



DRAFT

REQUEST FOR PROPOSALS (RFP)

Lower Platte River Hydraulic Modeling Services

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
Office of the Executive Director
4111 4th Avenue, Suite 6
Kearney, Nebraska 68845

May 31, 2023



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**PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (PRRIP -or- PROGRAM)
REQUEST FOR PROPOSALS (RFP)**

SUBJECT: Lower Platte Hydraulic Modeling Services
REQUEST DATE: May 31, 2023
PRE-PROPOSAL MEETING: June 20, 2023
CLOSING DATE: June 30, 2023
POINT OF CONTACT: Libby Casavant
Headwaters Corporation
(319) 359-9183
casavantl@headwaterscorp.com

I. OVERVIEW

The Platte River Recovery Implementation Program (Program) initiated on January 1, 2007 between the states of Nebraska, Wyoming, and Colorado and the Department of the Interior to address endangered species issues in the central and lower Platte River basin. Program “target species” include the whooping crane, piping plover, interior least tern (now de-listed), and pallid sturgeon.

A Governance Committee (GC) has been established that reviews, directs, and provides oversight for activities undertaken during the Program. The GC is comprised of one representative from each of the three states, three water user representatives, two representatives from environmental groups, and two members representing federal agencies. Headwaters Corporation provides the Executive Director and staff for the Program, collectively known as the Executive Director’s Office (EDO). Program staff are located in Nebraska and Colorado and are responsible for assisting in carrying out various Program-related activities.

Pallid sturgeon (PS) are known to occur in the Lower Platte River, downstream of Columbus, NE. The Program is learning more about PS habitat through collaborative research with the University of Nebraska at Lincoln (UNL). Once suitable habitat characteristics are identified, the Program will leverage hydraulic modeling to identify the spatial distribution of potential habitat in the Lower Platte. The creation of a 2-D hydraulic model will enable systematic evaluation of depth, velocity, and other hydraulic metrics across the Lower Platte at various discharges, providing a means of quantifying habitat availability through space and time as a function of flow.

The GC submits this Request for Proposals (RFP) to solicit proposals from Consultants to provide hydraulic modeling services in support of PS research on the Lower Platte River. The full scope and appropriate methods for performing analyses will be developed jointly by the EDO and the Consultant in coordination with UNL after selection and prior to model development.

The term Consultant shall be used throughout this document to describe both potential RFP Respondents submitting a proposal and the successful Respondent performing the work upon award of the project.



II. SCOPE OF WORK

The selected Consultant will provide hydraulic modeling services that will be used in conjunction with UNL PS research to quantify the spatial and temporal distribution of PS habitat on the Lower Platte River.

The Program's objective is to obtain 2-D hydraulic modeling results that allow for quantification of water coverage, depth, velocity, and other hydraulic metrics at various flow levels on the Lower Platte River for the purpose of better understanding pallid sturgeon habitat. The spatial extent of modeling is the active channel and major tributary confluences extending from the Loup River confluence near Columbus, NE downstream to the confluence of the Platte and Missouri Rivers near Plattsmouth, NE. Flows of interest range from a two-year peak discharge (50,000 cfs at the Louisville gage) to a low-flow condition under which habitat connectivity is limited (< 500 cfs at Louisville gage). In addition to flow from the Central Platte, the Loup River, Loup Canal Return, Elkhorn River, and Salt Creek flows should be included in model boundary conditions. Other tributaries or losses may be incorporated to achieve desired calibration goals. Model resolution may vary but should generally be sufficient to quantify differences in hydraulic metrics at a sandbar scale.

LiDAR topographic and partial bathymetric data were collected in August, 2022 for use in creating a 2-D computational mesh. Data coverage extends from just upstream of Columbus, NE to the confluence of the Lower Platte and the Missouri River near Omaha, NE. The horizontal resolution of elevation raster product is 3 ft by 3ft. The horizontal accuracy is < 60cm RMSE and the vertical accuracy is < 9.2cm RMSE. No data is available for the parts of the river channel where flow depth and turbidity inhibited LiDAR penetration. Consultants are encouraged to suggest methods for filling in the gaps in this dataset. The resulting mesh does not need to perfectly replicate the riverbed on the date of LiDAR collection, but it does need to be a realistic approximation of elevations. Samples from the LiDAR dataset are available for download and inspection at the same location as this RFP.

The specific scope of work to achieve these study objectives will be determined once a Consultant is selected based on experience and qualifications, but a general description of the anticipated progression of the study is provided below.

Once selected, the Consultant, EDO, and UNL will work collaboratively to:

- Perform an initial review of available hydrologic and hydraulic data.
- Determine additional data needs.
- Determine the best methodology to address the missing LiDAR data areas within the channel.
- Select the type of modeling software, minimum and maximum resolution, and any other parameters.
- Select scenarios to model and obtain proper boundary conditions.

The consultant must present a plan for calibrating and validating the model and propose acceptable tolerance limits. Once the model is shown to perform within these limits, the selected suite of scenarios will be run and results reported. The report, model(s), and results for each scenario and discharge in a georeferenced format will be the final deliverable of this project.

The following areas of expertise may be necessary to complete the full scope of work:



- 2-D hydrodynamic modeling
- Sediment transport modeling
- Fluvial geomorphology
- Geospatial analysis/elevation data processing

III. PROJECT BUDGET

The Program budget for this project is on the order of \$250,000. However, an estimated project budget should **NOT** be submitted in the proposal and proposals will not be evaluated based on cost. A final scope of work and budget will be negotiated prior to commencement of work.

IV. CONTRACT TERMS

The selected Consultant will be retained by:

Nebraska Community Foundation
PO Box 83107
Lincoln, NE 68501

Proposals should indicate whether the Consultant agrees to the contract terms as outlined in the attached Program's Consultant Contract (**Exhibit A**) or provide a clear description of any exceptions to the terms and conditions.

The initial term of the contract is expected to be for a one-year period beginning at the date of final signing of the contract (mid-2023 through mid-2024). Actual contract schedule will be developed with the Consultant and incorporated into the contract. Contracted services will be performed on a time and materials not to exceed basis. Under the final contract, a written Notice to Proceed from the EDO will be required before work begins. All work will be contingent on availability of Program funding.

The selected Consultant may be requested to negotiate additional services, with the option to extend, re-compete, or cancel at the discretion of the GC.



V. SUBMISSION REQUIREMENTS

All interested parties having experience providing the services listed in this RFP are requested to submit a proposal.

Instructions for Submitting Proposals

One (1) electronic (PDF) copy of your proposal must be submitted to Libby Casavant by email at casavantl@headwaterscorp.com no later than 5:00 PM Central Time on Tuesday, June 30, 2023. The maximum allowable proposal PDF size is 15MB, and proposals are to be limited to a total of 50 pages or less. A proposal is late if received any time after 5:00 PM Central Time and will not be eligible for consideration.

Questions regarding the information contained in this RFP should be submitted to Libby Casavant at casavantl@headwaterscorp.com. A list of compiled Consultant questions and responses will be maintained on the Program web site (www.PlatteRiverProgram.org) in the same location as this RFP solicitation. The last day to accept questions is June 26, 2023.

RFP Schedule

The EDO expects to complete the selection process and award the work by August 22, 2023. The following table represents the RFP schedule:

Description	Date	Time (Central)
Issue RFP	By May 31, 2023	n/a
Pre-proposal virtual meeting	June 20, 2023	12:00 PM
Last day for respondents to submit questions regarding the RFP	June 26, 2023	5:00 PM
Proposals due from Consultants	June 30, 2023	5:00 PM
Evaluation of Proposals	July 3 through July 20, 2023	
Interviews	Week of August 7, 2023	
Award of Work	On or before August 22, 2023	
Start of Work	Mid- to late September, 2023	
Completion of Work	Approximately August 22, 2024	

Virtual Pre-Proposal Meeting

A **mandatory** virtual pre-proposal meeting of interested parties will be held on June 20, 2023 from 12:00-1:00 PM Central Time via Microsoft Teams for the purpose of familiarizing potential Consultants with the Scope of Work and requirements included herein before submitting a response to this RFP. To register, please email Libby Casavant (casavantl@headwaterscorp.com) with names and email addresses for the people from your firm and/or team expected to join the virtual pre-proposal meeting by 12:00 PM Central Time on June 15, 2023. A meeting invite with the Microsoft Teams link will be forwarded to expected participants.

The meeting will include a brief overview by the EDO regarding the objectives of the project, the scope of services, and the timeline. It is the Consultant's responsibility, during the pre-proposal meeting, to ask questions necessary to understand the RFP so the Consultant can submit a proposal that is complete according to the RFP requirements. No minutes will be distributed by the EDO regarding the meeting.



Any proposals submitted by Consultants who did not register for and participate in the mandatory virtual pre-proposal meeting will be rejected.

Proposal Content

Proposals should respond to the following general topics:

- 1) Project understanding:** Discussion that demonstrates the Consultant’s understanding of key objectives, goals and constraints.
- 2) Project approach:** Discussion of the Consultant’s approach to model development including critical issues, tasks, or considerations that may have shaped your approach. This section should not be a reiteration of the general scope of work presented in Section II of this RFP. That scope was provided as general guidance and original thinking and/or discussion of improvements to that approach are welcome and encouraged. Specific items that should be addressed in the approach include:
 - a. A plan for dealing with data limitations, mainly, the incomplete bathymetry data.
 - b. The preferred type of model to be used (proprietary or not)
 - c. Given the required model resolution, computational load will likely be high. Discuss any concerns or suggestions given this constraint.
 - d. Briefly discuss an appropriate calibration and validation procedure and expected tolerance.
- 3) Qualifications and project experience:** Provide project team organization, resumes/qualifications, and responsibilities. Identify relevant project experience, particularly within the past five years, including the name, location, and brief description of the projects; name, address, email, and phone number for the primary client contact; and the involvement/role of the proposed team members in those projects.
- 4) Rate Schedule:** Schedule of standard hourly and reimbursable cost rates by labor category.
- 5) Conflict of interest statement** addressing whether any potential conflict of interest exists between this project and other past or on-going projects, including any projects currently being conducted for the Program.
- 6) Confirmation of Insurance and Certificate of Good Standing:** The Program’s Consultant Contract (**Exhibit A**) describes requirements for a Certificate of Good Standing (*Exhibit A, Section 8.G.*) and Insurance (*Exhibit A, Section 8.S.*). Proof of a Certificate of Good Standing and all Insurance types and coverage levels will be required before a contract is issued. The proposal should confirm the Consultant’s ability to meet these requirements and provide such proof during contract development.
- 7) Acceptance of the terms and conditions** as outlined in the attached Program’s Consultant Contract, or clear description of any exceptions to the terms and conditions.



8) Affirmative Statement – that the firm and the principals of the firm (and any members of the team if relevant) are NOT on the federal suspended and disbarred list. A DUNS¹ and SAM² number are required to assist in verification.

9) Lobbying Certification – Form to complete attached as part of **Exhibit A**.

Criteria for Evaluating Proposals

The GC appointed a Proposal Selection Panel that will evaluate all proposals and select a Consultant based on the following principal considerations:

1. The Consultant’s understanding of the overall project goals, constraints, design elements, and operational scenarios and project approach.
2. Qualifications and the relevant experience of the proposed project team members and firm, which may include:
 - a. Experience developing and calibrating 2-D hydraulic models of braided channels.
 - b. Experience leveraging data from multiple sources and gages to increase model accuracy and reliability.
 - c. Experience working with large LiDAR datasets, including an understanding of common sources of error/inaccuracy, and dealing with incomplete data coverage.
 - d. Familiarity with the project study site.

Interviews may be held if necessary, as determined by the Proposal Selection Panel.

Award Notice

After completing the evaluation of all proposals and, if deemed necessary, interviews, the Proposal Selection Panel will select a Consultant. That firm will negotiate with the EDO to establish a fair and equitable contract. If an agreement cannot be reached, a second firm will be invited to negotiate and so on. If the Program is unable to negotiate a mutually satisfactory contract with a Consultant, it may, at its sole discretion, cancel and reissue a new RFP.

Program Perspective

The GC has the sole discretion and reserves the right to reject any and all proposals received in response to this RFP and to cancel this solicitation if it is deemed in the best interest of the Program to do so. Issuance of this RFP in no way constitutes a commitment by the Program to award a contract, or to pay Consultant’s costs incurred either in the preparation of a response to his RFP or during negotiations, if any, of a contract for services. The Program also reserves the right to make amendments to this RFP by giving written notice to Consultants, and to request clarification, supplements, and additions to the information provided by a Consultant.

By submitting a proposal in response to this solicitation, Consultants understand and agree that any selection of a Consultant or any decision to reject any or all responses or to establish no contracts shall be at the sole discretion of the Program. To the extent authorized by law, the Consultant shall indemnify, save, and hold harmless the Nebraska Community Foundation, the states of Colorado,

¹ <https://www.dnb.com/duns-number.html>

² <https://federalcontractorregistry.com/>



237 Wyoming, and Nebraska, the Department of the Interior, members of the Governance Committee, and
238 the Executive Director’s Office, their employees, employers, and agents, against any and all claims,
239 damages, liability, and court awards including costs, expenses, and attorney fees incurred as a result of
240 any act or omission by the Consultant or its employees, agents, sub-Consultants, or assignees pursuant
241 to the terms of this project. Additionally, by submitting a proposal, Consultants agree that they waive
242 any claim for the recovery of any costs or expenses incurred in preparing and submitting a proposal



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EXHIBIT A
Standard Consulting Services Contract & Certification Regarding Lobbying