



— BUREAU OF —
RECLAMATION

Desalination and Water Purification Research Program Pitch to Pilot

Notice of Funding Opportunity No. R21AS00424



Mission Statements

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

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.

Synopsis

Federal Agency Name:	Department of the Interior, Bureau of Reclamation, Research and Development Office
Funding Opportunity Title:	Desalination and Water Purification Research Program Pitch to Pilot
Announcement Type:	Notice of Funding Opportunity (NOFO)
Funding Opportunity Number:	R21AS00424
Catalog of Federal Domestic Assistance Number:	15.560
Dates: (See NOFO Sec. D.4)	Application due date: Phase I Technical Proposal: Thursday, June 3, 2021, at 4:00 p.m. Mountain Daylight Time Phase II: Presentation Pitch at Reclamation's Brackish Groundwater National Desalination Research Facility (BGNDRF) ¹ for selected applicants: September 22 to 23, 2021
Eligible Applicants: (See NOFO Sec. C.1)	Individuals/entrepreneurs, 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. Foreign entities are not eligible for funding under the authorizing legislation for this program Federal agencies are not eligible to apply.
Recipient Cost Share: (See NOFO Sec. C.2)	No cost share is required but highly encouraged
Federal Funding Amount: (See NOFO Sec. B.1)	Up to \$200,000 per applicant for a project that can be completed within 18 months.
Estimated Number of Agreements to be Awarded: (See NOFO Sec. B.1)	up to 10

¹Submission to Phase I is required for Phase II consideration. **If the applicant is not present for Phase II, the proposal is automatically disqualified from proceeding further and will be ineligible for an award.** Reclamation will be able to provide funding for invitation travel for one representative to attend the in-person meeting in Alamogordo, New Mexico up to a maximum of \$3,000 total for lodging and travel expenses. Phase II might be conducted virtually if needed subject to travel restrictions and developments associated with the COVID-19 pandemic.

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Application Checklist

The following table contains a summary of the information that you are required to submit with your application.

√	What to submit	Required content	Form or format	When to submit
	Mandatory Federal Forms: Application for Federal Financial Assistance Budget Information Assurances Disclosure of Lobbying Activities	See Sec. D.2.2.1	SF-424, SF-424A, SF-424B, and SF-LLL forms may be obtained at www.grants.gov/web/grants/forms/sf-424-family.html	*
	Title page	See Sec. D.2.2.2	Page 11	*
	Table of contents	See Sec. D.2.2.3	Page 11	*
	Technical proposal: Executive summary	See Sec. D.2.2.4	Page 11	*
	Technical proposal and responses to evaluation criteria	See Sec. D.2.2.4	Page 12	*
	Summary slides	See Sec. D.2.2.5	Page 13	*
	Phase I Evaluation criteria	See Sec. E.1	Page 19	*
	Unique Entity Identifier and System for Award Management	See Sec. D.3	Page 13	**

* Submit materials with your application.

** Should be completed prior to the application deadline; however, please refer to the applicable section of the NOFO for extended completion date.

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Acronyms and Abbreviations

ASAP	Automated Standard Application for Payments
ARC	Application Review Committee
BGNDRF	Brackish Groundwater National Desalination Research Facility
CE	Categorical Exclusion
CEC	Categorical Exclusion Checklist
CFR	Code of Federal Regulations
CWA	Clean Water Act
Department	U.S. Department of the Interior
DUNS	Data Universal Number System
DWPR	Desalination and Water Purification Research Program
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FAPIIS	Federal Award Performance Integrity Information System
FOIA	Freedom of Information Act
FONSI	Finding of No Significant Impact
FY	fiscal year
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NOFO	Notice of Funding Opportunity
P.L.	Public Law
Q&A	Question and Answer
QA/QC	quality assurance/quality control
Reclamation	Bureau of Reclamation
SAM	System for Award Management
SPOC	Single Point of Contact
TRL	technology readiness level
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
WaterSMART	Sustain and Manage America's Resources for Tomorrow
WQIC	Water Quality Improvement Center

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Section A. Funding Opportunity Description

A.1. Program Information

The United States Department of the Interior (Department), Bureau of Reclamation's (Reclamation) Desalination and Water Purification Research Program (DWPR) works with Reclamation researchers and partners to develop innovative, cost-effective, and technologically efficient ways to desalinate and treat water.

DWPR funding plays a critical role in iterating an idea from the lab to a real-world demonstration, yielding products that serve the water treatment community and attract commercialization interest. Reclamation is interested in research where the benefits are widespread but where private-sector entities are not able to make the full investment and assume all the 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. The goal of the DWPR program is to address the need to reduce the costs, energy requirements, and environmental impacts of treating impaired and unusable water. DWPR program activities further support multiple related initiatives related to the Water Subcabinet such as the Water Reuse Action Plan and Water Security Grand Challenge. The program also 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.

In Phase I, applicants submit technical proposals in the required format and length as specified in *Section D.2.1. Application Format and Length* as well as with the required content further detailed in *Section D.2.2. Application Content*. Submission to Phase I is required for Phase II consideration.

Reclamation's application review committee (ARC) will select set of highly qualified applications from Phase I to move to Phase II of the application process. Submission to Phase I is required for Phase II consideration. **If the selected applicants are not present for Phase II, their proposals are automatically disqualified from proceeding further and will be ineligible for an award.** Reclamation will be able to fund invitational travel for one representative to attend the in-person meeting at the Brackish Groundwater National Desalination Research Facility (BGNDRF) in Alamogordo, New Mexico up to a maximum of \$3,000 total for lodging and travel expenses. Phase II might be conducted virtually if needed—subject to travel restrictions and developments associated with the COVID-19 pandemic.

For further information on the DWPR Program, see www.usbr.gov/research/dwpr.

A.2. Objectives of this Notice of Funding Opportunity

The objectives of this Notice of Funding Opportunity (NOFO) are to develop innovative and disruptive new technologies or processes to:

- Reduce the costs, energy requirements, and/or environmental impacts of treating impaired and unusable water to standards necessary for an identified beneficial use.

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- Improve efficiency of water treatment processes—either by improvements to pre-treatment, post-treatment, monitoring, sensors, or other innovative process/technology.
- Increase effectiveness of reverse osmosis/nanofiltration concentrate management by reducing cost, energy, and/or environmental impacts.
- Treat brackish groundwater in a less energy-intensive way than current processes and technologies.
- Address costs, energy usage, and/or environmental impacts of seawater desalination, including intakes and/or outfalls.

A.3. Statutory Authority

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

A.4. Other Related Funding Opportunities

WaterSMART:¹ Water Reclamation Research under the Title XVI Water Reclamation and Reuse Program supports projects to apply commercially available water reclamation and reuse technologies.

DWPR Laboratory and Pilot Projects: This funding opportunity supports projects at the laboratory and pilot scale research studies to determine the viability of a novel process, new materials, or process modifications in conjunction with eligible applicants.

¹ WaterSMART (Sustain and Manage America's Resources for Tomorrow)

Section B. Award Information

B.1. Total Project Funding

The total amount of funding available for the DWPR Program in fiscal year (FY) 2021 is \$8.35 million for research. Reclamation anticipates awarding up to \$2,000,000 for projects funded under this NOFO. Applications submitted under this NOFO also may be considered if additional funding becomes available in FY 2021 or thereafter.

B.2. Project Funding Limitations

Up to \$200,000 in Federal funds may be awarded to an applicant over an 18-month project period. The funds provided through this NOFO will be available for each agreement to design, construct, install, and test a pilot-scale process at an already known location with real water. Reclamation's BGNDRF in Alamogordo, New Mexico, and Water Quality Improvement Center (WQIC) in Yuma, Arizona, may also be available if a location for testing is needed. The number of awards and the aggregate amount awarded will be based on the quality of the applications received and congressional funding available.

B.3. Assistance Instrument

Project awards will be made through cooperative agreements. The recipient should expect Reclamation to have substantial involvement in the project. Substantial involvement by Reclamation may include:

- Collaboration and participation with the recipient in managing the project and close oversight of the recipient's activities to ensure that the program objectives are being achieved.
- Oversight may include review, input, and approval at key interim stages of the project.
 - Coordination of contributions made by team members from the different partners.
 - Evaluation of successes/failures as each task is undertaken.
 - Suggested changes to tasks to accomplish project goals.
 - Review, input, and comments on draft and final research outcomes, including the final project report.

At the request of the recipient, Reclamation can provide technical assistance after project award. If you anticipate requesting Reclamation technical assistance, you must account for these costs in your budget. If BGNDRF is identified as a location for testing, there is no need to include any costs for energy, water, and space at BGNDRF or WQIC, but costs for additional technical assistance if required need to be included. To discuss available assistance and these costs, contact the program coordinator identified in *Section G.2. Reclamation Program Coordinator Contact*.

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Section C. Eligibility Information

C.1. Eligible Applicants

Applicants eligible to receive an award to fund activities include:

- Individuals/entrepreneurs
- Institutions of higher education
- Commercial or industrial organizations
- Private entities
- State and local governmental entities
- Federally-funded research and development centers
- Tribal governments and organizations
- Non-profit organizations

Those not eligible include, but are not limited to:

- Federal Governmental entities
- Foreign entities

C.2. Cost Sharing Requirements

Non-Federal cost share is not required but is strongly encouraged. Cost sharing may be made through direct cash contributions, third-party in-kind contributions, or combinations thereof. It is highly recommended that applicants consider identifying in their application any non-federal cost share if applicable. Cost share funding is an evaluation criterion; see *Section E.1.7. Evaluation Criterion G—Non-Federal Cost Share*.

C.2.1. 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 towards cost share. The exception to this requirement is where the Federal statute authorizing a program specifically provides that Federal funds made available for such 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 towards the non-Federal cost share, the work associated with the funding may be removed from the proposed project.

C.2.2. Cost Share Regulations

All cost-share contributions must be part of the total project cost and meet the applicable administrative and cost principles criteria established in 2 Code of Federal Regulations (CFR) Part 200, available at www.ecfr.gov.

C.2.3. Third-Party In-Kind Contributions

Third-party in-kind contributions are defined as the value of non-cash contributions of property or services that benefit the federally assisted project and are contributed by non-Federal third parties, without charge. Third-party in-kind contributions may be in the form of equipment, supplies, and 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 already been or will be relied on to satisfy a cost-sharing or matching requirement for another Federal program (e.g., 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 Contributions and Donations for regulations regarding the valuation of third-party in-kind contributions, available at www.ecfr.gov.

C.3. Eligible Projects

C.3.1. Eligible Projects

Eligible projects are pilot-scale technologies or processes that incorporate or are innovative and disruptive technologies involving flow rates above one gallon per minute and that need to 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 feasibility of a process. Preliminary costs can be developed for capital and operation and maintenance costs. The description of the technology or process should identify the uniqueness and the disruptive nature of the technology or process itself and/or the testing of it.

C.3.2. Ineligible Projects

Ineligible projects 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 is at 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 is at www.usbr.gov/watersmart/title/feasibility.html.
- Proposals for research projects developing technologies or processes currently implemented and being used in a United States water treatment facility with the same intent of use as proposed on application.
- Proposals of work currently funded under an existing Reclamation financial assistance agreement.
- Proposals for the construction of permanent research facilities.

C.3.3. Length of Projects

In general, proposed projects should be completed within 18 months of award. Applications for projects requiring more time will be considered for funding only under limited circumstances. Reasons for requiring additional time should be included in the application.

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Section D. Application and Submission Information

D.1. Address to Request Application Package

This document contains all information, forms, and electronic addresses required to obtain the information required for submission of 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 Notice of Funding Opportunity Team staff at sha-dro-fafoa@usbr.gov.

D.2. Content and Form of Application Submission

All applications must conform to the requirements set forth below. Two phases comprise the application process:

Phase I: A technical proposal is required to be submitted in the required format and length as specified in Section D.2.1 Application Format and Length as well as with the required content further detailed in Section D.2.2. Application Content.

Phase II: A set of highly qualified applications from Phase I will be selected by the application review committee (ARC) to move to Phase II of the application process. The criteria described in Section E.1 Technical Proposal: Phase I Evaluation Criteria will be used to make that determination. Phase II applicants are required to prepare a Microsoft PowerPoint presentation for an in-person pitch in front of the ARC at Reclamation's BGNDRF. Phase II might be conducted virtually if needed—subject to travel restrictions and developments associated with the COVID-19 pandemic. Presentations will be evaluated using the criteria described in Section E.2. Presentation: Phase II Evaluation Criteria.

D.2.1. Application Format and Length

The technical proposal and responses to evaluation criteria section of the application shall be limited to a maximum of eight consecutively numbered pages. If this section of the application exceeds eight pages, only the first eight pages will be evaluated. Other required application content will not count towards the page limitation. The font shall be at least 12 points in size and easily readable. Page size shall be 8½ by 11 inches, including charts, maps, and drawings. Margins should be standard 1-inch margins. Oversized pages will not be accepted.

Applications will be prescreened for compliance to the page number limitation. Excess pages will be removed and not 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 (not counted towards the page limit).

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- SF-424 Application for Federal Assistance
- SF-424A Budget Information Non-Construction Programs
- SF-424B Assurances Non-Construction Programs
- SF-LLL Disclosure of Lobbying Activities (if applicable)

These forms may be obtained at

www.grants.gov/web/grants/forms/sf-424-family.html

- Title page (not counted towards the page limit).
- Table of contents (not counted towards the page limit).
- Technical proposal and responses to evaluation criteria (limited to eight pages).
 - Executive summary
 - Problem Statement
 - Prior work and results
 - Technical approach and project activities
 - Research work plan and schedule (Gantt chart or similar)
 - Environmental impact
 - Quality assurance/quality control (QA/QC) plan
 - Responses to evaluation criteria
- Summary slides (no more than two, not counted towards the page limit)

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

D.2.2.1. Mandatory Federal Forms

The application must include the following standard Federal forms:

D.2.2.1.1.1 SF-424 Application for Federal Assistance

A fully completed SF-424, Application for Federal Assistance signed by a person legally authorized to commit the applicant to performance of the project must be submitted with the application. Failure to submit a properly signed SF-424 may result in the elimination of the application from further consideration.

D.2.2.1.1.2 SF-424 Budget Information

A fully completed SF-424A Budget Information Non-Construction Programs must be submitted with the application.

D.2.2.1.1.3 SF-424 Assurances

An SF-424B Assurances Non-Construction Programs signed by a person legally authorized to commit the applicant to performance of the project shall be included. Failure to submit a properly signed SF-424B may result in the elimination of the application from further consideration.

D.2.2.1.4 SF-LLL Disclosure of Lobbying Activities

A fully completed and signed SF-LLL, Disclosure of Lobbying Activities 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 the DWPR Program.

D.2.2.2. 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, and the name and address, email address, and telephone of the project manager.

D.2.2.3. Table of Contents

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

D.2.2.4. Technical Proposal and Responses to Evaluation Criteria

The technical proposal and evaluation criteria (eight pages maximum) include:

- 1) Executive summary
- 2) Problem Statement
- 3) Prior work and results
- 4) Technical approach and project activities
- 5) Research work plan and schedule (Gantt chart or similar)
- 6) Environmental impact
- 7) QA/QC
- 8) Responses to evaluation criteria

D.2.2.4.1. Executive Summary

The executive summary should:

- Include the date, applicant name, city, county, and state.
- In one paragraph, state the problem to be solved and the proposed solution.
- In one paragraph, summarize the project. Specify the work proposed, including how funds will be used to accomplish specific project activities and briefly identifies 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., BGNDRF and Yuma WQIC).

D.2.2.4.2. 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.2. Objectives of this Notice of Funding Opportunity*.

D.2.2.4.3. Prior Work and Results

Describe previous work and/or technology development that supports the need for pilot testing with real water sources. Identify relevant experience 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.1.4. Evaluation Criterion D—Readiness Level*).

D.2.2.4.4. Technical Approach and Project Activities

Describe the technical approach and proposed research and testing 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 testing, 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 and 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 pilot testing, water type(s) to be tested, and system flow rate.

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

Identify the TRL that can be achieved if the proposed project is implemented (using the TRL definitions in *Section E.1.4. Evaluation Criterion D—Readiness Level*).

D.2.2.4.5. 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 pilot testing should include obtaining a minimum one full month of non-disrupted data collection. Time for final report preparation should be included in the work plan. The final report will be posted publicly.

D.2.2.4.6. Quality Assurance and 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 your institution already has a QA/QC program, provide a summary of the program and include additional information as needed to address the use of the existing program for your proposed project.

D.2.2.4.7. Environmental Impact

Describe any potential environmental impacts of the proposed work and plans for disposal of wastes if any result from the project. Identify any permits and licenses that are required for the project and describe how they will be obtained (if not yet obtained).

D.2.2.4.8. Responses to Evaluation Criteria

(See *Section E.1. Technical Proposal: Phase I Evaluation Criteria* for additional details, including a detailed description of each criterion and points associated with each.)

The responses to evaluation criteria portion of your application should clearly describe how the proposed project addresses each criterion (in the order presented) to assist in the complete and accurate evaluation of your application. It is not necessary to repeat information provided in other sections of the proposal. Rather than repeating information, provide a reference to other sections of the proposal.

It is suggested that applicants copy and paste the evaluation criteria in Section E.1. Technical Proposal: Phase I Evaluation Criteria into their applications to ensure that all necessary information is adequately addressed.

D.2.2.5. Summary Slides

Please include no more than two Microsoft PowerPoint slides summarizing the proposed project. The slides must be submitted in pdf format and will be used during the evaluation process. The summary slides don't need to follow any template—but must 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.3. Unique Entity Identifier and System for Award Management

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

- be registered in the System for Award Management (SAM) before submitting its application,

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- provide a valid unique entity identifier in its application, and
- maintain an active SAM registration with current information while having an active Federal award or during the period it has an application or plan under consideration by a Federal awarding agency.

Meeting the requirements set forth above is mandatory. If the applicant is unable to obtain a unique entity identifier or complete registration by the application deadline, the unique entity identifier must be obtained, and SAM registration must be initiated within 30 days after the application deadline to be considered for selection and award. You can find additional information on how to complete a SAM registration here: sam.gov/SAM/pages/public/loginFAQ.jsf.

D.4. Submission Date and Time

Application submission date deadline:

Phase I: Thursday June 3, 2021 at 4:00 p.m. Mountain Daylight Time

Phase II for selected applicants: September 22 to 23, 2021 at Reclamation's BGNDRF in Alamogordo, New Mexico

Submission to Phase I is required for Phase II consideration. **If the applicant selected for Phase II is not present for Phase II, the proposal is automatically disqualified from proceeding further and will be ineligible for an award.** Phase II might be conducted virtually if needed—subject to travel restrictions and developments associated with the COVID-19 pandemic.

Applications received after the application deadline will not be considered unless it can be 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.

Please note that any application submitted for funding under this NOFO may be subjected to a Freedom of Information Act (FOIA) request (5 United States Code [U.S.C.] Section 552, as amended by P.L. No. 110-175), and as a result, may be made publicly available.

D.4.1. Application Delivery Instructions

The application may be submitted electronically through Grants.gov (www.grants.gov) or a hard copy may be submitted to either one of the following addresses. Under no circumstances will applications received through any other method (such as email or fax) be considered eligible for award.

By mail or USPS Priority Mail Express:

Bureau of Reclamation
Financial Assistance Operations Branch
Attn: DWPR NOFO
P.O. Box 25007, MS 84-27133
Denver, CO 80225

All other express delivery:

Bureau of Reclamation mail services
Attn: DWPR NOFO
Denver Federal Center
Bldg. 67, Rm. 152
6th Avenue and Kipling Street
Denver, CO 80225

By courier services:

Bureau of Reclamation
Attn: DWPR NOFO
Denver Federal Center
Bldg. 67, Rm. 152
6th Avenue and Kipling Street
Denver, CO 80225

D.4.2. Instructions for Submission of Project Application

Each applicant should apply in accordance with the instructions contained in this section.

D.4.2.1. Applications Submitted by Mail, Express Delivery or Courier Services

Please follow these instructions to submit your application by mail, express delivery, or courier services.

- Applicants should submit one copy of all application documents for hardcopy submissions. Only use a binder clip for documents submitted. ***Do not staple or otherwise bind application documents.***
- Hard copy applications may be submitted by mail, express delivery, or courier services to the addresses identified in this NOFO.
- Materials arriving separately will not be included in the application package and may result in the application being rejected or not funded. This does not apply to letters of support, funding commitment letters, or official resolutions.
- Faxed and emailed copies of application documents will not be accepted.

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- Do not include a cover letter or company literature/brochure with the application. All pertinent information must be included in the application package.

D.4.2.2. Applications Submitted Electronically

If the applicant chooses to submit an electronic application, it must be submitted through Grants.gov (www.grants.gov). Reclamation encourages applicants to submit their applications for funding electronically through the website: www.grants.gov/applicants/apply-for-grants.html. Applicant resource documents and a full set of instructions for registering with Grants.gov (www.grants.gov), and completing and submitting applications online are available at: www.grants.gov/applicants/apply-for-grants.html.

- Please note that submission of an application electronically requires prior registration through Grants.gov, which may take 7 to 21 days. Please see registration instructions at 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. If you plan to submit your application 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. This case number will provide evidence of your attempt to apply prior to the submission deadline.**

Regardless of the delivery method used, you must ensure that your proposal arrives by the date and time deadline stated in this NOFO. Applications received after this date and time due to weather or express delivery/courier performance will not be considered for award. Late applications will not be considered unless it is determined that the delay was caused by Reclamation mishandling or by a problem with the Grants.gov application system. Please note that difficulties related to an applicant's organizational representative or other issues with an applicant's Grants.gov account are not considered problems with the Grants.gov system.

D.4.2.3. Acknowledgement of Application Receipt

If an application is submitted by mail, express delivery, or courier, Reclamation will notify you in writing that your application was received.

If an application is submitted through Grants.gov, you will receive an email acknowledging receipt of the application from Grants.gov. In addition, Reclamation will notify you in writing whether your application was successfully downloaded from Grants.gov.

Notification will be sent to the points of contact identified on the SF-424 Application for Federal Assistance.

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 can be found at www.whitehouse.gov/omb/management/office-federal-financial-management. Applicants in these states must contact their state's Single Point of Contact (SPOC) to find out about and comply with the state's process under Executive Order 12372. The names and addresses of the SPOCs are listed in the Office of Management and Budget's website, www.whitehouse.gov/omb/management/office-federal-financial-management.

D.6. Funding Restrictions: Pre-award Costs

Project pre-award costs that have been incurred prior to the date of award, but after notification of selection, may be submitted for consideration as an allowable reimbursable expense. **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.**

For example, such costs might include design or construction plans and environmental compliance costs directly supporting the proposed project. Reclamation will review the proposed pre-award costs to determine if they are allowable in accordance with the authorizing legislation and applicable 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.

D.7. 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 ASAP under the appropriate Agency Location Code(s) and the Data Universal Number System (DUNS) Number prior to the award of funds. If a recipient has multiple DUNS numbers, they must separately enroll within ASAP for each unique DUNS Number and/or Agency. All the information on the enrollment process for recipients, including the enrollment initiation form, can be requested by e-mail from sha-dro-asap_enr@usbr.gov.

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

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Section E. Application Review Information

E.1. Technical Proposal: Phase I Evaluation Criteria

Applications should thoroughly address each criterion and any sub criterion in the order presented below. Copy and paste the below criteria into applications to ensure that all criteria are addressed. **Applications will be evaluated directly against the evaluation criteria listed 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 that is reflected in the budget, not the larger project.

Phase I Evaluation Criteria: Scoring Summary	Points
A. Impact of the proposed work	25
B. Familiarity in the field of work	15
C. Innovation and disruptiveness	15
D. Readiness level	15
E. Schedule and Quality Assurance/Quality Control	10
F. Alignment with objectives	10
G: Non-Federal cost share	10
Total	100

E.1.1. Evaluation Criterion A—Impact of the Proposed Work (25 points)

Impact of the proposed work on the field of water treatment and/or currently used technologies and on its related economics. The impact can be measured by the promise of the solution, the problem being addressed, and the likelihood for success. Examples include energy and cost reduction, impact on water supply, and/or ease of use on operation of the technology. 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 (15 points)

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—Innovation and Disruptiveness (15 points)

Describe how the proposed work and/or technology development is innovative or disruptive in the water treatment industry. Innovative is defined herein as an approach, process, and/or technology that is not being implemented at full scale in the United States but shows promise for scaled-up implementation in the field of water treatment. Disruptive is defined herein as either displacing an established approach, process, and/or technology or creating a completely new industry.

E.1.4. Evaluation Criterion D—Readiness Level (15 points)

Describe prior research on the proposed technology or process and how this prior work supports the need for pilot testing. Information such as a process flow diagram, mass and energy balances, and data from previous testing will help support the need for pilot testing. Provide the location of the proposed pilot testing, water type(s) to be tested, and system flow rate (one gallon per minute minimum).

Using the definitions in the table below, clearly identify what technology readiness level (TRL) the proposed technology is currently at, and what technology readiness level will be achieved if the proposed project is implemented. This funding opportunity is targeting technologies that are currently at TRLs 4-6, but technologies at other TRLs will also be considered if sufficient justification is provided for the need for pilot testing.

TRL	Definition
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.1.5. Evaluation Criterion E—Schedule and Quality Assurance/Quality Control (10 points)

Describe the schedule, task phasing, and milestones for the proposed project, with the schedule directly tied to tasks. The identified work should be realistic for completion within the period of 18 months. Describe QA/QC protocols to be used throughout the project, including statistical data analysis, peer review, instrument calibration, etc.

E.1.6. Evaluation Criterion F—Alignment with Objectives (10 points)

Describe how the proposed work aligns with one or more of the objectives shown in *Section A.2. Objectives of this Notice of Funding Opportunity*. 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, and not the number of objectives identified. It is not necessary to address objectives that are not applicable to your proposed work.

E.1.7. Evaluation Criterion G—Non-Federal Cost Share (10 points)

Non-Federal cost share points will be awarded for voluntarily committed non-Federal cost share. A breakdown of these points by percentage of cost share for the total cost of the project is below.

Non-Federal Cost Share Percentage	Points
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. Presentation: Phase II Evaluation Criteria

Phase II provides the opportunity to provide more in-depth information where your presentations will be evaluated directly against the evaluation criteria listed below. Descriptions of each criterion are provided above in *Section E.1. Technical Proposal: Phase I Evaluation Criteria*.

Phase II Evaluation Criteria: Scoring Summary	Points
A. Impact of the proposed work	35
B. Familiarity in the field of work	20
C. Innovation and disruptiveness	20
D. Readiness level	15
E. Schedule and Quality Assurance/Quality Control	10
Total	100

E.3. Review and Selection Process

The Federal government reserves the right to reject any application that does not meet the requirements 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.3.1. Initial Screening

All application packages will be screened to ensure that:

- The applicant meets the eligibility requirements stated in this NOFO.
- The applicant meets the unique entity identifier and SAM registration requirements stated in this NOFO (this may be completed up to 30 days after the application deadline).
- The application conforms to page limitations.
- The application meets the content requirements of the NOFO package, including submission of a technical proposal, including responses to the evaluation criteria, a funding plan, budget proposal, and budget narrative.
- The application contains a properly executed SF-424, Application for Financial Assistance and form SF-424B, Assurances Non-Construction Programs, and a completed SF-424A, Budget Information Non- Construction Programs.

Reclamation reserves the right to remove an application from funding consideration if it does not pass all initial screening criteria listed above. An applicant that has submitted an application that is determined to be ineligible for funding will be notified along with other applicants, or sooner, if possible.

E.3.2. Application Review Committee

Evaluation criteria for Phase I applications will comprise the total evaluation weight as stated in the *Section E.1 Technical Proposal: Phase I Evaluation Criteria*. Applications will be scored against the evaluation criteria by an 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 that the proposed project meets the description of eligible projects and the requirements of this NOFO.

The ARC will make recommendations for a select group of applications to proceed to Phase II. The ARC will provide comments and feedback to the selected group of applications that will be moving forward to Phase II. These applicants will have an opportunity to review the comments and prepare for an in-person meeting with the ARC to discuss their proposal. The applicants will be invited to attend this in-person review at the BGNDRF in Alamogordo, New Mexico. Each applicant will be provided a tour of the BGNDRF facility prior to their meeting with the judging panel.

Each applicant will have 30 minutes to present their proposal and address the comments to the ARC. After the presentation there will be a 20 minute Question and Answer (Q&A) session where the ARC will have the ability to ask questions, the information gathered from the Q&A session will be used for the evaluation of the proposal. The ARC will then score all presentations against the evaluation criteria in *Section E.2. Presentation: Phase II Evaluation Criteria* and make a final recommendation.

Submission to Phase I is required for Phase II consideration. If the applicant is not present for Phase II, the proposal is automatically disqualified from proceeding further and will be ineligible for an award. Reclamation will be able to fund invitational travel for one representative to attend the in-person meeting in Alamogordo, New Mexico up to a maximum of \$3,000 total for lodging and travel expenses. Phase II might be conducted virtually if needed subject to travel restrictions and developments associated with the COVID-19 pandemic.

During the Phase I ARC review, Reclamation may contact applicants to request clarifications to the information provided, if necessary.

E.3.3. Red-Flag Review

After Phase II is completed and following the results of the ARC review, Reclamation will review the top-ranked applications and identify any reasons why a proposed project would not be feasible or otherwise advisable, including environmental 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 completing 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 cost share as required.

E.3.4. 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, 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.3.5. 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. If the results of pre-award reviews and clearances are unsatisfactory, consideration of funding for the project may be withdrawn.

E.3.6. Project Budget

Applicants whose proposals are selected for funding must provide a detailed project budget. The project budget includes:

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

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

E.3.7. Environmental Review

If the project includes ground-disturbing activities, 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 will be made contingent on completion of environmental compliance. The financial assistance agreement will describe how compliance will be carried out and how the costs will be paid. Ground disturbing activities may not occur until environmental compliance is complete and a notice to proceed is issued by the awarding Grants Officer.

In some circumstances, environmental compliance may be completed by another Federal agency. If this occurs—or if there is an existing environmental compliance document—then the environmental compliance document will need to be reviewed and adopted by Reclamation and a notice to proceed must be issued by the awarding Grants Officer before ground-disturbing activities can begin.

E.3.8. 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 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 procedures, as established by applicable Office of Management and Budget circulars.

E.4. 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 that is in the designated integrity and performance system accessible through SAM (currently Federal Award Performance Integrity Information System [FAPIIS]) (see 41 U.S.C. §2313). An applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about itself that a Federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM. Reclamation will consider any comments by the applicant, in addition to the other information in FAPIIS, in 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 Federal awarding agency review of risk posed by applicants.

E.5. Anticipated Announcement and Federal Award Date

Reclamation expects to contact applicants moving to Phase II and unsuccessful applicants from Phase I in August 2021. The potential award recipients and unsuccessful applicants from Phase II should expect to be contacted in January 2022 or slightly later if necessary. Financial assistance agreements will be awarded to applicants that successfully pass all pre-award reviews and clearances

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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 performance.

F.2. Administrative and National Policy Requirements

F.2.1. Environmental and Cultural Resources Compliance

Projects being considered for award funding that include ground disturbing activities may require compliance with 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. These may include, but are 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.

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 responsible to ensure 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. These costs will be considered in the ranking of applications.

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.2.2. 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.2.3. Intangible Property (2 CFR §200.315)

Title to intangible property (see CFR §200.59 Intangible property) acquired under a Federal award vests upon acquisition in the non-Federal entity. 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 CFR §200.313 Equipment paragraph (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 Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Awards, Contracts and Cooperative Agreements.”

The Federal Government has the right to:

- (1) Obtain, reproduce, publish, or otherwise use the data, reports, and figures produced under a Federal award; and
- (2) Authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

F.2.4. Freedom of Information Act (FOIA)

In response to a Freedom of Information Act (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, 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. This fee 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 when:

- (1) Research findings are published in a peer-reviewed scientific or technical journal; or

- (2) A Federal agency publicly and officially cites the research findings in support of an agency action that has the force and effect of law. “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.

Research data means 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. This “recorded” material excludes physical objects (e.g., laboratory samples). Research data also do not include:

- (1) Trade secrets, commercial information, materials necessary to be held confidential by a researcher until they are published, or similar information which is protected under law; and
- (2) 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 person in a research study.

F.3. Reporting Requirements and Distribution

If the applicant is awarded an agreement because of this NOFO, the applicant will be required to submit the following reports during the term of the agreement.

F.3.1. Technical Project Reports

Recipients will be required to submit the following technical project reports during the term of the Agreement. The specific terms and conditions pertaining to the reporting requirements will be included in the financial assistance agreement.

F.3.1.1. Interim Technical Reports

Reports shall be submitted on a semi-annual basis by the Project Manager and will be used by Reclamation to ensure that the goals and objectives of the project are being met. Each report shall include:

- Identify the start date and anticipated completion date and describe the work conducted within the reporting period for each project or activity within a task.
- 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.

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- State the progress of spending within each task.
- Compare spending in each task relative to the planned expenditures and provide an explanation for any discrepancies.
- Provide enough information to allow for tracking of project expenditures for each task.
- Provide, in pdf format, copies of presentations given at conferences and any journal publications that have resulted in this study during the reporting period.
- Provide up to two Microsoft PowerPoint slides in a pdf format. The slides should summarize the problems and objectives, project description, research process, and any findings up to that date. Do not include any intellectual property or confidential information.

F.3.1.2. Final Technical Project Report

Publication guidelines and published final reports from previous projects are at: www.usbr.gov/research/dwpr. Recipients will use the provided template and provide a final report in a Microsoft Word document. Recipients will address review comments from Reclamation in a timely manner for Reclamation to print. Please note the final project reports are public documents and may be made available on Reclamation's website. The final technical report must include, but is not limited to, the following information:

- Whether the project objectives and goals were met
- Complete data set of conducted tests(s)

Photographs documenting the project are also appreciated.

F.3.2. Administrative Reports

Recipients will be required to submit the following administrative reports during the term of the Agreement. The specific terms and conditions pertaining to the reporting requirements will be included in the financial assistance agreement.

F.3.2.1. Financial Reports

Recipients will be required to submit a fully completed form SF-425 Federal Financial Report on at least an annual basis and with the final performance report. The SF-425 must be signed by a person legally authorized to obligate the recipient.

F.3.2.2. Interim Performance Reports

Recipients will be required to submit administrative performance reports on at least an annual basis and with the final financial report. The administrative performance reports will be used by Reclamation to ensure that the goals and objectives of the project are being met. Administrative performance reports shall 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.3.2.3. Final Performance Report

Recipients will be required to submit a final performance report encompassing the entire period of performance. The final performance report must include, but is not limited to, the following information:

- Whether the Project objectives and goals were met.
- Complete data set of conducted tests(s).
- Photographs documenting the Project are also appreciated.

Note: Reclamation may print photos with appropriate credit to the applicant. Also, final reports are public documents and will be made available on Reclamation's website.

F.4. Conflicts of Interest

F.4.1. Applicability

This section intends 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 by recipients and by subrecipients, the conflict of interest provisions in 2 CFR §200.318 apply.

F.4.2. Requirements

Non-Federal entities must avoid prohibited conflicts of interest, including any significant financial interests that could cause a reasonable person to question the recipient's ability to provide impartial, technically sound, and objective performance under or with respect to a Federal financial assistance agreement.

In addition to any other prohibitions that may apply with respect to conflicts of interest, no key official of an actual or proposed recipient or subrecipient, who is substantially involved in the proposal or project, may have been a former Federal employee who, within the last one (1) year, participated personally and substantially in the evaluation, award, or administration of an award with respect to that recipient or subrecipient or in development of the requirement leading to the funding announcement.

No actual or prospective recipient or subrecipient may solicit, obtain, or use non- public information regarding the evaluation, award, or administration of an award to that recipient or subrecipient or the development of a Federal financial assistance opportunity that may be of competitive interest to that recipient or subrecipient.

F.4.3. Notification

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

Recipients must establish internal controls that include, at a minimum, procedures to identify, disclose, and mitigate or eliminate identified conflicts of interest. The recipient 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.

F.4.4. Restrictions on Lobbying

Non-Federal entities are strictly prohibited from using funds under this grant or cooperative agreement for lobbying activities and must provide the required certifications and disclosures pursuant to 43 CFR Part 18 and 31 U.S.C. 1352.

F.4.5. 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.

F.4.6. Enforcement

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 §200.338, Remedies for Noncompliance, including suspension or debarment (see also 2 CFR Part 180).

F.5. Data Availability

F.5.1. Applicability

The Department is committed to basing its decisions on the best available science and providing the American people with enough information to thoughtfully and substantively evaluate the data, methodology, and analysis used by the Department to inform its decisions.

F.5.2. Use of Data

The regulations at 2 CFR §200.315 apply to data produced under a Federal award, including the provision that the Federal Government has the right to obtain, reproduce, publish, or otherwise use the data produced under a Federal award as well as authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

F.6. Availability of Data

The recipient shall make the data produced under this award and any subaward(s) available to the Government for public release, consistent with applicable law, to allow meaningful third-party evaluation and reproduction for all of the following:

- the scientific data relied upon,
- the analysis relied upon, and
- the methodology, including models, used to gather and analyze data.

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Section G. Agency Contacts

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 sha-dro-fafoa@usbr.gov.

G.2. Reclamation Program Coordinator Contact

Questions regarding applicant and project eligibility and application review may be submitted to the attention of Ms. Yuliana Porras-Mendoza, Program Administrator, as follows:

By mail: Bureau of Reclamation
Research and Development Office
Attn: Ms. Yuliana Porras-Mendoza
P.O. Box 25007, MS 08-10000
Denver, CO 80225

By email: dwpr@usbr.gov

By phone: 303-445-2265

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Section H. Other Information

The following is a brief overview of the NEPA, NHPA, and the 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 to water marketing strategies, 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 and to help you budget appropriately for the associated compliance costs.

H.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 Reclamation can make a decision to fund an award under this NOFO, Reclamation must comply with NEPA. Compliance with NEPA can be accomplished in several ways, depending upon the degree and significance of environmental impacts associated with the proposal:

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 **Interior 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. That 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, where no CE applies 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.

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The most detailed form of NEPA compliance, where 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 in context and by 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. See 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. Agency Contacts*).

H.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 recipient will work with Reclamation to complete the Section 106 process. Compliance can be accomplished in several ways, depending on how complex the issues are, including:

- 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 that the proposed project could have effects on historic properties, a multi-step process, involving consultation with the State Historic Preservation Officer 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.
 - Evaluation of the significance of identified cultural resources.
 - 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 multi-step 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. See <https://www.usbr.gov/cultural/crmstaff.html> for a list of Reclamation cultural resource specialists. If an applicant has previously received Federal financial assistance it is possible that a cultural resources survey has already been completed.

H.3. 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 the 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.

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- If Reclamation determines that endangered or threatened species may be affected by the project, then a **Biological Assessment** must be prepared by Reclamation. The Biological Assessment is 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 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 of information concerning the compliance with the ESA in a particular project area is the local Reclamation environmental staff that can be helpful in determining the presence of listed species and possible effects that would require consultation with the USFWS or NOAA Fisheries Service. Contact your regional or area Reclamation office, listed at www.usbr.gov/main/offices.html, with questions regarding ESA compliance issues.