



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

FISCAL YEAR 2021 BUDGET AND ANNUAL WORK PLAN

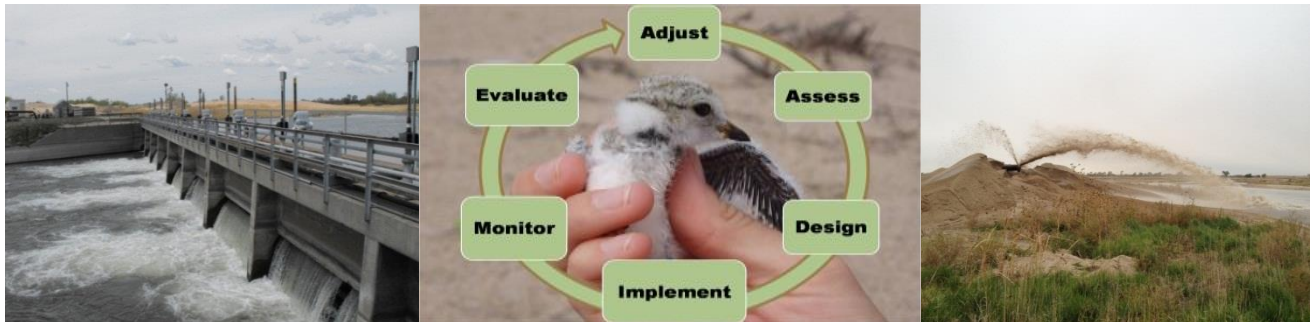
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Final Budget and Work Plan Revised and Approved by Governance Committee
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Introduction

The Platte River Recovery Implementation Program (“Program” or “PRRIP”) initiated on January 1, 2007 as a basin-wide effort between the states of Colorado, Wyoming, and Nebraska and the Department of Interior to provide land, water, and scientific monitoring and research to evaluate Program benefits for the target species. The Program is being implemented in an incremental manner, with the First Increment covering the 13-year period from 2007 through 2019 and the First Increment Extension covering a 13-year period from 2020 through 2032. In general, the purpose of the Program is to implement certain aspects of the U.S. Fish and Wildlife Service’s (Service) recovery plans for the target species that relate to the Program’s identified “associated habitats” in the central Platte River by securing defined benefits for those species and their habitats. The Program will also provide ESA compliance for existing and certain new water-related activities in the Platte basin upstream of the Loup River confluence for potential effects on the target species; help prevent the need to list more Platte River species under the ESA; mitigate the adverse effects of certain new water-related activities through approved depletions plans; and establish and maintain an organizational structure that will ensure appropriate state and federal government and stakeholder involvement in the Program.

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

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

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



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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$1,101,397		

Task Description

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

Notes on Cost

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

Location	Estimated FY21 Cost
New acquisitions	\$50,000
Non-complex	\$298,010
Plum Creek Complex	\$31,000
Cottonwood Ranch Complex	\$43,089
Elm Creek Complex	\$19,323
Pawnee Complex	\$29,557
Fort Kearny Complex	\$50,240
Audubon Rowe Complex	\$22,500
Clark Island Complex	\$71,559
Shoemaker Island Complex	\$19,095
Chapman Complex	\$466,844
TOTAL	\$1,101,397 Round up to \$1,101,400

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$89,000		

Task Description

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

Notes on Cost

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

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

Products

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$150,000		

Task Description

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

Notes on Cost

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

Task Description	Estimated FY21 Cost
60,000 tons of sediment augmentation in the south channel above the Overton bridge	\$150,000
FY21 ESTIMATED 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
2021	\$200,000		

Task Description

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

Notes on Costs

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

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

Category	Amount	Approximate Unit Cost	Total Cost
Control (helicopter)	4,800 acres	\$70/acre	\$336,000
Control (Airboat)	600 hrs	\$150/hr	\$90,000
Herbicide	2,325 gals	\$75/gal	\$174,375
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 spend \$2.6 million on phragmites control over Extension. Once an endowment is in place, the Governance Committee supports the concept of pledging these funds and contributing them to the endowment.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$387,000		

Task Description

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

Notes on Cost

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

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

Products

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. LiDAR products will be bathymetric, suitable for use in geomorphology/in-channel vegetation monitoring protocols.

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$59,000		

Task Description

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

Notes on Cost

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

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

Products

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



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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$130,000		

Task Description

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

Notes on Cost

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

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

Products

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$186,000		

Task Description

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

Notes on Cost

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

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

Products

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$4,000		

Task Description

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

Notes on Cost

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$50,000		

Task Description

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

Notes on Cost

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$108,000		

Task Description

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

Notes on Cost

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



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

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

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$130,000		

Task Description

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

Notes on Cost

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

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

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

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



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

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

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

26 27 **Products**

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$180,000		

Task Description

The EDO proposes the following 2021 ISAC activities:

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

Notes on Cost

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

ISAC Cost Item	Estimated FY21 Cost
2021 Virtual AMP Reporting Session (February 2021) – 3-day meeting in MS Teams x \$1,600 per member per day (\$200/hour x 8-hour day) x 6 ISAC members	\$28,800
Quarterly Virtual ISAC Meetings – 4 meetings in MS Teams x 1-day meeting x \$1,600 per member (\$200/hour x 8-hour day) x 6 ISAC members	\$38,400
Additional Document Review and/or Specific ISAC Member Input – 10 days of review x 6 members x \$1,600/day (review Program documents/products and provide specific guidance)	\$96,000
ISAC Co-Chairs – additional \$14,400 for ISAC coordination and preparation of reports for the GC (10 days x \$1,440/day, split evenly between co-chairs)	\$16,000
Total	\$179,200, round up to \$180,000

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 PhD-level independent science experts revealed rates routinely in the range of \$150 to \$300 on an hourly basis. The EDO proposes a rate of \$200/hour for 2021, an increase over the FY20 rate but in the low middle of that range and in line with



the rate paid to EDO Special Advisors.

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

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

2021 ISAC Members

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

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

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

Products

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$9,000		

Task Description

Publication of three (3) Program manuscripts.

Products

Three publications in refereed journals.

Notes on Cost

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

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

For FY21, estimated publication expenses are:

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

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

YEAR	BUDGET	BUDGET ADJUSTMENTS	EXPENDITURES
2021	\$9,000		

Task Description

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

Notes on Cost

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

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

General Notes on Meeting Costs

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

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

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



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

6 7 **Products**

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