

June 8, 2016

Platte River Recovery Implementation Program
First Increment Extension Proposal

PREAMBLE

The Platte River Recovery Implementation Program (Program; PRRIP) became effective January 1, 2007 following signatures by the Governors of Colorado, Wyoming, and Nebraska and the U.S. Secretary of the Interior. PRRIP provides Endangered Species Act (ESA) compliance for water related activities within the three states and Federal Government while working to provide recovery benefits for four endangered and threatened species.

The First Increment of the Program began in 2007 and extends through 2019. The Program's long-term goal is to improve and maintain the associated habitats of the target species. This includes: (1) improving and maintaining migrational habitat for whooping cranes and reproductive habitat for least terns and piping plovers; (2) reducing the likelihood of future listing of other species found in this area; and (3) testing the assumption that managing flow in the central Platte River also improves the pallid sturgeon's lower Platte River habitat.

The Program signatories committed to achieving the following objectives by the end of the First Increment of the Program:

- (1) providing water capable of improving the occurrence of Platte River flows in the central Platte River associated habitats relative to the present occurrence of species and annual pulse target flows by an average of 130,000 to 150,000 acre-feet per year at Grand Island, through reregulation and water conservation/supply projects. Department of the Interior (DOI) and the states agree that United States Fish and Wildlife Service (FWS) target flows will be examined through the Adaptive Management Plan and peer review and may be modified by FWS accordingly. DOI and the states have agreed, however, that during the First Increment, species and annual pulse target flows serve as an initial reference point for determining periods of excess and shortage in the operation of Program reregulation and water conservation/supply projects.
- (2) protecting, restoring where appropriate, and maintaining at least 10,000 acres of habitat in the central Platte River area between Lexington and Chapman, Nebraska.

During the First Increment ESA compliance is measured through progress in achieving ten Program Milestones that are related to the First Increment Objectives. Milestones and current Program status are presented in Table 1.

Table 1. Platte River Recovery Implementation Program ESA Compliance Milestones

Milestone	Program Status
1. Pathfinder Project operational and capable of providing water	Achieved
2. Completion and operation of Tamarack I	Achieved
3. Environmental Account and operation	Achieved
4. Water Action Plan implementation to provide an average of 50,000 acre-feet per year	Not Achieved
5. Protection and restoration of 10,000 acres of habitat	Achieved
6. Implementation of Integrated Monitoring and Research Plan	Achieved
7. Operation of Wyoming Depletions Plan	Achieved
8. Operation of Colorado Depletions Plan	Achieved
9. Operation of Nebraska Depletions Plan	Achieved
10. Operation of Federal Depletions Plan	Achieved

The First Increment land objective and associated milestone has been achieved. The Program currently protects in excess of 12,000 acres in the Associated Habitat Reach (AHR). The First Increment water objective has not been achieved, but all State water projects and the State and Federal depletions plans are operational. The Program currently provides approximately 90,000 acre-feet towards the First Increment objective of 130,000 to 150,000 acre-feet. Additional water projects in the planning and/or design phase are expected to provide an additional 40,000 acre-feet of water. However, they will not be operational prior to the end of the First Increment in 2019. As such, Milestone 4 will not be achieved.

The Program has also not examined the FWS' target flows through the Adaptive Management Plan (AMP). The only flow action prescribed in the AMP is the short-duration high flow (SDHF) as part of the Flow Sediment Mechanical (FSM); however, SDHF flow is which is not a FWS target flow. The Program implemented research and monitoring to evaluate the potential effectiveness of FSMSDHF. The Program has attempted to evaluate target flows but found that not to be possible due to the lack of a clear, a relationship of target flows to the species (i.e. summer target flows) or due to not using the best available information, etc. (i.e. whooping crane flows Farmer et. al 2005). Examination of target flows would require updating of the Adaptive Management Plan to identify a systematic approach to determining flows needed in the central Platte River to support the target species and their use of the habitat (Program Flows)-target flow to address uncertainties and implementation of management experiments to address those uncertainties. This cannot be accomplished prior to 2019.

Section II.D of the 2006 Final Program Agreement makes provision for the Agreement to be extended or amended by the written agreement of all signatories. The Signatories are proposing a 130-year Extension of the First Increment. The Extension would not change First Increment objectives, milestones, or the implementation framework. It would provide additional time to complete and operate Program water projects and to conduct the monitoring and research necessary to determine the best use of Program water to benefit the target species and their use of the habitat, examine target flows through the Adaptive Management Plan. Additional research and monitoring is necessary to provide a sound knowledge base upon which to structure a Second Increment.

It is anticipated that some additional species-related benefits will be necessary to compensate for the delay in transitioning to a Second Increment. Potential additions include acquisition of a limited amount of additional habitat lands through sponsorship agreements (example - Central's Jeffrey Island habitat is credited to the Program long-term habitat objectives-) and approval to use, determine if releases of Program water projects to release flows can provide measureable to benefits to the pallid sturgeon. These

69 ~~“plus-ups”~~ additional enhancements to the Programs first increment objectives are are included in the
70 proposed Extension activities.

PROPOSED FIRST INCREMENT EXTENSION ACTIVITIES

Proposed Extension activities are organized according to the existing Program land, water, and adaptive management plan structure.

Land Plan

The First Increment milestone of protecting 10,000 acres has been achieved. Restoration and management of habitat lands is ongoing. Extension Land Plan activities will proceed under the same principles that have guided land acquisition and management since Program initiation. All ~~habitat~~ land acquisitions will proceed under a willing buyer/willing seller approach and all management activities will be conducted in accordance with the Program's Good Neighbor Policy.

Commented [A1]: Needs to apply to lands acquired by the program for a WAP projects

Land Acquisition¹

- Review and renew (as appropriate) existing leases and management agreements.
 - Renew Cottonwood Ranch sponsorship agreement (2,650 acres)
 - Renew Broadfoot South lease (15 acres)
 - Renew management agreements at complexes (1,140 acres)
- Negotiate sponsorship agreement with Central Nebraska Public Power and Irrigation District for Jeffery Island (4,100 acres) and manage as part of the Plum Creek habitat complex.² and
- ~~Determine~~ Negotiate process and requirements to negotiate sponsorship agreements for conservation lands to be counted towards long-term PRRIP land goals.
- Targeted acquisition of additional habitat lands.
 - Review and consider disposal of existing habitat lands that do not possess significant habitat value for target species.³ Use proceeds for acquisition of high-value habitat lands.
 - Complete Acquisition of fee⁴ up to an additional 60 acres⁵ of non-complex tern and plover nesting habitat (any of the 60 acres not acquired before the end of first increment (2019)).⁶
 - ~~Acquire up to an additional 1,500 acres of riverine habitat adjacent to existing Program habitat complexes. Acquisition focus would be on the Odessa Kearney bridge segment.~~

Commented [A2]: This is not consistent with the section D.3 (page 10) of the program document.

Land Management

- Manage lands acquired by PRRIP for the benefit of the target species⁷ and species of concern when not in conflict with the target species.
- Conduct land management actions within the framework of the AMP.
 - ~~Implement and evaluate mechanical creation and maintenance of on- and off-channel habitat.~~
 - ~~Implement and evaluate full-scale sediment augmentation.~~

Commented [A3]: Determined at June 2016 meeting

Commented [A4]: Cannot support this blanket statement. Benefits are minimal compared to costs

¹ The PRRIP has achieved the First Increment land milestone. Additional land acquisition is considered to be a plus-up.

² It is not anticipated that the PRRIP will reimburse CNPPID for prior restoration and management expenditures.

³ For example, marginal wet meadow acres could be sold and used to fund acquisition of riverine habitat.

⁴ Acquire can include fee-title purchase, conservation easement, lease, and management agreement.

⁵ 60 acres of bare sand habitat. Acquisition may begin prior to 2019.

⁶ 100 acres of additional habitat would achieve the FWS objective of supporting a stable to increasing plover population in the AHR through the First Increment Extension period.

⁷ Primarily the piping plover and whooping crane. It is anticipated that piping plover management actions will also benefit the interior least tern.

Water Plan

The First Increment milestone of providing an average of 50,000 – 70,000 acre-feet of water in addition to state water projects has not been achieved.⁸ Water conservation and supply projects are ongoing and the Program has developed an implementation path to achieve this milestone in approximately 2022. Extension Water Plan activities will proceed under the same principles that have guided water supply and management activities since Program initiation.

Water Conservation and Supply

- Modify state and federal depletions plans to remain consistent with statutory requirements.
 - Modify Colorado's irrigated acre depletion plan reporting requirement in order to correspond with Colorado's current analysis schedule.
 - Modify Nebraska New Depletion Plan (NNDP) in relation to Nebraska's statutory requirements.
- Update the Program Water Action Plan to evaluate the existing portfolio of Program water assets developed during the First Increment.
- Renew water project agreements as deemed necessary to achieve water milestone.
- Finish construction of J-2 Regulating Reservoir by 2022.
- Complete J-2 and other WAP projects to achieve 1st increment objectives and monitor response of target species

Program Water Management

- Continue channel conveyance improvements at North Platte choke point. Achieve and maintain 3,000 cfs conveyance capacity below flood stage.
- Develop and implement joint operational plans for PRRIP water projects.⁹
- ~~Utilize Program water assets to implement and evaluate flow related management actions contemplated in the Program's AMP.~~
 - ~~Implement a minimum of one full scale SDHF release once Program water projects are operational and conveyance issues are resolved. Evaluate against performance predictions based on retrospective analyses of First Increment natural flow events.~~
 - ~~Implement and evaluate flow releases associated with examination of FWS target flows.¹⁰~~

Adaptive Management Plan

The First Increment milestone of Integrated Research and Monitoring Plan implementation has been achieved. The Program's Adaptive Management Plan is currently focused solely toward evaluation of two competing management strategies (flow-sediment-mechanical, and mechanical) that contemplate a single flow management action (short-duration-high-flows). The Program has evaluated the ability of SDHF to create suitable tern and plover nesting habitat and is nearing completion of an analysis of the ability of SDHF to maintain suitably-wide unvegetated widths for whooping cranes. Due to their absence from the AMP, the Program has not examined target flows. In preparation of the First increment extension or by the second year of the extension, the AMP will be updated to include evaluation of flows needed by the relevant target species and species habitat¹¹ during the First Increment Extension. The update will also

⁸ Approximately 10,000 acre-feet have been provided to date.

⁹ Operation of PRRIP water projects requires joint coordination between water project sponsors, Nebraska Department of Natural Resources, USFWS Environmental Account Manager, and PRRIP.

¹⁰ ~~Target flow uncertainties and management experiments will be developed as part of an update to the Program's Adaptive Management Plan.~~

¹¹ Some target flows are not related to the Program's target species or physical processes that support species habitat requirements.

Commented [A5]: Giving 5 years to be able to test SDHF and monitor biological response, 2 years to analyze Program data related target species and associated habitat needs and describe second increment and 3 years for EIS, BO and Congressional approval of second increment. Leads to a 13 year extension.

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shift the AMP focus away from testing of two competing management strategies toward testing of individual flow, sediment, and mechanical management actions. This update will occur prior to the beginning of the Extension in the year 2020 and will include the use of tools such as Structured Decision Making (SDM) to evaluate potential management alternatives, predict outcomes, and provide structure for the implementation and evaluation of Program management actions and related decision during the Extension.

Management Objectives

- The ~~least tern~~, piping plover, whooping crane, and non-listed species management objectives will be retained in the Extension with most of the emphasis placed on the piping plover and whooping crane¹². It will be assumed that management objectives for Piping Plover will provide benefits for the Least Tern benefits.
- The ~~Environmental Account objectives will focus primarily on benefits for whooping cranes and also for central Platte targets species habitats. Flows for pallid sturgeon management are described below.~~ pallid sturgeon. Expected outcomes for flows to benefit pallid sturgeon will be identified and changes in flow levels determined to evaluate benefits to pallids. management objective will be revised to allow for testing of flow releases to benefit pallids.

Management Actions

- Creation and maintenance of mechanical ~~on and~~ off-channel piping plover and whooping crane habitats will continue.
- Full scale sediment augmentation will continue. Actions may also be taken to restore south channel sediment continuity.¹³
- Contributions to reach-scale phragmites and invasive species control efforts will continue.
- A minimum of one SDHF release is envisioned to evaluate performance in relation to predictions.¹⁴
- Utilize Program water assets to implement and evaluate flow-related management actions contemplated in the Program's AMP.
 - Implement a minimum of one full-scale SDHF release once Program water projects are operational and conveyance issues are resolved. Evaluate against expected outcomes and performance predictions based on retrospective analyses of First Increment natural flow events.
 - Implement and evaluate benefits of flow releases associated with target speices or Program Flows.¹⁵
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- Flow releases to influence physical process relationships are envisioned.
- Flow releases to benefit whooping cranes are envisioned.
- Flow releases to benefit ~~least terns and~~ piping plovers are unlikely but may be considered.
- Flow releases to benefit pallid sturgeon¹⁶ will be allowed as long as:

¹² The USFWS has recommended delisting of the least tern. This will almost certainly occur before 2019.

¹³ A permanent sand dam on the CNPPID Jeffery Island property prevents sediment inflows to the south channel. Modifications to allow sediment to bypass the dam during peak flow events could reduce the need for sediment augmentation.

¹⁴ Observational studies of natural peak flow events during the First Increment strongly suggest that SDHF will not produce suitable least tern, piping plover, or whooping crane habitat. However, the Program does not currently have the capacity to implement and evaluate a full SDHF release.

¹⁵ Target flow uncertainties and management experiments will be developed as part of an update to the Program's Adaptive Management Plan.

¹⁶ Flow releases to benefit pallid sturgeon are considered to be a plus-up.

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Commented [A7]: In the AMP the SDHF is part of the FSM hypothesis. The assumptions in the sedge-veg model and hypothesis testing SDHF related to increasing bar height and vegetation removal by scouring have proven to be incorrect. Determination of expected outcomes to be achieved with SDHF must be developed for the AMP along with decision criteria. .

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- 1) Releases are credited toward water objective.
- 2) There is no detrimental impact to central Platte target species.

3) It does not set precedent for future increments.

3) 4) They are consistent with hypothesis testing in the AMP

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Big Questions and Hypotheses

- First Increment Big Questions and hypotheses and decision criteria will be updated as part of an AMP update prior to the Extension. Focus will be on identifying beneficial water use target flow uncertainties as they related to flow releases to benefit physical processes and target species.
- Hypotheses, and hypotheses testing (including decision criteria), will be structured to provide information useful for examination of the relative benefits and trade-offs of various management actions as part of Second Increment negotiations.

Integrated Monitoring and Research

- System- and reach-scale geomorphology and vegetation monitoring will continue throughout the Extension. This monitoring is necessary to evaluate physical response to mechanical, sediment, and flow actions and natural events. It is also anticipated that physical process research may be necessary to test hypotheses associated with flow releases to influence channel morphology.
- Full-scale sediment augmentation monitoring will continue throughout the Extension.
- Least tern and piping plover research and monitoring efforts will be scaled back prior to the Extension. Trend monitoring will consist of bi-monthly river and off-channel habitat surveys and systematic season-long outside monitoring at use locations. Targeted tern or plover research projects are not anticipated to be necessary during the Extension.
- Whooping crane monitoring will continue throughout the Extension. Targeted whooping crane research may be necessary to address uncertainties in the relationship between river flow, channel morphology, and crane use.
- Flow releases to benefit pallid sturgeon will be monitored to identify the quantity of Program water that reaches the lower Platte and the corresponding increase in river stage.

Commented [A9]: Current protocol or new one? Reduced levels.

Commented [A10]: See previous comments considering benefits and costs

Adaptive Management Plan Implementation

- Retain six-member Independent Scientific Advisory Committee.
- Continue peer review of key Program science products relevant to decision making.¹⁷
- Continue production of State of the Platte Report.
- Continue annual or appropriate AMP Reporting Sessions.

FIRST INCREMENT EXTENSION FUNDING

Federal and State contributions will continue throughout the Extension using the existing 50/50 cost share with credits for in-kind contributions from the States. Program implementation budget during the Extension will be similar to current with the exception of a large reduction in land acquisition budget and a reduction in the budget for water studies and infrastructure once major water projects are completed. Key budget items and projected costs for a First Increment Extension are contained in **Attachment X**.

FIRST INCREMENT EXTENSION ORGANIZATIONAL STRUCTURE

First Increment governance and organizational structure will be retained throughout the Extension.

¹⁷ Program peer review guidance will be revised prior to the beginning of the Extension to reflect current process.