



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

ADAPTIVE MANAGEMENT

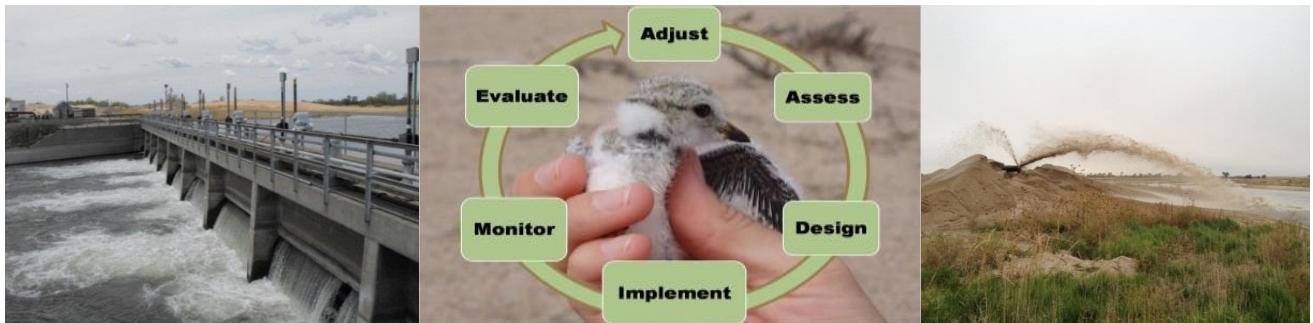
FISCAL YEAR 2022 BUDGET AND ANNUAL WORK PLAN

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PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM **ADAPTIVE MANAGEMENT** **FISCAL YEAR 2022 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 and the First Increment Extension covering a 13-year period from 2021 through 2032. In general, the purpose of the Program is to implement certain aspects of the U.S. Fish and Wildlife Service’s (Service) recovery plans for the target species that relate to the Program’s identified “associated habitats” in the central Platte River by securing defined benefits for those species and their habitats. The Program will also provide ESA compliance for existing and certain new water-related activities in the Platte basin upstream of the Loup River confluence for potential effects on the target species; help prevent the need to list more Platte River species under the ESA; mitigate the adverse effects of certain new water-related activities through approved depletions plans; and establish and maintain an organizational structure that will ensure appropriate state and federal government and stakeholder involvement in the Program.

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

Jason Farnsworth serves as Executive Director (ED) of the Program. Farnsworth and staff in the Executive Director’s Office (EDO) maintain offices in Nebraska and Colorado. The EDO worked closely with the GC, the Advisory Committees and their subcommittees and working groups, Program cooperators and partners, and others to develop the FY 2022 Program Budget and Work Plan based on guidance from the Final Program Document and Program goals and priorities.

This document presents a quick reference snapshot of the FY 2022 Program Budget Spreadsheet (which is a separate document that is incorporated by reference) and the final FY 2022 Program Annual Work Plan.





Table 1. Quick-reference snapshot of the FY 2022 PRRIP Adaptive Management Budget Spreadsheet, including a Table of Contents reference page number corresponding to the beginning page location for each budget line item in this FY2022 work plan.

PRRIP Budget ID	PRRIP Line-Item Description	FY 2022 Estimated New Money	FY 2022 Work Plan Page #
ADAPTIVE MANAGEMENT			
LP-2	Habitat Restoration and Management Actions on Program Lands	\$ 335,310	4
LP-2-P	Trapping Projects	\$ 89,000	5
PD-22	Sediment Augmentation Implementation	\$ 150,000	6
WP-1(b)	Phragmites Control	\$ 200,000	7
G-1	Remote Sensing Data Collection	\$ 375,000	9
TP-1	Tern and Plover Monitoring & Research	\$ 19,350	10
WC-1	Whooping Crane Monitoring & Research	\$ 135,000	12
PS-1	Pallid Sturgeon Monitoring & Research	\$ 437,000	13
G-5	Geomorphology and Vegetation Monitoring and Research	\$ 4,000	15
PD-15	Environmental Permitting	\$ 50,000	16
PD-18	AMP-Related Equipment	\$ 93,000	17
IMRP-3	Adaptive Management Plan Special Advisors	\$ 0	19
ISAC-1	ISAC Stipends & Expenses	\$ 261,000	20
PD-3	AMP & IMRP Peer Review and PRRIP Publications	\$ 9,000	23
PD-11	AMP-related Workshops	\$ 10,000	24
AM Sub-Total		\$ 2,167,160	

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	335,310		

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 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, off-channel sand and water (OCSW) creation and maintenance, channel disking, herbicide application, and seeding.

Notes on Cost

The general breakdown of estimated costs for proposed AMP-related management actions in 2022 is as follows:

Location	Estimated FY22 Cost
Non-complex	\$51,500
Plum Creek Complex	\$39,200
Cottonwood Ranch Complex	\$32,150
Elm Creek Complex	\$12,323
Pawnee Complex	\$39,357
Fort Kearny Complex	\$49,480
Audubon Rowe Complex	\$5,000
Clark Island Complex	\$53,440
Shoemaker Island Complex	\$12,759
Chapman Complex	\$40,100
TOTAL	\$335,309 Round up to \$335,310

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$89,000		

Task Description

Mammalian predator trapping will be conducted under the existing agreement between the Program and USDA-APHIS. Mammalian predator trapping occurs at all managed tern and plover nesting sites to increase productivity within the AHR and beaver trapping occurs along the State Channel at the North Platte Choke Point maintain flow through the State Channel improvements.

Notes on Cost

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

Category	Estimated FY22 Cost
Salary/Benefits	\$50,496.41
Vehicle/Transportation	\$13,998.80
Travel Cost	\$1,000.00
Equipment/Supplies	\$4,500.00
Subtotal	\$69,995.21
Pooled Costs (11%)	\$ 7,699.47
Overhead (16.15%)	\$ 11,304.23
Total	\$88,998.91
	Round up to \$89,000

Products

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$150,000		

Task Description

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

Notes on Cost

The FY22 tasks and estimated costs for sediment augmentation are as follows:

Task Description	Estimated FY22 Cost
80,000 tons of sediment augmentation in the south channel above the Overton bridge	\$150,000
Total	\$150,000

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: WP-1 (b). Active Channel Capacity Improvements**

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$200,000		

Task Description

The objective of the Active Channel Capacity Improvements task is to fund management actions (primarily herbicide application) to prevent invasive vegetation infestation of the channel and maintain flow capacity and target species habitat. Channel capacity improvements will assist the Program in maintaining suitable on-channel roosting habitat for whooping cranes as well as make it easier to deliver Program water to and through the AHR.

Notes on Costs

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

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

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

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

An endowment is currently being established to provide long-term funding for this effort. Once the endowment is fully funded, phragmites and other noxious weed control within Platte River Channels would be perpetually funded. The Program supports this concept. It is anticipated that the Program will



- 1 spend \$2.6 million on phragmites control over Extension. Once an endowment is in place, the Governance
- 2 Committee supports the concept of pledging these funds and contributing them to the endowment.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$375,000		

Task Description

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

Notes on Cost

Budget estimates are based on an existing 4-year contract which expires at the end of 2023. The FY22 tasks and contracted costs for data collection are as follows:

Task Description	Estimated FY22 Cost
Summer aerial imagery and bathymetric LiDAR subset	\$138,000
Fall aerial imagery and full reach bathymetric LiDAR	\$237,000
Total	\$375,000

Products

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$19,350		

Task Description

The EDO will implement the PRRIP tern and plover monitoring protocol during the 2022 nesting season. Monitoring efforts will be similar to 2021 and will include implementation of the monitoring protocol through outside monitoring efforts. Additional track surveys and camera monitoring of nests, shorelines and predator fencing will be implemented to document predator presence and nest and/or brood predation. The research protocol for predator management, including exclosure fencing and predator deterrent lights will continue in 2022 to increase tern and plover nest and chick survival within the AHR. The funding included in this line item provides the seasonal personnel and equipment required to assess the performance of actions the Program takes to improve productivity of terns and plovers within the AHR.

Notes on Cost

FY22 funding in this line item includes two seasonal employees to assist with tern and plover monitoring and implementing the predator management research protocol at off-channel sites, with 2 additional sites (Lexington and Alda) being reformed for use as habitat in 2021. Direct costs are largely based on cost estimates for replacing cameras and predator deterrent lighting that were damaged during the 2021 season. Materials to perform seasonal maintenance at off-channel nesting sites including necessary repairs of exclosure fencing during 2022 are also included in the TP-1 budget line item.

Expense Category	Estimated FY22 Cost
Personnel	\$12,800
Direct Costs	
Nest, shoreline, site-level camera replacement	\$1,200
Video camera monitoring (data and protection plan, batteries)	\$2,550
Camera supplies (SD cards, batteries, posts, avian spikes, zip ties)	\$100
Predator deterrent lights	\$700
Seasonal site and fence maintenance supplies	\$2,000
Direct Cost Subtotal	\$6,550
Total	\$19,350

Products

- Annual report detailing nest activity, bird activity, and habitat conditions; data for long-term analysis of effects of Program actions.
- Data quantifying predator presence and impact on tern and plover productivity at off-channel sites within the AHR.
- Data on efficacy of exclosure fencing and predator deterrent lights for reducing predator presence on off-channel nesting sites and improving reproductive success of terns and plovers within the AHR.



- 1 • Data will be summarized in annual reports and final results will be published during the First
- 2 Increment Extension.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$135,000		

Task Description

Spring and Fall 2022 implementation of the whooping crane monitoring protocol, data analyses, and reporting will be conducted by the EDO.

Notes on Cost

The EDO will implement the whooping crane monitoring protocol and perform data analyses and reporting for the spring and fall 2022 monitoring seasons. Costs are based on past technician rates and aerial flight services contracted through a competitive selection process. The budget for spring and fall 2022 field work to be completed by the EDO is as follows:

Expense Category	Estimated FY22 Cost
FY22 Spring Whooping Crane Monitoring	
Personnel	\$17,000
Direct Costs (aircraft rental, mileage, GPS unit rental, radios, equipment, liability insurance, etc.)	\$62,000
Subtotal	\$79,000
FY22 Fall Whooping Crane Monitoring	
Personnel	\$13,000
Direct Costs (aircraft rental, mileage, equipment, liability insurance, etc.)	\$43,000
Subtotal	\$56,000
Total	\$135,000

Products

- Spring and Fall 2022 Whooping Crane Reports detailing monitoring effort, whooping crane use locations, numbers of individuals sighted, and habitat conditions associated with sightings; data for long-term analysis of effects of Program actions.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$437,000		

Task Description

The EDO will coordinate two research efforts dedicated to filling Program information gaps for pallid sturgeon. Genetics research by Dr. Ed Heist at Southern Illinois University, Carbondale, is designed to address issues with pallid sturgeon identification, hybridization, population structure and dynamics. Habitat and spawning research by Dr. Mark Pegg, Dr. Jonathan Spurgeon, and Kirk Steffenson at the University of Nebraska, Lincoln, is expected to provide data on the contribution of the lower Platte River to pallid spawning habitat, reproduction, recruitment, and population dynamics. This research will also provide information on seasonal pallid movements in and out of the lower Platte River and help quantify the environmental patterns (flow, temperature, turbidity) associated with these movements.

Notes on Cost

Genetics research in 2022 includes costs associated with genetic sequencing of 1,000 samples, supplies, and a graduate student research assistantship.

Habitat and spawning research in 2022 includes costs associated with two graduate student research assistantships, two field technicians, and a research associate as necessary to provide sampling support during spawning season. Equipment, travel, supplies, boat storage rental space, facilities and administration costs are also included.

The budget for 2022 is as follows:

Expense Category	Estimated FY22 Cost
Genetic research (SIU)	
Supplies & labor at \$45/sample for 1000 samples	\$45,000
Habitat & spawning research (UNL)	
Personnel, Support, Facilities & Administration	\$137,534
Equipment, Travel, Supplies, Facilities & Administration	\$253,962
Total	\$436,497 Round up to \$437,000

Products

- Products will include annual report and presentation of results, accomplishments, and interpretations. Presentations at regional pallid sturgeon meetings and American Fisheries Society meetings are also expected.
- The genetics research is expected to focus field efforts on tracking and collection of habitat and spawning information for genetically identified pallid sturgeon. It will also address important issues



related to species identification, hybridization, population structure and population demographics. Results will be widely applicable to the conservation stocking program, wider field efforts to characterize pallid sturgeon habitat, and population viability assessments. As such, we expect this research to contribute to a more focused and efficient management plan for this species.

- Habitat and spawning research is expected to fill knowledge gaps about lower Platte River contribution to pallid spawning habitat, reproduction, recruitment, and population dynamics, including the documentation of successful spawning on the Platte River (in conjunction with genetics research) and identification and description of pallid spawning habitat. An extensive passive telemetry network is expected to provide information on seasonal pallid movements in and out of the lower Platte River and help quantify the environmental patterns (flow, temperature, turbidity) associated with these movements.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$4,000		

Task Description

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

Notes on Cost

The FY22 estimated cost for acquiring and installing time-lapse cameras on the bank line of Program Habitat Complexes is estimated to be \$4,000.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$50,000		

Task Description

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

Notes on Cost

HDR was awarded a sole source contract for permitting services in 2018 that expires on 12/31/2021. The multi-year contract amount was \$150,000 and specific dollar amounts were developed for specific services, as needed. For 2022, the Program EDO will develop an RFP for a similar multi-year contract for competitive bidding on this service. Estimated annual costs for 2022 remain at \$50,000 based on previous permitting work for the Program and are high enough to ensure enough budget is available to account for unforeseen eventualities in the permitting process that could slow down permit acquisition.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$93,000		

Task Description

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

Notes on Cost

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

Equipment	Use & Maintenance (\$)	Fuel (\$)	License & Insurance (\$)	Monthly Total (\$)	Comments	Miles/Year
4 - 4WD Pickup trucks	2000	1200	960	4160	Owned by Headwaters Corp.	64,000
4WD SUV	500	280	175	955	Owned by Headwaters Corp.	16,000
Airboat & Trailer	1000	125	320	1445	Owned by Headwaters Corp.	
Argo & Trailer	350	20	160	530	Owned by Headwaters Corp.	
ATV & Trailer	100	20	110	230	Owned by Headwaters Corp.	
Side-by-Side	200	30	100	330	Owned by Headwaters Corp.	
Drone	100			100	Owned by Headwaters Corp.	
TOTAL	\$4,250.00	\$1,675.00	\$1,825.00	\$7,750.00	\$93,000.00 (monthly total of \$7,750 x 12 months)	

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

- Use & Maintenance – the use portion is calculated on an annualized replacement cost for the equipment and the maintenance portion is calculated based on experience data and known periodic



significant maintenance items (e.g., replacement of the bottom shield or engine of the airboat) that are annualized to stabilize equipment costs between years.

- Fuel – the anticipated fuel costs based on anticipated miles, known miles per gallon rates, and anticipated cost of gasoline in Kearney, NE (weighted toward summer prices because that is the season of heaviest equipment use). A rate of \$3.10/gallon is used in developing these costs. The cost of fuel is a significant piece of the equipment costs (about 22% of the total), and the unit cost of gasoline is the most uncertain of all factors used in the development of these costs.
- License/Insurance – the cost of licensing (trucks, airboats, and trailers all require licenses) and insuring the equipment, including liability insurance, is included in this cost.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$0		

Task Description

This budget line item is for expert assistance for the Executive Director's Office (EDO) on key topics for the Program

Notes on Cost

No special advisor time is anticipated for FY22. This line item will be reevaluated in future years as necessary.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$261,000		

Task Description

The EDO proposes the following 2022 ISAC activities:

- 1) 2022 PRRIP Science Plan Reporting Session in Omaha, NE (in-person); February 2022
- 2) ISAC participation in March 2022 GC Quarterly Meeting (virtual)
- 3) 2022 PRRIP ISAC Fall Meeting in Kearney, NE (in person); in conjunction with September 2022 GC Quarterly Meeting
- 4) Additional document review and/or specific ISAC member input as directed by the GC and EDO (virtual meetings/discussion as necessary)

Notes on Cost

The budget for work to be completed by the ISAC during 2022 is detailed below:

ISAC Cost Item	Estimated FY22 Cost
2022 PRRIP Science Plan Reporting Session (in-person meeting in February 2022) <ul style="list-style-type: none">In-person meeting in Omaha, NE to discuss status of Science Plan implementation and annual State of the Platte Report4-day meeting (3 days meeting, 1 day travel) = \$200/hour x 8-hour day x 4 days x 6 ISAC members = \$38,400Meeting prep & post-meeting discussion = \$200/hour x 8-hour day x 2 days x 6 ISAC members = \$19,200Travel expenses = \$1,000 flight + \$700 additional (hotel, meals, airport parking, ground transportation) = \$1,700 x 6 ISAC members = \$10,200	\$67,800
March 2022 PRRIP GC Quarterly Meeting <ul style="list-style-type: none">ISAC members attend GC Quarterly Meeting virtually to discuss recommendations and guidance from Science Plan Reporting Session; Chair and Vice Chair make presentation to GC on behalf of ISAC1-day meeting = \$200/hour x 8-hour day x 6 ISAC members = \$9,600	\$9,600
2022 ISAC Fall Meeting (in-person meeting in September 2022 in conjunction with GC Quarterly Meeting) <ul style="list-style-type: none">In-person meeting in Kearney, NE to discuss status of Science Plan implementation and to support ISAC member field trips to PRRIP management and science activities on the ground4-day meeting (1.5 day GC meeting, 1.5 day ISAC meeting, 1 day travel) = \$225/hour x 8-hour day x 4 days x 6 ISAC members = \$43,200Additional ISAC members (three members cycling off in 2022) = \$225/hour x 8-hour day x 4 days x 3 ISAC members = \$21,600Meeting prep & post-meeting discussion = \$225/hour x 8-hour day x 2 days x 9 ISAC members = \$32,400Travel expenses = \$1,000 flight + \$1,000 additional (hotel, meals, airport parking, ground transportation, baggage) = \$2,000 x 9 ISAC members = \$18,000	\$115,200



Additional Document Review and/or Specific ISAC Member Input <ul style="list-style-type: none">Review Program documents/products and provide specific guidance as requested by GC and EDO5 days review x \$225/hour x 8-hour day x 6 ISAC members = \$54,000	\$54,000
ISAC Chair and Vice Chair <ul style="list-style-type: none">Additional time to work with PRRIP EDO between ISAC meetings to coordinate ISAC discussion and prepare presentations/documents for the GC4 days of review time x \$225/hour x 8-hour day x 2 ISAC members = \$14,400	\$14,400
TOTAL	\$261,000

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 Ph.D. senior level scientists revealed rates routinely in the range of \$150 to \$300 on an hourly basis. The EDO proposes a rate of \$225/hour for 2022, an increase over the FY21 rate but in the low middle of that range and in line with the rate paid to EDO Special Advisors. *NOTE: a billing rate of \$200/hour was used in the FY22 ISAC budget estimate for the 2022 Science Plan Reporting Session and for ISAC participation in the March 2022 GC Quarterly Meeting because that rate is included in current ISAC member contracts that do not expire until March 31, 2022.*

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 PRRIP 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 PRRIP Procurement Policy.

It is anticipated the 2022 Science Plan Reporting Session in Omaha, NE and the 2022 ISAC Fall Meeting in Kearney, NE will be conducted in-person but a final decision on the meeting format will be made based on local and national health conditions, travel restrictions, and ISAC member willingness and ability to travel. Additional ISAC meetings and discussions will be held virtually in Teams.

2022 ISAC Members

As per GC direction during the September 2021 GC Quarterly Meeting, the following table describes the planned ISAC rotation schedule for the remainder of the Extension:

Area of Expertise	Extension ISAC Membership
Ecological statistics	April 2022-March 2025: Jennifer Hoeting April 2025-March 2028: Jennifer Hoeting April 2028-March 2031: new member April 2031-March 2034 (move into Second Increment): renew member
Adaptive management and decision-making	April 2022-March 2025: Dave Marmorek April 2025-March 2028: new member April 2028-March 2031: renew member April 2031-March 2034 (move into Second Increment): renew member



Fish ecology (pallid sturgeon focus)	April 2022-March 2024: David Galat April 2024-March 2027: new member April 2027-March 2030: renew member April 2030-March 2033 (move into Second Increment): renew member
Avian ecology (whooping crane focus)	April or September 2022-March 2025: new member April 2025-March 2028: renew member April 2028-March 2031: renew member April 2031-March 2034 (move into Second Increment): renew member
Fluvial geomorphology (braided river focus)	April or September 2022-March 2025: new member April 2025-March 2028: renew member April 2028-March 2031: new member April 2031-March 2034 (move into Second Increment): renew member
River restoration (vegetation focus)	April or September 2022-March 2025: new member April 2025-March 2028: renew member April 2028-March 2031: renew member April 2031-March 2034 (move into Second Increment): renew member

Jennifer Hoeting and David Marmorek of the current ISAC will be retained via new three-year contracts to be made effective April 1, 2022. David Galat of the current ISAC will be retained via a new two-year contract to be made effective April 1, 2022. Ned Andrews, Brian Bledsoe, and Adrian Farmer of the current ISAC will be rotated off when their current contracts expire on March 31, 2022. However, all three will be asked to participate in the 2022 ISAC Fall Meeting in Kearney, NE as a means to facilitate on-boarding three new ISAC members in 2022. The GC appointed a Selection Panel to work with the EDO to identify and recommend new ISAC members throughout the remainder of the Extension. It is anticipated the Selection Panel will recommend three new ISAC members for GC consideration and appointment during the March 2022 GC Quarterly Meeting.

Products

ISAC review of the Extension Science Plan and implementation of that plan, experimental design, monitoring, data analysis and synthesis, and other Program science products and activities; work will culminate in reports and presentations to the GC.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$9,000		

Task Description

Publication of three (3) Program manuscripts.

Products

Three publications in refereed journals.

Notes on Cost

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

- Prepare Cross-section Volume Change Analysis manuscript; will seek GC approval to publish.
- Prepare manuscript on Wet Meadows Hydrology based on Program research; will seek GC approval to publish.
- Prepare manuscript on Camera Monitoring of Predator Presence and Impacts on Interior Least Tern and Piping Plover Productivity; will seek GC approval to publish.

For FY22, estimated publication expenses are:

Potential Manuscript	Author	Manuscript Type	Target Journal	FY21 Cost
Cross-section Volume Change Analysis	EDO	Geomorphology	<i>Geomorphology</i>	\$3,000
Wet Meadows Hydrology	EDO	Hydrology, Groundwater Modeling	<i>TBD</i>	\$3,000
Camera Monitoring of Predator Presence and Impacts on Interior Least Tern and Piping Plover Productivity	EDO	Ecology	<i>TBD</i>	\$3,000
Total				\$9,000

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2022	\$10,000		

Task Description

In-person Science Plan Reporting Session in Omaha, NE, in February of 2022 to discuss status of Science Plan implementation and annual State of the Platte Report. In-person ISAC fall meeting in conjunction with September GC meeting in Kearney, NE, to discuss status of Science Plan implementation and to support ISAC member field trips to PRRIP management and science activities on the ground.

Notes on Cost

EDO facilitation of all meetings with *in-person* and *virtual* options for participation. Estimated FY22 costs include:

Expense Category	Estimated FY22 Cost
Science Plan Reporting Session	
1 meeting over 3 days @ \$2650/day (room rental, projector & screen rental, phone charges, refreshments, evening meals, etc.), Omaha, NE	\$8,000
ISAC Fall Meeting	
1 meeting over 2 days @ \$1000/day (field visits, refreshments, meals, etc.), Kearney, NE	\$2,000
Total	\$10,000

General Notes on Meeting Costs

It is anticipated the 2022 Science Plan Reporting Session in Omaha, NE and the 2022 ISAC Fall Meeting in Kearney, NE will be conducted in-person but a final decision on the meeting format will be made based on local and national health conditions, travel restrictions, and ISAC member willingness and ability to travel.

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 package rates is \$2000-2500/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 refreshments rate range of \$250 to \$500 per meeting is used. Equipment costs for projector, 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 based upon rate, number and duration of calls; estimated at \$500 per day based upon experience.

Products

- Extension Science Plan