

CPNRD Water Lease

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 dependent on the lease terms (i.e. some permit applications are submitted annually, some are submitted every 3 years, etc. based on the lease agreement length). There are a series of permit applications for the transfer, as water

rights are grouped by lease term. The estimated yield is 3,000 acre-feet per year at the river with an initial cost estimate of $150 per acre-foot in 2016 and escalating at 3% per year, or nearly $155 per acre-foot in 2017. The projected volume of water under the water leasing project is dependent on the water available in 2017 and is subject to change from the estimate provided in this document. The budgeted cost is $463,500 ($154.50 per acre-foot × 3,000 acre-feet).

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. The water will be diverted and measured at each headgate and subsequently returned to the river at each canal's return structure. 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 CPNRD ground water recharge component in the water use lease agreement is for recharged water in the Orchard-Alfalfa, Thirsty-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 recharge with the NDNR in 2011 and the permits and 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 (rounded). This equates to a total cost of $182,300 ($46.74 per acre-foot × 3,900 acre-feet). 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 actual volume of recharge in 2017 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 draft 2017 budget includes $500,000 towards the development of recharge ponds with the CPNRD.

Line Item: **WP-4(f)ii**
Description: Water Action Plan (NPPD leasing)
Estimated Cost: $649,500

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 that will 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 4.

Table 4. 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 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 in 2017. The cost on a per-acre basis includes a 3.4% annual escalation. 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 2017 budget is based on the 718 acre-feet 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.

It is anticipated the Program will work with the CPNRD to purchase offset water credits to maintain the consumptive use portion for the NPPD water leasing project. The required offset water volume was assumed to equal 20% of the project yield, as a preliminary estimate for budgeting purposes. This will be

refined after an assessment of the potential increase in depletions is completed by the CPNRD in conjunction with the NPPD and the Program. For the 2017 NPPD lease estimate of 718 acre-feet of consumptive use credit, it was assumed 144 acre-feet (20% of 718 acre-feet) would be the offset volume required to replace depletions that occur during shortages to target flows. The cost for offset water was assumed to equal the CPNRD lease cost for recharge accretions of $47 per acre-foot. It is anticipated that during excesses to target and instream flows, offsets will not be required. The total lease cost in the 2017 budget includes $154 per acre-foot for the consumptive use credit from the NPPD acreage (718 acre-feet) and $47 per acre-foot for offset water with the CPNRD (144 acre-feet). The NPPD lease cost per acre-foot of consumptive use credit was assumed to escalate by 3.4% per year, beginning in 2018. The CPNRD lease cost for offset water was assumed to escalate by 7% annually, per the CPNRD recharge project cost schedule. The total budget is approximately $117,500 in 2017 ($154.33 per acre-foot × 718 acre-feet + $46.74 per acre-foot × 144 acre-feet).

Gothenburg and Dawson County Canals Ground Water Recharge Project

The Program has a temporary water service agreement with the Nebraska Public Power District (NPPD) for excess flow delivery in the Gothenburg and Dawson County Canals for ground water recharge operations during the non-irrigation season. The proposed fee is $27 per acre-foot of water delivered into the canals, escalating at 3% per year, per the water service agreement dated December 31, 2015 for 2016 operations. It is anticipated a 2017 agreement may be obtained with the NPPD. The preliminary recharge estimate is 1,150 acre-feet per year of deliveries into the canals at approximately $28 per acre-foot for 2017. The draft 2017 budget includes $500,000 towards the development of recharge ponds with the NPPD to increase the score efficiency of the recharge operations. The total budget for recharge operations is $532,000 ($27.81 per acre-foot × 1,150 acre-feet + $500,000).

Line Item: **WP-4(f)iii**
Description: Water Action Plan (CNPPID leasing-storage)
Estimated Cost: $0

CNPPID Water Leasing - Storage

The CNPPID has a water leasing option available for storage water in Lake McConaughy. For the storage water lease, the Program and the CNPPID would enter an agreement to lease water from a storage pool in Lake McConaughy, which would be transferred into the EA for subsequent release during shortages or other Program uses. A long-term draft Water Service Agreement has been proposed between the CNPPID and the Program. At this time, there is no projected leasing in 2017; however, leasing is anticipated in 2018.

Line Item: **WP-4(f)iv**
Description: Water Action Plan (CNPPID leasing-irrigator)
Estimated Cost: $560,000

CNPPID Water Leasing - Irrigator

The second leasing option under the CNPPID's system would be with individual irrigators interested in temporarily leasing their surface water rights to the Program. Irrigators would then dryland farm during the term of the lease agreement. The consumptive use portion of the surface water would be available in Lake McConaughy and transferred into the EA for the Program. The CNPPID would be involved by managing the individual lease agreements, processes and operations. For 2017, it was assumed the Program could lease water from 2,500 acres, as a preliminary estimate. The CNPPID reports the credit available in Lake McConaughy would be 9 inches per acre during a non-allocation year.

The cost per acre for irrigator leases is estimated at $220 in 2017; however, the cost is based on a free-market system of willing irrigators and the Program. The Program participated in this water leasing program for the first time in 2016. An additional $10,000 administrative fee due to the CNPPID is included in the budget. The total 2017 budget is $560,000 ($220 per acre × 2,500 acres + $10,000).

Line Item: **WP-4(f)vi**
Description: Water Action Plan (CPNRD ground water market)
Estimated Cost: $375,000

CPNRD Ground Water Market

In 2015, the CPNRD established a ground water exchange (referred to as 'market' in the budget line item) for irrigators in the CPNRD to temporarily lease and transfer ground water rights for a 1-year term. In October of each year, willing participants meet with the CPNRD to establish and "pre-approve" their bids as either a 'buyer' or 'seller' of ground water rights for the following irrigation season. Water rights must be certified on irrigated acres. Bids are based on the consumptive use of the crop and the depletion factor to the Platte River, which is dependent on the well's location and distance from the river. Buyer and seller bids are automatically matched in the exchange program through a blind bid proposal process. In 2015, the Program participated by submitting several bids at different price points for different locations within the CPNRD. Unfortunately, none of the bids were accepted in the exchange program. The Program requested the CPNRD provide a time for negotiations after the blind bidding process to assess whether some bid matches could be executed after the blind exchange.

The Program intends to continue participation in the ground water market in hopes of leasing ground water in future years. The Program would transfer the ground water rights from irrigation to instream flows on a temporary 1-year basis. The consumptive use portion of the water right would remain in the aquifer and accrete to the river over time, due to the cessation of pumping for 1 year. This would provide a long-term yield to the Platte River for the Program. The 2017 budget for participation in the CPNRD's ground water market is an allotment of $375,000. The budget covers a bid price of $125 per acre-foot and executed exchanges totaling 3,000 acre-feet. This may entail exchanges executed with several irrigators in the CPNRD. The Program may also implement a tiered bidding strategy, using varying bid prices for ground water rights at varying distances from the river. A tiered bidding strategy was also used by the Program in 2015. The locations and distances of the ground water rights to the Platte River (or a tributary) dictate the time lag for the accretions to impact the river.

Line Item: **WP-4(f)vii**
Description: Water Action Plan (Acquire and retire)
Estimated Cost: $1,382,400

Acquire and Retire

For 'acquire and retire' projects, the Program would purchase irrigated cropland and transfer the natural flow surface water rights from irrigation to instream use on a temporary basis through a permit with the Nebraska Department of Natural Resources. The consumptive use from the irrigated crop would be diverted, measured and returned to the Platte River for score credit during shortages to U.S. Fish and Wildlife Service target flows. The land could be converted to dryland crops, or returned to natural vegetation. It is assumed in 2017, the land would be sold as dryland crop and the sales revenue would be

deducted from the total expenditures of purchasing irrigated land and transferring the surface water rights to instream flows.

The proposed 2017 budget is $1,382,400 for acquire and retire projects. This budget includes a proposed purchase of 320 acres of irrigated cropland in the Central Platte Basin region and land management of the newly-acquired Osborne tract.

The estimated land acquisition cost is $7,000 per acre, which is based on previous purchases of irrigated cropland in the area. The total purchase price would be $2,240,000 for 320 acres. The surveying, title work and other up-front costs associated with acquiring property is assumed to be 2.5% of the total land purchase price, or $56,000 in total. The administrative cost is projected to be $50,000, which is typical estimate for previous land acquisitions by the Program.

In the budget estimate, it was assumed the full 320 acres would be converted to dryland crops and sold in 2017; therefore, the sales revenue for the sold properties was deducted from the total expenditures. The Program would continue to pay the dryland taxes of approximately $20 per acre, which equates to a property tax of $6,400 per year. The annual property taxes were included in to the total expenditures. In total, the estimated expenditures in 2017 would be $2,352,400 (does not include the sales revenue from 320 acres of dryland). Assuming the full 320 acres of purchased land is sold as dryland, a realistic sales price is $3,500 per acre, based on recent sales in the area. The total revenue for the Program would be $1,120,000 (320 acres × $3,500 per acre). The net of the total expenditures and sales revenue is $1,232,400, which is the requested 2017 budget for land acquisition of 320 acres ($2,352,400 −$1,120,000).

The 2017 budget for acquire and retire also includes an additional $150,000 to manage the Program's newly-acquired Osborne tract. Approximately $50,000 will be used towards water-related instrumentation, such as measuring and recording devices, to quantify and account for water operations. A budget of $100,000 is included to cover general land management operations and functions. The total acquire and retire budget is $1,382,400 for land acquisition and management of the Osborne tract ($1,232,400 + $150,000).

Based on the assumptions described above, the total cost of projects under the WP-4(f) for water leasing is $4,112,700 for 2017. The specific costs and projected water volumes in WP-4(f) are subject to change and dependent on executed lease agreements with irrigation districts and irrigators in their systems.

Line Item: **WP-4(i)**
Description: Water Action Plan (Slurry wall gravel pits)
Estimated Cost: $3,959,500

- WP-4(i) Slurry Wall Gravel Pits – This line item is to construct a 160-acre slurry wall aquifer storage project on Program land. The project is proposed on the Cook/Dyer tracts. The 2017 budget for WP-4(i) is $3,959,500.

The concept of slurry wall gravel pits and slurry wall aquifer storage projects came into focus in 2016 as the J-2 Regulating Reservoir was put on hold by the GC. The yield from the reservoir must now be provided by other projects, such as slurry wall gravel pits and broad-scale recharge. The ED Office hired a Special Advisor to aid the Program in evaluating slurry wall storage feasibility in Nebraska, as it is not common in Nebraska like it is in Colorado. A series of slurry wall storage sites could be constructed along the Central Platte River, allowing smaller plots of land to be leased and/or acquired for the projects. The slurry wall storage sites would operate similarly to the reservoir by diverting water during excesses to target flows and

releasing water during shortages to target flows. For the 2017 budget, the Program is anticipating the initial costs for a 160-acre slurry wall aquifer storage site. An aquifer storage site would allow water delivered into the pit to be stored in the alluvium. This allows for a smaller storage pool as the storage is between the pore spaces; however, it reduces the cost and timing of excavating a pit. Additional land acquisition costs are included in the 2017 budget for a secondary phase of slurry wall gravel pits in out-years on a new property.

The estimated storage volume of the proposed project on Cook/Dyer is approximately 800 acre-feet as calculated by the ED Office, using a depth of 30 feet. This value is subject to change, as more detailed evaluations are completed. The preliminary score is approximately 1,500 acre-feet per year, as currently designed. The score is based on OpStudy hydrology and the project's ability to fill and refill with excesses to U.S. Fish and Wildlife Service target flows. It is assumed the storage project would be available to operate year-round.

The total estimated cost for the project on Cook/Dyer is $5,038,909, which includes construction, permitting and engineering design costs with a 40% contingency. As it is currently anticipated to be constructed on Program-owned lands, there are no land acquisition costs. The Program intends to split the total cost into a 2-year budget in 2017 and 2018; therefore, the 2017 budget is 50% of the total cost, or $2,519,500. It is anticipated that operating, maintenance and water delivery costs (plus a 40% contingency) will be $79,284, starting in 2019. Tables 5, 6 and 7 were developed by the ED Office. Some values are based on information provided by Mike Applegate, ED Office Special Advisor in slurry wall infrastructure.

Table 5. Properties of berms to be constructed for slurry wall gravel pit construction.

Berm Dimension	Quantity	Units
Top Width	8	ft
Average Height	3	ft
Side Slope (H:V = X:1)	4	ft
Bottom Width	32	ft
Cross-Sectional Area	60	ft^2
Length	8,960	ft
Volume	537,600	ft^3
	19,911	cy

Table 6. Estimated aquifer storage and slurry wall dimensions.

Aquifer Storage Dimension	Quantity	Units
Depth	30	Ft
Inside Berm Dimension	2,240	Ft
Inside Berm Area	5,017,600	ft^2
	115	acres
Total Aquifer Area	3,456	AF
Porosity	0.3	vol/vol
Recoverable Pore Storage	0.2	vol/vol
Total Recoverable Storage	691	AF
Slurry Wall Dimension	**Quantity**	**Units**
Slurry Wall Dimension	8960	ft
Key in Depth	3	ft
Total Wall Height	36	ft
Surface Area	322,560	ft^2

Table 7. Summary of Approximate Costs for Slurry Wall Gravel Pit on Program Land.

Construction Costs	Est. Quantity	Est. Cost	Units	Est. Total Cost	Notes
Mobilization	1.0	$ 100,000	LS	$ 100,000	EDO estimate.
Clearing and Grubbing	13.2	$ 2,000	acre	$ 26,329	Assume double the berm footprint.
Berm Construction	19911.1	$ 5	cy	$ 99,556	EDO estimate.
Slurry Wall Construction	322560.0	$ 5	ft2	$ 1,612,800	EDO estimate.
Inlet Structure	1.0	$ 70,000	LS	$ 70,000	Based on estimates by the EDO and Applegate.
Pump Station	1.0	$ 420,000	LS	$ 420,000	Based on estimates by the EDO and Applegate.
Pump Station Earthwork	200000.0	$ 3	cy	$ 600,000	Open pit excavation estimate.
Electrical Connections	1.0	$ 87,500	LS	$ 87,500	Based on estimates by the EDO and Applegate.
Outlet Structure	1.0	$ 70,000	LS	$ 70,000	Based on estimates by the EDO and Applegate.
Excavation to Grade	0.0	$ 2	cy	$ -	Assume $0 because pit already exists.
Delivery Pipeline	1.0	$ 200,000	LS	$ 200,000	Assume $200,000 for delivery pipeline.
Subtotal Construction Costs				$ 3,286,184	Sum of Construction Costs.
Total Construction Costs w/ 40% Contingency				*$ 4,600,658*	*Sum of Construction Costs with contingency.*
Annual O&M Costs				*$ 57,508*	*1.25% of Construction*
Other Costs	**Est. Quantity**	**Est. Cost**	**Units**	**Est. Total Cost**	**Notes**
Environmental Mitigation	0			$ -	No anticipated mitigation.
Permitting	1	$ 60,000	LS	$ 60,000	EDO estimate.
Engineering Design	1	$ 131,447	LS	$ 131,447	Based on estimates by the EDO and Applegate.
Construction Management	1	$ 72,296	LS	$ 72,296	Based on estimates by the EDO and Applegate.
Construction Admin.	1	$ 32,862	LS	$ 32,862	Based on estimates by the EDO and Applegate.
Surveying	1	$ 16,431	LS	$ 16,431	Based on estimates by the EDO and Applegate.
Subtotal Other Costs				$ 313,036	Sum of Other Costs.
Total Other Costs w/ 40% Contingency				*$ 438,251*	*Sum of Other Costs with contingency.*
TOTAL COSTS w/40% Contingency				*$ 5,038,909*	*Sum of Construction Costs and Other Costs.*
2017 Budget, Based on 2-Year Payment				**$ 2,519,454**	**50% of cost, based on 2-year schedule.**

NOTE: There is no land acquisition cost included for the Cook/Dyer slurry wall aquifer storage.

An additional land acquisition cost of $1,440,000 is included in the 2017 budget, in addition to the Cook/Dyer slurry wall storage construction budget. The additional land acquisition is for future phases of slurry wall gravel pits after 2017. The land cost is $4,500 per acre for 320 acres.

Products

- 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. The operation/maintenance of one well to pump recharged ground water directly to the Platte River to increase efficiency of existing recharge projects for the Program.
- Construction costs for 160 acres of recharge basins for broad-scale recharge concepts and an additional 320 acres of land acquisition.
- 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.
- Initial budget for the construction, permitting and engineering design costs for a 160-acre slurry wall aquifer storage site on Program-owned lands.
- Water supply-related permits/proof of ownership, as necessary for projects.
- Water rights evaluations and feasibility studies, as necessary for projects.
- Cost estimates for 2017 and long-term operations and maintenance of projects.

Total Water Plan Action Implementation Budget (WP-4)

The total estimated budget for WP-4 is $11,755,100 in 2017. A breakdown of the Water Action Plan project line items budgets is listed in the following table.

Budget

Program Task WP-4							
2007-2010 Approved	2011 Approved	2012 Approved	2013 Approved	2014 Approved	2015 Approved	2016 Approved	2017 Estimated
$0	$4,500,000	$9,000,000	$13,000,000	$14,392,000	$14,392,000	$0	$0
$0	$600,000	$200,000	$200,000	$88,296	$330,033	$1,447,000	$ 3,682,900
$0	$0	$0	$1,500,000	$1,854,667	$0	$0	$0
$0	$0	$2,000,000	$0	$0	$0	$0	$0
$0	$0	$0	$0	$0	$0	$0	$0
$0	$0	$500,000	$150,000	$373,360	$2,569,728	$1,472,000	$ 4,112,700
$0	$0	$0	$0	$0	$0	$0	$0
$0	$0	$100,000	$250,000	$0	$0	$0	$0
$0	$0	$0	$0	$0	$0	$0	$ 3,959,500
$0	**$5,100,000**	**$11,800,000**	**$15,100,000**	**$16,708,323**	**$17,291,761**	**$2,919,000**	**$11,755,100**

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 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; Contractor

Task Location
ED Offices; Contractor Offices

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	$ -
2017	$ -	$ 16,000.00

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.

Line Item: **WP-5**
Description: Water Action Plan (Management tool)
Estimated Cost: $16,000

The COHYST technical team plans to have a calibrated and documented model completed by June of 2017. Model upgrades and the graphic user interface (GUI) have been completed in 2016. The current COHYST budget does not anticipate additional Program funds to finalize the model and the Program does not plan to contribute funds in 2017 towards model calibration or documentation.

In 2017 the ED Office staff will use the COHYST model to run scenarios to test Water Plan project feasibility, performance, and operations as well as evaluate multi-project interactions. As the ED Office staff gains fluency with the COHYST model, it anticipates needing some technical oversight from the COHYST model development team. Technical oversight will be provided by the consultants of the COHYST modeling system, including 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.

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. The consultants have completed satisfactory work under

previous contracts and have extensive knowledge of the project. Estimated costs are provided in the table below:

COHYST Training, Model Analysis, and Reporting Cost Summary

Task	Hours	Unit Rate ($/hr)*	Estimated Fee
100 – Technical oversight and training from HDR	30	160	$4,800
200 – Technical oversight and training from LWA	30	160	$4,800
300 – Technical oversight and training from TFG	30	160	$4,800
400 – LWA COHYST oversight	10	160	$1,600
Total Estimated Fee			**$16,000**

*Unit rates include approximately 5% of direct expenses

Products

- 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 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; Contractor

Task Location
ED Offices; Contractor Offices

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	$ -
2017	$ -	$ 125,000.00

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: water infrastructure and design, structural, hydrogeology/ground water and streamflow forecasting.

Line Item: **WP-8**
Description: Water Action Plan (Water Plan Special Advisors)
Estimated Cost: $125,000

Anticipated Special Advisors in 2017 include:

Hydrogeology and Ground Water: $45,000 to $75,000
Several projects include hydrogeologic elements that may require further expertise, including ground water recharge projects, ground water recapture pumping projects and other projects with a ground water component. Projects may include the Elwood Reservoir seepage project, the ground water recharge component of the CPNRD lease agreement, the NPPD ground water recharge project, the wet meadows hydrologic monitoring project, COHYST scenario runs and broad-scale recharge/slurry wall gravel pit 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: $25,000 to $50,000
Main focus will be to assess potential slurry wall gravel pit sites and evaluate preliminary designs and project costs. Other various water-related small design projects may require civil infrastructure, water project permitting, 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 125 to 250 hours at a billing rate of approximately $200/hour, for a total of approximately $25,000 to $50,000. Billing rates are based on previous contracts awarded in a competitive process and are assumed

to be fair and reasonable. Mike Applegate is contracted as the Program's Special Advisor for civil infrastructure.

Hydroclimatic and Streamflow Forecasting: $25,000

Dmitry Smirnov (Dewberry) will continue hydroclimatic indices work in 2017 in a Special Advisor role. The Program will continue annual streamflow forecasts of the South Platte and North Platte Rivers for use in Program project operations and management. Work in 2017 may also include revisions to existing hydroclimatic indices and streamflow forecasting evaluations provided in Phases I through III. The maximum anticipated work schedule is 225 hours in 2017, at a rate of $110 per hour, or a maximum annual budget of $25,000 (rounded up). The per-hour rate is based on previous agreements with Dewberry, who was initially awarded the Hydroclimatic Indices work through a competitive process with the Colorado Water Conservation Board (with funding from the Program). 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
Hydrology and GW Recharge	Bill Hahn	$45,000-$75,000
Civil Infrastructure	Mike Applegate	$25,000-$50,000
Hydroclimatic Indices	Dmitry Smirnov	$25,000
TOTAL		**$95,000-$150,000 Budget not to exceed $125,000**

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 June 2016, "Retention of special advisors to the ED of a technical or legal nature is exempt from the procedures provided in this directive."

Consequently, Special Advisors are not selected through a competitive process involving advertised RFQs or RFPs. Special Advisors are selected by the Executive Director (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 an eight-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 scrutinized by and discussed with the appropriate advisory committees, the Finance Committee, and the GC. Input is received and taken under advisement from all these sources as to the appropriateness of the budgets for these line items with appropriate adjustments made prior to budget finalization.

PROGRAM TASK & ID: LP-2. FSM/MCM Actions at Habitat Complexes

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; contractors

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	$ -
2017	$ -	$ 416,000.00

Task Location
Plum Creek Complex, Cottonwood Ranch Complex; Elm Creek Complex; Pawnee 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
Created nesting habitat, 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 eight 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.

Notes on Cost

Appendix A contains more details, but the general breakdown of estimated FY17 costs for proposed FSM/MCM management actions in 2017 is as follows:

Location	Estimated FY17 Cost
New acquisitions	$50,000
Non-complex	$41,135
Plum Creek Complex	$34,885
Cottonwood Ranch Complex	$47,864
Elm Creek Complex	$45,413
Pawnee Complex	$77,480
Fort Kearny Complex	$69,210
Audubon Rowe Complex	$31,435
Shoemaker Island Complex	$18,430
TOTAL	**$415,852, round up to $416,000**

PROGRAM TASK & ID: PD-15. AMP Permits

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	$ -
2017	$ -	$ 50,000.00

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

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 2017, HDR's estimated costs are $50,000 based on previous permitting work for the Program and are high enough to ensure enough budget is available to account for unforeseen eventualities in the permitting process that could slow down permit acquisition.

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

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office

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	$ -
2017	$ -	$ 72,600.00

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 $2.50/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.

MONTHLY EQUIPMENT COSTS

Unit	Use & Maintenance ($)	Fuel ($)	License & Insurance ($)	Monthly Total ($)	Comments
2016 Toyota Tundra	500.00	510.00	200.00	1,210.00	Owned by Headwaters Corp.
2011 Toyota Tundra	450.00	510.00	175.00	1,135.00	Owned by Headwaters Corp.
2009 Chevy Silverado	350.00	425.00	150.00	925.00	Owned by Headwaters Corp.
2007 Yukon	350.00	150.00	150.00	650.00	Owned by Headwaters Corp.
Airboat & Trailer	750.00	225.00	300.00	1,275.00	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.
TOTAL	**$2,940.00**	**$1,860.00**	**$1,250.00**	**$6,050.00**	**$72,600 (monthly total of $6,040 x 12months)**

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

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

Program First Increment Timeline
FY2009-FY2019

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; AMWG; TAC; contractor

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	$ -
2017	$ -	$ 221,000.00

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 FY17 tasks and estimated costs for sediment augmentation are as follows:

Task Description	Estimated FY17 Cost
Collection of June bathymetric LiDAR in the reach extending from the J-2 Return downstream to the Elm Creek bridge.	$71,000
Project implementation – actual augmentation of sediment; contractor acquired through bid package, assumes basic implementation of mechanical manipulation. The 2017 planned sediment augmentation volume is 80,000 tons at a cost of $150,000.	$150,000
FY17 ESTIMATED TOTAL	**$221,000**

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 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
Contractor (Kucera International, Inc.)

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

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	$ -
2017	$ -	$ 147,000.00

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 FY17 are due to the likely acquisition of bathymetric ("green") LiDAR.

PROGRAM TASK & ID: G-5. Geomorphology/In-Channel Vegetation Monitoring

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
Contractor (Tetra Tech)

Task Location
Central Platte River

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	$ -
2017	$ -	$ 151,000.00

Task Description
Collection of bathymetric LiDAR data for all Platte River channels within the Associated Habitat Reach (AHR). Data reduction and analysis will be performed by the EDO.

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
LiDAR – bare earth digital elevation models; data analysis and reporting.

Notes on Cost
The LiDAR contract was awarded through a competitive procurement process in conformance with the Procurement policy but expires at the end of 2019.

PROGRAM TASK & ID: H-2. Program Water Gages

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	$ -
2017	$ -	$ 25,000.00

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

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 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. 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. 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 $5,000 based on 2014-2016 experience. 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, there are no other options for establishing an official stream flow record and the USGS costs are comparable to the NDNR costs; therefore, these rates are considered fair and reasonable.

PROGRAM TASK & ID: IMRP-2. Adaptive Management Plan Directed Research Projects

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; contractors

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	$ -
2017	$ -	$ 30,000.00

Task Location
Central Platte River

Task Description
Continue investigation of wet meadow hydrology including groundwater, surface water, soil moisture, precipitation, and evapotranspiration monitoring at three wet meadow sites. Maintain existing equipment ($30,000).

Linkage to AMP and Big Questions
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.

Products
Continued monitoring and reporting on wet meadow hydrology at Program complexes.

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 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 2016, equipment was installed to monitor surface water, groundwater, precipitation, meteorological parameters, and soil moisture at three wet meadow locations. The equipment requires ongoing maintenance as well as data fees for wireless telemetry in 2017.

The FY17 tasks and estimated costs for *wet meadow hydrology research* are as follows:

Expected Activity	Cost	Task completed by	Explanation/Assumptions
Equipment maintenance	**$15,200**		
Data logger maintenance	$5,000	In-Situ, Inc.	Assumes replacement of 3 data loggers and cables or repair of 7 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	$5,200	NE Mesonet (formerly HPRCC)	Annual maintenance fee based on Program agreement with NE Mesonet ($2,600 per AWDN station for 2 stations).
Other equipment maintenance	$1,000	Contractor	Annual maintenance of atmometers and hobo data loggers (4 total), rain gages (2 total), and other monitoring equipment (staff gage replacement, crest stage gage, enclosure damage, etc.).
Data fees	**$4,572**		
In-Situ telemetry data fees	$4,572	In-Situ, Inc.	$43/month data fees for 12 months for 7 telemetry units, $460/year HydroVu package fee plus $60 SMS alarm fee for 2 telemetry units.
Additional Monitoring Equipment	**$10,000**		
CRNP soil moisture sensor	$10,000	HydroInnova	Large area averaged soil moisture sensors. Annual lease of $5,000 per sensor for 2 sensors.
Total	**$29,772, round up to $30,000**		

Assumptions related to wet meadows hydrology research in 2017:

- 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 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; special 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	$ -
2017	$ -	$ 160,000.00

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

Task Description
- Compass will be retained as a Special Advisor to the EDO to facilitate the step-wise, incremental pallid sturgeon process approved by the GC in September 2016.
- Advisors on AMP-related specialty topic of geomorphology. Review Program documents, attend workshops and meetings, research/monitoring design, modeling, 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, development of process documents as requested, and facilitation of the pallid sturgeon process (including associated reporting and document production).

Notes on Cost
This FY17 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	Facilitation	Lee Failing - $175 Philip Halteman - $150 Support – $100	300 300 25	$100,000
Brad Anderson, P.E.	Sediment transport and geomorphology	$170	150	$25,000
Bonnie Pryor	Hydrodynamic hydraulic and sediment modeling	$125	200	$25,000
Other Direct Costs (i.e. travel and per diem for AMP Reporting Session, trips to Kearney, NE)				$7,000
			Total not to exceed	**$157,000, round up to $160,000**

The budget estimate for Compass in FY17 is based on the scope of work for the pallid sturgeon process developed in the fall of 2016 that will be used to contract with Compass for their services as a Special Advisor facilitator for the pallid sturgeon process.

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

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

The billing rates are negotiated with the special advisors by the ED and are kept within the industry standard of practice based on each individual's qualifications. While industry standard of practice may not be precisely defined, anyone who is a practicing member of that professional community understands the limits of reasonableness associated with those boundaries. Appropriate expertise to make this assessment resides with the ED or EDO 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 an eight-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 EDO 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 scrutinized by and discussed with the appropriate advisory committees, the Finance Committee, and the Governance Committee. Input is received and taken under advisement from all these sources as to the appropriateness 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 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; Contractor (RBJV)

IMRP-6		
Year	Approved	Estimated
2007	$ -	$ -
2008	$ -	$ -
2009	$ -	$ -
2010	$ -	$ -
2011	$ -	$ -
2012	$ 143,227.00	$ -
2013	$ 35,000.00	$ -
2014	$ 36,000.00	$ -
2015	$ 40,000.00	$ -
2016	$ 50,000.00	$ -
2017	$ -	$ 50,000.00

Task Location
Central Platte River, NE

Task Description
Complete habitat availability assessments for terns/plovers and whooping cranes using 2016 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 2007-2015 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 2016. Whooping crane summary report presenting acres of WC foraging and roosting habitat by habitat type for 2016.

Notes on Cost
Rainwater Basin Joint Venture (RBJV) is under contract with the Program to complete this work. The cost covers one additional year (2016) of analysis using the same methods and deliverables outlined in the previous agreement for the 2007-2015 analyses between the RWBJV and the Program. The estimated time for completion of the least tern/plover and whooping crane analyses for 2016 is October 1, 2017. Estimated FY17 costs are:

Project Items	FY17 Cost
Terns and Plovers 2016 analysis - technician time	$11,000.00
Whooping Cranes 2016 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
Total	**$50,000.00**

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

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; Riverside Technology, Inc. (RTi)

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	$ -
2017	$ -	$ 81,000.00

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 FY17 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

The table below describes 2017 tasks and costs for database and web site hosting and maintenance:

Task	FY17 Cost	Description
System Support		
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)
FY17 Total	**$80,822.70 round up to $81,000**	**Contract Ceiling**

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

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

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	$ -
2017	$ -	$ 60,000.00

Task Description
The EDO will implement the PRRIP monitoring protocol during the nesting season. Monitoring effort will be reduced in 2017 and will include implementation of the protocol through outside monitoring and band re-sighting. FY17 funding in this line item will be for predator trapping.

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 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. The current contract includes an amendment effective through April 30, 2017. If the GC approves the reduced monitoring approach starting in 2017, the USGS contract will be terminated and any payment due through April 2017 will be paid through FY16 carryover funds. Beginning in 2017, all monitoring will be coordinated and conducted by the EDO.

Predator trapping will be conducted under the existing agreement between the Program and USDA-APHIS; the 2017 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 in the following table.

Category	Estimated FY17 Cost
Salary/Benefits	$30,000.00
Vehicle/Transportation	$5,000.00
Travel Cost	$3,000.00
Equipment/Supplies	$6,000.00
Subtotal	**$44,000.00**
Pooled Costs (11%)	$ 4,840.00
Overhead (16.15%)	$7,887.66
Total not to exceed	**$56,727.66, rounded up to $60,000**

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

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
Contractor (Ecological Solutions)

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	$ -
2017	$ -	$ 240,600.00

Task Location
Central Platte River, NE

Task Description

- Spring and Fall 2017 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.
- Final report and manuscript from/with WEST on whooping crane habitat selection.

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 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.). 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.

The negotiated budget for spring and fall field work by Ecological Solutions in 2017 is detailed below:

FY17 Spring Whooping Crane Monitoring	
Expense Category	**Estimated FY17 Cost**
Personnel	$89,339
Direct Costs (aircraft rental, mileage, GPS unit rental, radios, camera rental, PRRIP meeting attendance)	$47,638
Subtotal	$136,977
FY17 Fall Whooping Crane Monitoring	
Personnel	$53,553
Direct Costs (aircraft rental, mileage, radios, camera rental, PRRIP meeting attendance)	$30,014
Subtotal	$83,567
FY17 TOTAL	**$220,544, round up to $220,600**

Based on EDO experience with publications, this line item also includes $20,000 in FY17 for WEST to complete a final report on whooping crane habitat selection, subject to revision based on the results of the ongoing peer review of that report. Additionally, the EDO will work with WEST to develop a manuscript for publication summarizing the results of the whooping crane habitat selection analysis. This work will be completed under a final Amendment to the current Agreement with WEST for the habitat selection analysis project.

PROGRAM TASK & ID: WC-3. Whooping Crane Telemetry Tracking

Program First Increment Timeline
FY2011-FY2017

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

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.

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	$ -
2017	$ -	$ 6,000.00

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 2017.

Notes on Cost
This FY 2017 budget line item is for Program acquisition of remaining data from the Whooping Crane Tracking Partnership. Nine (9) transmitters attached to whooping cranes continue to work and are still providing important data.

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

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office
Independent Scientific Advisory Committee (ISAC)

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	$ -
2017	$ -	$ 203,000.00

Task Location
Basin meeting locations TBD

Task Description
The EDO proposes the following 2017 ISAC activities:

1) **GC Pallid Sturgeon Workshop** – date/location TBD. The GC requested ISAC involvement in the pallid sturgeon process so the ISAC will be invited to attend. Assume a three-day workshop and a day of travel for a total of four days.

2) **2017 AMP Reporting Session in Omaha, NE (Fall 2017)** – date TBD. ISAC interaction with EDO staff, Program participants, and contractors; review and discussion of 2016 "State of the Platte" Report; review and discussion of latest drafts of AMP documents. Assume a three-day Reporting Session and a day of travel for a total of four days.

3) **Conference calls/WebEx** – Up to four, two-hour conference calls to prepare for the GC Pallid Sturgeon Workshop and AMP Reporting Session and to discuss general issues related to AMP implementation.

ISAC Cost Item	Estimated FY17 Cost
GC Pallid Sturgeon Workshop – 4-day meeting (3 days of meeting, one day of travel) x $1,400 per member per day ($175/hour x 8-hour day) x 6 ISAC members	**$33,600**
2017 AMP Reporting Session – 4-day meeting (3 days of meeting, one day of travel) x $1,400 per member per day ($175/hour x 8-hour day) x 6 ISAC members	**$33,600**
Conference Calls/WebEx – 2-hour meeting x 4 calls x $350 per member per call ($175/hour x 2-hour call) x 6 members	**$16,800**
Document review – 10 days of review x 6 members x $1,400/day	**$84,000**
ISAC Chair – additional $14,000 for ISAC coordination and preparation of reports for the GC (10 days x $1,400/day)	**$14,000**
ISAC travel and other meeting expenses: • GC Pallid Sturgeon Workshop – 6 members x $1,700 ($1,000 airfare + $500 hotel + $200 per diem) = $10,200 • 2017 AMP Reporting Session – 6 members x $1,700 ($1,000 airfare + $500 hotel + $200 per diem) = $10,200	**$20,400**
Total	**$202,400, round up to $203,000**

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.

2017 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 2017
Ned Andrews	December 2016	Extend through 2019
Brian Bledsoe	December 2016	Extend through 2019
Adrian Farmer	December 2016	Extend through 2019
David Galat	December 2016	Extend through 2019
Jennifer Hoeting	December 2016	Extend through 2019
David Marmorek	December 2017	Extend through 2019

The EDO recommends the GC retain all six (6) current ISAC members through the end of the First Increment in 2019. In 2019, the GC can determine the appropriate course of action for the composition of the ISAC during the proposed 2020-2032 Extension.

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

PROGRAM TASK & ID: PD-3. AMP & IMRP Peer Review

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	$ -
2017	$ -	$ 40,000.00

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
Contractor; peer review panelists

Task Location
Various locations of peer reviewers

Task Description
Peer review of one (1) Program document.

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. The EDO recommends the GC extend this contract for years 2017-2019.

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 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 FY17, estimated peer review expenses are:

FY17 PRRIP Document for Peer Review	# Reviewers	per Reviewer Cost	Total Review Panel Cost	ISR Contractor Costs	Total Cost
TBD	3	$7,000	$21,000	$14,800	$35,800
Total					**$35,800, round up to $40,000**

PROGRAM TASK & ID: PD-11. AMP Reporting

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; TAC

PD-11		
Year	Approved	Estimated
2007	$ -	$ -
2008	$ 10,000.00	$ -
2009	$ 10,000.00	$ -
2010	$ 70,000.00	$ -
2011	$ 25,000.00	$ -
2012	$ 25,000.00	$ -
2013	$ 25,000.00	$ -
2014	$ 14,000.00	$ -
2015	$ 14,000.00	$ -
2016	$ 10,000.00	$ -
2017	$ -	$ 10,000.00

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 2016 "State of the Platte" Report with ISAC, TAC, Program contractors, Program special advisors, and EDO.

Products
AMP Reporting Session in Omaha, NE in October 2017 and 2016 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 2016 "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 FY17 costs include:

Expense Category	Estimated FY17 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
Total	**$10,000**

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: PD-21. PRRIP Publications

Program First Increment Timeline
Annual

FY 2017 Start Date
January 1, 2017

FY 2017 End Date
December 31, 2017

Task Completed by
ED Office; TAC

Task Location
ED Office (Kearney, NE)

PD-21		
Year	Approved	Estimated
2007	$ -	$ -
2008	$ -	$ -
2009	$ -	$ -
2010	$ -	$ -
2011	$ -	$ -
2012	$ -	$ -
2013	$ -	$ -
2014	$ 20,000.00	$ -
2015	$ 16,060.00	$ -
2016	$ 9,000.00	$ -
2017	$ -	$ 21,000.00

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 2017, the EDO expects to seek GC approval to publish at least seven manuscripts including:

Potential Manuscript	Author	Manuscript Type	Target Journal	FY16 Cost
Negotiating recovery of LTPP on the central Platte River	EDO	Synthesis and decision making	*Conservation Biology*	$3,000
LTPP nest and brood survival	EDO	Ecology/behavior	*Ecology and Evolution*	$3,000
LTPP off-channel habitat selection	EDO	Ecology/behavior	*Wilson Journal of Ornithology*	$3,000
WC diurnal habitat selection	EDO	Ecology/behavior	*Wilson Journal of Ornithology*	$3,000
WC Habitat Synthesis Chapter #3 (WC habitat selection throughout the Great Plains)	EDO	Ecology/behavior	*Wilson Journal of Ornithology*	$3,000
WC Habitat Synthesis Chapter #4 (WC habitat creation and maintenance)	EDO	Ecology/behavior	*Geomorphology*	$3,000
WC habitat selection	WEST/ EDO	Ecology/behavior	*Journal of Wildlife Management*	$3,000
			TOTAL	**$21,000**

APPENDIX A

PRRIP FY2017 Annual Land Work Plan

2017 Land Budget Overview

Platte River Recovery Implementation Program

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

2017 Land Budget Overview By Budget Line Item

Budget Line Item	Description	Estimated Expenditure***
LP-2	Adaptive Management Species Habitat Actions*	$415,852
LP-3	New Land Acquisitions	$1,000,000
LP-4	Property Maintenance & Agricultural Operations**	$196,945
LP-6	Land Plan Special Advisors	$20,000
LP-7	Public Access Management	$50,000

* Includes $50,000 in LP-2 for new acqusitions in 2017.

** Includes $50,000 in LP-4 for new acqusitions in 2017.

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

2017 Budget Overview By Complex

Complex	Estimated Expenditure	Estimated Income
Non-Complex Tracts	$52,395	$39,534
Plum Creek "Complex"	$56,645	$8,550
Cottonwood Ranch Complex	$62,664	$16,595
Elm Creek Complex	$73,988	$16,935
Pawnee Complex	$85,815	$4,720
Fort Kearny Complex	$107,180	$35,300
Minden-Gibbon Complex	$31,435	$0
Shoemaker Island Complex	$42,675	$38,000
New Acquisitions (Estimated 4)*	$100,000	
Total	**$612,797**	**$159,634**

* $50,000 for maintenance & $50,000 for species habitat

2017 Budget Priority Areas by Budget Line Item

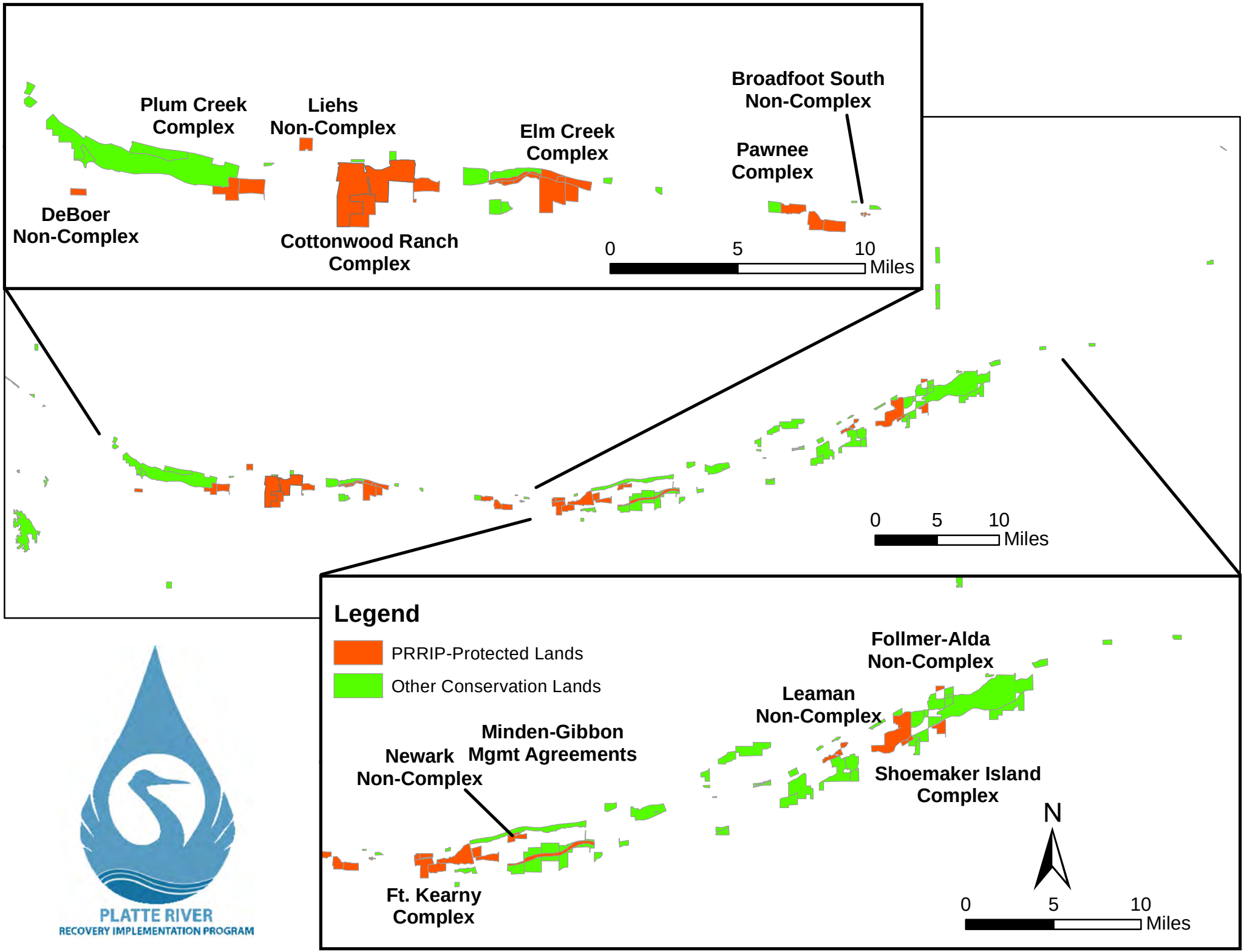
LP-2 – Adaptive Management Species Habitat Actions: Species habitat priorities for 2017 are focused on maintenance of complex and non-complex habitat as well as enhancement of off-channel palustrine wetland habitat for whooping cranes at newly acquired palustrine wetland sites.

LP-3 – New Land Acquisitions: The majority of complex and non-complex sandpit habitat lands have been acquired. As such, 2017 priorities will include acquisition of lands for non-complex palustrine wetlands as well as acquisition of remaining non-complex off-channel sand & water habitat acres.

LP-4 – Property Maintenance & Agricultural Operations: 2017 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.

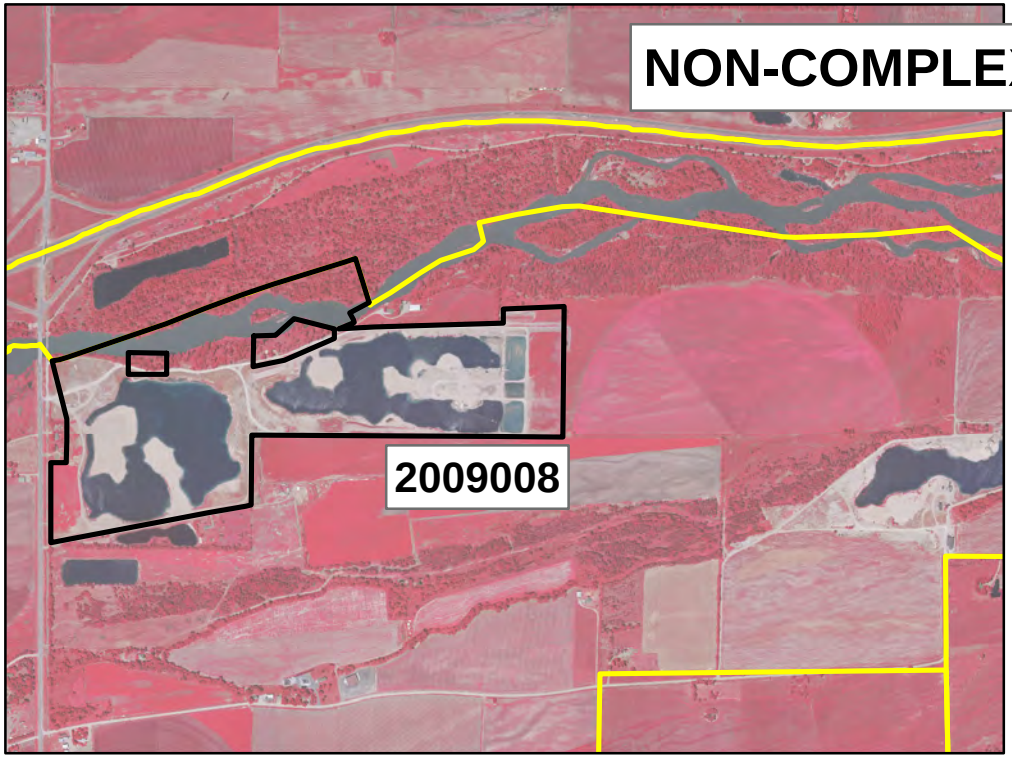
LP-6 – Land Plan Special Advisors: Priorities for special advisors include administration of agricultural leases and associated FSA obligations, crop management and marketing, and assistance in cropland conversions.

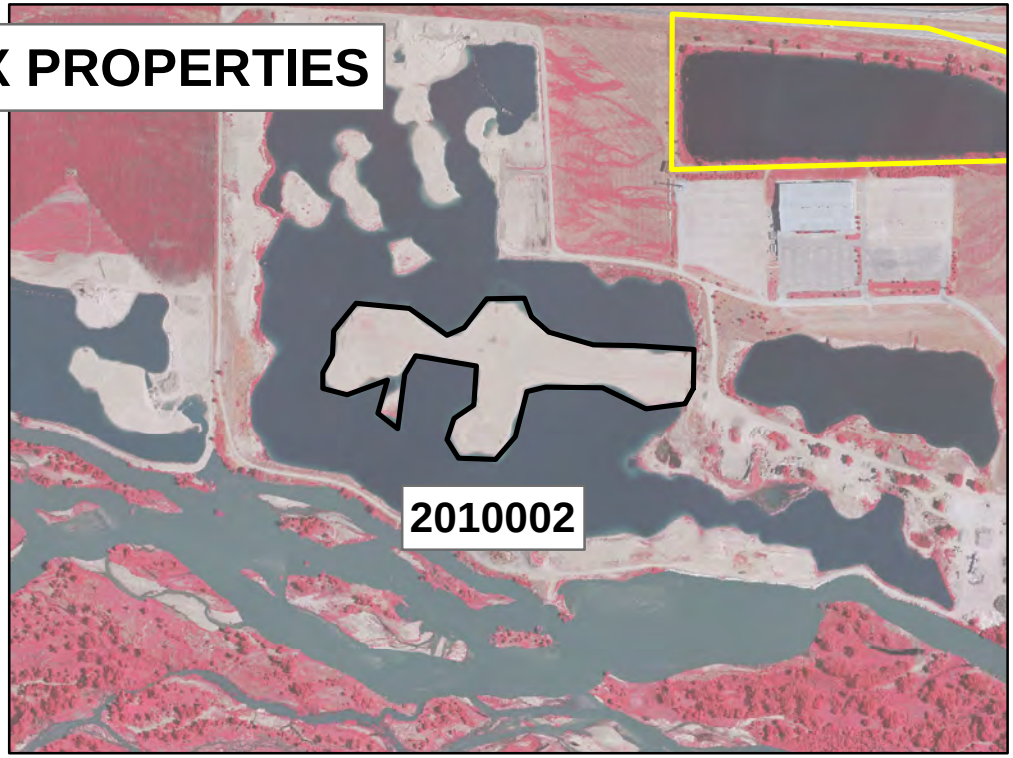
LP-7 – Public Access Management: Nebraska Game and Parks Commission will manage public access to Program lands in 2017.

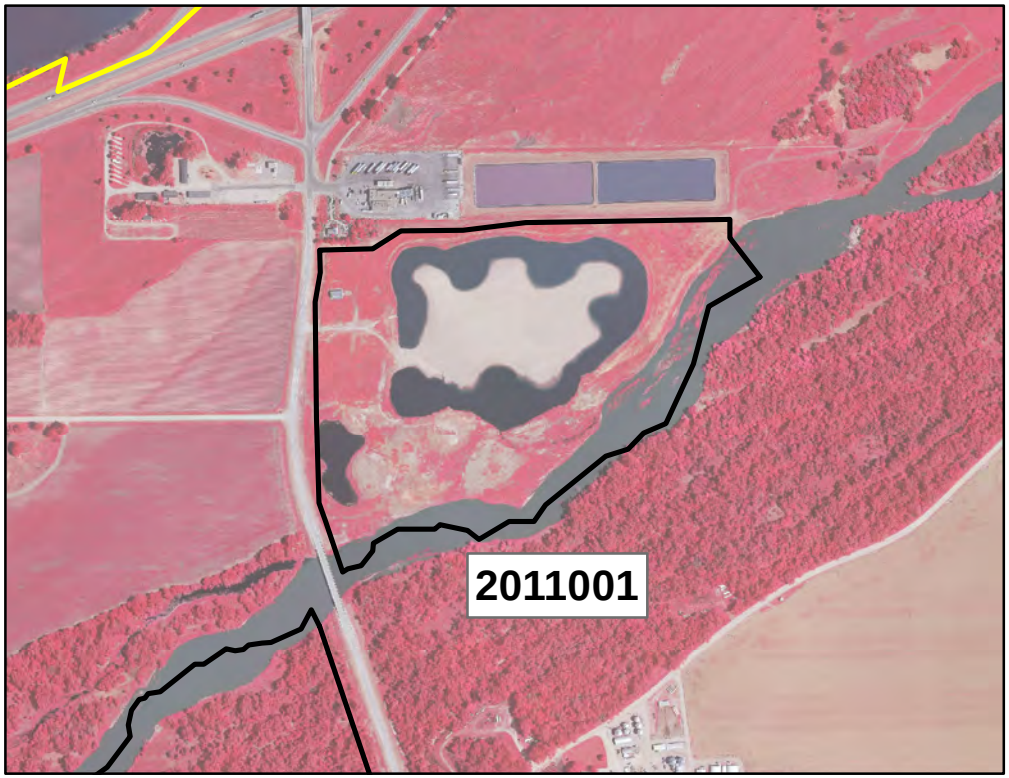


PLATTE RIVER
RECOVERY IMPLEMENTATION PROGRAM

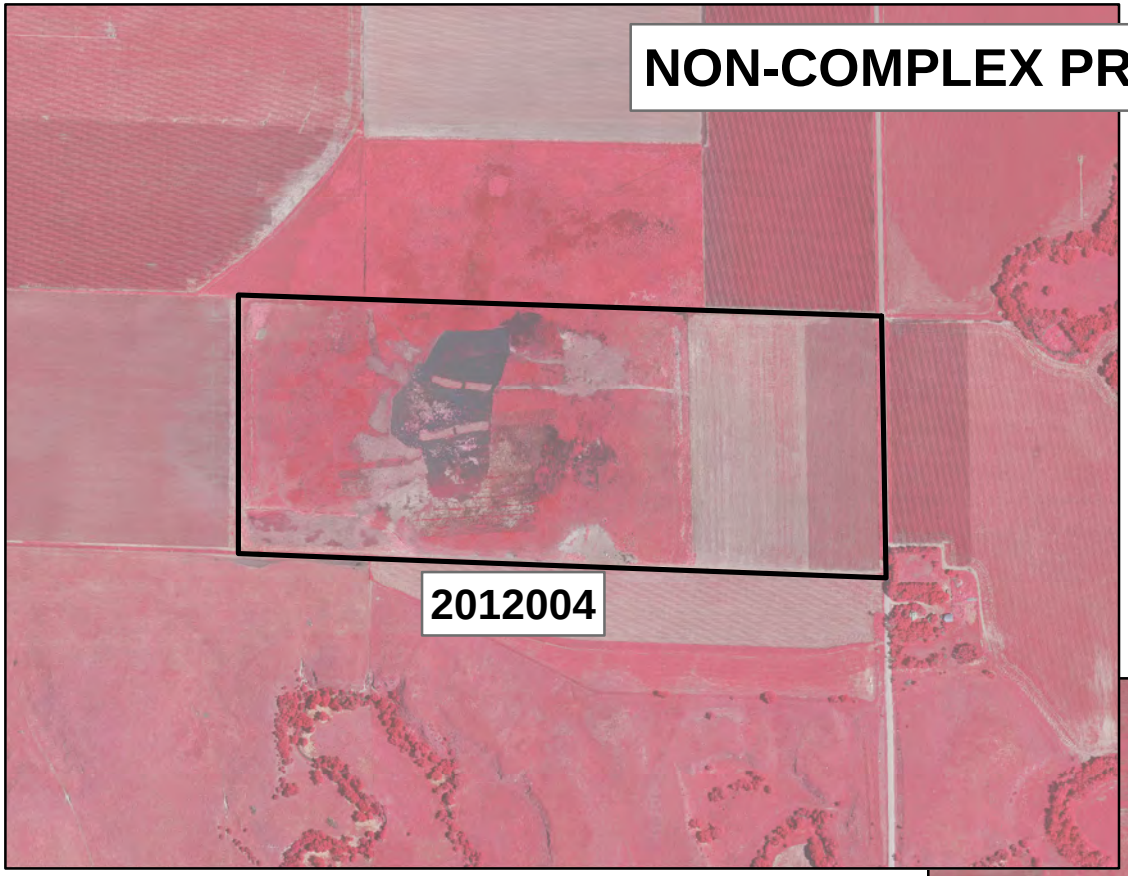
NON-COMPLEX PROPERTIES

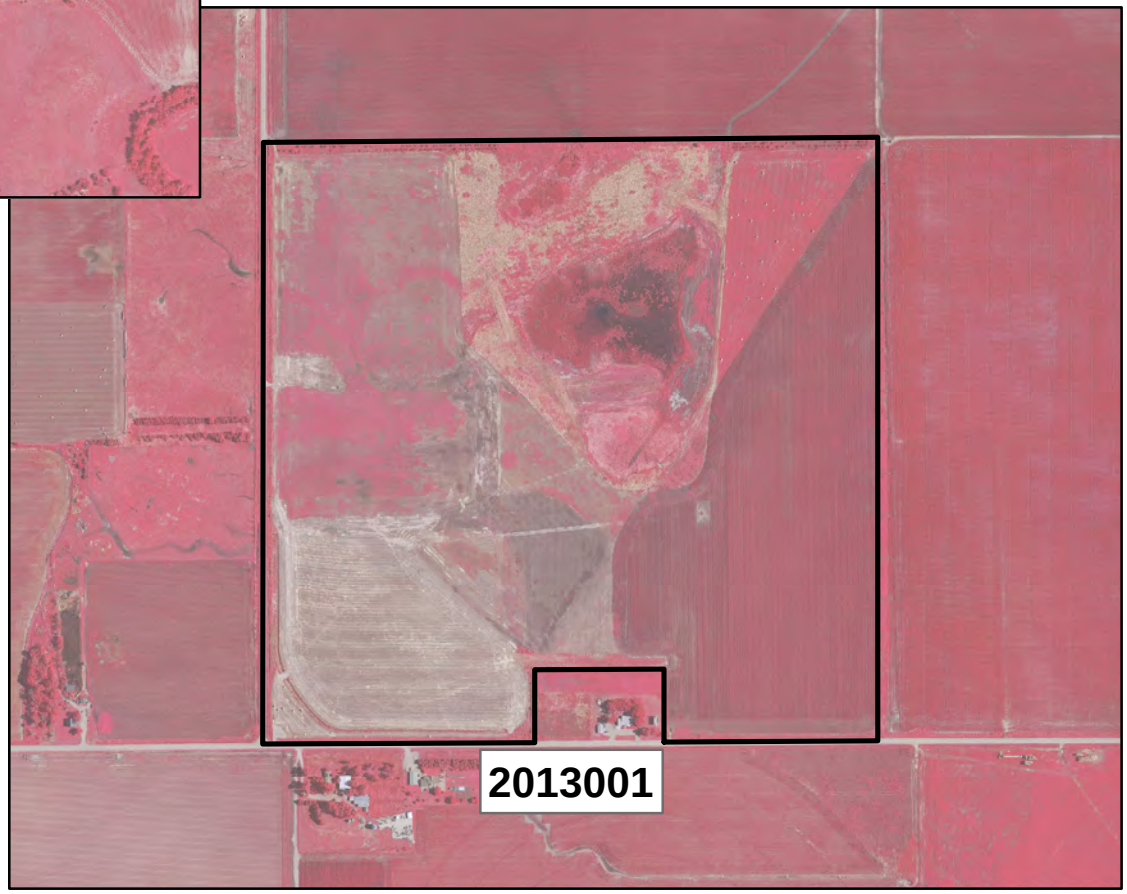






NON-COMPLEX PROPERTIES





Legend

- PRRIP-Protected Lands
- Other Conservation Lands

2017 Non-Complex Properties Annual Work Plan

Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, 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*** *– Paddle scraper will be used to remove vegetation from south peninsula on east pit at Tract 2009008. Apply pre-emergent herbicide on Tracts 2009008, 2010002, 2011001, and 2011002 OCSW nesting habitat to prevent vegetation encroachment into nesting areas.*
* ***Maintain Suitable Palustrine Wetland Roosting Habitat*** *– Manage 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.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 2	Herbicide applications on OCSW peninsulas to maintain bare sand nesting habitat	4/2017 & 9/2017	TT	$10,675	LP-2
NC 3	Tract 2009008- remove vegetation from south peninsula on west sandpit	1/1/17 - 4/15/17	TT	$330	LP-2
NC 4	Predator fence construction at west peninsula on Tract 2011002	1/1/17 - 4/15/17	TT	$7,440	LP-2
NC 5	Construct 10 acres of on-channel LT/PP nesting habitat	1/1/17 - 4/15/17	TT	$15,330	LP-2

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 6	Irrigation well pumping to augment water level in wetland area of Tract 2013001	3/1/17 - 4/15/17 & 10/1/2017-11/15/17	TT	$4,060	LP-2
NC 7	Brush, tree, cattail herbicide spraying	1/16/17-11/1/17	TT	$3,300	LP-2

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 8	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
NC 9	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	1/1/17 – 4/1/17	TBD	N/A	N/A

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 10	Fence and road maintenance	Annual	TT	$2,500	LP-4
NC 11	Noxious weed control	6/1/17 – 8/31/17	TT	$4,300	LP-4
NC 12	Tract 2011001 Metal building roof repair/ painting	6/1/17 – 10/31/17	TT	$2,500	LP-4
NC 13	Mowing	7/15/17 - 10/15/17	TT	$1,960	LP-4

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
NC 14	Oversight of grazing and cropland leases	Annual	TT	N/A	N/A
NC 15	Oversight of sand and gravel mining	Annual	BS	N/A	N/A

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 East Leaman Tract
2011002 - PRRIP Follmer Alda Tract
2012004 - PRRIP DeBore Tract
2013001 - PRRIP Liehs Tract

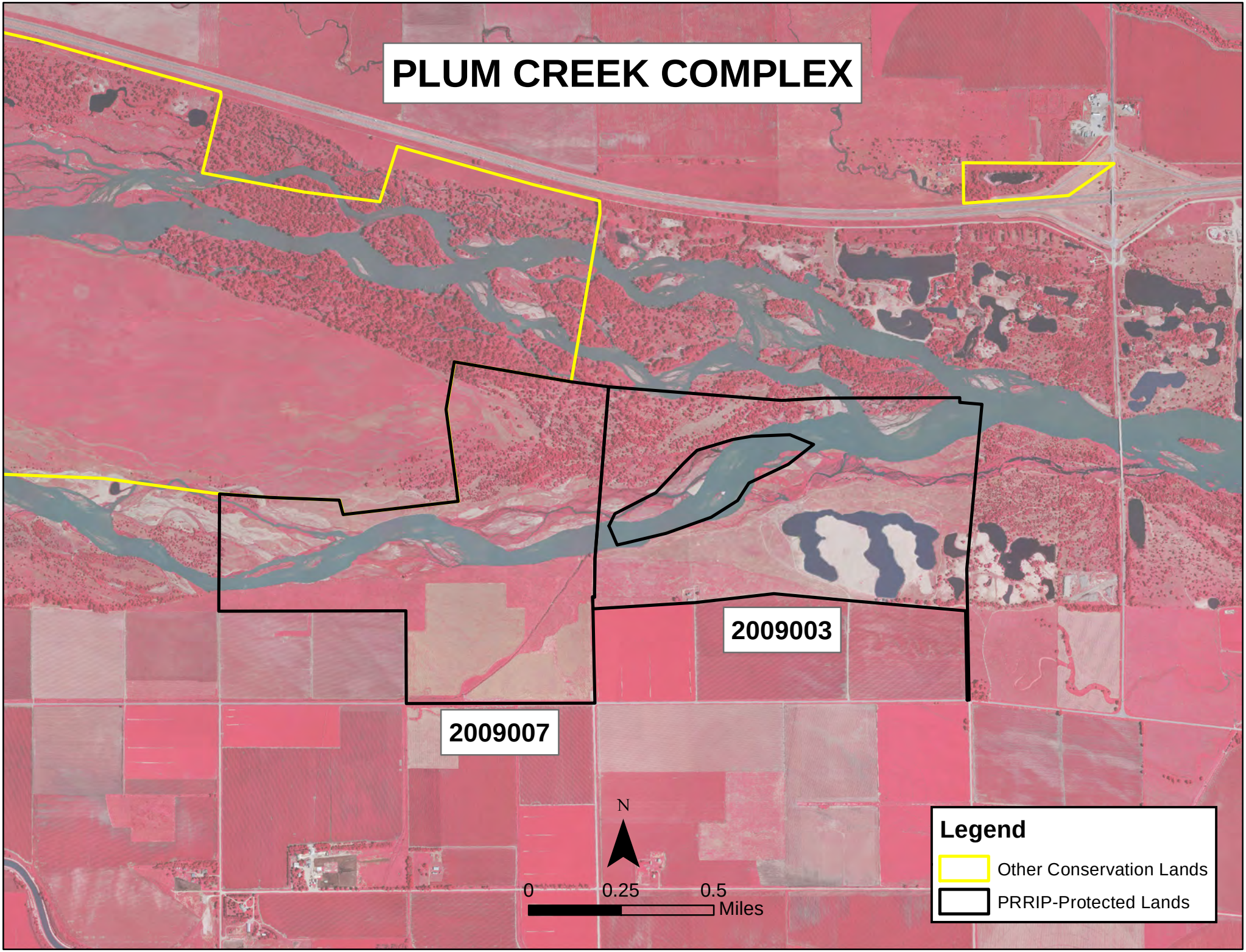
2017 Non-Complex Tracts Budget Summary

Estimated 2017 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditur
Species Habitat	Create & Maintain Off-Channel Sand & Water Habitat	LP-2	$18,445
Species Habitat	Create In-channel Sand & Water Habitat	LP-2	$15,330
Species Habitat	Create & Maintain Palustrine Wetland Habitat	LP-2	$7,360
		Subtotal	***$41,135***
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	$11,260
		Total	***$52,395***

Estimated 2017 Revenues

Tract	Item	Estimated Income
Tract 2009008	Sand & Gravel Royalties	$15,000
Tract 2009008	Cropland Income	$2,200
Tract 2011001	Hay Income	$688
Tract 2011002	Sand & Gravel Royalties	$2,000
Tract 2011002	Cropland Income	$4,726
Tract 2012004	Cropland Income	$3,000
Tract 2012004	Grazing Income	$1,645
Tract 2013001	Cropland Income	$10,275
	Total	**$39,534**


PLUM CREEK COMPLEX
2009003
2009007
N
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0.25
0.5
Miles
Legend
Other Conservation Lands
PRRIP-Protected Lands

2017 Plum Creek "Complex" Annual Work Plan

Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, 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

* *Implementation of full scale sediment augmentation- augmentation of 80,000 tons of sediment through mechanical augmentation.*

Species Habitat Priorities

* ***Improve Target Species Sand and Water Habitat*** *– Paddle scraper will be used to remove vegetation from west peninsula. Application of pre-emergent herbicide on OCSW peninsulas 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 boundary fence signage, road maintenance, and noxious weed control.*
* ***Agricultural Operations –*** *Oversight of grazing lease on Tract 2009003. Oversight of cropland/hay leases on Tract 2009007.*

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

Priority Area: *General*

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A
PC 2	Coordinate with NPPD to identify and mitigate potential impacts to leased NPPD nesting islands	1/1/17 – 4/1/17	JF	N/A	N/A

Priority Area: *Species Habitat*

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 3	Herbicide applications on OCSW peninsulas to maintain bare sand nesting habitat	4/2017 & 9/2017	TT	$2,150	LP-2
PC 4	Remove vegetation and level bare sand area on west peninsula	1/1/2017- 4/1/2017	TT	$725	LP-2
PC 5	Disking if necessary to provide in-channel vegetation control (128 ac)	9/1/17 – 10/1/17	TT	$9,985	LP-2

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 6	Prescribe burn of grassland on Tract 2009003 (152 acres)	3/15/17 – 4/7/17	TT	$6,625	LP-2
PC 7	Russian olive and cedar removal approximately 70 acres on North grassland of Tract 2009007 and fence line clearing on approximately 7 acres.	7/15/17 – 10/31/17	TT	$15,400	LP-2

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 8	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
PC 9	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	1/1/17 – 4/1/17	TBD	N/A	N/A

Priority Area: *Operations and Maintenance*

Item(s): Basic Property Maintenance Obligations and Needs

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 10	Tract 2009007- fence removal & construction on grassland north of Platte River	1/1/17 -5/15/17	TT	$8,660	LP-4
PC 11	Fence and road maintenance	Annual	TT	$2,500	LP-4
PC 12	Noxious weed control	6/1/17 – 8/31/17	TT	$3,000	LP-4
PC 13	Lodge & Quonset utilities and maintenance	Annual	TT	$5,600	LP-4
PC 14	Mowing	7/15/17- 10/15/17	TT	$2,000	LP-4

Priority Area: *Operations and Maintenance*

Item(s): Agricultural Operations

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PC 15	Oversight of grazing and cropland leases	Annual	TT	N/A	N/A

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:
2009003 - PRRIP Dyer Tract
2009007 - PRRIP Cook Tract

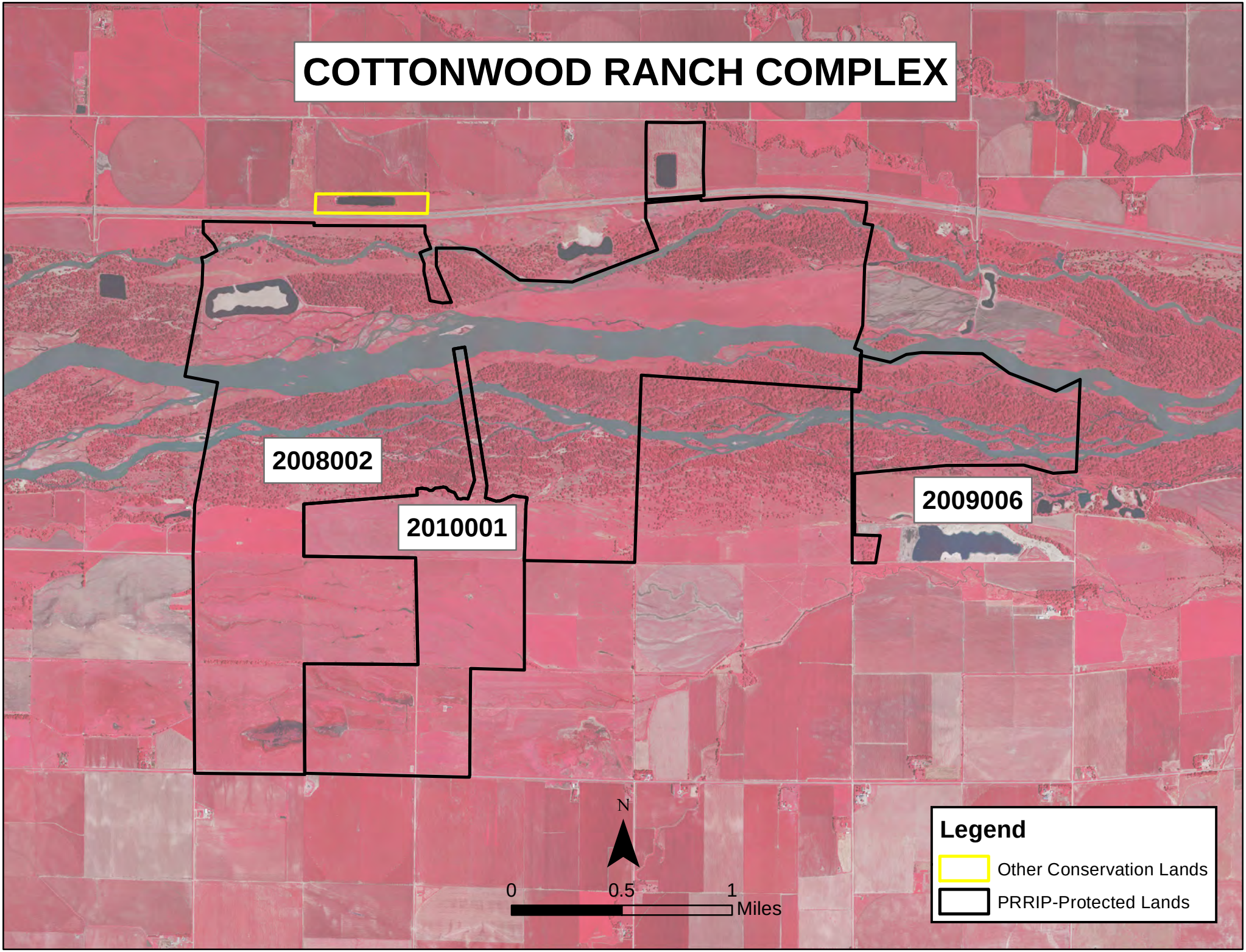
2017 Plum Creek Complex Budget Summary

Estimated 2017 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditur
Species Habitat	Target Species Sand and Water Habitat	LP-2	$12,860
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	$22,025
		Subtotal	***$34,885***
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	$21,760
		Total	***$56,645***

Estimated 2017 Revenues

Tract	Item	Estimated Income
Tract 2009003	NPPD Habitat Lease	$500
Tract 2009003	Grazing Income	$0
Tract 2009007	Haying Income	$3,000
Tract 2009007	Cropland Income	$5,550
	Total	**$8,550**


COTTONWOOD RANCH COMPLEX
2008002
2010001
2009006
N
0
0.5
1
Miles
Legend
Other Conservation Lands
PRRIP-Protected Lands

2017 Cottonwood Ranch Complex Annual Work Plan

Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, 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 OCSW peninsulas to maintain tern and plover nesting habitat. Control in-channel vegetation to unobstructed view widths for whooping cranes.*

* ***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 other species of concern during implementation of land-related activities.*

Operations and Maintenance Priorities

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

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

Priority Area: *General*

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

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

Priority Area: *Species Habitat*

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR 2	Tract 2008002 Pre-emergent herbicide application on in-channel tern and plover nesting habitat and OCSW complex	4/1/17 – 4/30/17	TT, JJ	$1,250	LP-2
CR 3	Disking if necessary to provide in-channel vegetation control	9/1/17 – 10/1/17	TT	$13,730	LP-2

Priority Area: *Species Habitat*

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR 4	Tract 2010001 Annual electrical service fee at two irrigation wells to supplement water to wetland	3/1/17 - 4/15/17 & 10/1/2017-11/15/17	TT	$8,620	LP-2
CR 5	Tract 2010001 - Replace electric pump on well east of I Road	5/15/17 – 9/30/17	TT	$7,150	LP-2
CR 6	Tracts 2008002/ 2010001- Russian olive treatment	7/15/17 – 11/15/17	TT	$4,560	LP-2
CR 7	Tract 2008002 Prescribed burn on SW ¼ Section 16 (132 acres)	3/15/17 – 5/15/17	TT	$5,754	LP-2
CR 8	Tract 2010001 Prescribed burn on SE ¼ Section 16 (156 acres)	3/15/17 – 5/15/17	TT	$6,800	LP-2

Item(s): *Other Species of Concern*

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR 9	Habitat and species surveys on properties where work will occur	As Needed	DB	N/A	N/A
CR 10	Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with land activities	As Needed	TBD	N/A	N/A

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR 11	Tract 2009006 Repair fences from flooding (10,400 Lf)	2/1/17 – 5/15/17	TT	$5,200	LP-4
CR 12	Fence and road maintenance	1/1/17 – 12/31/17	TT, JJ	$2,500	LP-4
CR 13	Noxious weed control	6/1/17 – 8/31/17	TT, JJ	$5,500	LP-4
CR 14	Mowing	7/15/17- 10/15/17	TT	$1,600	LP-4

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
CR 16	Tract 2009006 grazing lease oversight	5/15/17 – 10/15/17	TT	N/A	N/A
CR 17	Tract 2010001 grazing lease oversight	5/15/17 – 10/15/17	TT	N/A	N/A
CR 18	Tract 2010001 haying lease oversight	7/15/17 – 10/15/17	TT	N/A	N/A

Personnel Responsibility Key
JJ – Jim Jenniges (NPPD)
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:
2008002 - NPPD Cottonwood Ranch
2009006 - PRRIP Stall Tract
2010001 - PRRIP Morse Tract

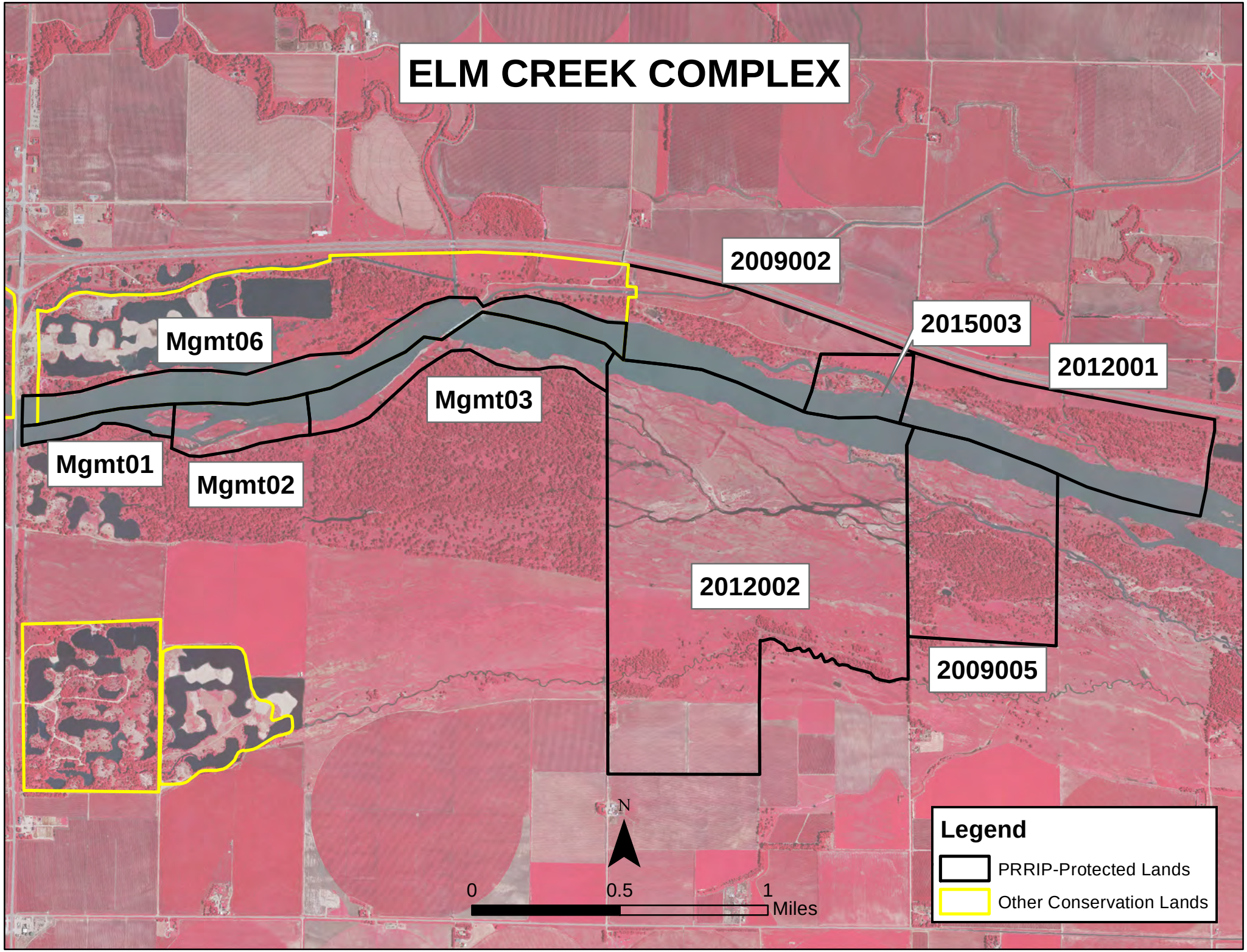
2017 Cottonwood Ranch Complex Budget Summary

Estimated 2017 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditur
Adaptive Management & Species Habitat	Target Species Sand and Water Habitat	LP-2	$14,980
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	$32,884
		Subtotal	***$47,864***
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	$14,800
		Total	***$62,664***

Estimated 2017 Revenues

Tract	Item	Estimated Income
Tract 2009006	Grazing Income	$1,000
Tract 2010001	Grazing Income	$8,541
Tract 2010001 SE 1/4	Grazing Income	$4,054
Tract 2010001	Haying Income	$3,000
	Total	**$16,595**


ELM CREEK COMPLEX
2009002
2015003
2012001
Mgmt06
Mgmt03
Mgmt01
Mgmt02
2012002
2009005
N
0
0.5
1
Miles
Legend
PRRIP-Protected Lands
Other Conservation Lands

2017 Elm Creek Complex Annual Work Plan

Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, 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 and nearby off-channel sand & water nesting habitat (OCSW nesting complex on CWR property).*

Species Habitat Priorities

* ***Maintain Target Species Sand and Water Habitat*** *– Create and maintain sand and water habitat for species through vegetation control to maintain active channel width and unobstructed view widths.*
* ***Protecting Other Species of Concern*** *– Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.*

Operations and Maintenance Priorities

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

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

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

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

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC 2	In-channel cross disking (below diversion) and overbank mowing to maintain active channel and unobstructed view widths (247 acres)	9/1/17 – 10/1/17	TT	$19,300	LP-2

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC 3	Tract 2009002 Prescribed burn (41 ac)	3/15/17 – 5/15/17	TT	$2,460	LP-2
EC 4	Tract 2015003 Prescribed burn (27 ac)	3/15/17 – 5/15/17	TT	$1,620	LP-2
EC 5	Tract 2012002 Prescribed burn (229 ac)	3/15/17 – 5/15/17	TT	$9,963	LP-2
EC 6	Tract 2012002 mulching treatment of south wet meadow (~173 acres)	8/15/17 – 12/15/17	TT	$12,070	LP-2

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

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

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC 9	Tract 2012001 Build permanent parking area with fencing	2/1/2017-8/15/17	TT	$4,135	LP-4
EC 10	Tract 2009002 building utilities and maintenance	1/1/17 – 12/31/17	TT	$1,785	LP-4
EC 11	Fence and road maintenance	4/1/17 – 10/1/17	TT	$2,500	LP-4
EC 12	Mowing	7/15/17 - 10/15/17	TT	$1,330	LP-4
EC 13	Noxious weed control	6/1/17 – 8/31/17	TT	$18,825	LP-4

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
EC 15	Tract 2009002 Crop oversight	5/15/17 – 10/15/17	TT	N/A	N/A
EC 16	Tract 2009005 grazing lease oversight	5/15/17 – 10/15/17	TT	N/A	N/A
EC 17	Tract 2012001 haying lease oversight	7/15/17 – 10/15/17	TT	N/A	N/A
EC 18	Tract 2012002 grazing lease oversight	7/15/17 – 10/15/17	TT	N/A	N/A

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:
2009002 – PRRIP Bartels Tract
2009005 – PRRIP McCormick Tract
2012001 – PRRIP Sullwold Tract
2012002 – PRRIP Johns Tract
2015003 – Blue Hole East

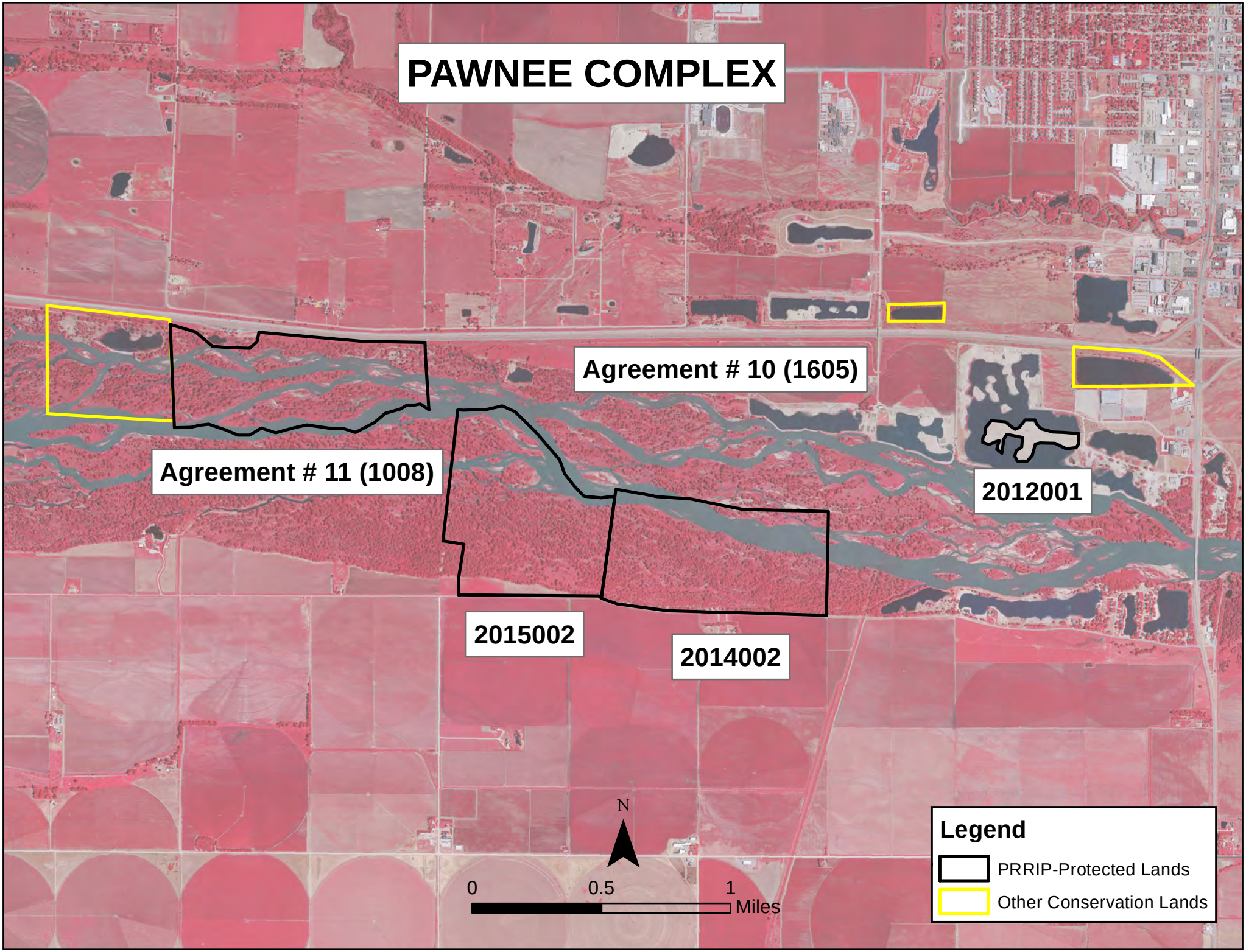
2017 Elm Creek Complex Budget Summary

Estimated 2017 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditur
Adaptive Management & Species Habitat	Target Species Sand and Water Habitat	LP-2	$19,300
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	$26,113
		Subtotal	***$45,413***
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	$28,575
		Total	***$73,988***

Estimated 2017 Revenues

Tract	Item	Estimated Income
Tract 2009002	Crop Income	$4,350
Tract 2009005	Grazing Income	$2,500
Tract 2012001	Haying Income	$2,795
Tract 2012002	Grazing Income	$7,290
	Total	**$16,935**


PAWNEE COMPLEX
Agreement # 10 (1605)
Agreement # 11 (1008)
2012001
2015002
2014002
N
0
0.5
1
Miles
Legend
PRRIP-Protected Lands
Other Conservation Lands

2017 Pawnee Complex Annual Work Plan

Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, 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 other species of concern during implementation of land-related activities.*

Operations and Maintenance Priorities

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

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

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 1	Coordination of Program land actions with neighboring landowners	Annual	BS	N/A	N/A
PAW 2	Develop Complex Restoration and Management Plan	1/1/17 - 8/1/17	JB	N/A	N/A

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 3	2017 Habitat Enhancement – woody vegetation clearing and disking	8/1/17 – 12/31/17	TT	$73,190	LP-2
PAW 4	In-channel cross disking and overbank mowing to maintain active channel and unobstructed view widths (55 ac)	9/1/17 – 10/1/17	TT	$4,290	LP-2

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

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

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 7	Build permanent parking area with fencing	2/1/2017-8/15/17	TT	$4,135	LP-4
PAW 8	Noxious weed control - (~675 acres)	6/1/17 – 8/31/17	TT	$4,200	LP-4

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
PAW 9	Tract 2014002 oversight	5/15/17 – 10/15/17	TT	N/A	N/A
PAW 10	Tract 2015002 oversight	5/15/17 – 10/15/17	TT	N/A	N/A

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:
2014002 - PRRIP Volentine Tract
2015002 - PRRIP BELF Tract
Agreement #10 (1605) - P. Broadfoot
Agreement #11 (1008) - NE DOR Lease

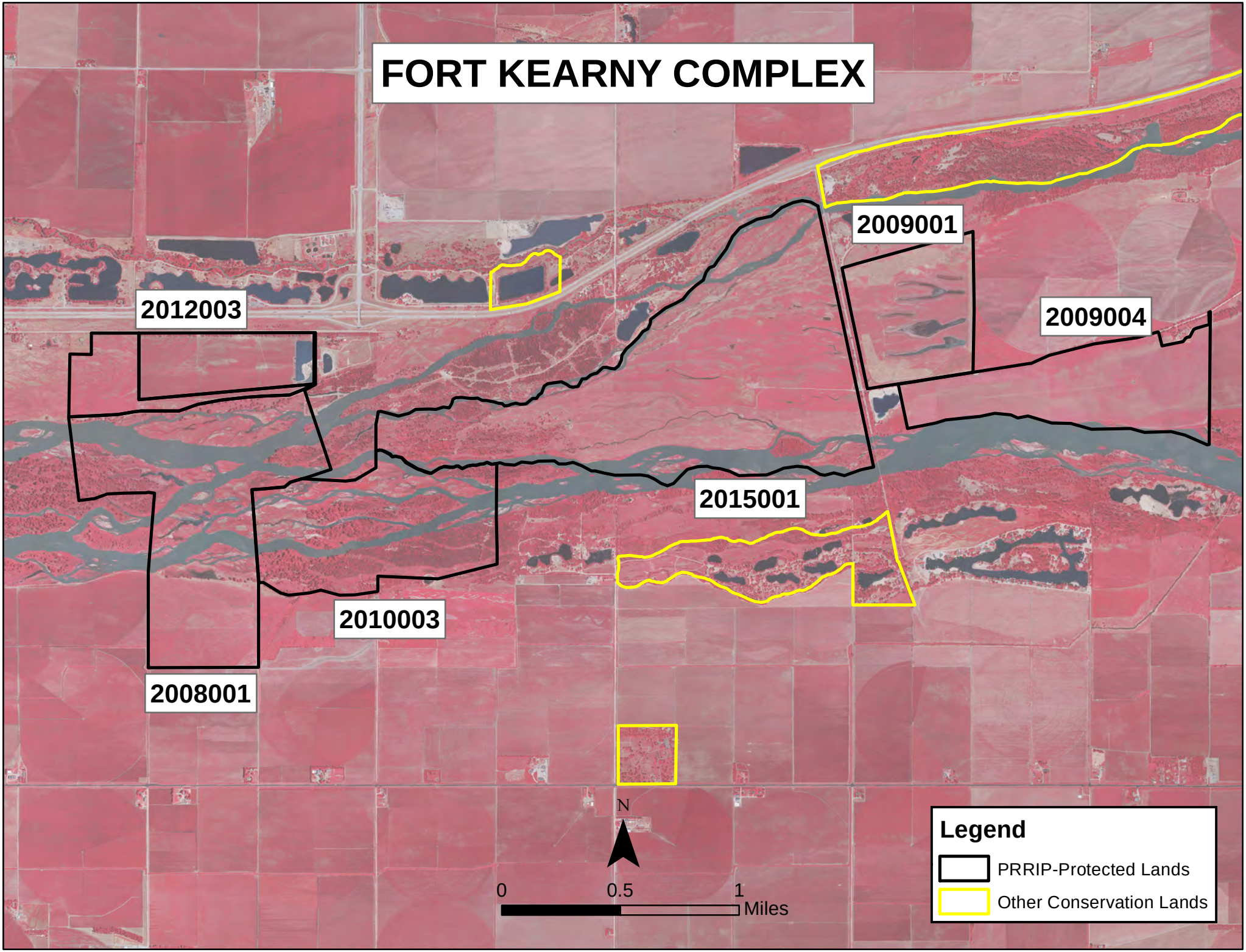
2017 Pawnee Complex Budget Summary

Estimated 2017 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditur
Adaptive Management & Species Habitat	Target Species Sand and Water Habitat	LP-2	$77,480
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	$8,335
		Total	***$85,815***

Estimated 2017 Revenues

Tract	Item	Estimated Income
Tract 2015002	Crop Income	$720
Tract 2015002	Grazing Income	$2,000
Tract 2014002	Grazing Income	$2,000
	Total	**$4,720**


FORT KEARNY COMPLEX
2012003
2009001
2009004
2015001
2010003
2008001
N
0
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1
Miles
Legend
PRRIP-Protected Lands
Other Conservation Lands

2017 Fort Kearny Complex Annual Work Plan

Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, 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 other species of concern during implementation of land-related activities.*

Operations and Maintenance Priorities

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

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

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

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

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 2	Disking if necessary to provide in-channel vegetation control	9/1/17 – 10/1/17	TT	$6,475	LP-2

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 3	Tract 2009001/ 2009004- overseed grasslands with local ecotyp forb mix- (425 ac)	12/1/16 – 3/15/17	TT	$42,500	LP-2
FK 4	Tract 2008001-South Prescribe burn (92 ac)	3/15/17 – 5/15/17	TT	$4,010	LP-2
FK 5	Tract 2009004 Prescribe burn (74 ac)	3/15/17 – 5/15/17	TT	$3,225	LP-2
FK 6	Tract 2015001 NE unit Prescribe burn (298 ac)	3/15/17 – 5/15/17	TT	$13,000	LP-2

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

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

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 9	Tract 2012003 East Fence Replacement (~2,918 LF)	1/1/17 – 5/1/17	TT	$6,245	LP-4
FK 10	Tract 2012003 Parking Area construction and fence	1/1/17 – 5/1/17	TT	$4,135	LP-4
FK 11	Tract 2015001 South Fence Repair (~2,660 LF)	1/1/17 – 5/1/17	TT	$1,330	LP-4
FK 12	Tract 2015001 Repair washout in North channel- cutting into fence	1/1/17 – 5/1/17	TT	$15,925	LP-4
FK 13	Noxious weed control	6/1/17 – 8/31/17	TT	$6,505	LP-4
FK 14	Fence and road maintenance	4/1/17 – 10/1/17	TT	$2,500	LP-4
FK 15	Mowing	7/15/17- 10/15/17	TT	$1,330	LP-4

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
FK 16	Tract 2008001 grazing lease oversight	5/15/17 – 10/15/17	TT	N/A	N/A
FK 17	Tract 2012003 grazing lease oversight	7/15/17 – 10/15/17	TT	N/A	N/A
FK 18	Tract 2015001 grazing lease oversight	7/15/17 – 10/15/17	TT	N/A	N/A

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:
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

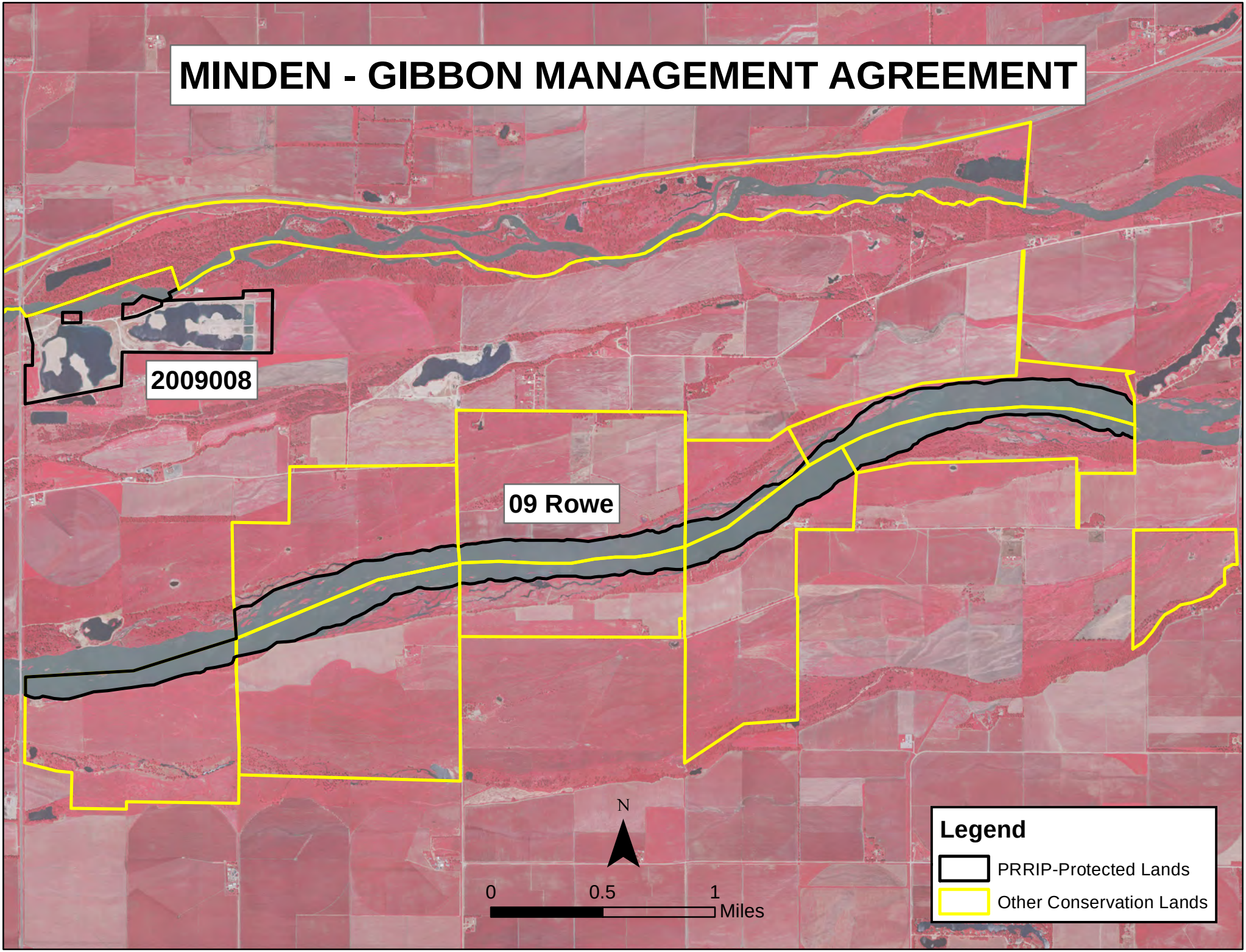
2017 Ft Kearny Complex Budget Summary

Estimated 2017 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditur
Species Habitat	Improve Sand and Water Habitat	LP-2	$6,475
Species Habitat	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	$62,735
		Subtotal	***$69,210***
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	$37,970
		Total	***$107,180***

Estimated 2017 Revenues

Tract	Item	Estimated Income
Tract 2008001 N & 2012003	Grazing Income	$3,200
Tract 2008001 S	Grazing Income	$4,500
Tract 2009001	Grazing Income	$8,100
Tract 2009004	Grazing Income	$6,600
Tract 2012003	Cropland Income	$1,900
Tract 2015001	Grazing Income	$11,000
	Total	**$35,300**


MINDEN - GIBBON MANAGEMENT AGREEMENT
2009008
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1
Miles
Legend
PRRIP-Protected Lands
Other Conservation Lands

2017 Minden – Gibbon Management Agreement Annual Work Plan

Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, 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 vegetation control to ensure that channel meets whooping crane suitability criteria.*
* ***Protecting Other Species of Concern*** *– Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.*

Priority Area: *Species Habitat*

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
M-G 1	Disking if necessary to provide in-channel vegetation control -(~403 ac)	9/1/17 – 10/1/17	TT	$31,435	LP-2

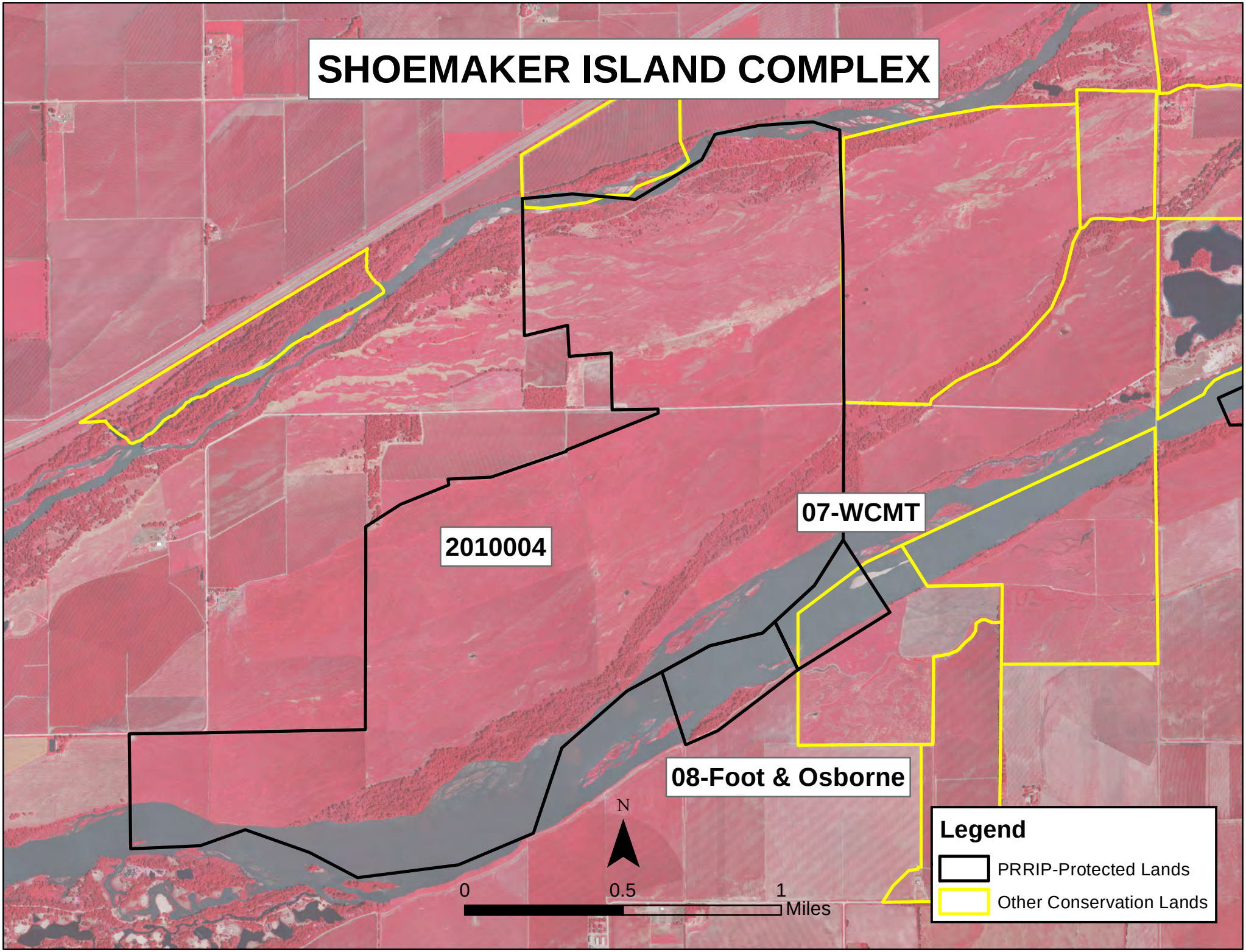
Personnel Responsibility Key

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)

2017 Minden-Gibbon Management Agreement Budget Summary

Estimated 2017 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditur
Species Habitat	Improve Target Species Sand and Water Habitat	LP-2	$31,435
		Total	***$31,435***


SHOEMAKER ISLAND COMPLEX
2010004
07-WCMT
08-Foot & Osborne
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Miles
Legend
PRRIP-Protected Lands
Other Conservation Lands

2017 Shoemaker Island Complex Annual Work Plan

Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, 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*** *– In-channel disking as necessary to control vegetation.*
* ***Improve Target Species Sand and Water Habitat*** *– Increase available sand and water habitat for species through maintenance of suitable unvegetated widths for whooping crane use.*
* ***Protecting Other Species of Concern*** *– Identify presence of and determine methods to protect other species of concern during implementation of land-related activities.*

Operations and Maintenance Priorities

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

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

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

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

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

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 2	Disking if necessary to provide in-channel vegetation control - (~58 ac)	9/1/17 – 10/1/17	TT	$4,525	LP-2

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

SI 3	Tract 2010004 Prescribe burn North Pasture (319 ac)	3/15/17 – 5/15/17	TT	$13,905	LP-2

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

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

	associated with land activities				

Priority Area: *Operations and Maintenance*

Item(s): Basic Property Maintenance Obligations and Needs

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 6	Tract 2010004 South Meadow Fence Replacement (~5,072 LF)	1/1/17 – 4/31/17	TT	$10,855	LP-4
SI 7	Fence and road maintenance	1/1/17 – 12/31/17	TT	$2,500	LP-4
SI 8	Noxious weed control	6/1/17 – 8/31/17	TT	$2,425	LP-4
SI 9	Livestock water development	1/1/17 – 4/31/17	TT	$7,135	LP-4
SI 10	Mowing	7/15/17- 10/15/17	TT	$1,330	LP-4

Priority Area: *Operations and Maintenance*

Item(s): Agricultural Operations

No.	Management Activities	Target Dates	Person Responsible	Cost (Estimated)	Budget Line Item
SI 11	Tract 2010004 grazing & haying lease oversight	5/15/17 – 10/15/17	TT	N/A	N/A

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:

2010004 – PRRIP Binfield Tract

2017 Shoemaker Island Complex Budget Summary

Estimated 2017 Expenditures by Program Budget Line Item

Priority Area	Item	Budget Line Item	Estimated Expenditur
Species Habitat	Improve Target Species Sand and Water Habitat	LP-2	$4,525
	Whooping Crane Wet Meadow/ Grassland Habitat	LP-2	$13,905
		Subtotal	***$18,430***
Operations and Maintenance	Property Maintenance and Agricultural Operations	LP-4	$24,245
		Total	***$42,675***

Estimated 2017 Revenues

Tract	Item	Estimated Income
Tract 2010004	Grazing & Haying Income	$38,000
	Total	**$38,000**