



REQUEST FOR PROPOSALS (RFP)

Expanded Recapture Reconnaissance Study

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

June 15, 2023



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

SUBJECT: Expanded Recapture Reconnaissance Study
REQUEST DATE: June 15, 2023
PRE-PROPOSAL MEETING: June 29, 2023
CLOSING DATE: July 18, 2023
POINT OF CONTACT: Seth Turner
Headwaters Corporation
(720) 524-6115
turners@headwaterscorp.com

I. OVERVIEW

The Platte River Recovery Implementation Program (Program or PRRIP) is a collaborative effort 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) was 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.

The Program and State of Nebraska¹ seek to optimize the use of excess flow diversions into existing groundwater recharge projects to reduce deficits to [target flows](#) at the [Platte River near Grand Island, NE](#) gage. Elwood Reservoir groundwater recharge, Phelps County Canal groundwater recharge, and Cottonwood Ranch broad-scale recharge (BSR) (see **Figure 1**) are projects that can store/recharge large volumes of water. However, these projects are inefficient at reducing deficits to target flows defined by the U.S. Fish and Wildlife Service (USFWS) because baseflow returns from groundwater recharge occur on timescales of years to decades and do not always coincide with the timing of target flow deficits or other Program objectives. The Program and State of Nebraska seek to improve project utility to get more near-term and objective-optimized benefit out of the water purchased for recharge.

Stakeholders are seeking to increase efficiency by investing in infrastructure that allows the Program and State of Nebraska to better control the timing and rate of surface and groundwater return flows to the Platte River. This could be accomplished through some combination of (1) an outlet from Elwood

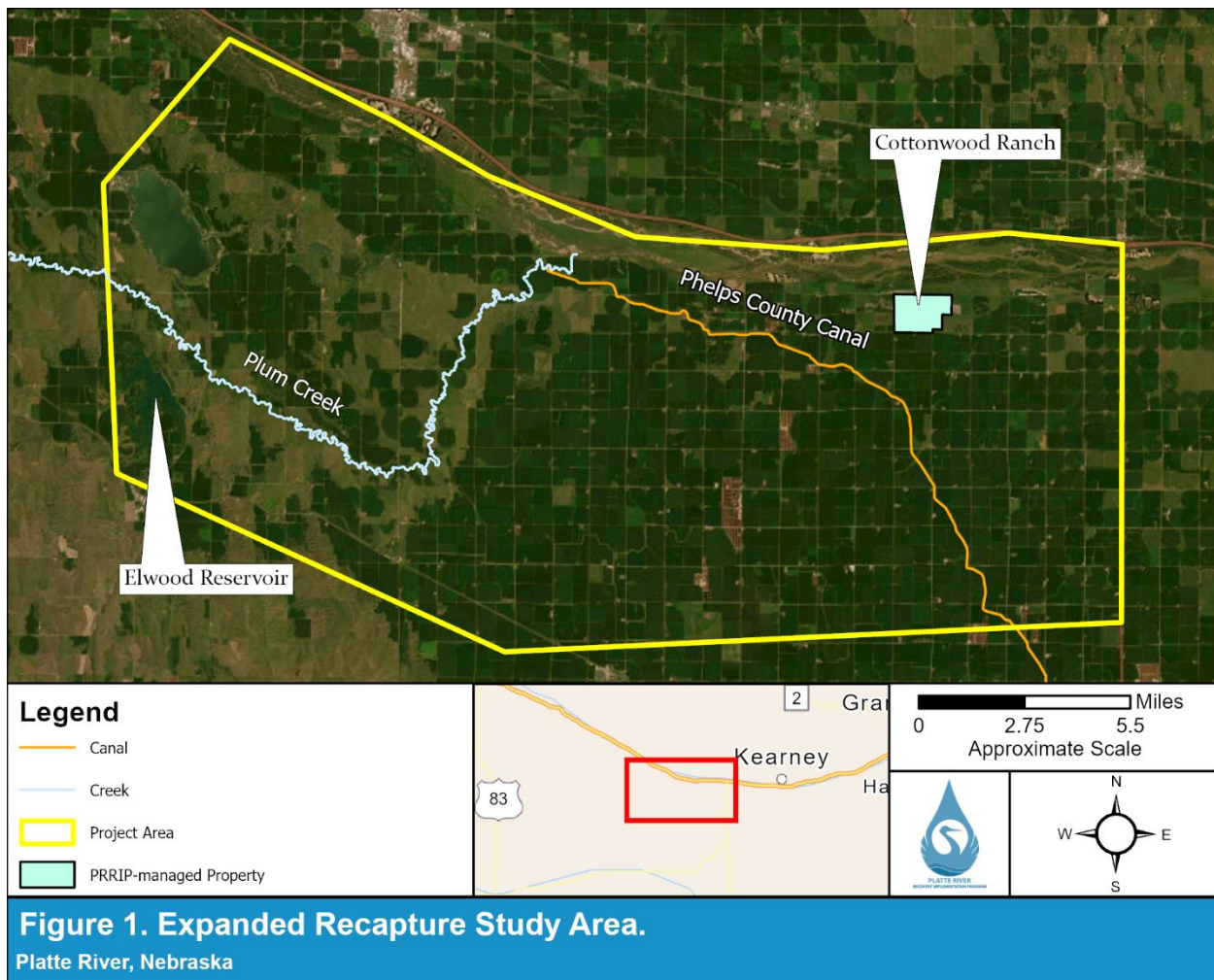
¹ Recharge capacity/operations in Elwood Reservoir and Phelps County Canal are split between the Program, the State of Nebraska, and the Tri-Basin Natural Resources District.



Reservoir to Plum Creek and (2) a wellfield to recapture groundwater and pump it into Plum Creek, groundwater drains and/or directly to the Platte River.

The GC submits this Request for Proposals (RFP) to solicit proposals from Consultants to provide engineering services to conduct a reconnaissance-level study to assess the feasibility, costs and benefits of different Elwood outlet and recapture wellfield configurations. The proposed Scope of Work is outlined in Section III of this RFP.

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. EXISTING PROGRAM RECHARGE AND RECAPTURE PROJECTS

Program water projects are evaluated in terms of capacity to reduce deficits (shortages) to USFWS target flows at Grand Island, NE. Groundwater recharge projects located south of the Platte River are



used by the Program, the State of Nebraska, and the Tri-Basin Natural Resources District (TBNRD) to supplement baseflows of the Platte River by retiming flow from periods of excess (streamflow at Grand Island > USFWS target flows) to periods of shortage (streamflow at Grand Island < USFWS target flows). The Nebraska Department of Natural Resources (DNR) may declare excess flows available to divert into recharge projects when streamflows are above USFWS targets at Grand Island and all existing water rights are fulfilled, including instream flow water rights held by Central Platte Natural Resources District (CPNRD) and Nebraska Game and Parks Commission (NGPC) at locations from Overton to Louisville.

Intentionally recharged water returns to the river channel as baseflow accretions at low rates over periods of years to decades. These return flows are continuous, regardless of the current excess/shortage status of the river at Grand Island. In this sense, recharge projects are considered to be “uncontrollable.” While water that returns when there are not shortages to target flows still provides benefits to the river and the Program’s target species, it does not count toward Program deficit-reduction objectives. For recharge projects, normal and wet years present the most opportunities for excess flow diversions and dry years are when deficit reductions are needed.

Existing projects involved in this expanded recapture study include (1) Elwood Reservoir groundwater recharge, (2) Phelps County Canal groundwater recharge, and (3) Cottonwood Ranch broad-scale recharge, all located south of the Platte River in Gosper and Phelps counties in central Nebraska. Facilities owned and operated by the Central Nebraska Public Power and Irrigation District (CNPPID) are used to convey water to these recharge projects, and CNPPID is the entity responsible for securing annual permits from Nebraska DNR to divert excess flows for the purpose of groundwater recharge. The State of Nebraska and TBNRD also utilize Phelps and Elwood for groundwater recharge and therefore have a shared interest in the results of this study.

Elwood Reservoir Groundwater Recharge

Groundwater recharge in Elwood Reservoir for the Program began in May 2015, and excess flow deliveries into Elwood averaged about 12,500 AF from 2015-2019. Deliveries since late 2019 were limited due to both drought conditions and modified operations at Elwood while seepage issues near the Pump Station Dam were diagnosed and an appropriate repair was designed. The Program has a Water Service Agreement with CNPPID that reserves a minimum of 50% of Elwood Reservoir excess flow diversions for the Program, up to a total of nearly 135,000 AF over the period 2023-2032. The remaining allocation of Elwood Reservoir excess flow diversions is shared by the State of Nebraska and TBNRD.

The rate of seepage from Elwood Reservoir varies with the water level, but from May 2015-December 2021, seepage from Elwood for Program recharge was estimated at an average of about 22.6 AF/day. As an example of the type of solutions envisioned from this study, at this rate about 8,250 AF could seep into the underlying aquifer as recharge over the course of a year. With the anticipated average annual diversions of about 13,500 AF, this would leave at least 5,250 AF of Program water that could potentially be released from the reservoir each year through a new gravity outlet to Plum Creek. It is likely that the



balance of recharge and gravity release would be adjusted as needed to maximize deficit reductions at Grand Island.

Releasing Program water from Elwood back to the river by surface conveyance would also allow available storage capacity to be maximized each year, rather than carrying over thousands of acre-feet from one year to the next while waiting for it to seep out as groundwater recharge. This may also help to minimize evaporation losses. From 2015-2021, it is estimated that more than 6,000 AF of Program water was lost to evaporation from Elwood Reservoir, representing more than 9% of the total excess flow volume purchased by the Program for Elwood recharge during that time period.

Phelps County Canal Groundwater Recharge

The Program's Phelps County Canal groundwater recharge project was initiated with a pilot study during the 2011-2012 non-irrigation season. Operations were expanded to full-scale during 2012-2013, with the canal checked at Mile Post (MP) 13.3 during this and all subsequent recharge periods. From 2011-2021, Phelps recharge averaged nearly 3,200 AF per year based on excess flow diversions into the canal. The Program has a Water Service Agreement with CNPPID that reserves a minimum of 75% of Phelps County Canal excess flow diversions for the Program, up to a total of 50,000 AF over the period 2023-2032. In the past, the other 25% share of Phelps County Canal excess flow diversions to MP 13.3 was reserved for the State of Nebraska. The State of Nebraska and TBNRD also utilize the Phelps County Canal below MP 13.3 for recharge and conveyance to other designated recharge areas.

Cottonwood Ranch Broad-Scale Recharge and Recapture Well Projects

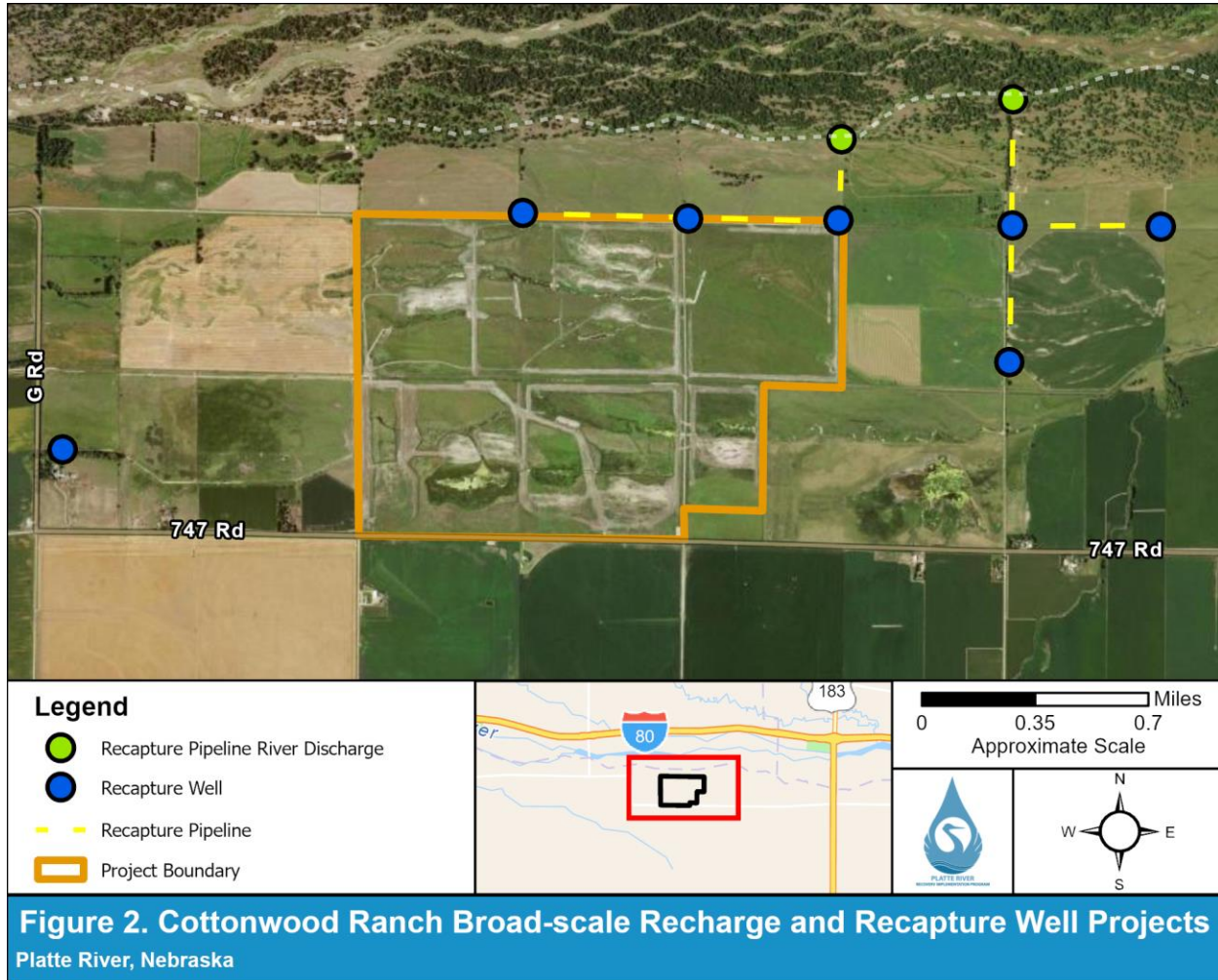
Constructed in 2019, the Cottonwood Ranch broad-scale recharge project (see **Figure 2**) utilizes shallow pools in eight cells spread over about 400 acres of land to facilitate groundwater recharge. To date, deliveries to the project for recharge have totaled only about 815 AF but several thousand AF of excess flow deliveries are anticipated each year under normal to wet hydrologic conditions.

Recapture wells add a controllable element to recharge projects and are operated to "accelerate" the river return of intentionally recharged groundwater by pumping that water directly to the river specifically during periods of shortage. The Program has completed installation of 8 recapture wells, including the Cook recapture well (2016) and a network of 7 recapture wells in the vicinity of Cottonwood Ranch (2022). Of the 7 new recapture wells, 6 wells are organized into 2 separate "networks" of 3 wells each; the wells in each network are located roughly ½ mile apart to avoid interference (see **Figure 2**). Collectively, these wells can add about 10-15 cfs to the flow of the river during periods of shortage. The existing recapture wells are operated and maintained through an agreement between the Program and TBNRD.

As of December 31, 2021, it was estimated that the Program had more than 48,000 AF that was recharged into the groundwater aquifer from all three (3) recharge projects south of the Platte River



that had not yet returned to the river by means of natural groundwater migration or recapture pumping. This represents a large reservoir that could be tapped by additional recapture wells.



III. SCOPE OF WORK

The selected Consultant will provide engineering services as needed for a reconnaissance-level evaluation of adding new controllable elements to Program recharge projects, including (1) construction of a gravity outlet from Elwood Reservoir to Plum Creek, (2) construction of additional recapture wells, and (3) combination(s) of both. Key tasks for the study are as follows:

1. Elwood Outlet:
 - a. Range of feasible outlet capacities (in conjunction with CNPPID).
 - b. Plum Creek capacity and potential impacts/mitigation: infrastructure and channel morphology.
 - c. Reconnaissance-level feasibility considerations: cost, land rights, permitting.



2. Recapture Wells:

- a. Practical size and location constraints for recapture wellfield(s), including conveyance of pumped water from wellfield(s) to river.
- b. Wellfield efficiency – depletions and well interference.
- c. Reconnaissance-level feasibility considerations: cost, land rights, permitting.

3. Trade-off Analysis:

- a. Evaluation of potential combinations of Elwood outlet capacities and wellfield size/locations to maximize efficiency in offsetting target flows (or support germination suppression flows, river baseflows, etc.), maximize operational flexibility, minimize cost, and/or other reconnaissance-level screening criteria.
- b. Analysis constrained by estimates of excess flow availability and storage/recharge capacity through time (wet/dry cycles likely important, will need to consider appropriate study periods, e.g., OPSTUDY 1947-1994 or more current).

Information of Note

There is very little published work that evaluates the hydrology or geomorphology of Plum Creek. The only active flow measurement is the [Plum Creek near Smithfield, NE](#) gage. Between Elwood Reservoir and the Platte River confluence, Plum Creek crosses under at least 12 roadways and over the top of a Phelps County Canal siphon. Channel incision and riparian vegetation cover vary widely along the flow path of the creek.

It is not anticipated that development of complex groundwater models using MODFLOW will be necessary. To the extent that groundwater analyses may be needed for this study, simpler tools such as spreadsheet models or the Alluvial Water Accounting System (AWAS) should suffice.

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

- Civil engineering
- Fluvial geomorphology
- Surface water hydrology and hydraulics
- Groundwater hydrology
- Groundwater well design and construction
- Structural engineering
- Environmental permitting

IV. PROJECT BUDGET

The Program budget for this project is on the order of \$200,000. Consultant proposals should include a budget spreadsheet with itemized employee roles, billing rates, and estimated hours for the tasks outlined in the Scope of Work.



V. 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 will be for a one-year period beginning at the date of final signing of the contract (September 2023 through August 2024). 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 renew, re-compete, or cancel at the discretion of the GC.

VI. 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 Seth Turner by email at turners@headwaterscorp.com no later than 5:00 PM Central Time on Tuesday July 18, 2023. The maximum allowable proposal PDF size is 15MB, and proposals are to be limited to a total of 40 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 Seth Turner at turners@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.



RFP Schedule

The EDO expects to complete the selection process and award the work by August 24, 2023. The following table represents the RFP schedule:

Description	Date	Time (Central)
Issue RFP	By June 15, 2023	n/a
Pre-proposal virtual meeting	June 29, 2023	12:00 PM
Last day for respondents to submit questions regarding the RFP	July 11, 2023	5:00 PM
Proposals due from Consultants	July 18, 2023	5:00 PM
Evaluation of Proposals	July 19-August 2, 2023	
Interviews	August 15-17, 2023	
Award of Work	On or before August 24, 2023	
Start of Work	Week of September 4, 2023	
Completion of Work	Approximately August 31, 2024	

Virtual Pre-Proposal Meeting

A **mandatory** virtual pre-proposal meeting of interested parties will be held on Thursday June 29, 2023 from 12:00-1:30 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 Seth Turner (turners@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 5:00 PM Central Time on Wednesday June 28, 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 project elements and operational goals and constraints.
- 2) Project approach:** Discussion of the Consultant's approach to providing the proposed reconnaissance-level Scope of Work outlined in Section III of this RFP. This should be responsive to all parts of the scope and should include detailed descriptions of the Consultant's approach to each task. Any critical issues, additional and/or alternative tasks, or other considerations that may have



shaped your approach should be addressed. Original thinking and/or discussion of improvements to that approach are welcome and encouraged.

- 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. A Nebraska licensed Professional Engineer is required.
- 4) Rate schedule and budget:** Provide a schedule of standard hourly and reimbursable cost rates by labor category. As stated in Section IV of this RFP, Consultant proposals should include a budget spreadsheet with itemized employee roles, billing rates, and estimated hours to complete the Scope of Work.
- 5) Conflict of interest statement:** Consultant shall include a statement addressing whether or not 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 DUNS² and SAM³ number are required to assist in verification.
- 9) Lobbying Certification** form to complete attached as **Exhibit B**. Signed certification does not count towards the 40-page limit.

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 objectives, constraints, design elements, operational scenarios, and existing associated groundwater recharge and recapture projects.

² <https://www.dnb.com/duns-number.html>

³ <https://federalcontractorregistry.com/>



2. The Consultant's approach to each task in the outlined Scope of Work.
3. Qualifications and the relevant experience of the proposed project team members and firm.
4. The overall clarity and content of the Consultant's proposal.

Consultant's proposed budget will be a consideration for the Proposal Selection Panel, but contract will be awarded primarily on the basis of consultant's qualifications and project approach. 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, Wyoming, and Nebraska, the Department of the Interior, members of the Governance Committee, and the Executive Director's Office, their employees, employers, and agents, against any and all claims, damages, liability, and court awards including costs, expenses, and attorney fees incurred as a result of any act or omission by the Consultant or its employees, agents, sub-Consultants, or assignees pursuant to the terms of this project. Additionally, by submitting a proposal, Consultants agree that they waive 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



EXHIBIT B
Certification Regarding Lobbying

The undersigned certifies, on behalf of Contractor, 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 Contractor, 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 Contractor with respect to the federal grant or cooperative agreement under which the Contractor 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.

NAME OF BUSINESS ("CONTRACTOR")

By:

Name

Title

Date