



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (PRRIP -or- Program)

Scope of Work – Sediment Augmentation Data Synthesis Compilation

1) Document Introduction and Background

The Program seeks an independent peer review of the Sediment Augmentation Data Synthesis Compilation developed by the Program’s Executive Director’s Office (EDO). One of the Program’s primary management uncertainties is the need for long-term sediment (sand) augmentation at the upper end of the Associated Habitat Reach (AHR) to offset a sediment deficit due to clearwater hydropower return flows. Stakeholders have long been concerned that incision and narrowing due to mining of sediment from the bed and banks of the channel downstream of the hydropower return will migrate downstream and impact habitat suitability for the Program’s four target species (whooping crane, piping plover, interior least tern [now de-listed], and pallid sturgeon). Efforts to quantify the magnitude of the sediment deficit and develop augmentation methods began soon after Program initiation in 2007. By 2016, Program stakeholders reached consensus that the best next step in evaluating sediment augmentation would be implementation of a full-scale sediment augmentation experiment immediately downstream of the hydropower return. The full-scale augmentation experiment was initiated in 2017 with augmentation occurring annually from 2017 through 2021. In 2022, the Executive Director’s Office began analysis of the effectiveness of sediment augmentation, producing multiple lines of evidence across a range of spatial and temporal scales. The Sediment Augmentation Data Synthesis Compilation is a roll-up of this multi-scalar analysis and is intended to provide a framework for the Program to assess the results of sediment augmentation so far and the implications for decision-making related to sediment augmentation throughout the remainder of the Program’s First Increment Extension (2020-2032) and beyond.

Pending internal feedback and the results of this peer review regarding the significance and relevance of methods and results presented in the Sediment Augmentation Data Synthesis Compilation, the intent is to prepare a manuscript for publication that incorporates parts of the overall report.

The Sediment Augmentation Data Synthesis Compilation consists of 113 pages and is organized as follows:

- Cover Page, Preface, Table of Contents, List of Acronyms (7 pages)
- Executive Summary (4 pages)
- Chapter 1 – Sediment Augmentation: History and Context (15 pages)
- Chapter 2 – Evaluation of Trends in Incision Prior to Full-Scale Sediment Augmentation (27 pages)
- Chapter 3 – Evaluation of Longitudinal Change After Sediment Augmentation in the Central Platte River Valley, NE, USA (36 pages)
- Chapter 4 – Volume Change Analysis (24 pages)

The results of numerous analyses and multiples lines of evidence are organized into a four-chapter synthesis report. The Executive Summary provides a condensed and consolidated summary of the findings presented in the following chapters. Chapter 1 provides history and context including a summarization of modeling and research conducted during the First Increment of the Program. Chapter 2 is comprised of retrospective analyses of spatial and temporal patterns of incision prior to initiation of the sediment augmentation experiment. Chapter 3 focuses on two-dimensional longitudinal channel



response to sediment augmentation. Chapter 4 is comprised of an analysis of volumetric change in the period prior to and during the sediment augmentation experiment.

2) Description of Peer Review

The purpose of this review is to provide a formal, independent, external scientific peer review of the information presented in the Sediment Augmentation Data Synthesis Compilation. The peer review process, including all communication with the Peer Review Panel and development of the summary report from the individual peer reviews, will be coordinated by Dr. Chadwin Smith of the PRRIP EDO.

3) Methods and Scientific Standards

Factors to be addressed include the scientific merit of technical analyses and conclusions. The peer reviewers must ensure any scientific uncertainties are clearly identified and characterized, and the potential implications of these uncertainties for the technical conclusions drawn are clear. Peer reviewers are advised they are not to provide advice on policy. Rather, they should focus their review on identifying and characterizing scientific and technical uncertainties and the technical soundness of the Sediment Augmentation Data Synthesis Compilation.

4) Charge to the Panel

Each Peer Review Panel member will be tasked with reviewing the Sediment Augmentation Data Synthesis Compilation from their particular area of expertise following the PRRIP Scientific Peer Review Guidelines (Attachment A) and the specific directions contained in this Scope of Work. All Peer Reviewers must be prepared to sign (during the contracting phase) the PRRIP Certification Regarding Lobbying (Attachment B) and the PRRIP Conflict of Interest Form for Peer Reviewers (Attachment C). Peer reviewers will be asked to submit all comments, questions, and other communication in writing to ensure an appropriate record is built, and generally all communication with peer reviewers will be conducted via e-mail during the course of the review.

Peer reviewers must consider and respond to the questions listed below, at a minimum, in their reviews:

- 1) Does the Sediment Augmentation Data Synthesis Compilation adequately address the overall objective – to synthesize multiple lines of evidence from the Program’s full-scale sediment augmentation experiment to assess overall results and provide useful information for decision-making related to future sediment augmentation management actions?
- 2) Do the authors draw reasonable and scientifically sound conclusions from the information presented? If not, please identify those that are not and the specifics of each situation.
- 3) Are there any seminal peer-reviewed scientific papers omitted from consideration that would contribute to alternate conclusions that are scientifically sound? Please identify any such papers including citations.
- 4) Are the statistical methods and modeling tools used valid and current, and are the associated results presented in a manner useful to Program decision-makers?
- 5) Are potential biases, errors, or uncertainties appropriately considered within the methods sections and then discussed in the results and conclusion sections?
- 6) How might the report and/or future studies address impacts of the prescribed sediment gradation/composition and flow on sediment transportation in the Associated Habitat Reach?
- 7) How might we assess the relationship between flow and sediment transport and identify dynamic equilibrium of the AHR?



Reviewers must protect information and ensure that services consist of unbiased assessments. Until it is made public, no information from the Sediment Augmentation Data Synthesis Compilation may be released without express written permission from the EDO. Additionally, all peer review-related inquiries from outside sources must be forwarded to Dr. Smith of the EDO; reviewers should not communicate with those inquiring about the review.

5) Peer Review Rating & Recommendation

In addition to providing written comments, each reviewer will provide a separate comprehensive rating and recommendation utilizing the following format:

RATING

Please score each aspect of this set of chapters using the following rating system:

1 = Excellent; 2 = Very Good; 3 = Good; 4 = Fair; 5 = Poor

Category	Rating
Scientific soundness	_____
Degree to which conclusions are supported by the data	_____
Organization and clarity	_____
Cohesiveness of conclusions	_____
Conciseness	_____
Important to objectives of the Program	_____

RECOMMENDATION

(Check One)

Accept	_____
Accept with revisions	_____
Unacceptable	_____

PLEASE NOTE: If a peer reviewer checks “Accept with Revisions” or “Unacceptable,” that reviewer **must explicitly state** what changes would be required to change the recommendation to “Accept.” This is a critical step in ensuring the Program understands potential fatal flaws or major areas of revision that must be addressed before finalizing these documents and seeking Governance Committee approval.

6) Peer Review and Peer Reviewer Identification

It is the intention of the PRRIP that each individual peer review will be shared with the other members of the Peer Review Panel; members of the PRRIP Governance Committee (GC); members of the PRRIP Executive Director’s Office (EDO); members of relevant PRRIP Advisory Committees including the Technical Advisory Committee (TAC) and the Independent Scientific Advisory Committee (ISAC); and the public via a final package including, but not limited to, the peer reviewed and revised Sediment Augmentation Data Synthesis Compilation and the results of all individual peer reviews posted as a public document on the PRRIP website. *Individual Peer Reviewers may choose to remain anonymous unless they agree to share their identity and interact with (electronically and/or virtually) the other members of the PRRIP Peer Review Panel and relevant PRRIP entities including the TAC, ISAC, EDO, and GC.*



7) Peer Review Schedule

The general the schedule below provides guidance for conducting a 60-day peer review of the PRRIP Sediment Augmentation Data Synthesis Compilation:

PRRIP Sediment Augmentation Data Synthesis Compilation Peer Review Process Tasks	Anticipated Completion Date
Task 1 (TAC) – Request Peer Review of Sediment Augmentation Data Synthesis Compilation <ul style="list-style-type: none">Review Scope of Work – add/subtract/edit specific questions for peer reviewers, overall Charge to PanelReview and approve Peer Review Panel (Smith [EDO] will work with Peer Reviewer Selection Panel to identify and recommend peer reviewers)Transmit peer review request and Peer Review Panel members to GC for review and appointment	October 2023
Task 2 (GC) – Approve Peer Review / Appoint Peer Review Panel Members	November 2023
Task 3 (Smith, EDO): Facilitate Peer Review <ul style="list-style-type: none">Secure signed contracts with all peer reviewersProvide access to all materials needed for review to each peer reviewerVirtual meeting with Peer Review Panel to coordinate review and answer clarifying questions	December 2023 (and throughout peer review process)
Task 4 (Peer Review Panel): Conduct Peer Review of Sediment Augmentation Data Synthesis Compilation <ul style="list-style-type: none">Smith (EDO) answers clarifying questions, as necessaryPeer reviewers provide written reviews to Smith (EDO)	February 29, 2024
Task 5 (Smith, EDO): Respond to Peer Review <ul style="list-style-type: none">Work with EDO Staff to implement suggested changes or explain why changes are either inappropriate or not feasible at this timeDevelop Peer Review Summary Report for TAC consideration, including written responses to each peer review comment and proposed changes/edits	March 2024
Task 6 (TAC): Evaluate Peer Review Summary Report <ul style="list-style-type: none">TAC meeting to discuss Peer Review Summary Report and proposed document changes/editsRecommend additional changes/edits and finalize for review by Peer Review Panel	April 2024
Task 7 (Peer Review Panel): Evaluate Peer Review Summary Report <ul style="list-style-type: none">As warranted, elicit Peer Review Panel reaction (via electronic responses and/or virtual meeting) to proposed changes/responses to Sediment Augmentation Data Synthesis Compilation indicating acceptance or rejection of changesSmith (EDO) coordinates	May 2024
Task 8 (TAC): Evaluate Reaction from Peer Review Panel <ul style="list-style-type: none">TAC meeting to discuss responses from Peer Review Panel and to recommend final changes to Sediment Augmentation Data Synthesis Compilation for GC considerationEDO makes final changes to Sediment Augmentation Data Synthesis CompilationSmith (EDO) prepares final Peer Review Package for GC	June-August 2024
Task 9 (Smith, EDO): Present final Peer Review Package to GC <ul style="list-style-type: none">Review, discuss, and approve revised Sediment Augmentation Data Synthesis CompilationFinal report with integrated changes and Peer Review Summary Report included posted as public document on PRRIP website	September 2024

The extent and content of peer review comments may necessitate more time on the part of the Program in terms of fully addressing all peer review comments. The goal is to seek final GC approval of the peer reviewed and revised Sediment Augmentation Data Synthesis Compilation in September 2024.



8) Available Documentation

Peer reviewers will be provided with the following information:

- This Peer Review Scope of Work, including the PRRIP Scientific Peer Review Guidelines.
- The Sediment Augmentation Data Synthesis Compilation.
- Access to all references cited in the Sediment Augmentation Data Synthesis Compilation.
- PRRIP Extension Science Plan.
- Additional information as requested by Peer Review Panel members – if a document is requested by one member, it will be transmitted to all members simultaneously.



1 **ATTACHMENT A**

2 **PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (PRRIP -or- Program)**

3 **PRRIP Scientific Peer Review Guidelines**



ATTACHMENT B
PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (PRRIP -or- Program)
Certification Regarding Lobbying

The undersigned certifies, on behalf of the Consultant, that to the best of his or her knowledge and belief:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the Consultant, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, or the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
2. No registrant under the Lobbying Disclosure Act of 1995 has made any lobbying contacts on behalf of the Consultant with respect to the federal grant or cooperative agreement under which the Consultant is receiving monies.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who makes an expenditure prohibited by Section 1 above or who fails to file or amend the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

FOR THE CONSULTANT:

CONSULTANT NAME

Date



ATTACHMENT C

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (PRRIP -or- Program)

PRRIP Conflict of Interest Form – Peer Reviewers

The PRRIP developed guidance for Peer Reviewers regarding the avoidance of conflicts of interest in accordance with the Scientific Peer Review Guidelines (Adaptive Management Plan, Appendix A) contained in the PRRIP Final Program Document. PRRIP Peer Reviewers must provide an unbiased opinion of the scientific quality of a product (proposal, report, data, map, etc.) by individuals who are independent from the authors and external to them, the Program as a whole, and/or the authors' institution/entity. A review must be independent of various types of conflicts of interest with the author(s) and with the product under review. The PRRIP places considerable reliance on the objectivity, integrity, and professionalism of each Peer Reviewer to provide the technical opinion of each product without bias or conflict of interest.

When evaluating the potential for any conflicts of interest, all PRRIP Peer Reviewers should consider the following factors that could lead to bias or conflict of interest:

- Financial interest in the product or the author(s);
- Familial relationship with the author(s);
- Bias, for personal reasons, for or against the author(s) or institutions of this product;
- Professional connection (current or former: student or advisor, supervisor or supervised, employer, etc.) to the author(s) or the institution of this product;
- Organizational affiliation (same agency, department, organization, business, etc.);
- Impacts of lobbying or political pressure exerted by persons looking for a particular result or more work in the area of this product; and
- Has conducted, is conducting, or intends to conduct work for or on behalf of the Program, or work that directly overlaps with Program scientific and technical priorities, or work with the author(s), which could result in a Peer Reviewer commenting on her/his own work product(s).

As a proposed Peer Reviewer, I hereby state that I do not have any conflicts of interest with the PRRIP as outlined above and (if necessary) explained on the following page. I can serve effectively as a PRRIP Peer Reviewer without any financial, familial, personal, or professional bias and can complete an independent review of the PRRIP document as directed in the associated Scope of Work.

FOR THE CONSULTANT:

CONSULTANT NAME

Date