



— BUREAU OF —  
RECLAMATION

**Notice of Funding Opportunity No. R23AS00390**

# **Desalination and Water Purification Research Program: Research Projects**



## Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

**Cover Photo** – Yuma Desalting Plant in Yuma, Arizona (Bureau of Reclamation).

# Synopsis

<b>Federal Agency Name:</b>	United States Department of the Interior, Bureau of Reclamation, Research and Development Office
<b>Funding Opportunity Title:</b>	Desalination and Water Purification Research Program: Research Projects
<b>Announcement Type:</b>	Notice of Funding Opportunity (NOFO)
<b>Funding Opportunity Number:</b>	R23AS00390
<b>Catalog of Federal Domestic Assistance (CFDA) Number:</b>	15.506
<b>Dates:</b> (See NOFO section D.4)	Application due date: November 30, 2022, at 4:00 p.m. Mountain Standard Time
<b>Eligible Applicants:</b> (See NOFO section C.1)	<p>Applicants eligible to receive financial assistance to fund activities under this NOFO include: individuals, institutions of higher education, profit organizations, State and local governmental entities, non-profit organizations, federally funded research and development centers, and Indian Tribal Governments and organizations.</p> <p>Foreign entities are not eligible for funding under the authorizing legislation for this program.</p> <p>Federal agencies are not eligible to apply.</p>
<b>Recipient Cost Share:</b> (See NOFO section C.2)	<p>For institutions of higher education, non-Federal cost share is not required but highly encouraged.</p> <p>All other applicants must provide at least a 50-percent non-Federal cost share.</p>
<b>Federal Funding Amount:</b> (See NOFO section B.1)	<p>Approximately \$2,000,000 is available for this NOFO. The final amount of Federal funding available for award under this NOFO will be determined once final fiscal year 2023 appropriations have been made.</p> <p><b>Funding Group I – Laboratory-Scale Projects.</b> Up to \$250,000 per award for a project that can be completed within 2 years.</p> <p><b>Funding Group II – Pilot-Scale Projects.</b> Up to \$800,000 per award for a project that can be completed within 3 years.</p>
<b>Estimated Number of Agreements to be Awarded:</b> (See NOFO section B.1)	<p>The Bureau of Reclamation anticipates awarding approximately 4 to 10 projects contingent upon available Federal appropriations.</p> <p>It is expected that more awards will be made for Funding Group I – Laboratory-Scale Projects than for Funding Group II – Pilot-Scale Projects.</p>
<b>Intergovernmental Review:</b> (See NOFO section D.5)	<p>This NOFO is subject to Executive Order 12372, “Intergovernmental Review of Federal Programs.” A list of States that have elected to participate in the intergovernmental review process can be found at <a href="https://www.whitehouse.gov/wp-content/uploads/2020/04/SPOC-4-13-20.pdf">https://www.whitehouse.gov/wp-content/uploads/2020/04/SPOC-4-13-20.pdf</a>.</p>



# Application Checklist

The following table contains a summary of the information to submit with your application.

✓	What to submit	Required content	Page
	Mandatory Federal forms: <ul style="list-style-type: none"> <li>• SF-424: Application for Federal Assistance (Office of Management and Budget [OMB])</li> <li>• SF-424A: Budget Information - Non-Construction Programs (OMB)</li> <li>• SF-424B: Assurances - Non-Construction Programs (OMB)</li> <li>• OMB Form 4040-0013: Certification Regarding Lobbying</li> <li>• SF-LLL: Disclosure of Lobbying Activities (if applicable) (OMB)</li> <li>• OMB Form 4040-0019: Project Abstract Summary</li> </ul>	See section D.2.2.1	13
	Technical proposal and evaluation criteria (required)	See section D.2.2.2	14
	Summary slides (recommended)	See section D.2.2.3	16
	Personnel qualifications (required)	See section D.2.2.4	16
	Project budget (required)	See section D.2.2.5	17
	Letters of support (recommended)	See section D.2.2.6	20
	Conflict of interest disclosure statement (recommended)	See section D.2.2.7	20
	Uniform audit reporting statement (recommended)	See section D.2.2.8	21
	Unique Entity Identifier (UEI) and System for Award Management (SAM) registration	See section D.3	21



# Acronyms and Abbreviations

ARC	Application Review Committee
ASAP	Automated Standard Application for Payments
CE	Categorical Exclusion
CEC	Categorical Exclusion Checklist
CFDA	Catalog of Federal Domestic Assistance
CFR	Code of Federal Regulations
CWA	Clean Water Act
DOI	United States Department of the Interior
DWPR	Desalination and Water Purification Research
EA	Environmental Assessment
EIN	Employer Identification Number
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FAIN	Federal Award Identification Number
FAPIIS	Federal Award Performance Integrity Information System
FOIA	Freedom of Information Act
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
IBC	Interior Business Center
NAICS	North American Industry Classification System
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NOFO	Notice of Funding Opportunity
OMB	Office of Management and Budget
P.L.	Public Law
PDF	portable document format
PSC	Product Service Code
QA/QC	quality assurance/quality control

Reclamation	Bureau of Reclamation
SAM	System for Award Management
SF	Standard Form
TRL	technology readiness level
UEI	Unique Entity Identifier
U.S.C.	United States Code
USFWS	US. Fish and Wildlife Service

### **Symbols**

%	percent
§	section(s)

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# Section A: Funding Opportunity Description

## A.1 Authority

This Notice of Funding Opportunity (NOFO) is issued under the authority of the Reclamation Act of 1902, §1 and 2, and the Omnibus Public Land Management Act of 2009, Public Law (P.L.) 111-11, §9509, “Research Agreement Authority.”

## A.2 Background and Program Requirements

The United States Department of the Interior (DOI), Bureau of Reclamation’s (Reclamation) Desalination and Water Purification Research (DWPR) Program, works with Reclamation researchers and partners to develop innovative, cost-effective, and technologically efficient ways to desalinate or treat water. The DWPR Program aligns with Executive Order 14008, “Tackling the Climate Crisis at Home and Abroad,” by investing in development and application of advanced water treatment technologies that expand access to otherwise unusable water resources, thereby increasing water supply flexibility under the risks of long-term climate change and shorter-term drought. Investing in such technologies leads to development of climate-resilient, cost-effective, and low-impact solutions that bolster the ability of Reclamation, its customers, and stakeholders to cope with the stresses of climate change.

DWPR funding plays a critical role in iterating an idea from the lab to a real-world demonstration, which yields products that serve the water treatment community and attract commercialization interest. Through the DWPR Program, research sponsors partner with Reclamation to address a broad range of desalting and water purification needs. Reclamation is interested in research that has widespread benefits but private-sector entities are not able to make the full investment and assume all risks. Reclamation is also interested in research that has a national significance—where the issues are of large-scale concern and the benefits accrue to a large sector of the public.

DWPR activities further support multiple initiatives related to the Water Subcabinet such as the National Water Reuse Action Plan and the U.S. Department of Energy’s Water Security Grand Challenge. For further information on the DWPR Program, see <https://www.usbr.gov/research/dwpr>.

## A.3 Notice of Funding Opportunity Purpose and Objectives

The objective of this NOFO is to invite private industries, universities, water utilities, and other research sponsors to submit applications that address the DWPR goals and objectives through laboratory- or pilot-scale studies. The goal of the DWPR Program is to increase water supplies

by reducing the cost, energy consumption, and environmental impacts of treating impaired and otherwise unusable waters. This DWPR funding opportunity invites applicants to address any of the following objectives:

- Reduce energy consumption and lower the cost of desalination
- Reduce the environmental impacts of seawater desalination and develop technology and strategies to minimize those impacts
- Improve existing membrane technologies, including reverse osmosis
- Carry out basic and applied research on next-generation desalination technologies, including improved energy recovery systems and renewable energy-powered desalination systems that could significantly reduce desalination costs
- Develop and promote innovative desalination technologies, including concentrate management and chloride control
- Study methods for the recovery of byproducts resulting from desalination to offset the costs of treatment and to reduce environmental impacts from those byproducts
- Develop metrics to analyze the costs and benefits of desalination relative to other sources of water (including costs and benefits related to associated infrastructure, energy use, environmental impacts, and diversification of water supplies)
- Assess environmental impacts from desalination intake, concentrate management approaches, and reclaimed water
- Develop improved intake/outfall methods at coastal facilities to minimize marine environment impacts such as impingement of larger organisms, entrainment of smaller ones, and impacts to benthic communities
- Improve pretreatment for membrane desalination
- Improve membrane system performance
- Develop novel approaches or processes to desalinate water in a way that reduces primary energy use
- Develop cost-effective approaches for concentrate management that minimize potential environmental impacts
- Develop a better understanding of the formation of hazardous transformation products during water treatment for reuse and ways to minimize or remove them
- Develop a better understanding of pathogen removal efficiencies and the variability of performance in various unit processes and multibarrier treatment and develop ways to optimize these processes

- Identify better indicators and surrogates to monitor process performance in reuse scenarios and develop online real-time or near real-time analytical monitoring techniques for their measurement
- Improve the detection, characterization, monitoring, separation, or destruction of per- and polyfluoroalkyl substances and other contaminants of concern

## A.4 Other Related Funding Opportunities

Reclamation provides funding for other related projects through several other programs under [WaterSMART](#) and the [Desalination and Water Purification Programs](#):

- Water reclamation research under the **Title XVI Water Reclamation and Reuse Program** supports projects to apply commercially available water reclamation and reuse technologies (see <https://www.usbr.gov/watersmart/title/index.html>).
- **DWPR Pitch to Pilot Program:** This program is a unique approach that invites new desalination and water treatment technologies being developed by small companies and entrepreneurs (see [https://www.usbr.gov/research/dwpr/P2P\\_Reports.html](https://www.usbr.gov/research/dwpr/P2P_Reports.html)).



# Section B: Award Information

## B.1 Total Funding

Approximately \$2,000,000 is available for this NOFO, with per-project limits as described in Section B.2. “Expected Award Amount.” Reclamation will determine the final amount of Federal funding available for award under this NOFO once final fiscal year 2023 appropriations have been made. This NOFO may be canceled if appropriations are insufficient to support new awards. Applications submitted under this NOFO may also be considered if other Federal funding becomes available in or after fiscal year 2023.

## B.2 Expected Award Amount

*Maximum award for Funding Group I: \$250,000*

*Maximum award for Funding Group II: \$800,000*

*Minimum award: No minimum award amount*

Federal funding is limited to the funding amounts identified below for each funding group. The number of selected awards and the total awarded funding will be based on the quality of the applications received and available congressional funding.

- **Funding Group I – Laboratory-Scale Projects** are typically bench-scale studies involving small flow rates (less than 2 gallons per minute). They are used to determine the viability of a novel process, new materials, or process modifications. Research at this stage often involves a high degree of risk and uncertainty. Up to \$250,000 in Federal funds per award will be available under this funding group for projects that can be completed within 2 years.
- **Funding Group II – Pilot-Scale Projects** test a novel process at a sufficiently large scale to determine the practicality of implementing the technology at a larger scale. Pilot-scale studies are used to generate data that can be used to estimate the operational requirements (e.g., labor, chemical addition, power requirements) of the process and show performance with respect to finished water quality goals. Pilot-scale projects are generally preceded by laboratory studies (funded previously by the DWPR Program or others) that demonstrate that the technology works. Up to \$800,000 in Federal funds per award will be available under this funding group for projects that can be completed within 3 years.

### **B.3 Expected Award Funding and Anticipated Dates**

*Anticipated award date: 09/30/2023*

Reclamation expects to contact potential award recipients and unsuccessful applicants in April 2023 (or later if necessary), subject to the timing of final fiscal year 2023 appropriations.

*Anticipated project completion date for Funding Group I: 09/30/2025*

*Anticipated project completion date for Funding Group II: 09/30/2026*

### **B.4 Number of Awards**

Approximately 4 to 10 awards, depending on the amount requested by each applicant and the amount of Federal funding available, will be awarded under this NOFO.

### **B.5 Type of Award**

Project awards will be made through cooperative agreements. Under cooperative agreements, the successful applicant should expect Reclamation to have substantial involvement in the project, which may include:

- Collaboration and participation with the successful applicant in the management of the project and close oversight of the successful applicant's activities to ensure the program objectives are being achieved.
- Oversight may include review, input, and approval at key interim stages of the project.

### **B.6 Technical Assistance**

At your request, Reclamation can provide technical assistance after award of the project. If you receive Reclamation's assistance, you must account for these costs in your budget. To discuss available assistance and these costs, contact the program coordinator identified in Section G.2 "Reclamation Program Coordinator Contact."

# Section C: Eligibility Information

## C.1 Eligible Applicants

Applicants eligible to receive an award to fund activities include:

- Individuals
- Institutions of higher education
- Commercial or industrial organizations
- Private entities
- State and local governmental entities
- Federally funded research and development center
- Tribal Governments and organizations
- Non-profit organizations

## C.2 Ineligible Applicants

Applicants ineligible to receive an award to fund activities include:

- Federal Governmental entities
- Foreign entities

## C.3 Cost-Sharing Requirements

A non-Federal cost share is required for all applicants that are not designated as an institution of higher education and must be capable of providing a 50-percent non-Federal cost-share of the total research study costs. Although a cost share is not required, it is encouraged that higher education institutions provide a cost share for the project, and cost shares are evaluated in the evaluation criteria (see Section E.1.8. “Evaluation Criterion H – Non-Federal Cost Share.”)

### C.3.1 Cost-Share Funding Sources

Cost-share funding from sources outside the applicant’s organization (e.g., loans or State grants) should be secured and available to the applicant prior to award. Other sources of Federal funding may not be counted toward the cost share. There is an exception to this requirement if the Federal statute authorizing a program specifically provides the Federal funds made available for

such a program can be applied to matching or cost-sharing requirements of other Federal programs, such as awards to Tribal organizations under P.L. 93-638, as amended. If it is determined that the Federal funding cannot be applied toward the non-Federal cost share, the work associated with the funding may be removed from the proposed project.

### **C.3.2 Cost-Share Regulations**

All cost-share contributions must meet the applicable administrative and cost principles criteria established in 2 Code of Federal Regulations (CFR) Part 200, available at the Electronic Code of Federal Regulations [www.ecfr.gov](http://www.ecfr.gov).

### **C.3.3 Third-Party Contributions**

Third-party contributions may be in the form of equipment, supplies, and/or other expendable property as well as the value of services directly benefiting and specifically identifiable to the proposed project. The cost or value of third-party in-kind contributions that have been, or will be, relied on to satisfy a cost-sharing or matching requirement for another Federal financial assistance agreement, a Federal procurement contract, or any other award of Federal funds may not be relied on to satisfy the cost-share requirement for an award under this NOFO. Applicants should refer to 2 CFR §200.434 for regulations regarding the valuation of third-party in-kind contributions.

## **C.4 Other**

Reclamation conducts a review of the [SAM.gov Exclusions database](https://sam.gov) for all applicant entities and their key project personnel prior to award, as ineligibility conditions apply under this Federal program. If entities or key project personnel are identified in the database as ineligible, prohibited/restricted, or otherwise excluded from receiving Federal contracts, certain subcontracts, and certain Federal assistance and benefits, Reclamation cannot award them funds.

## **C.5 Eligible Projects**

Applicants can apply for funding for two types of projects that address DWPR goals and objectives:

- **Funding Group I – Laboratory-Scale Projects.** Laboratory-scale projects eligible for funding under this NOFO are typically bench-scale studies involving small flow rates less than 2 gallons per minute. Laboratory projects are used to determine the viability of a process, improved and/or new materials, and process modifications. Research at this stage often involves a high degree of risk and uncertainty.

- **Funding Group II – Pilot-Scale Projects.** Pilot-scale projects eligible for funding under this NOFO should involve flow rates above 1 gallon per minute and should be tested using natural water sources rather than synthetic or laboratory-made feed water. These projects are typically used to determine the technical, practical, and/or economic ability of a process. Preliminary costs are also developed for capital and operation and maintenance costs.

In general, **laboratory-scale projects** should be completed within **24** months of award, and **pilot-scale projects** should be completed within **36** months of award, including the required project presentation and reports. Applications for projects requiring more time will be considered for funding only under limited circumstances.

## C.6 Ineligible Projects

Projects not eligible for funding under this NOFO include, but are not limited to:

- Proposals for research on projects that are part of a congressionally authorized Title XVI project under Title XVI Water Reclamation and Reuse. A list of congressionally authorized Title XVI projects can be found at [www.usbr.gov/watersmart/title/authorized.html](http://www.usbr.gov/watersmart/title/authorized.html).
- Proposals for research on projects that are part of an approved Title XVI Feasibility Study under Title XVI Water Reclamation and Reuse: Desalination and Water Recycling Feasibility Studies. A list of approved Title XVI feasibility studies can be found at [www.usbr.gov/watersmart/title/feasibility.html](http://www.usbr.gov/watersmart/title/feasibility.html).
- Proposals of work currently funded under an existing Reclamation financial assistance agreement.
- Proposals for the construction of permanent research facilities.



# Section D: Application and Submission Information

## D.1 Address to Request Application Package

This document contains all the information, forms, and electronic addresses required to submit an application. If you are unable to access this information electronically, you can request paper copies of any of the documents referenced in this NOFO by emailing the Financial Assistance Operations Section staff at [sha-dro-fafoa@usbr.gov](mailto:sha-dro-fafoa@usbr.gov).

## D.2 Content and Form of Application Submission

All applications must conform to the requirements described in this section.

### D.2.1 Application Format and Length

The total technical proposal and evaluation criteria section (defined below) will be limited to a maximum of **20** consecutively numbered pages. If this section exceeds 20 pages, only the first 20 pages will be evaluated. The font shall be at least 12 points in size and easily readable. The page size shall be 8½ by 11 inches, including charts, maps, and drawings. The margins shall be standard 1-inch margins. Oversized pages will not be accepted.

Applications will be prescreened for compliance to the above page number limitation. Excess pages will be removed and will not be considered in the evaluation of the proposed project.

### D.2.2 Application Content

The application must include the following elements to be considered complete:

Mandatory Federal Forms Note: Applications submitted by consultants must contain an SF-424 and SF-424B that is manually signed by an authorized representative of the entity applying.

- Mandatory Federal Forms, which must include:
  - SF-424: Application for Federal Assistance
  - SF-424A: Budget Information - Non-Construction Programs
  - SF-424B: Assurances for Non-Construction Activities
  - Office of Management and Budget (OMB) Form 4040-0013: Certification Regarding Lobbying

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- SF-LLL: Disclosure of Lobbying Activities (if applicable)
- OMB Form 4040-0019: Project Abstract Summary

These forms are available at [www.grants.gov/web/grants/forms/sf-424-family.html](http://www.grants.gov/web/grants/forms/sf-424-family.html).

- Technical proposal and evaluation criteria (required, limited to **20** pages), which should include:
  - Title page (not counted toward page limit)
  - Table of contents (not counted toward page limit)
  - Executive summary
  - Problem statement
  - Prior work, experience, and results
  - Technical approach and project activities
  - Research work plan and schedule (Gantt chart or similar)
  - Facilities and equipment information
  - Quality assurance/quality control (QA/QC) plan
  - Environmental and cultural resources impacts and compliance
  - Overlap or duplication of effort statement
  - Responses to evaluation criteria
- Summary slides (recommended, not required)
- Personnel qualifications (required)
- Project budget (required):
  - Funding plan
  - Budget proposal
  - Budget narrative
  - Letters of funding commitment (if applicable)
- Letters of support (recommended)
- Conflict of interest disclosure statement (recommended)
- Uniform audit reporting statement (recommended)

To facilitate fair and timely reviews by the ARC, it is highly recommended that application packages be structured in the order identified above.

Applications will be screened for completeness and compliance with the provisions of this notice. Incomplete or noncompliant applications, or applications not meeting the formatting criteria or not including required materials will be eliminated from competition.

**D.2.2.1 Mandatory Federal Forms**

The application must include the following standard Federal forms. Questions regarding forms should be referred to the Financial Assistance Point of Contact under Section G.1 “Reclamation Financial Assistance Contact.”

**D.2.2.1.1 SF-424: Application for Federal Assistance**

A fully completed SF-424: Application for Federal Assistance form signed by a person legally authorized to commit the applicant to performance of the project must be submitted with the application. Applications that fail to submit a SF-424 will be considered ineligible and will not pass initial screening.

**D.2.2.1.2 SF-424A: Budget Information - Non-Construction Programs**

A fully completed and signed SF-424A: Budget Information form must be submitted with the application. Applications that fail to submit a SF-424A will be considered ineligible and will not pass initial screening.

**D.2.2.1.3 SF-424B: Assurances for Non-Construction Activities**

A fully completed and signed SF-424B: Assurances for Non-Construction Programs form signed by a person legally authorized to commit the applicant to performance of the project shall be included. Applications that fail to submit a properly signed SF-424B will be considered ineligible and will not pass initial screening.

**D.2.2.1.4 OMB Form 4040-0013: Certification Regarding Lobbying**

Must provide a certification regarding lobbying for Contracts, Grants, Loans, and Cooperative Agreements, and disclosures pursuant to 43 CFR Part 18 and 31 USC §1352. Non-Federal entities are strictly prohibited from using funds under a grant or cooperative agreement for lobbying. Applications that fail to submit a certification regarding lobbying form will be considered ineligible and will not pass initial screening.

**D.2.2.1.5 SF-LLL: Disclosure of Lobbying Activities (if Applicable)**

A fully completed and signed SF-LLL: Disclosure of Lobbying Activities form is required if the applicant has made or agreed to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. *This form cannot be submitted by a contractor or other entity on behalf of an applicant.*

**D.2.2.1.6 OMB Form 4040-0019: Project Abstract Summary**

A fully completed OMB Form 4040-0019: Project Abstract Summary must be submitted with the application. The Project Abstract Summary shall include the purpose of the project, the

activities to be performed, the expected deliverables or outcomes, the intended beneficiaries, and any subrecipient activities, if known. Applications that fail to submit a Project Abstract Summary Form will be considered ineligible and will not pass initial screening.

#### **D.2.2.2 Technical Proposal and Evaluation Criteria**

Submission of a technical proposal is mandatory. Applications that fail to fully disclose this information will be considered ineligible and will not pass initial screening.

The technical proposal and evaluation criteria (limited to **20** pages) should include the following sections:

##### **D.2.2.2.1 Title Page**

Provide a brief, informative, and descriptive title for the proposed work that indicates the nature of the project. Include the name and address of the applicant as well as the name, address, email, and telephone number of the Project Manager.

##### **D.2.2.2.2 Table of Contents**

List all major sections of the proposal in the table of contents.

##### **D.2.2.2.3 Executive Summary**

In the executive summary:

- Include the date, applicant name, city, county, and State.
- Summarize the project in one paragraph. Specify the work proposed, including how funds will be used to accomplish specific project activities, and briefly identify how the proposed project contributes to accomplishing the goals and objectives of this NOFO. Also include information on what success looks like for the proposed work and what a commercialization path looks like for this work. State the length of time and estimated completion date for the proposed project.
- Identify the proposed project location and if the work will be conducted at a Federal facility (e.g., Alamogordo Brackish Groundwater National Desalination Research Facility or Yuma Water Quality Improvement Center).

##### **D.2.2.2.4 Problem Statement**

Describe the problem to be solved by the proposed project, including why current approaches or technologies are insufficient and how the proposed approach or technology improves on current shortcomings. Include information on what is already known either due to previous research done or a literature review. Describe how the proposed work aligns with one or more of the objectives shown in Section A.3 “Notice of Funding Opportunity Purpose and Objectives.”

##### **D.2.2.2.5 Prior Work, Experience, and Results**

Describe previous work and/or technology development that supports the need for this research proposal. Identify relevant experiences of key project team members in the proposed field of study. Identify the current technology readiness level (TRL) of the proposed technology (using the TRL definitions in Section E.1.3 “Evaluation Criterion C: Readiness Level”).

#### **D.2.2.2.6 Technical Approach and Project Activities**

Describe the technical approach and proposed research activities to be conducted under the project. Include enough detail on the proposed technology or approach to permit a comprehensive evaluation of the proposal. The applicant's understanding will be established not only by the proposed approach, but also by identifying potential challenges that will be faced throughout the proposed work, and mitigation strategies for these challenges.

Describe, in detail, the tasks to be conducted, including the development of the final technical report. For each task, describe planned activities, expected outcomes, and milestones. Describe the staff levels and expertise, the number of staff hours, and the schedule for completing each task. Provide the location of the proposed testing, water type(s) to be tested, and the system flow rate.

As applicable, provide figures, such as a flow diagram, mass/energy balance, and/or similar ways to describe the proposed technology or approach, including process inputs and outputs.

#### **D.2.2.2.7 Research Work Plan and Schedule**

Provide a research work plan based on the technical approach and project activities. The research work plan should include a schedule showing individual tasks with significant milestones identified for the work to be accomplished. Clearly and concisely convey this schedule using a table, Gantt chart, project network diagram, or any other visual format. The time for all required report preparation should be included in the work plan.

#### **D.2.2.2.8 Facilities and Equipment Information**

Describe the facilities where the work will be performed. List the equipment that is available for use on the project and that which will be required for carrying out the proposed work. List and justify any special equipment that will need to be purchased and indicate the extent to which the work cannot be accomplished without it. Information on alternative sources considered for the equipment should also be included.

#### **D.2.2.2.9 Quality Assurance/Quality Control Plan**

Identify the proposed procedures for QA/QC protocols to be used throughout the project, including statistical data analysis, peer review, instrument calibration, etc. If a QA/QC program already exists in your institution, provide a summary of the program as well as additional information, as needed, to address using the program for your proposed project.

#### **D.2.2.2.10 Environmental and Cultural Resources Impacts and Compliance**

Describe any potential environmental and/or cultural resource impacts of the proposed work and plans for disposal of any wastes generated during the project. Identify any permits and licenses required for the project and describe how they will be obtained (if not yet obtained). See Section H "Other Information" for additional information.

#### **D.2.2.2.11 Overlap or Duplication of Effort Statement**

Provide a statement that addresses if there is any overlap between the proposed project and any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel. If any overlap exists, applicants must provide a description of the overlap in their application for review.

State if the proposal submitted for consideration under this program does or does not in any way duplicate any proposal or project that has been or will be submitted for funding consideration to any other potential funding source—whether it be Federal or non-Federal. If such a circumstance exists, applicants must detail when the other duplicative proposal(s) were submitted, to whom (agency name and financial assistance program), and when funding decisions are expected to be announced. If, at any time, a proposal is awarded, and funds would be duplicative of the funding requested from Reclamation, applicants must notify the NOFO Point of Contact or the Program Coordinator immediately.

#### **D.2.2.2.12 Responses to Evaluation Criteria**

Section E.1. “Technical Proposal and Evaluation Criteria” provides a detailed description of each criterion, subcriterion, and points associated with each.

The responses to evaluation criteria portion of your application should thoroughly describe how your proposal addresses each criterion and subcriterion in the order presented to assist in the complete and accurate evaluation of your proposal. *Copying and pasting the evaluation criteria and subcriteria in Section E.1. “Technical Proposal and Evaluation Criteria” into your applications is suggested to ensure that all necessary information is adequately addressed.*

#### **D.2.2.3 Summary Slides**

Submission of summary slides within the application is recommended but not required. Include no more than two slides summarizing the proposed project. The summary slides do not need to follow any template, but they should have the following information:

- Project title, Project Manager, and their institution/company if applicable
- A technology summary
- Impact of the proposed work
- Proposed goal(s)
- Any key graphics (picture, illustration, charts, and/or tables)
- Requested Reclamation funds and any proposed non-Federal cost share (if applicable)

#### **D.2.2.4 Personnel Qualifications**

A description of personnel qualifications must be included, and it should include the following elements:

- Identification of the Project Manager responsible for ensuring completion of the work
- Identification of key personnel, including consultants, to be assigned for direct work on the project, and as direct technical supervision, along with the nature of each individual's involvement and estimated work hours by task
- A statement of assurance that the proposed personnel will be available for work on this project
- A list of alternative personnel to be used in the event proposed personnel are not available as planned
- A brief resume, limited to two pages maximum, to include education, experience, accomplishments, and other pertinent information for all key personnel named

#### **D.2.2.5 Project Budget**

A project budget must be included, and it must include the following elements:

- Funding plan
- Letters of commitment (if applicable)
- Budget proposal
- Budget narrative

Incurrence of pre-award costs is not authorized without prior written approval of the awarding Grants Officer. Per 2 CFR §200.458, pre-award costs are those incurred prior to the effective date of the Federal award or subaward directly pursuant to the negotiation and in anticipation of the Federal award where such costs are necessary for efficient and timely performance of the scope of work. If the proposed project is selected, the awarding Reclamation Grants Officer will review the proposed pre-award costs to determine if these costs are consistent with program objectives and are allowable in accordance with the authorizing legislation. Proposed pre-award costs must also be compliant with all applicable administrative and cost principles criteria established in 2 CFR Part 200, available at [www.ecfr.gov](http://www.ecfr.gov), and all other requirements of this NOFO. **In no case will pre-award costs be incurred prior to a recipient's notification of selection be considered for reimbursement or non-Federal cost-share purposes.**

*Note that the costs for preparing and submitting an application in response to this NOFO, including developing data necessary to support the proposal, are not eligible project costs under this NOFO, and they must not be included in the project budget. In addition, budget proposals must not include costs for the purchase of water or land, or to secure an easement other than a construction easement. These costs are not eligible project costs under this NOFO.*

##### **D.2.2.5.1 Funding Plan and Letters of Funding Commitment**

Submission of a funding plan is mandatory. Applications that fails to fully disclose this information will be considered ineligible and will not pass initial screening. Describe how the non-Federal cost share of project will be obtained. Reclamation will use this information when

making a determination of financial capability. Project funding provided by a source other than the applicant should be supported with letters of commitment from these additional sources and should identify the following elements:

- The amount of funding commitment
- The date the funds will be available to the applicant
- Any time constraints on the availability of funds
- Any other contingencies associated with the funding commitment

Commitment letters from third-party funding sources should be submitted with your project application. If commitment letters are not available at the time of the application submission, provide a timeline for submitting all commitment letters. Cost-share funding from sources outside the applicant’s organization (e.g., loans or State grants) should be secured and available to the applicant prior to award.

Reclamation will not make funds available for an award under this NOFO until the recipient has secured a non-Federal cost-share. Reclamation will execute a financial assistance agreement once non-Federal funding has been secured or Reclamation determines that there is enough evidence and likelihood that non-Federal funds will be available to the applicant after executing the agreement.

**D.2.2.5.2 Budget Proposal**

Submission of a budget proposal is mandatory. Applications that fails to fully disclose this information will be considered ineligible and will not pass initial screening. The total project cost is the sum of all allowable items of costs, including all required cost sharing and voluntary committed cost sharing, including third-party contributions, that are necessary to complete the project. Include the following chart (table 1) to summarize all funding sources and denote in-kind contributions with an asterisk (\*).

Table 1.—Summary of Non-Federal and Federal funding sources

Funding sources	Amount
<b>Non-Federal entities</b>	
1.	
2.	
3.	
<b>Non-Federal subtotal</b>	
<b>REQUESTED Reclamation funding</b>	

The budget proposal should include detailed information on the categories listed below, and it must clearly identify **all** items of cost, **including those that will be contributed as a non-Federal cost share by the applicant (required and voluntary), third-party in-kind contributions, and those that will be covered using the funding requested from Reclamation**, and any requested pre-award costs (table 2).

Table 2.—Total project cost table

Source	Amount
Costs to be reimbursed with the requested Federal funding	\$
Costs to be paid by the applicant	\$
Value of third-party contributions	\$
<b>TOTAL project cost</b>	<b>\$</b>

**D.2.2.5.3 Budget Narrative**

Submission of a budget narrative is mandatory. Applications that fails to fully disclose this information will be considered ineligible and will not pass initial screening. The budget narrative provides a discussion of, or explanation for, items included in Section B of the SF-424A. The information in the narrative should include, but is not limited to, that identified in the Budget Narrative Guidance attached to this NOFO. Applicants may elect to use the Budget Detail and Narrative spreadsheet for their budget narrative. Costs, including the valuation of third-party in-kind contributions, must comply with the applicable cost principles contained in 2 CFR Part 200, available at [www.ecfr.gov](http://www.ecfr.gov).

In addition, identify whether the budget proposal includes any project costs that may be incurred prior to award. For each cost, describe:

- The project expenditure and amount
- The date of cost incurrence
- How the expenditure benefits the project

***Pre-Award Costs***

If the proposed project is selected, the awarding Reclamation Grants Officer will review the proposed pre-award costs to determine if they are consistent with program objectives and are allowable in accordance with the authorizing legislation. Proposed pre-award costs must also be compliant with all applicable administrative and cost principles criteria established in 2 CFR Part 200 and all other requirements of this NOFO. **In no case will pre-award costs incurred prior to a recipient’s notification of selection be considered for reimbursement or non-Federal cost-share purposes.**

*Note that the costs for preparing and submitting an application in response to this NOFO, including the development of data necessary to support the proposal, are not eligible project costs under this NOFO, and they must not be included in the project budget.*

In addition, ensure that the budget proposal includes any project costs that may be incurred prior to award. For each cost, describe:

- The project expenditure and amount
- The date of cost incurrence
- How the expenditure benefits the project

#### **D.2.2.6 Letters of Support**

Include letters from interested stakeholders that support the proposed project.

#### **D.2.2.7 Conflict of Interest Disclosure Statement**

Per 2 CFR §1402.112, “Financial Assistance Interior Regulation” applicants must state in the application if any actual or potential conflict of interest exists at the time of submission. Submission of a conflict of interest disclosure or certification statement is mandatory prior to issue of an award.

##### **D.2.2.7.1 Applicability**

This section is intended to ensure that non-Federal entities and their employees take appropriate steps to avoid conflicts of interest in their responsibilities under, or with respect to, Federal financial assistance agreements.

In the procurement of supplies, equipment, construction, and services provided by recipients and subrecipients, the conflict of interest provisions in 2 CFR§200.318 apply.

##### **D.2.2.7.2 Notification**

Non-Federal entities, including applicants for financial assistance awards, must disclose in writing any conflict of interest to the DOI awarding agency or pass-through entity in accordance with 2 CFR §200.112.

Recipients must establish internal controls that include, at a minimum, procedures to identify, disclose, and mitigate or eliminate identified conflicts of interest. The successful applicant is responsible for notifying the Financial Assistance Officer in writing of any conflicts of interest that may arise during the life of the award, including those that have been reported by subrecipients.

##### **D.2.2.7.3 Review Procedures**

The Financial Assistance Officer will examine each conflict of interest disclosure on the basis of its particular facts and the nature of the proposed grant or cooperative agreement and will determine whether a significant potential conflict exists and, if it does, develop an appropriate means for resolving it. Failure to resolve conflicts of interest in a manner that satisfies the

Government may be cause for termination of the award. Failure to make required disclosures may result in any of the remedies described in 2 CFR §200.339, including suspension or debarment (see also 2 CFR Part 180).

#### **D.2.2.8 Uniform Audit Reporting Statement**

Submission of the uniform audit reporting statement within the application is recommended but not required. Notwithstanding this, all U.S. States, local governments, federally recognized Indian Tribal Governments, and non-profit organizations expending \$750,000 in U.S. dollars or more in Federal award funds in your organization’s fiscal year must submit a Single Audit report for that year through the [Federal Audit Clearinghouse’s Internet Data Entry System](#) in accordance with 2 CFR Part 200 Subpart F. U.S. State, local government, federally recognized Indian Tribal Governments, and non-profit applicants must state if your organization was or was not required to submit a Single Audit report for the most recently closed fiscal year. If your organization was required to submit a Single Audit report for the most recently closed fiscal year, provide the Employer Identification Number (EIN) associated with that report and state if it is available through the [Federal Audit Clearinghouse](#) website.

### **D.3 Unique Entity Identifier (UEI) and System for Award Management (SAM)**

All applicants (unless the applicant has an exception approved by Reclamation under 2 CFR §25.110[d]) are required to:

- Be registered in SAM before submitting an application. Instructions for registering are available at <https://sam.gov/content/home>
- Provide a valid UEI in its application
- Maintain an active SAM registration with current information at all times during which it has an active Federal award or plan under consideration by a Federal award agency

Meeting the requirements set forth above is mandatory. Reclamation will not make a Federal award to any applicant until the applicant has complied with all applicable UEI and SAM requirements.

**You can register and request help for free – there is no cost to register with SAM.gov; beware of third-party vendors who charge a fee for registering entities with SAM.gov.**

#### **D.3.1 Register with the System for Award Management**

Register on the [SAM.gov](#) website. The “Help” tab on the website contains User Guides and other information to assist you with registration. The [Grants.gov Register with SAM page](#) also provides detailed instructions. You can also contact the supporting Federal Service Desk for help when registering. Once registered, entities must renew and revalidate their SAM registration

at least once every 12 months from the date previously registered. Entities are strongly encouraged to revalidate their registration as often as needed to ensure their information is up to date and reflects changes that may have been made to the entity's Internal Revenue Service information.

Federal award recipients must also continue to maintain an active SAM.gov registration with current information throughout the life of their Federal award(s). See section D.4 and associated subsections for more information on SAM.gov registration.

### **D.3.2 Obtain a Unique Entity Identifier**

You are required to register in SAM.gov and obtain a [Unique Entity Identifier](#) (UEI) prior to submitting a Federal award application. A UEI will be assigned to entities upon registering in SAM.gov.

## **D.4 Submission Date and Time**

*Due date for applications: November 30, 2022, at 4:00 pm Mountain Standard Time*

Applications must be submitted no later than this due date and time.

Proposals received after the application deadline will not be considered unless it can be determined that the delay was caused by Reclamation or there were technical issues with the [Grants.gov](#) application system. *Note that difficulties related to an applicant's Grants.gov profile (e.g., incorrect organizational representative), uploading documents to Grants.gov, or an applicant's SAM.gov registration are not considered technical issues with the Grants.gov system.*

### **D.4.1 Application Delivery Instructions**

Applications must be submitted electronically to [www.grants.gov](http://www.grants.gov). *Under no circumstances will applications received through any other method (such as email or fax) be considered eligible for award.*

### **D.4.2 Instructions for Submitting the Project Application**

Each applicant shall submit an application in accordance with the instructions contained within this section.

#### **D.4.2.1 Applications Submitted Electronically**

Electronic applications must be submitted through Grants.gov. Applicant resource documents and a full set of instructions for registering with Grants.gov and completing and submitting applications online are also available at [www.grants.gov/applicants/apply-for-grants.html](http://www.grants.gov/applicants/apply-for-grants.html).

Submission of an application electronically requires prior registration through Grants.gov, which may take 7 to 21 days. See the registration instructions available at [www.grants.gov/applicants/apply-for-grants.html](http://www.grants.gov/applicants/apply-for-grants.html). **In addition, please note that the Grants.gov system only accepts applications submitted by individuals that are registered and active in SAM as both a user and an Authorized Organizational Representative.**

Applicants have experienced significant delays when attempting to submit applications through Grants.gov. You are encouraged to submit your application several days prior to the application deadline. If you are a properly registered Grants.gov applicant and encounter problems with the Grants.gov application submission process, you must contact the Grants.gov Help Desk to obtain a case number, which will provide evidence of your attempt to submit an application prior to the submission deadline.

***Late applications will not be considered unless it is determined that the delay was caused by Reclamation mishandling or technical issues with the Grants.gov application system.*** Please note that difficulties related to an applicant's Grants.gov profile (e.g., incorrect organizational representative), uploading documents to Grants.gov, or an applicant's SAM registration are not considered technical issues with the Grants.gov system.

#### **D.4.2.2 Acknowledgment of Application Receipt**

An applicant submitting through Grants.gov will receive an email from Grants.gov acknowledging receipt of their application.

### **D.5 Intergovernmental Review**

This NOFO is subject to Executive Order 12372, "Intergovernmental Review of Federal Programs." A list of States that have elected to participate in the intergovernmental review process are listed on the OMB's website: <https://www.whitehouse.gov/wp-content/uploads/2020/04/SPOC-4-13-20.pdf>.

Applicants in these States must contact their State's Single Point of Contact to find out about and comply with the State's process under Executive Order 12372. The names and addresses of the contacts are also listed on the OMB's website: <https://www.whitehouse.gov/wp-content/uploads/2020/04/SPOC-4-13-20.pdf>.

## D.6 Funding Restrictions: Pre-Award Costs

### D.6.1 Environmental and Regulatory Compliance Costs

Project pre-award costs, such as design or construction plans and environmental compliance costs directly supporting the proposed project, incurred prior to the date of award, but after notification of selection, may be submitted for consideration as an allowable reimbursable expense. Reclamation will review the proposed pre-award costs to determine if they are allowable in accordance with the authorizing legislation and applicable to cost principles. To be considered allowable, the pre-award cost must comply with all applicable requirements under this NOFO, including all applicable administrative and cost principles criteria established in 2 CFR Part 200, available at [www.ecfr.gov](http://www.ecfr.gov). ***In no case will pre-award costs incurred prior to a recipient's notification of selection be considered for reimbursement or non-Federal cost-share purposes.***

### D.6.2 Indirect Costs

You may include indirect costs that will be incurred during the development or construction of a project, which will not otherwise be recovered, as part of your project budget. You must show the proposed rate, cost base, and proposed amount for allowable indirect costs based on the applicable cost principles for your organization. It is not acceptable to simply incorporate indirect rates within other direct cost line items.

If you have never received a Federal negotiated indirect cost rate, your budget may include a *de minimis* rate of up to 10 percent of modified total direct costs. For further information on modified total direct costs, refer to 2 CFR §200.68.

If you do not have a federally approved indirect cost rate agreement and is proposing a rate greater than the *de minimis* 10 percent rate, include the computational basis for the indirect expense pool and corresponding allocation base for each rate. Information is available from the Interior Business Center (IBC), Office of Indirect Cost Services, available at <https://ibc.doi.gov/ICS/icrna>.

If the proposed project is selected for award, the successful applicant will be required to submit an indirect cost rate proposal with their cognizant agency within 3 months of award. The Federal awarding agency that provides the largest amount of direct funding to your organization is your cognizant agency for indirect costs unless otherwise assigned by the OMB. If the DOI is your organization's cognizant agency, the IBC will negotiate your indirect cost rate. Contact the IBC by phone at 916-930-3803 or email [ICS@ibc.doi.gov](mailto:ICS@ibc.doi.gov). Visit their website at <https://ibc.doi.gov/ICS/icrna> for information on emailing submission forms.

Organizations must have an active Federal award before they can submit an indirect cost rate proposal to their cognizant agency. Failure to establish an approved rate during the award period renders all costs otherwise allocable as indirect costs unallowable under the award. Recipients may not shift unallowable indirect costs to another Federal award unless specifically authorized to do so by legislation.

# Section E: Application Review Information

## E.1 Technical Proposal and Evaluation Criteria

Applicants should thoroughly address each criterion and any subcriterion in the order presented below. If the work described in your application is a phase of a larger project, only discuss the benefits that will result directly from the work discussed in the technical project description and reflected in the budget—not the larger project. **Applications will be evaluated against the evaluation criteria listed below.**

Evaluation criteria scoring summary	Institutions of higher education	All other applicants
A. Impact of the proposed work	25	25
B. Familiarity in the field of work	15	15
C. Readiness level	10	15
D. Novelty of work approach	10	15
E. Relationship to DWPR objectives	10	10
F. Team qualifications	10	10
G. Schedule adequacy and completeness	10	10
H. Non-Federal cost share	10	N/A
<b>Total</b>	<b>100</b>	<b>100</b>

*Note:* Projects may be prioritized to ensure balance among the program task areas and to ensure the projects address the goals and objectives of this NOFO.

### E.1.1 Evaluation Criterion A: Impact of the Proposed Work

Describe the impact of the proposed work on the field of water treatment and/or currently used technologies and related impacts on economics. The impact can be measured by the promise of a solution, the problem being addressed, and the likelihood for success (e.g., energy and cost reduction, impacts on water supplies, and/or improvements for the technology’s usability and operational efficiency). Provide information as to what a successful outcome would be for the proposed project.

### **E.1.2 Evaluation Criterion B: Familiarity in the Field of Work**

Demonstrate familiarity with the current technology in the field of work. Identify relevant experience of key project team members. Clearly state the problem being solved, how the proposed approach differs from current solutions, potential challenges that will be faced throughout the proposed testing, and mitigation strategies for these challenges.

### **E.1.3 Evaluation Criterion C: Readiness Level**

Describe prior research on the proposed technology or process and how this prior work supports the need for the proposed project. Information such as a process flow diagram, mass and energy balances, and data from previous testing can be used to support the readiness of the proposed project. As applicable, provide the location of the proposed testing, water type(s) to be tested, and system flow rate.

Using the definitions in the table below, clearly identify the TRL of the proposed technology and what TRL will be achieved if the proposed project is implemented. This funding opportunity is targeting technologies that are currently at TRLs 1 to 6, but technologies at other TRLs will also be considered if sufficient justification is provided for the need for additional research.

<b>TRL</b>	<b>Definition</b>
1	Basic principles observed and reported
2	Technology concept and/or application formulated
3	Analytical and experimental critical function and/or characteristic proof of concept
4	Component and/or system validation in laboratory environment
5	Laboratory-scale, similar system validation in relevant environment
6	Pilot-scale system validation in relevant environment
7	Full-scale system demonstrated in relevant environment
8	Actual system completed and qualified through test and demonstration
9	Actual system operated over the full range of expected conditions

### **E.1.4 Evaluation Criterion D: Novelty of Work Approach**

Describe the novelty of approach to the proposed work or the novelty of the idea itself. Novelty is defined as new and/or original; the approach or the technology is not being implemented at full scale in its intended use in any water facility in the United States.

### **E.1.5 Evaluation Criterion E: Relationship to DWPR Objectives**

Describe how the proposed work aligns with one or more of the objectives shown in Section A.3. “Notice of Funding Opportunity Purpose and Objectives.” Clearly identify which objective(s) are supported by the proposed project. Points will be allocated based on the degree to which the proposed work supports one or more of the stated objectives, **not** the number of objectives identified. It is not necessary to address objectives that are not applicable to your proposed work.

### **E.1.6 Evaluation Criterion F: Team Qualifications**

Describe the qualifications, capabilities, and experience of the proposed Project Manager and other key personnel who are critical to achievement of the proposed objectives. State if the proposed team expertise is being leveraged by participating global expert(s) from outside the United States.

### **E.1.7 Evaluation Criterion G: Schedule Adequacy and Completeness**

Describe the schedule, task phasing, and milestones for the proposed project, with the schedule directly tied to tasks.

### **E.1.8 Evaluation Criterion H: Non-Federal Cost Share**

Non-Federal cost-share points will be awarded for a voluntarily committed non-Federal cost share. A breakdown of these points by percentage of cost share for the total cost of the project is presented below. This criterion is only applicable to applicants designated as an institution of higher education.

<b>Non-Federal cost share</b>	<b>Points</b>
0%	0
1 to 4%	1
5 to 10%	2
11 to 20%	4
21 to 35%	6
36 to 49%	8
50% plus	10

## **E.2 Review and Selection Process**

The Federal Government reserves the right to reject any and all applications that do not meet the requirements or objectives of this NOFO. Awards will be made for projects most advantageous to the Federal Government. Award selection may be made to maintain balance among the eligible projects listed in this NOFO. The evaluation process will be comprised of the steps described in the following subsections.

### **E.2.1 First Level Screening**

All application packages will be screened to ensure that:

- The applicant meets the eligibility requirements stated in this NOFO
- The application meets the content requirements of the NOFO package as described in section D.2.2
- The applicant meets the UEI and SAM registration requirements stated in section D.3

Reclamation reserves the right to remove an application from funding consideration if it does not pass all initial screening criteria listed in sections D.2 and D.3. Applications will be screened for completeness, timeliness, and compliance with the provisions of this NOFO. Incomplete or noncompliant applications, or applications not meeting the formatting criteria or not including required materials will be eliminated from competition. In that event, Reclamation will send notification of elimination to the applicant.

### **E.2.2 Application Review Committee**

Evaluation criteria will comprise the total evaluation weight as stated in the Section E.1. “Technical Proposal and Evaluation Criteria.”

Applications will be scored against the evaluation criteria by an Application Review Committee (ARC) made up of experts in relevant disciplines selected from across Reclamation and other Federal agencies. The ARC will also review the application to ensure the project meets the description of eligible projects and meets the objective of this NOFO.

During ARC review, Reclamation *may* contact applicants to request clarifications to the information provided.

### **E.2.3 Red-Flag Review**

Following the results of the ARC review, Reclamation offices will review the top-ranking applications and will identify any reasons why a proposed project would not be feasible or otherwise advisable, including environmental and/or cultural resources compliance issues,

permitting issues, legal issues, or financial position. Positive or negative past performance by the applicant and any partners in previous working relationships with Reclamation may be considered, including whether the applicant is making significant progress toward the completion of outstanding financial assistance agreements and whether the applicant is in compliance with all reporting requirements associated with previously funded projects.

In addition, during this review, Reclamation will address any specific concerns or questions raised by members of the ARC, conduct a preliminary budget review, and evaluate the applicant's ability to meet the cost share as required.

#### **E.2.4 Managerial Review**

Reclamation management will prioritize projects to ensure the total amount of all awards does not exceed available funding levels. Management will also ensure that all projects meet the scope, priorities, requirements, and objectives of this NOFO. Management may also prioritize projects to ensure that multiple project types are represented. After completion of the Managerial Review, Reclamation will notify applicants whose proposals have been selected for award consideration.

#### **E.2.5 Pre-Award Clearances and Approvals**

The following pre-award clearances and approvals must be obtained before an award of funding is made. If the results of all pre-award reviews and clearances are satisfactory, an award of funding will be made once the agreement is finalized (approximately 1 to 3 months from the date of initial selection). If the results of pre-award reviews and clearances are unsatisfactory, consideration of funding for the project may be withdrawn.

##### **E.2.5.1 Environmental Review**

If the project includes ground-disturbing activities (e.g., installation of a stream gage, biological or water quality monitoring), Reclamation will forward the proposal to the appropriate Reclamation regional or area office for completion of environmental compliance. To the extent possible, environmental compliance will be completed before a financial assistance agreement is signed by the parties; however, in most cases, the award can be completed with the release of funds contingent on completion of environmental compliance and receipt of a written Notice to Proceed from the Reclamation Grants Officer. The financial assistance agreement will describe how compliance will be carried out. Ground-disturbing activities may not occur until environmental compliance is complete and a Notice to Proceed is issued by the awarding Reclamation Grants Officer.

##### **E.2.5.2 Budget Analysis and Business Evaluation**

A Reclamation Grants Officer will also conduct a detailed budget analysis and complete a business evaluation and responsibility determination. During this evaluation, the Reclamation Grants Officer will consider several factors that are important, but not quantified, such as:

- Allowability, allocability, and reasonableness of proposed costs
- Financial strength and stability of the applicant
- Past performance, including satisfactory compliance with all terms and conditions of previous awards, such as environmental compliance issues, reporting requirements, proper procurement of supplies and services, and audit compliance
- Adequacy of personnel practices, procurement procedures, and accounting policies and procedure, as established by applicable OMB circular

### **E.2.6 Project Budget**

Applicants whose proposals are selected for funding must provide a detailed project budget, including a:

- Funding plan and letters of commitment (if applicable)
- Budget proposal
- Budget narrative

Additional information regarding project budget requirements will be provided to recipients after selection.

## **E.3 Federal Award Performance Integrity Information System**

Prior to making an award with a Federal total estimated amount greater than \$150,000, Reclamation is required to review and consider any information about the applicant found in the designated integrity and performance system accessible through SAM (currently Federal Award Performance Integrity Information System [FAPIS]) (see 41 U.S.C. §2313).

Applicants, at their option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about themselves that a Federal awarding agency previously entered and that is currently in the system. Reclamation will consider any comments provided by the applicant, in addition to the other information in FAPIS, when making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 CFR §200.205.”

# Section F: Federal Award Administration Information

## F.1 Federal Award Notices

Successful applicants will receive, by electronic mail, a Notice of Selection signed by a Reclamation Grants Officer. This notice is **not** an authorization to begin the project.

## F.2 Administrative and National Policy Requirements

See the “[DOI Standard Terms and Conditions](#)” for the administrative and national policy requirements applicable to DOI awards.

### F.2.1 Automated Standard Application for Payments Registration

All applicants must also be registered with, and willing to process all payments through, the Department of Treasury Automated Standard Application for Payments (ASAP) system. All recipients with active financial assistance agreements with Reclamation must be enrolled in the ASAP system under the appropriate Agency Location Code(s) and the UEI prior to the award of funds. If a recipient has multiple UEIs, they must separately enroll within the system for each unique UEI and/or Agency. All of the information on the enrollment process for recipients, including the enrollment initiation form, will be sent to you by ASAP system staff if selected for award.

*If your entity is currently enrolled in the ASAP system with an agency other than Reclamation, you must enroll specifically with Reclamation in order to process payments.*

### F.2.2 Environmental and Cultural Resources Compliance

All projects being considered for award funding will require compliance with the National Environmental Policy Act (NEPA) before any ground-disturbing activity may begin. Compliance with all applicable State, Federal, and local environmental, cultural, and paleontological resource protection laws and regulations is also required, including, but not limited to, the Clean Water Act (CWA), Endangered Species Act (ESA), National Historic Preservation Act (NHPA), consultation with potentially affected Tribes, and consultation with the State Historic Preservation Office. *Note: Reclamation will be the lead Federal agency for NEPA compliance and will be responsible for evaluating technical information and ensuring that natural resources, cultural, and socioeconomic concerns are appropriately addressed.* As the lead agency, Reclamation is solely responsible for determining the appropriate level of NEPA compliance. Further, Reclamation is also responsible for ensuring that findings under NEPA, and

consultations, as appropriate, will support Reclamation’s decision on whether to fund a project. **Environmental and cultural resources compliance costs are considered project costs and should be included in the project budget.**

*Under no circumstances may an applicant begin any ground-disturbing activities (e.g., grading, clearing, and other preliminary activities) on a project before environmental and cultural resources compliance is complete, and Reclamation explicitly authorizes work to proceed. This pertains to all components of the proposed project, including those that are part of the applicant’s non-Federal cost share. Reclamation will provide a successful applicant with information once such compliance is complete. An applicant that proceeds before environmental and cultural resources compliance is complete may risk forfeiting Reclamation funding under this NOFO.*

### **F.2.3 Approvals and Permits**

Recipients shall adhere to Federal, State, territorial, Tribal, and local laws, regulations, and codes, as applicable, and shall obtain all required approvals and permits. Recipients shall also coordinate and obtain approvals from site owners and operators.

### **F.2.4 Geospatial Data and Data Tools**

All geospatial data collected for or produced through the use of DOI financial assistance funds are required to meet all relevant standards established by the Federal Geospatial Data Committee as authorized by the Geospatial Data Act of 2018, P.L. 115-254, Subtitle F – Geospatial Data, §751-759C, codified at 43 U.S.C. §2801–2811. The DOI requires fully compliant metadata on all Geographic Information System (GIS) files developed for financial assistance projects. If a funded financial assistance project involves acquiring or collecting geospatial data, the successful applicant is required to search GeoPlatform.gov to determine that no existing Federal, State, local, or private data meet the Government’s needs and are available at no cost before acquiring or collecting additional geospatial data.

Any spatially explicit data or tools developed in the performance of an award made under this NOFO must be developed in industry standard formats that are compatible with GIS platforms.

### **F.2.5 Intangible Property (2 CFR §200.315)**

Title to intangible property acquired under a Federal award vests upon acquisition in the non-Federal entity (see 2 CFR §200.59). The non-Federal entity must use that property for the originally authorized purpose and must not encumber the property without approval of the Federal awarding agency. When no longer needed for the originally authorized purpose, disposition of the intangible property must occur in accordance with the provisions in 2 CFR §200.313(e).

The non-Federal entity may copyright any work that is subject to copyright and was developed, or for which ownership was acquired, under a Federal award. The Federal awarding agency reserves a royalty-free, nonexclusive, and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes and to authorize others to do so.

The non-Federal entity is subject to applicable regulations governing patents and inventions, including Government-wide regulations issued by the Department of Commerce at 37 CFR §401.

### **F.2.6 Real Property (2 CFR §200.311)**

Real property, equipment, and intangible property acquired or improved with a Federal award must be held in trust by the non-Federal entity as trustee for the beneficiaries of the project or program under which the property was acquired or improved (2 CFR §200.316). Title to real property acquired or improved under a Federal award will vest upon acquisition in the non-Federal entity. Except as otherwise provided by Federal statutes or by Reclamation, real property will be used for the originally authorized purpose as long as needed for that purpose, during which time the non-Federal entity must not dispose of or encumber its title or other interests. When real property is no longer needed for the originally authorized purpose, the non-Federal entity must obtain disposition instructions from Reclamation. As required by 2 CFR §200.329, recipients will be required to submit reports on the status of real property acquired or improved under a financial assistance agreement issued under this NOFO.

### **F.2.7 Buy America Domestic Procurement Preference**

As required by Section 70914 of the Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act), P.L. 117-58, on or after May 14, 2022, none of the funds under a Federal award that are part of a Federal financial assistance program for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless subject to an approved waiver. The requirements of this section must be included in all subawards, including all contracts and purchase orders for work or products under this program.

Recipients of an award of Federal financial assistance are hereby notified that none of the funds provided under this award may be used for a project for infrastructure unless:

1. All iron and steel used in the project are produced in the United States – this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

2. All manufactured products used in the project are produced in the United States – this means that the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.
3. All construction materials are manufactured in the United States – this means that all manufacturing processes for the construction materials occurred in the United States.

The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, or supplies, such as temporary scaffolding brought to the construction site and removed at or before the completion of the infrastructure project, nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, used at or within the finished infrastructure project but are not an integral part of the structure or permanently affixed to the infrastructure project.

For further information on the Buy America preference, visit <http://www.doi.gov/grants/BuyAmerica>. Additional information can be found at the White House Made in America Office website: [www.whitehouse.gov/omb/management/made-in-america/](http://www.whitehouse.gov/omb/management/made-in-america/).

#### **F.2.7.1 Waivers**

When necessary, recipients may apply for, and the DOI may grant, a waiver from these requirements subject to review by the Made in America Office. The DOI may waive the application of the domestic content procurement preference in any case in which it is determined that one of the below circumstances applies:

1. Non-Availability Waiver: The type of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality.
2. Unreasonable Cost Waiver: The inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent.
3. Public Interest Waiver: Applying the domestic content procurement preference would be inconsistent with the public interest.

There may be instances in which an award qualifies, in whole or in part, for an existing DOI general applicability waiver as described at [www.doi.gov/grants/BuyAmerica/GeneralApplicabilityWaivers](http://www.doi.gov/grants/BuyAmerica/GeneralApplicabilityWaivers). If the specific financial assistance agreement, infrastructure project, or non-domestic materials meet the criteria of an existing general applicability waiver within the limitations defined within the waiver, the recipient is not required to request a separate waiver for non-domestic materials.

If a general applicability waiver does not already apply, and a recipient believes that one of the above circumstances applies to an award, a request to waive the application of the domestic content procurement preference may be submitted to the financial assistance Awarding Officer in writing. The waiver request shall not include any Privacy Act information, sensitive data, or proprietary information. Waiver requests will be posted to [www.doi.gov/grants/buyamerica](http://www.doi.gov/grants/buyamerica) and are subject to public comment periods of no less than 15 days. Waiver requests will also be reviewed by the Made in America Office. Waiver requests shall include the following information:

1. Type of waiver requested (non-availability, unreasonable cost, or public interest).
2. Requesting entity and UEI submitting the request.
3. DOI bureau or office that issued the award.
4. Federal financial assistance listing name and number (reference block 2 on DOI Notice of Award)
5. Financial assistance title of project (reference block 8 on DOI Notice of Award).
6. Federal Award Identification Number (FAIN).
7. Federal funding amount (reference block 11.m. on DOI Notice of Award).
8. Total cost of infrastructure expenditures (includes Federal and non-Federal funds to the extent known).
9. Infrastructure project description(s) and location(s) (to the extent known).
10. List of iron or steel item(s), manufactured goods, and construction material(s) the recipients seeks to waive from Buy America requirements. Include the name, cost, countries of origin (if known), and relevant Product Service Code (PSC) or North American Industry Classification System (NAICS) code for each.
11. A certification that the recipient made a good faith effort to solicit bids for domestic products supported by the terms included in requests for proposals, contracts, and nonproprietary communications with the prime contractor.
12. A statement of waiver justification, including a description of efforts made (e.g., market research, industry outreach) by the recipient, in an attempt to avoid the need for a waiver. Such a justification may cite, if applicable, the absence of any Buy America-compliant bids received in response to a solicitation.
13. Anticipated impact if no waiver is issued.

Approved waivers will be posted at [www.doi.gov/grants/BuyAmerica/ApprovedWaivers](http://www.doi.gov/grants/BuyAmerica/ApprovedWaivers); recipients requesting a waiver will be notified of their waiver request determination by an Awarding Officer.

Questions pertaining to waivers should be directed to the financial assistance Awarding Officer.

### **F.2.7.2 Definitions**

“Construction materials” include an article, material, or supply that is or consists primarily of non-ferrous metals, plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables), glass (including optic glass), lumber, or drywall.

“Construction materials” do **not** include cement or cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

“Domestic content procurement preference” means all iron and steel used in the project are produced in the United States, the manufactured products used in the project are produced in the United States, or the construction materials used in the project are produced in the United States.

“Infrastructure” includes, at a minimum, the structures, facilities, and equipment for, in the United States, roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property. Infrastructure includes facilities that generate, transport, and distribute energy.

“Project” means the construction, alteration, maintenance, or repair of infrastructure in the United States.

### **F.2.8 Additional Bipartisan Infrastructure Law Requirements: Wage Rate Requirements**

Section 41101 of the Bipartisan Infrastructure Law requires that all laborers and mechanics employed by contractors or subcontractors in the performance of construction, alteration, or repair work on a project assisted in whole or in part by funding made available under the Bipartisan Infrastructure Law (P.L. 117-58) shall be paid wages at rates no less than those prevailing on similar projects in the locality as determined by the Secretary of Labor in accordance with 40 U.S.C. IV., Chapter 31 (also known as the Davis-Bacon Act).

## **F.3 Reporting Requirements and Distribution**

If the applicant is awarded an agreement as a result of this NOFO, the applicant will be required to submit the following reports during the term of the agreement. Recipients will also be required to have a system in place to comply with these reporting requirements (see 2 CFR §170.210 for additional information).

### **F.3.1 Financial Reports**

Recipients will be required to submit a fully completed SF-425 Federal Financial Report form on at least an annual basis along with the final performance report. The SF-425 must be signed by a person legally authorized to obligate the successful applicant. The latest reporting forms are available at <https://www.grants.gov/web/grants/forms/post-award-reporting-forms.html>.

### **F.3.2 Interim Performance Reports**

The specific terms and conditions pertaining to the reporting requirements will be included in the financial assistance agreement. Interim performance reports shall be submitted on at least an annual basis and include the following information:

- A comparison of actual accomplishments to the milestones established by the financial assistance agreement for the period
- The reasons why established milestones were not met (if applicable)
- The status of milestones from the previous reporting period that were not met (if applicable)
- Whether the project is on schedule and within the original cost estimate
- Any additional pertinent information or issues related to the status of the project

### **F.3.3 Interim Technical Project Reports**

Reports shall be submitted quarterly by the Project Manager and will be used by Reclamation to ensure the goals and objectives of the project are being met. Each quarterly report shall:

- Identify the start date, anticipated completion date, and work conducted for each major project task within the reporting period
- Describe any significant accomplishments as well as any unanticipated delays encountered during the reporting period
- Discuss whether the activities comprising the agreement are on schedule to meet expected completion date; if not, discuss the actions being taken to bring the activities back on schedule
- Discuss whether project expenditures (both Federal and cost share) are on track to meet the approved project budget; if not, discuss the actions being taken to bring the project back on budget

- Provide copies of any presentations (in portable document format [PDF] given at conferences and any journal publications that have resulted from this study during the reporting period
- Provide two PowerPoint slides with every other quarterly technical project report that summarize the project and any findings up to that date

### **F.3.4 Project Presentation**

All recipients are required to make a presentation on project achievements at Reclamation's office in Denver, Colorado. It should occur after the draft final report has been submitted to Reclamation for review. The presentation should inform Reclamation of the project accomplishments, the final results of each task, lessons learned, and future research needs. If the presentation cannot be presented in person, it can be done virtually.

### **F.3.5 Final Technical Project Report**

Publication guidelines and published final reports from previous projects are available at [www.usbr.gov/research/dwpr](http://www.usbr.gov/research/dwpr). Recipients will use the provided template and provide their final report in a Microsoft Word document. Recipients will address review comments from Reclamation in a timely manner for Reclamation to publish. *Note that final project reports are public documents and will be made available on Reclamation's website.*

### **F.3.6 Final Performance Report**

Recipients will be required to submit a final performance report encompassing the entire period of performance. The report shall include, but is not limited to, whether the project objectives and goals were met.

### **F.3.7 Real Property Reports (if Applicable)**

Recipients and subrecipients are required to submit status reports on the status of real property acquired under the award in which the Federal Government retains an interest. The required frequency of these reports will depend on the anticipated length of the Federal interest period. Reclamation will include recipient-specific real property reporting requirements, including the required standard form or data elements, reporting frequency, and report due dates in the Notice of Award when applicable. The latest reporting forms are available at <https://www.grants.gov/web/grants/forms/post-award-reporting-forms.html>.

## **F.4 Disclosures**

### **F.4.1 Conflict of Interest Disclosures**

Recipients must notify the DWPR Program immediately in writing of any conflict of interest that arise during the life of their Federal award, including those reported to them by any subrecipient under the award. Recipients must also notify the DWPR Program in writing if any employees, including subrecipient and contractor personnel, are related to, married to, or have a close personal relationship with any Federal employee in the Federal funding program or who otherwise may have been involved in the review and selection of the award. The term “employee” means any individual engaged in the performance of work pursuant to the Federal award.

### **F.4.2 Other Mandatory Disclosures**

The Non-Federal entity or applicant for a Federal award must disclose in writing, in a timely manner, to the Federal awarding agency or pass-through entity all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. Non-Federal entities that receive a Federal award, including the terms and conditions outlined in 2 CFR 200, Appendix XII—Award Term and Condition for Recipient Integrity and Performance Matters, are required to report certain civil, criminal, or administrative proceedings through SAM. Failure to make required disclosures can result in any of the remedies described in 2 CFR §200.338, including suspension or debarment.

## **F.5 Data Availability (2 CFR §1402.315)**

### **F.5.1 Data Publication**

All data, methodology, factual inputs, models, analyses, technical information, reports, conclusions, valuation products, or other scientific assessments in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual, resulting from a financial assistance agreement, is available for use and independent verification by the DOI.

The Federal Government has the right to: (1) obtain, reproduce, publish, or otherwise use the data, methodology, factual inputs, models, analyses, technical information, reports, conclusions, or other scientific assessments produced under a Federal award and (2) authorize others to receive, reproduce, publish, or otherwise use such data, methodology, factual inputs, models, analyses, technical information, reports, conclusions, or other scientific assessments for Federal purposes, including third-party evaluation.

## F.5.2 Freedom of Information Act

*Note that any application submitted for funding under this NOFO may be subjected to a Freedom of Information Act (FOIA) request (5 U.S.C. §552, as amended by P.L. 110-175) and, as a result, may be made publicly available.*

In response to a FOIA request for research data relating to published research findings produced under a Federal award that were used by the Federal Government in developing an agency action that has the force and effect of law,<sup>1</sup> the Federal awarding agency must request, and the non-Federal entity must provide, within a reasonable time, the research data so that they can be made available to the public through the procedures established under the FOIA. If the Federal awarding agency obtains the research data solely in response to a FOIA request, the Federal awarding agency may charge the requester a reasonable fee equaling the full incremental cost of obtaining the research data. This fee should reflect costs incurred by the Federal agency and the non-Federal entity and is in **addition** to any fees the Federal awarding agency may assess under the FOIA (5 U.S.C. 552(a)(4)(A)).

Published research findings mean that research findings are published in a peer-reviewed scientific or technical journal **or** a Federal agency publicly and officially cites the research findings in support of an agency action that has the force and effect of law.

Research data refers the recorded factual material commonly accepted in the scientific community as necessary to validate research findings but **not** any of the following: preliminary analyses, drafts of scientific papers, plans for future research, peer reviews, or communications with colleagues. Research data also does not include trade secrets, commercial information, materials necessary to be held confidential by a researcher until they are published, or similar information that is protected under law, personnel and medical information and similar information the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, such as information that could be used to identify a particular person in a research study. This “recorded” material excludes physical objects (e.g., laboratory samples).

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<sup>1</sup> “Used by the Federal Government in developing an agency action that has the force and effect of law” is defined as when an agency publicly and officially cites the research findings in support of an agency action that has the force and effect of law.

# Section G: Federal Awarding Agency Contact(s)

There will be no pre-application conference. Organizations or individuals interested in submitting applications in response to this NOFO may direct questions to the Reclamation personnel identified below.

## G.1 Reclamation Financial Assistance Contact

Questions regarding application and submission information and award administration may be submitted to the attention of the Notice of Funding Opportunity Team at [bor-sha-fafoa@usbr.gov](mailto:bor-sha-fafoa@usbr.gov). *Note that staff availability on the day of the NOFO closing will be limited.*

## G.2 Reclamation Program Coordinator Contact

Questions regarding applicant and project eligibility and application review may be submitted to the attention of Mr. Ken Nowak, Research and Development Program Manager.

By mail: Bureau of Reclamation  
Research and Development Office  
Attn: Mr. Ken Nowak  
P.O. BOX 25007, MS 08-10000  
Denver, CO 80225

By email: [dwpr@usbr.gov](mailto:dwpr@usbr.gov)

By phone: 303-445-2197



# Section H: Other Information

Following is a brief overview of the NEPA, NHPA, and ESA. This information is only relevant to proposals that include measurement, monitoring, and field work. While these statutes are not the only environmental laws that may apply, they are the Federal laws that most frequently do apply. Compliance with all applicable environmental laws will be initiated by Reclamation concurrently, immediately following the initial recommendation to award a financial assistance agreement under this NOFO. The descriptions below are intended to provide you with information about the environmental compliance issues that may apply to your projects.

## H.1 Environmental and Cultural Resource Considerations

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants should consider the following list of questions focusing on NEPA, ESA, and NHPA requirements. Answer the following questions to the best of your knowledge; if any question is not applicable to the project, please explain why. The application should include answers to the following questions:

- Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.
- Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?
- Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as “Waters of the United States”? If so, describe and estimate any impacts the proposed project may have.
- When was the water delivery system constructed?
- Will the proposed project result in any modification of, or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.
- Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? *A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.*

- Are there any known archeological sites in the proposed project area?
- Will the proposed project have a disproportionately high and adverse effect on low-income or minority populations?
- Will the proposed project limit access to, and ceremonial use of, Indian sacred sites or result in other impacts on Tribal lands?
- Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

### H.1.1 National Environmental Policy Act

NEPA requires Federal agencies such as Reclamation to evaluate, during the decision-making process, the potential environmental effects of a proposed action and any reasonable mitigation measures. Before a decision to fund an award under this NOFO can be made, Reclamation must comply with NEPA. Depending upon the degree and significance of environmental impacts associated with the proposal, NEPA compliance can be accomplished in several ways:

- Some projects may fit within a recognized **Categorical Exclusion (CE)** to NEPA (i.e., one of the established categories of activities that generally do not have significant impacts on the environment). If a project fits within a CE, no further NEPA compliance measures are necessary. Use of a CE can involve simple identification of an applicable **DOI CE** or documentation of a **Reclamation CE** using a **Categorical Exclusion Checklist (CEC)**. If a CE is being considered, Reclamation will determine the applicability of the CE and whether extraordinary circumstances (i.e., reasons that the CE cannot be applied) exist. *The process can take anywhere from 1 day to about 30 days depending upon the specific situation.*
- If the project does not fit within a CE, compliance with NEPA might require preparation of an **Environmental Assessment/Finding of No Significant Impact (EA/FONSI)**. Generally, when a CE does not apply but there are not believed to be any significant impacts associated with the proposed action, an EA will be required. The EA is used to determine whether any potentially significant effects exist (which would trigger the further step of an **Environmental Impact Statement (EIS)**, below). If no potentially significant effects are identified, the EA process ends with the preparation of a FONSI. *The EA/FONSI process is more detailed than the CE/CEC process and can take weeks or even months to complete.* Consultation with other agencies and public notification are part of the EA process.

- The most detailed form of NEPA compliance, in which a proposed project has potentially significant environmental effects, is completion of an **EIS** and **Record of Decision**. An EIS requires months or years to complete, and the process includes considerable public involvement, including mandatory public reviews of draft documents. It is not anticipated that projects proposed under this program will require completion of an EIS.

During the NEPA process, potential impacts of a project are evaluated in context and in terms of intensity (e.g., will the proposed action affect the only native prairie in the county? Will the proposed action reduce water supplied to a wetland by 1 percent or 95 percent?). The best source of information concerning the potentially significant issues in a project area is the local Reclamation staff that has experience in evaluating effects by context and intensity.

Reclamation has the sole discretion to determine what level of environmental NEPA compliance is required. If another Federal agency is involved, Reclamation will coordinate to determine the appropriate level of compliance. *You are encouraged to contact your regional or area Reclamation office at [www.usbr.gov/main/offices.html](http://www.usbr.gov/main/offices.html) with questions regarding NEPA compliance issues. You may also contact the Program Coordinator for further information (see Section G.2 “Reclamation Program Coordinator Contact.”*

### H.1.2 National Historic Preservation Act

To comply with Section 106 of the NHPA, Reclamation must consider whether a proposed project has the **potential to cause effects to historic properties** before it can complete an award under this NOFO. Historic properties are cultural resources (historic or prehistoric districts, sites, buildings, structures, or objects) that qualify for inclusion in the National Register of Historic Places. In some cases, water delivery infrastructure that is over 50 years old can be considered a historic property that is subject to review.

If a proposal is selected for initial award, the successful applicant will work with Reclamation to complete the Section 106 process. Compliance can be accomplished in several ways depending on how complex the issues are:

- If Reclamation determines that the proposed project does not have the potential to cause effects to historic properties, then Reclamation will document its findings, and the Section 106 process will be concluded. This can take anywhere from a couple of days to one month.
- If Reclamation determines the proposed project could have effects on historic properties, a multistep process, involving consultation with the State Historic Preservation Office and other entities, will follow. Depending on the nature of the project and impacts to cultural resources, consultation can be complex and time consuming. The process includes:

- A determination as to whether additional information is necessary.
  - An evaluation of the significance of identified cultural resources.
  - An assessment of the effect of the project on historic properties
  - A determination as to whether the project would have an adverse effect and evaluation of alternatives or modifications to avoid, minimize, or mitigate the effects.
  - A Memorandum of Agreement is then used to record and implement any necessary measures. At a minimum, completion of the multistep Section 106 process takes about 2 months.
- Among the types of historic properties that might be affected by projects proposed under this NOFO are **historic irrigation systems** and **archaeological sites**. An irrigation system or a component of an irrigation system (e.g., a canal or headgate) is more likely to qualify as historic if it is more than 50 years old, if it is the oldest (or an early) system/component in the surrounding area, and if the system/component has not been significantly altered or modernized. In general, proposed projects that involve ground disturbance, or the alteration of existing older structures, are more likely to have the potential to affect cultural resources; however, the level of cultural resources compliance required, and the associated cost, depends on a case-by-case review of the circumstances presented by each proposal.

You should contact your State Historic Preservation Office and your local Reclamation office's cultural resources specialist to determine what, if any, cultural resources surveys have been conducted in the project area. If an applicant has previously received Federal financial assistance, it is possible that a cultural resources survey has already been completed. See [www.usbr.gov/cultural/crmstaff.html](http://www.usbr.gov/cultural/crmstaff.html) for a list of Reclamation cultural resource specialists.

## H.2 Endangered Species Act

Pursuant to Section 7 of the ESA, each Federal agency is required to consult with the U.S. Fish and Wildlife Service (USFWS) or National Oceanic and Atmospheric Administration (NOAA) Fisheries Service to ensure any action it authorizes, funds, or carries out is not likely to **jeopardize the continued existence of any endangered or threatened species or destroy or adversely modify any designated critical habitat**.

Before Reclamation can approve funding for the implementation of a proposed project, it is required to comply with Section 7 of the ESA. The steps necessary for ESA compliance vary depending on the presence of endangered or threatened species and the effects of the proposed project. A rough overview of the possible course of ESA compliance is:

- If Reclamation can determine that there are no endangered or threatened species or designated critical habitat in the project area, then the ESA review is complete, and no further compliance measures are required. *This process can take anywhere from 1 day to 1 month.*

- If Reclamation determines that endangered or threatened species may be affected by the project, then a **Biological Assessment** must be prepared by Reclamation that will be used to help determine whether a proposed action may affect a listed species or its designated critical habitat. The Biological Assessment may result in a determination that a proposed action **is not likely to adversely affect** any endangered or threatened species. If the USFWS/NOAA Fisheries Service concurs in writing, then no further consultation is required, and the ESA compliance is complete. Depending on the scope and complexity of the proposed action, preparation of a Biological Assessment can range from days to weeks or even months. The USFWS/NOAA Fisheries Service generally respond to requests for concurrence within 30 days.
- If it is determined that the project **is likely to adversely affect listed species**, further consultation (**formal consultation**) with the USFWS or NOAA Fisheries Service is required to comply with the ESA. The process includes the creation of a **Biological Opinion** by the USFWS/NOAA Fisheries Service, including a determination of whether the project would **jeopardize** listed species and, if so, whether any **reasonable and prudent** alternatives to the proposed project are necessary to avoid jeopardy. Nondiscretionary **reasonable and prudent measures** and **terms and conditions** to minimize the impact of incidental take may also be included. Under the timeframes established in the ESA regulations, the Biological Opinion is issued within 135 days from the date that formal consultation was initiated unless an extension of time is agreed upon.

The time, cost, and extent of the work necessary to comply with the ESA depends upon whether endangered or threatened species are present in the project area and, if so, whether the project might have effects on those species significant enough to require formal consultation.

ESA compliance is often conducted parallel to the NEPA compliance process and, as in the case of a CEC, documented simultaneously. The best source for ESA compliance information in a particular project area is your local Reclamation environmental staff. They can help determine the presence of listed species and possible effects that would require consultation with the USFWS or NOAA Fisheries Service. In addition, you can contact your regional or area Reclamation office at [www.usbr.gov/main/offices.html](http://www.usbr.gov/main/offices.html) with questions regarding ESA compliance issues.