BUREAU OF RECLAMATION

Desalination and Water Purification Research Program Pitch to Pilot for Fiscal Year 2020

Funding Opportunity Announcement No. BOR-DO-20-F014



U.S. Department of the Interior **April 2020**

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.

Cover photo: Reclamation's Expeditionary Unit Water Purifier in 2011 (Reclamation).

Synopsis

Federal Agency Name:	Department of the Interior, Bureau of Reclamation, Research and Development Office
Funding Opportunity Title:	Desalination and Water Purification Research Program for fiscal year (FY) 2020
Announcement Type:	Funding Opportunity Announcement (FOA)
Funding Opportunity Number:	BOR-DO-20-F014
Catalog of Federal Domestic Assistance Number:	15.560
Dates: (See FOA Sec. D.4)	Application due date: Phase I: June 17, 2020, at 4:00 p.m. Mountain Daylight Time Phase II for selected applicants: September 24 to 25, 2020, at Reclamation's Brackish Groundwater National Desalination Research Facility (BGNDRF)[1]
Eligible Applicants: (See FOA 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 FOA Sec. C.2)	No cost share is required but highly encouraged
Federal Funding Amount: (See FOA Sec. B.1)	Up to $150,000 per applicant
Estimated Number of Agreements to be Awarded: (See FOA Sec. B.1)	4 to 6

[1]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 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 10	*
	Table of contents	See Sec. D.2.2.3	Page 11	*
	Technical proposal:	See Sec. D.2.2.4	Page 11	*
	Executive summary	See Sec. D.2.2.4		*
	Technical approach	See Sec. D.2.2.4		*
	Evaluation criteria	See Sec. E.1	Page 19	*
				*
	Unique Entity Identifier and System for Award Management	See Sec. D.3	Page 14	***

* Submit materials with your application.

** Document should be submitted with your application; however, please refer to the applicable section of the FOA for extended submission date.

*** Should be completed prior to the application deadline; however, please refer to the applicable section of the FOA 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
FOA	Funding Opportunity Announcement
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
P.L.	Public Law
QA/QC	quality assurance/quality control
SAM	System for Award Management
SPOC	Single Point of Contact
Reclamation	Bureau of Reclamation
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
WaterSMART	Sustain and Manage America's Resources for Tomorrow)
WIIN	Water Infrastructure Improvements for the Nation

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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. By providing financial assistance to such research and technology innovation, the DWPR program supports the Department's priorities:

- Creating a conservation stewardship legacy second only to Teddy Roosevelt
- Utilizing our natural resources
- Restoring trust with local communities
- Striking a regulatory balance
- Modernizing our infrastructure

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. The program's funded activities support Reclamation's priorities, including increasing water supplies, leveraging science and technology to improve water supply reliability, addressing ongoing drought, and improving water supplies for tribal and rural communities.

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 Administration initiatives, including the *2018 Presidential Memorandum Promoting the Reliable Supply and Delivery of Water in the West* as well as the *2020 National Water Reuse Action Plan*.

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.

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

A.2. Objectives of this Funding Opportunity Announcement

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

- To treat brackish groundwater in a less energy-intensive way than current processes and technologies.
- Manage reverse osmosis/nanofiltration concentrate by reducing cost, energy, and/or environmental impacts.
- Improve efficiency of water treatment processes—either by improvements to pre-treatment, post-treatment, monitoring, sensors, or other innovative process/technology.
- To address costs, energy usage, and/or environmental impacts of seawater desalination, including intakes and/or outfalls.
- To reduce the costs, energy requirements, and/or environmental impacts of treating impaired and unusable water to standards necessary for an identified beneficial use.

A.3. Statutory Authority

This FOA 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, Sec. 9509, Research Agreement Authority.

A.4. Other Related Funding Opportunities

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

[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) 2020 is $6.85 million for research. Reclamation anticipates awarding up to $1,000,000 for projects funded under this FOA. Applications submitted under this FOA also may be considered if additional funding becomes available in FY 2020 or thereafter.

B.2. Project Funding Limitations

A total of up to $150,000 in Federal funds may be awarded to an applicant over an 18-month project period. The funds provided through this FOA 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 Brackish Groundwater National Desalination Research Facility (BGNDRF) in Alamogordo, New Mexico is also 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 comment on draft and final research outcomes including the final project report.

At the request of the recipient, Reclamation can provide technical assistance after awarding the project. 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, 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*.

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.1.9. Evaluation Criterion I — 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 FOA. 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 FOA 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/authorized.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 FOA by contacting:

By mail: Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Matthew Reichert
P.O. Box 25007, MS 84-27814
Denver, CO 80225
By email: mreichert@usbr.gov
By telephone: 303-445-3865

D.2. Content and Form of Application Submission

All applications must conform to the requirements set forth below. There are two phases that 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 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. The same evaluation criteria as described in *Section E. Application Review Information* will be used to score Phase II as well.

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)
  - 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
  - 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. 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.2.2.1.2. SF-424 Budget Information

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

D.2.2.1.3. 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) Prior work and results
3) Technical approach and project activities
4) Research work plan and schedule (Gantt chart or similar)
5) Environmental impact
6) QA/QC
7) Responses to evaluation criteria

D.2.2.4.1. Executive Summary

The executive summary should include:

- The date, applicant name, city, county, and state.
- A paragraph stating the problem to be solved and the proposed solution. Include information on what is already known, either due to previous research done or literature review data found.
- A project summary paragraph that specifies 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 FOA. Also include information on what success looks like for the proposed work and what does a commercialization path look like for this work.
- State the length of time and estimated completion date for the proposed project.
- State whether or not the proposed project will be located on a Federal facility (e.g., BGNDRF).

D.2.2.4.2. Prior Work and Results

A description of previous work and/or technology development that supports the need for pilot testing. Previous work must demonstrate that the proposed project is ready for pilot-scale testing with real water sources.

D.2.2.4.3. Technical Approach and Project Activities

The technical project description should describe the technical approach and proposed research and testing activities to be conducted under the project. Include enough detail to permit a comprehensive evaluation of the proposal. The applicant's understanding will be established not only by the proposed approach, but also by anticipating and/or identifying the various problems and assessing the severity of each problem.

Describe in detail the activities to be conducted, including the development of the technical report. The Final Report Template is at https://www.usbr.gov/research/dwpr/DWPR_Reports.html.

For each activity, describe what studies and tests you plan to conduct, what kind of apparatus you will need, what data you plan to collect, and what you will do with the data. Describe the staff levels and expertise, the number of staff hours, and the schedule for completing each activity.

Provide figures such as applicable flow diagram, mass/energy balance, and/or similar ways to describe process inputs and outputs.

D.2.2.4.4. 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 before the end of the agreement along with a final report of the findings which will be public information. Include time for reviewing and finalizing of the technical report. The information will be used to evaluate your understanding of the work requirement.

D.2.2.4.5. Environmental Impact

Describe any potential environmental benefits or adverse impacts of the proposed work and plans for disposal of wastes if any result from the project. If any permits and licenses are required for this project, describe how they will be obtained if not obtained yet.

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 provide additional information as needed to address the use of the existing program for your proposed project.

D.2.2.4.7. Responses to Evaluation Criteria

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

The responses to evaluation criteria portion of your application should clearly describe how the proposed project addresses each criterion and subcriterion (in the order presented) to assist in the complete and accurate evaluation of your application.

It is suggested that applicants copy and paste the evaluation criteria and subcriteria in* Section E.1. Technical Proposal: 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 have 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,
- 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.

Reclamation will not make a Federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant has not fully complied with the requirements by the time the Reclamation is ready to make an award, Reclamation may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

D.4. Submission Date and Time

Application submission date deadline:

Phase I: Wednesday June 17, 2020 at 4:00 p.m. Mountain Daylight Time

Phase II for selected applicants: September 24-25, 2020 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.

Proposals received after the application deadline will not be considered unless it can be determined that the delay was caused by Reclamation mishandling.

Please note that any application submitted for funding under this FOA 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 Support Section
Attn: Mr. Matthew Reichert
P.O. Box 25007, MS 84-27814
Denver, CO 80225

All other express delivery:

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

By courier services:

Bureau of Reclamation
Attn: Mr. Matthew Reichert
Denver Federal Center Bldg. 67, Rm. 581
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 FOA.

- 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.

- 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 FOA. 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.

D.5. Intergovernmental Review

This FOA 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 FOA, 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 and the enrollment mailbox can be found at www.usbr.gov/mso/aamd/asap.html.

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.

Section E. Application Review Information

E.1. Technical Proposal: Evaluation Criteria

The evaluation criteria portion should be addressed in the application. Applications should thoroughly address each criterion and any subcriterion in the order presented below. It is suggested that applicants copy and paste the below criteria and subcriteria into their applications to ensure that all criteria are addressed. **Applications will be evaluated 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.

Evaluation Criteria: Scoring Summary	Points
A. Impact of the proposed work	25
B. Alignment with Department and Reclamation Priorities	10
C. Demonstrate familiarity in the field of work	15
D. Relationship to DWPR objectives	10
E: Innovation and disruptiveness of the project	15
F: Readiness level	15
G: Adequacy, completeness, and realism of schedule	5
H: QA/QC Plan	5
I: Non-Federal cost share	10
Total	***110***

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 if a completely successful outcome were achieved. The impact can be measured by the promise of the solution and the problem it is addressing. Examples include energy and cost reduction, impact on water supply, and/or ease of use on operation of the technology.

E.1.2. Evaluation Criterion B — Alignment with Reclamation and Department Priorities (10 points)

Points will be awarded based on the extent that the proposal demonstrates that the proposed work supports Reclamation and Department priorities. Please address those priorities that are applicable to your proposed work. You may address only the parts of a priority that are applicable. It is not necessary to address priorities, or parts of priorities, that are not applicable to your proposed work. An application will not necessarily receive more points simply because multiple priorities are addressed. The points available under this criterion will not be divided among the priorities, and applications will not be penalized if some of the priorities are not applicable. Points will be allocated based on the degree to which the proposed work supports one or more of the priorities listed, and whether the connection to the priority(ies) is well supported in the proposal.

E.1.2.1. Reclamation Priorities

Reclamation priorities applicable for this FOA are the following:

1. Increase water supplies, storage, and reliability under the Water Infrastructure Improvements for the Nation (WIIN) and other authorities

2. Streamline regulatory processes and remove unnecessary burdens to provide more water and power supply reliability

3. Leverage science and technology to improve water supply reliability to communities.

4. Address ongoing drought

5. Improve the value of hydropower to Reclamation power customers

6. Improve water supplies for tribal and rural communities

7. Implementation of new Title Transfer authority pursuant to P.L. 116-9

E.1.2.2. Department Priorities

Department priorities applicable for this FOA are the following:

1. *Creating a conservation stewardship legacy second only to Teddy Roosevelt*

    a. Utilize science to identify best practices to manage land and water resources and adapt to changes in the environment

    b. Examine land use planning processes and land use designations that govern public use and access

    c. Revise and streamline the environmental and regulatory review process while maintaining environmental standards

d. Review the Department's water storage, transportation, and distribution systems to identify opportunities to resolve conflicts and expand capacity

e. Foster relationships with conservation organizations advocating for balanced stewardship and use of public lands

f. Identify and implement initiatives to expand access to the Department's lands for hunting and fishing

g. Shift the balance towards providing greater public access to public lands over restrictions to access.

2. *Utilizing our natural resources*

a. Ensure American energy is available to meet our security and economic needs

b. Ensure access to mineral resources, especially the critical and rare earth minerals needed for scientific, technological, or military applications

c. Refocus timber programs to embrace the entire "healthy forests" lifecycle

d. Manage competition for grazing resources

3. *Restoring trust with local communities*

a. Be a better neighbor with those closest to our resources by improving dialogue and relationships with persons and entities bordering our lands

b. Expand the lines of communication with governors, state natural resource offices, Fish and Wildlife offices, water authorities, county commissioners, Tribes, and local communities

4. *Striking a regulatory balance*

a. Reduce the administrative and regulatory burden imposed on U.S. industry and the public

b. Ensure that Endangered Species Act decisions are based on strong science and thorough analysis.

5. *Modernizing our infrastructure*

a. Support the White House Public/Private Partnership Initiative to modernize U.S. infrastructure

b. Remove impediments to infrastructure development and facilitate private sector efforts to construct infrastructure Projects serving American needs

c. Prioritize the Department's infrastructure needs to highlight:
   (1) Construction of infrastructure
   (2) Cyclical maintenance
   (3) Deferred maintenance

E.1.3. Evaluation Criterion C — Demonstration of Familiarity in the Field of Work (15 points)

Demonstrate familiarity with the current technology in the field of work and understanding of the potential difficulties in carrying out the work. Clearly state the problem being solved, how the proposed approach differs from current solutions, and the challenges identified that will be faced throughout testing and commercialization.

E.1.4. Evaluation Criterion D — Relationship to DWPR Objectives (10 points)

Describe how the proposed work and/or technology development aligns with one or more of the DWPR objectives shown in *Section A.2. Objective of this Funding Opportunity Announcement.* Points will be allocated based on the degree to which the proposed work appears to support one or more of the stated objectives based on information provided in the proposal. These objectives are different from the Reclamation and Department priorities identified in *Section E.1.2. Alignment with Reclamation and Department Priorities* and must be addressed separately.

E.1.5. Evaluation Criterion E — Innovation and Disruptiveness of the Project (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 the approach, process, and/or technology is not being implemented at full scale in the United States. Disruptive technology is defined herein as a technology that displaces an established technology and shakes up the industry or alternatively a ground- breaking product or process that creates a completely new industry.

E.1.6. Evaluation Criterion F — Readiness Level (15 points)

Describe how the proposed work and/or technology development has already been researched to some degree. Previous work must demonstrate that the proposed work is ready for the pilot level. The technology or process should be ready to be tested with real water and should be ready to come out of the laboratory/bench scale to be built and tested at the pilot scale.

E.1.7. Evaluation Criterion G — Adequacy, Completeness, and Realism of the Schedule (5 points)

Adequacy, completeness, and realism of the schedule, task phasing, and milestones must be well defined, with the schedule directly tied to tasks. The identified work should be realistic for accomplishment and completion within the period of 18 months.

E.1.8. Evaluation Criterion H — Quality Assurance/Quality Control Plan (5 points)

Proposed or existing procedures QA/QC protocols to be used throughout the project, including statistical data analysis, peer review, instrument calibration, etc. must be described.

E.1.9. Evaluation Criterion I — Non-Federal Cost Share (10 points)

Non-Federal cost share points will be awarded for voluntary 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. Review and Selection Process

The Federal government reserves the right to reject any application that does not meet the requirements of this FOA. 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 FOA. The evaluation process will be comprised of the steps described in the following subsections.

E.2.1. Initial Screening

All application packages will be screened to ensure that:

- The applicant meets the eligibility requirements stated in this FOA.
- The applicant meets the unique entity identifier and SAM registration requirements stated in this FOA (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 FOA 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.2.2. Application Review Committee

Evaluation criteria will comprise the total evaluation weight as stated in the *Section E.1 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 FOA.

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 1 hour to explain their proposal to the ARC as well as an opportunity to address the comments provided. The ARC will then again score all selected applications against the evaluation criteria in *Section E.1*. 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.2.3. 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 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 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 FOA. 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. If the results of pre-award reviews and clearances are unsatisfactory, consideration of funding for the project may be withdrawn.

E.2.6. 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.2.7. 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.2.8. 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.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 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.4. Anticipated Announcement and Federal Award Date

Reclamation expects to contact applicants moving to Phase II and unsuccessful applicants from Phase I in August 2020. The potential award recipients and unsuccessful applicants from Phase II should expect to be contacted in January 2021 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 FOA.

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)

a) 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 §200.313 Equipment paragraph (e).

b) 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.

c) 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."

d) 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.

e) Freedom of Information Act (FOIA).

   (1) 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)].

(2) Published research findings mean when:

(i) Research fin dings are published in a peer-reviewed scientific or technical journal; or

(ii) 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.

(3) 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:

(i) 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

(ii) 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 FOA, 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.

- 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 of the all of the following:

- The scientific data relied upon
- The analysis relied upon
- 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 FOA 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 Mr. Matthew Reichert, Grants Management Specialist, as follows:

By mail: Bureau of Reclamation
Financial Assistance Support Section
Attn: Mr. Matthew Reichert
P.O. Box 25007, MS 84-27814
Denver, CO 80225
By email: mreichert@usbr.gov
By phone: 303-445-3865

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: yporrasmendoza@usbr.gov

By phone: 303-445-2265

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 FOA. 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 FOA, 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. 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.htmlwith 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 FOA. 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 FOA 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.
- 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.