

RECLAMATION

Managing Water in the West

Funding Opportunity Announcement No. BOR-DO-17-F005

Desalination and Water Purification Research Program Fiscal Year 2017 Research & Laboratory Scale Projects



U.S. Department of the Interior
Bureau of Reclamation
Research and Development Office
Denver, Colorado

November 2016

Mission Statements

The U.S. Department of the Interior protects America's natural resources and heritage, honors our cultures and tribal communities, and supplies the energy to power our future.

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 (DWPR) Program: Research & Laboratory Scale Projects for fiscal year (FY) 2017
Announcement Type:	Funding Opportunity Announcement (FOA)
Funding Opportunity Number:	BOR-DO-17-F005
Catalog of Federal Domestic Assistance (CFDA) Number:	15.506
Dates: Phase I (See FOA Sec. D.4)	Application due date: Wednesday January 18, 2017 at 4:00 pm Mountain Standard Time (MST)
Eligible Applicants: (See FOA Sec. C.1)	Individuals, institutions of higher education, profit organizations, State and local governmental entities, non-profit organizations, Federally-funded Research and Development Centers, and Indian tribal governments and organizations. 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)	For Institutions of Higher Education – Encouraged, but not required. All other applicants must provide at least 50 percent non-Federal cost share
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)	5 to 15

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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	See Sec. D.2.2.1	SF-424, SF-424A, and SF-424B forms may be obtained at http://apply07.grants.gov/apply/FormLinks?family=15	*
	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 Background Technical approach Scope of work Research work plan and schedule Environmental impacts Evaluation criteria	See Sec. D.2.2.4 See Sec. E.1	Pages 11 to 13 Page 27	*
	Personnel Qualifications	See Sec. D.2.2.5	Page 14	
	Required Permits and Approvals	See Sec. D.2.2.6	Page 14	*
	Letters of support	See Sec. D.2.2.7	Page 14	*
	Project Budget: Funding plan & letters of commitment Budget proposal Budget narrative	See Sec D.2.2.8	Page 14 to 21 Page 15 Page 16 Page 17	* * * *
	Unique Entity Identifier and System for Award Management	See Sec. D.3	Page 21	***

* Submit materials with your application.

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

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Acronyms and Abbreviations

ALC	Agency Location Code
ARC	Application Review Committee
ASAP	Automated Standard Application for Payments
BOD	Biological Oxygen Demand
CFDA	Catalog of Federal Domestic Assistance
CFR	Code of Federal Regulations
CPA	Certified Public Accountant
CWA	Clean Water Act
DOI	U.S. Department of the Interior
DUNS	Data Universal Number System
DWPR	Desalination and Water Purification Research Program
ESA	Endangered Species Act
FAPIS	Federal Award Performance Integrity Information System
FOA	Funding Opportunity Announcement
FOIA	Freedom of Information
FY	Fiscal Year
MST	Mountain Standard Time
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
QA/QC	Quality Assurance and Quality Control
Reclamation	Bureau of Reclamation
SAM	System for Award Management

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Section A. Funding Opportunity Description

A.1. Program Information

The U.S. Department of the Interior (DOI), Bureau of Reclamation's (Reclamation) Desalination and Water Purification Research Program (DWPR) works with Reclamation researchers and partners to develop more innovative, cost-effective, and technology efficient ways to desalinate water. DWPR funding plays a critical role in iterating an idea from the lab through to a real-world demonstration that can both attract industry commercialization and serve the water treatment community in its usefulness.

Through DWPR, research sponsors partner with Reclamation to address a broad range of desalting and water purification needs. 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 DWPR is to reduce the costs, energy consumption, and environmental impacts of treating impaired and unusable waters. The program has aligned its objectives with the strategic desalination research agenda from National Research Council's Desalination: A National Perspective. Washington, D.C.: National Research Council of the National Academies, 2008 and Water Reuse. Washington, D.C.: National Research Council of the National Academies, 2012. The objectives of DWPR are to:

- Assess environmental impacts of desalination intake and concentrate management approaches
- Develop improved intake methods at coastal facilities to minimize impingement of larger organisms and entrainment of smaller ones
- Improve pretreatment for membrane desalination
- Improve membrane system performance
- Develop novel approaches or processes to desalinate water in a way that reduces primary energy use
- Develop cost-effective approaches for concentrate management that minimize potential environmental impacts
- Assess the potential impacts of environmental applications of reclaimed water in sensitive ecological communities
- Develop a better understanding of the formation of hazardous transformation products during water treatment for reuse and ways to minimize or remove them
- Develop a better understanding of pathogen removal efficiencies and the variability of performance in various unit processes and multibarrier treatment and develop ways to optimize these processes

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- Identify better indicators and surrogates that can be used to monitor process performance in reuse scenarios and develop online real-time or near real-time analytical monitoring techniques for their measurement

For fiscal year (FY) 2017, Reclamation's DWPR priorities are focused in part on goals identified by the White House "Water Resource Challenges and Opportunities for Water Technology Innovation" document published December 15, 2015. The following is the list of priorities for FY 2017:

- Novel water treatment technologies to increase water supply, reduce operational costs, reduce energy consumption, and/or reduce environmental impacts
- Demonstrating novel processes and/or materials to treat impaired water at laboratory scale
- Innovative new smart systems to improve the efficiency, longevity, and reliability of water treatment systems for real-time monitoring and automation

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

A.2. Objective of this Funding Opportunity Announcement

The objective of this Funding Opportunity Announcement (FOA) is to invite private industry, universities, water utilities, and other research sponsors to submit proposals to cost share research and laboratory scale projects that address DWPR program goals and objectives. Research & laboratory scale projects are typically bench scale studies involving small flow rates less than 2 gallons per minute. They are used to determine the viability of a novel process, new materials, or process modifications. Research at this stage often involves a high degree of risk and uncertainty.

A.3. Statutory Authority

Reclamation Act of 1902, June 17, Sec.1 and Sec.2, and the Omnibus Public Land Management Act of 2009, Public Law 111-11, section 9509, Research Agreement Authority.

A.4. Other Related Funding Opportunities

- **Desalination and Water Purification Research Program: Pilot Scale Testing Projects** – Through the Fiscal Year 2017 Pilot Scale Testing Projects FOA funding is available for pilot scale projects to test novel processes and/or technologies that address the program's goal and objectives in conjunction with individuals, institutions of higher education, commercial or industrial organizations, private entities, public entities (including State and local), non-profit organizations, and Indian Tribal Governments.
- **Desalination and Water Purification Research Program: Full Scale Testing Projects** – Through the Fiscal Year 2017 Full Scale Testing Projects FOA funding

Section A: Funding Opportunity Description

is available for full-scale projects to test and determine the technical, practical, and economic ability of a novel process and/or technologies that address the program's goal and objectives in conjunction with individuals, institutions of higher education, commercial or industrial organizations, private entities, public entities (including state and local), non-profit organizations, and Indian Tribal Governments.

- **WaterSMART: Water Reclamation Research under the Title XVI Water Reclamation and Reuse Program** – Through the Fiscal Year 2017 Water Reclamation Research under the Title XVI Water Reclamation and Reuse Program FOA research that supports the application of commercially available water reclamation and reuse technologies is funded jointly by Reclamation and State, regional or local authorities; Indian tribes or tribal organizations; or other entities such as water districts, wastewater districts, or rural water districts in the western United States or United States Territories as identified in the Reclamation Act of June 17, 1902, as amended, or Hawaii.

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Section B. Award Information

B.1. Total Project Funding

The President's FY 2017 budget request includes \$5.8 million for the DWPR program. Reclamation anticipates awarding up to \$1,000,000 for projects funded under this FOA. Applications submitted under this FOA also may be considered if other funding becomes available in FY 2017 or thereafter.

B.2. Project Funding Limitations

Funding is limited to \$150,000 in federal funding per application. The number of awards made and the aggregate amount awarded will be based on the quality of the applications received and congressional funding available. For institutions of higher education, non-Federal cost share is not required, but encouraged. For all other entity types, the Federal share may not exceed 50% of the total project costs.

B.3. Assistance Instrument

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

- Coordination of contributions made by team members from the different partners and evaluating successes as each task is undertaken as well as suggesting changes to tasks to accomplish project goal
- 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 award of the project. If you receive Reclamation's assistance, you must account for these costs in your budget. To discuss available assistance and these costs, contact the program coordinator identified in Section G: Agency Contacts.

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Section C. Eligibility Information

C.1. Eligible Applicants

Any responsible research sponsor is eligible to receive an award under this FOA, including:

- individuals
- institutions of higher education
- commercial or industrial organizations
- private entities
- State and local governmental entities
- non-profit organizations
- Federally-funded research and development centers
- tribal governments and organizations

Those not eligible include the following entities:

- Federal governmental entities
- Foreign entities

C.2. Cost Sharing Requirements

For Research and Laboratory Scale Projects, cost share is not required for institutions of higher education but is strongly encouraged. For all other entity types, the Federal cost share may not exceed 50% of total project costs, these entities must be capable of cost sharing 50 percent or more of the total project costs. Cost sharing may be made through cash or in-kind contributions from the applicant or third-party partners. 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. Please see Section D - Funding Plan and Letters of Commitment for more information regarding the documentation required to verify commitments to meet cost sharing requirements.

C.2.1. Cost Share Regulations

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

C.2.2. In-Kind Contributions

In-kind contributions constitute the value of noncash contributions that benefit a federally assisted project. These contributions may be in the form of real property, equipment, supplies, and other expendable property, as well as the value of goods and services directly benefiting and specifically identifiable to the project or program. The cost or value of in-kind contributions that have been or will be relied on to satisfy a cost sharing or matching requirement for another Federal financial assistance agreement, a Federal

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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; except 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. Applicants should refer to 2 CFR §200.434 for regulations regarding the valuation of in-kind donations and contributions, available at www.ecfr.gov.

C.3. Eligible Projects

C.3.1. Eligible Projects

Proposals for research & laboratory scale projects that address the DWPR program goals and objectives are eligible for funding under this FOA. Eligible research & laboratory scale projects are typically bench scale studies involving small flow rates less than 2 gallons per minute. Research and laboratory projects are used to determine the viability of a novel process, new materials, or novel process modifications. Research at this stage often involves a high degree of risk and uncertainty.

Applications received under this FOA for pilot scale testing projects or full scale testing projects may be evaluated under the Pilot Scale Testing Projects FOA or Full Scale Testing Projects FOA, as applicable, based upon the initial determination of the project's merit and selection for the second phase review and evaluation.

C.3.2. Ineligible Projects

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

- Proposals for pilot scale testing projects, such as those that are currently proposed or funded under Reclamation's DWPR Pilot Scale Projects FOA
- Proposals for full scale testing projects, such as those that are currently proposed or funded under Reclamation's DWPR Full Scale Projects FOA
- Proposals for research projects utilizing technologies or processes currently commercially available in the industry for deployment and implementation, such as studies currently proposed or funded under Reclamation's Title XVI Water Reclamation and Reuse Program
- 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, including the required project presentation (see section F.3. Reporting Requirements). Applications for projects requiring more time will be considered for funding only under limited circumstances.

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 Operations Section
Attn: Ms. Janeen Koza
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

By e-mail: jkoza@usbr.gov

By telephone: 303-445-3446

D.2. Content and Form of Application Submission

All applications must conform to the requirements set forth below. You are requested to carefully evaluate the program goals and objectives in Section A.1. To allow for innovation, you are not limited to the identified DWPR priorities in Section A.1., however, the value to this program of any other tasks proposed must be substantiated in your proposal.

D.2.1. Application Format and Length

The total application package shall be no more than **30** (thirty) consecutively numbered pages. If an application exceeds 30 pages, only the first 30 pages will be evaluated. 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. Oversized pages will not be accepted. The technical proposal and evaluation criteria section shall be limited to a maximum of 20 pages. The SF-424 forms, letters of project support and personnel qualifications will not be considered in the total page count. Applications will be prescreened for compliance to the page number limitations.

D.2.2. Application Content

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

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- Mandatory Federal Forms (will not count toward the page limitation)
 - SF-424 Application for Federal Assistance
 - SF-424A, Budget Information, Non-construction Programs
 - SF-424B Assurances, Non-construction Programs

SF-424, SF-424A, and SF-424B, forms may be obtained at <http://apply07.grants.gov/apply/FormLinks?family=15>.

- Title page
- Table of contents
- Technical proposal and evaluation criteria (limited to 20 pages)
 - Executive summary
 - Background/Introduction
 - Technical approach
 - Scope of work
 - Research work plan and schedule
 - Project management
 - Quality assurance / quality control
 - Facilities and equipment information
 - Environmental impacts
 - Evaluation criteria
- Personnel qualifications (will not count toward the page limitation)
- Required permits or approvals (will not count toward the page limitation)
- Letters of support (will not count toward the page limitation)
- Project budget
 - Funding plan and letters of commitment
 - Budget proposal
 - Budget narrative

D.2.2.1. Mandatory Federal Forms

The application must include the following standard Federal forms.

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.

SF-424 Budget Information

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

SF-424 Assurances

A 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.2.2.2. 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, e-mail 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 Evaluation Criteria

The technical proposal should present information in a manner which allows it to “stand alone” without the need to reference other documents. It should describe the capability of your organization to participate in this program and should demonstrate a thorough understanding of the technology of the work topic proposed for study. The technical proposal should be organized and written so that it can be easily read and meaningfully evaluated by Reclamation personnel and selected external evaluators from a variety of different functional and technical disciplines.

The technical proposal and evaluation criteria (**20** pages maximum) includes:

- (1) Executive summary
- (2) Background/Introduction
- (3) Technical approach
- (4) Scope of work
- (5) Research work plan and schedule
- (6) Project management
- (7) Quality assurance and quality control program
- (8) Facilities and equipment information
- (9) Environmental impacts
- (10) Evaluation criteria

Executive Summary

The executive summary should include:

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- The date, applicant name, city, county, and state
- A one paragraph project summary 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 of this FOA
- State the length of time and estimated completion date for the proposed project

Background/Introduction

Describe the current status of the technology supporting the specific research work proposed. Address the following issues:

- What is the problem to be solved?
- What is the proposed solution?
- Provide background and cite relevant literature and past experience. Provide a comprehensive background on the problem based on experience and what is reported in literature. If appropriate, identify specific water problem(s) and location.
- What technical risks are associated with the proposed investigation? Have similar projects been conducted by you or elsewhere? How successful have they been?
- What would success look like? If the project proved successful, what would be the result at the end of the investigation, and what would be the potential for follow-on funding for further work? What does the commercialization path look like?

Technical Approach

Describe the work in detail, including specific activities that will be accomplished. This description should have sufficient 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 assessment of the severity of each problem.

Scope of Work

Describe in detail the tasks to be conducted, including reporting. For each task 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 kind of staff, the number of staff hours, and the schedule for completing each task.

Research Work Plan and Schedule

Provide a research work plan based on the tasks described in the Scope of Work and schedule showing individual tasks with significant milestones identified for the work to be accomplished as well as work-hour requirements for each phase, including time for the preparation, submission, and approval of required data and reports. Provide this in a table, Gantt chart, project network diagram, or any other visual format. The information will be used as an aid in evaluating your understanding of the work requirement.

Project Management

Clearly identify the proposed organization to manage the work, its relationship to the applicant's overall corporate structure, and the function and responsibilities of any subcontractors. Include a description of the work anticipated to be performed under any subcontract.

Quality Assurance and Quality Control Program

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

Facilities and Equipment Information

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

Environmental Impacts

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.

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 evaluation criteria portion of your application should thoroughly address each criterion and subcriterion to assist in the complete and accurate evaluation of your proposal.

D.2.2.5. Personnel Qualifications

- Provide the following information on personnel:
- Identification of Project Manager assigned to perform the work.
- Identification of key personnel, including consultants, to be assigned for direct work on the project and as direct technical supervision, along with the nature of each individual's involvement and estimated work hours by task.
- A statement of assurance that the proposed personnel will be available for work on this agreement.
- A list of alternative personnel to be used in the event proposed personnel are not available as planned.
- A brief resume limited to 2 pages maximum (to include education, experience, accomplishments, and other pertinent information) for all key personnel named.

Note this will not count againsts your page limit.

D.2.2.6. Required Permits or Approvals

Applicants must state in the application whether any permits or approvals are required and explain the plan for obtaining such permits or approvals.

D.2.2.7. Letters of Support

Please include letters from interested stakeholders supporting the proposed project. To ensure your proposal is accurately reviewed, please attach all letters of support and/or partnership letters as an appendix. (Note: this will not count against the application page limit.) Letters of support and partnership letters received after the application deadline for this FOA will not be considered in the evaluation of the application.

D.2.2.8. Project Budget

The project budget includes:

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

Funding Plan and Letters of Commitment

Describe how the non-Federal share of project costs will be obtained. Reclamation will use this information in making a determination of financial capability.

Project funding provided by a source other than the applicant shall be supported with letters of commitment from these additional sources. This is a **mandatory requirement. (Institutions of higher education are exempted)** Letters of commitment shall identify the following elements:

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

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

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

The funding plan must include all project costs, as follows:

- How you will make your contribution to the cost share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments)
- Describe any project expenses that have been incurred or may be incurred before the anticipated award date that you may seek to include as project costs. For each cost, identify:
 - The project expenditure and the amount
 - Whether the expenditure is or will be in the form of in-kind services or donations
 - The date of cost incurrence

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- How the expenditure benefits the project
- Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment
- Describe any funding requested or received from other Federal partners. *Note: other sources of Federal funding may not be counted towards the cost-share unless otherwise allowed by statute*
- Describe any pending funding requests that have not yet been approved, and explain how the project will be affected if such funding is denied

Please include the following chart (Table 1) to summarize all funding sources. Denote in-kind contributions with an asterisk (*)

Table 1.—Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
1.	
2.	
3.	
Non-Federal Subtotal	
Other Federal Entities	
1.	
2.	
3.	
Other Federal Subtotal	
REQUESTED RECLAMATION FUNDING	

Budget Proposal

The budget proposal should include detailed information on the categories listed below and must clearly identify all project costs. Unit costs should be provided for all budget items including the cost of work to be provided by contractors. The budget proposal should also include any in-kind contributions of goods and services provided to complete the project. The budget should include the mandatory trip budget to provide a final presentation at Reclamation’s office in Lakewood, CO towards the end of the project. The budget should not include any construction costs of permanent research facilities. It is strongly advised that applicants use the budget proposal format shown below in Table 2 or a similar

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format that provides this information. If selected for award, successful applicants must submit detailed supporting documentation for all budgeted costs.

Table 2.—Sample Budget Proposal Format

BUDGET ITEM DESCRIPTION	COMPUTATION		Quantity Type	TOTAL COST
	\$/Unit	Quantity		
Salaries and Wages				
Employee 1				\$
Employee 2				\$
Employee 3				\$
Fringe Benefits				
Full-Time Employees				\$
Part-Time Employees				\$
Travel				
Lakewood, CO for presentation				\$
Trip 2				\$
Trip 3				\$
Equipment				
Item A				\$
Item B				\$
Item C				\$
Supplies and Materials				
Item A				\$
Item B				\$
Contractual/Construction				
Contractor A				\$
Contractor B				\$
Other				
Reporting				\$
TOTAL DIRECT COSTS				\$
Indirect Costs				
Type of rate	percentage	\$base		\$
TOTAL ESTIMATED PROJECT COSTS				\$

Budget Narrative

Submission of a budget narrative is mandatory. An award will not be made to any applicant who fails to fully disclose this information. The budget narrative provides a discussion of, or explanation for, items included in the budget proposal. Include the value of in-kind contributions of goods and services and sources of funds provided to complete the project. The types of information to

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describe in the narrative include, but are not limited to, those listed in the following subsections. Costs, including the valuation of in-kind contributions and donations, must comply with the applicable cost principles contained in 2 CFR Part §200, available at the Electronic Code of Federal Regulations (www.ecfr.gov).

Salaries and Wages

Indicate program manager and other key personnel by name and title. Other personnel may be indicated by title alone. For all positions, indicate salaries and wages, estimated hours or percent of time, and rate of compensation. The labor rates should identify the direct labor rate separate from the fringe rate or fringe cost for each category. All labor estimates, including any proposed subcontractors, should be allocated to specific tasks as outlined in the recipient's technical proposal. Labor rates and proposed hours should be displayed for each task.

Include estimated hours for compliance with reporting requirements, including the project presentation and preparation of the final project report. Please see Section F. Reporting-Requirements and Distribution for information on types and frequency of reports required.

Clearly identify any proposed salary increases and the effective date.

Generally, salaries of administrative and/or clerical personnel will be included as a portion of the stated indirect costs. If these salaries can be adequately documented as direct costs, they should be included in this section; however, a justification should be included in the budget narrative.

Fringe Benefits

Indicate rates/amounts, what costs are included in this category, and the basis of the rate computations. Indicate whether these rates are used for application purposes only or whether they are fixed or provisional rates for billing purposes. Federally approved rate agreements are acceptable for compliance with this item.

Travel

A minimum of one conference attendance for up to two people can be included in the budget. Any additional conferences would have to be covered by the applicant. For the project presentation, up to two people can be included in the budget to travel to Lakewood, Colorado to present your final findings.

If your proposed project requires additional travel, identify the purpose of each trip, the destination, number of persons traveling, length of stay, and all travel costs including airfare (basis for rate used), per diem, lodging, and miscellaneous travel expenses.

Equipment

Itemize costs of all equipment having a value of over \$5,000 and include information as to the need for this equipment, as well as how the equipment was priced if being purchased for the agreement. If equipment is being rented, specify the number of hours and the hourly rate. Local rental rates are only accepted for equipment actually being rented or leased for the project. If equipment currently owned by the applicant is proposed for use under the proposed project, and the cost to use that equipment is being included in the budget as in-kind cost share, provide the rates and hours for each piece of equipment owned and budgeted. These should be ownership rates developed by the recipient for each piece of equipment. If these rates are not available, the U.S. Army Corp of Engineer's recommended equipment rates for the region are acceptable. Blue book, Federal Emergency Management Agency, and other data bases cannot be used.

Materials and Supplies

Itemize supplies by major category, unit price, quantity, and purpose, such as whether the items are needed for office use, research, or construction. Identify how these costs were estimated (i.e., quotes, past experience, engineering estimates, or other methodology).

Contractual

Identify all work that will be accomplished by subrecipients, consultants, or contractors, including a breakdown of all tasks to be completed, and a detailed budget estimate of time, rates, supplies, and materials that will be required for each task. If a subrecipient, consultant, or contractor is proposed and approved at the time of award, no other approvals will be required. Any changes or additions will require a request for approval. Identify how the budgeted costs for subrecipients, consultants, or contractors were determined to be fair and reasonable.

Environmental and Regulatory Compliance Costs

If the proposed project includes ground disturbing activities, the applicant must include a line item in the budget to cover environmental compliance costs. "Environmental compliance costs" refer to costs incurred by Reclamation and the recipient in complying with environmental regulations applicable to an award under this FOA, including costs associated with any required documentation of environmental compliance, analyses, permits, or approvals. Applicable Federal environmental laws could include National Environmental Policy Act (NEPA), Endangered Species Act (ESA), National Historic Preservation Act (NHPA), Clean Water Act (CWA), and other regulations depending on the project. Such costs may include, but are not limited to:

- The cost incurred by Reclamation to determine the level of environmental compliance required for the project

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- The cost incurred by Reclamation, the recipient, or a consultant to prepare any necessary environmental compliance documents or reports
- The cost incurred by Reclamation to review any environmental compliance documents prepared by a consultant
- The cost incurred by the recipient in acquiring any required approvals or permits, or in implementing any required mitigation measures

The amount of the line item should be based on the actual expected environmental compliance costs for the project, including Reclamation's cost to review environmental compliance documentation. However, the minimum amount budgeted for environmental compliance should be equal to at least one to two percent of the total project costs. If the amount budgeted is less than one to two percent of the total project costs, you must include a compelling explanation of why less than one to two percent was budgeted.

How environmental compliance activities will be performed (e.g., by Reclamation, the applicant, or a consultant) and how the environmental compliance funds will be spent, will be determined pursuant to subsequent agreement between Reclamation and the applicant. The amount of funding required for Reclamation to conduct any environmental compliance activities, including Reclamation's cost to review environmental compliance documentation, will be withheld from the Federal award amount and placed in an environmental compliance account to cover such costs. If any portion of the funds budgeted for environmental compliance is not required for compliance activities, such funds may be reallocated to the project, if appropriate.

Other Expenses

Any other expenses not included in the above categories should be listed in this category, along with a description of the item and why it is necessary. No profit or fee will be allowed.

Indirect Costs

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

If the applicant has separate rates for recovery of labor overhead and general and administrative costs, each rate should be shown. The applicant should propose rates for evaluation purposes, which will be used as fixed or ceiling rates in any resulting award. Include a copy of any federally approved indirect cost rate agreement. If a federally approved indirect rate agreement is not available,

provide supporting documentation for the rate. This can include a recent recommendation by a qualified certified public accountant (CPA) along with support for the rate calculation. Please note that the applicant will need to obtain a federally negotiated indirect cost rate agreement within nine months of award.

If the applicant has never received a Federal negotiated indirect cost rate, the budget may include a *de minimis* rate of up to 10 percent of modified total direct costs. For further information on modified total direct costs, refer to 2 CFR §200.68 available at the Electronic Code of Federal Regulations www.ecfr.gov.

If the applicant does not have a federally approved indirect cost rate agreement and is proposing a rate greater than the *de minimis* 10 percent rate, include the computational basis for the indirect expense pool and corresponding allocation base for each rate. Information on “Preparing and Submitting Indirect Cost Proposals” is available from Interior, the National Business Center, and Indirect Cost Services, at www.doi.gov/ibc/services/finance/indirect-cost-services.

Total Costs

Indicate total amount of project costs, including the Federal and non-Federal cost share amounts.

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:

- (i) Be registered in System for Award Management SAM before submitting its application;
- (ii) Provide a valid unique entity identifier in its application; and
- (iii) Continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or 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 provide a valid unique entity identifier or complete SAM registration by the application deadline, the valid unique entity identifier must be obtained and the SAM registration must be initiated within 30 days after the application deadline in order 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. If an

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applicant has not fully complied with the requirements by the time 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:

Wednesday January 18, 2017 at 4:00 pm Mountain Standard Time

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

Please note that any application submitted for funding under this FOA may be subjected to a Freedom of Information Act request (5 USC Section 552, as amended by P.L. No. 110-175), and as a result, may be made publicly available. Following awards of funding, Reclamation may post all successful applications on the Reclamation website, <http://www.usbr.gov/research/dwpr> after conducting any redactions determined necessary by Reclamation, in consultation with the recipient.

D.4.1. Application Delivery Instructions

Applications may be submitted electronically through Grants.gov (www.grants.gov) or hard copies 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: Bureau of Reclamation
Financial Assistance Operations
Attn: Ms. Janeen Koza
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

By express delivery: Bureau of Reclamation mail services
Attn: Ms. Janeen Koza
Denver Federal Center
Bldg. 67, Rm. 152
6th Avenue and Kipling Street
Denver, CO 80225

By courier services: Bureau of Reclamation
Attn: Ms. Janeen Koza
Denver Federal Center

Bldg. 56, Rm. 1000
6th Avenue and Kipling Street
Lakewood, CO 80225

D.4.2. Instructions for Submission of Project Application

Each applicant shall submit an application 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 shall 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 and funding commitment letters.
- 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 URL: <http://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: <http://www.grants.gov/applicants/apply-for-grants.html>.

- Please note that submission of an application electronically requires prior registration through Grants.gov, which generally takes 7 to 21 days. Please see registration instructions at <http://www.grants.gov/applicants/apply-for-grants.html>. *In addition, please note that the Grants.gov system only accepts applications submitted by individuals that are registered and*

active in SAM as both a user and an Authorized Organizational Representative.

- Many 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 submit an application 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 Federal Government mishandling or by a problem with the Grants.gov application 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 and whether it was received prior to the deadline identified in the FOA.

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 that 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 <https://www.whitehouse.gov/sites/default/files/omb/assets/grants/spoc.pdf>. 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, <https://www.whitehouse.gov/sites/default/files/omb/assets/grants/spoc.pdf>.

D.6. Funding Restrictions: Pre-award Costs

Project pre-award costs that have been incurred prior to the date of award may be submitted for consideration as an allowable reimbursable expense. **In no case will**

pre-award costs incurred prior to October 1, 2016 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, any pre-award costs proposed for consideration under the new awards must comply with all applicable requirements under this FOA.

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) (ALC) 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 of 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 in order to process payments.

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Section E. Application Review Information

E.1. Technical Proposal: Evaluation Criteria

The evaluation criteria portion of your application should thoroughly address each of the following criteria and subcriteria to assist in the complete and accurate evaluation of your proposal.

Applications will be evaluated against the evaluation criteria listed below. Please note that projects may be prioritized to ensure balance among the program task areas and to ensure that the projects address the goals and objectives of this FOA.

Please note, if the work described in your application is a phase of a larger project, please only discuss the benefits that will result directly from the work discussed in your application and that is reflected in the budget, not the overall project.

E.1.1. Evaluation Criterion A—Technical Factors (80 points)

- 1) Impact of the proposed work on the current technology and on its related economics if a completely successful outcome were achieved. Examples include energy and cost reduction, impact on water supply and/or ease of use on operation of the technology (25 points)
- 2) Novelty of approach to the work and probability of a successful outcome of work (25 points)
- 3) Demonstrated familiarity with the current technology in the field of work and understanding of the potential difficulties in carrying out the work (15 points)
- 4) Relationship to DWPR objectives and priorities shown in Section A.1. (10 points)
- 5) Availability of equipment, instruments, and test facilities required for the work (5 points)

E.1.2. Evaluation Criterion B— Managerial Factors (20 points)

- 1) The qualifications, capabilities, and experience of the proposed project manager and other key personnel who are critical to achievement of the proposed objectives. (5 points)
- 2) Adequacy, completeness, and realism of the research schedule, task phasing, and milestones. (5 points)

3) Sufficiency of proposed or existing procedures QA/QC protocols to be used throughout the project including statistical data analysis, peer review, instrument calibration, etc. (10 points)

E.2. Review and Selection Process

The Federal government reserves the right to reject any and all applications that do not meet the requirements or objectives of this 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.

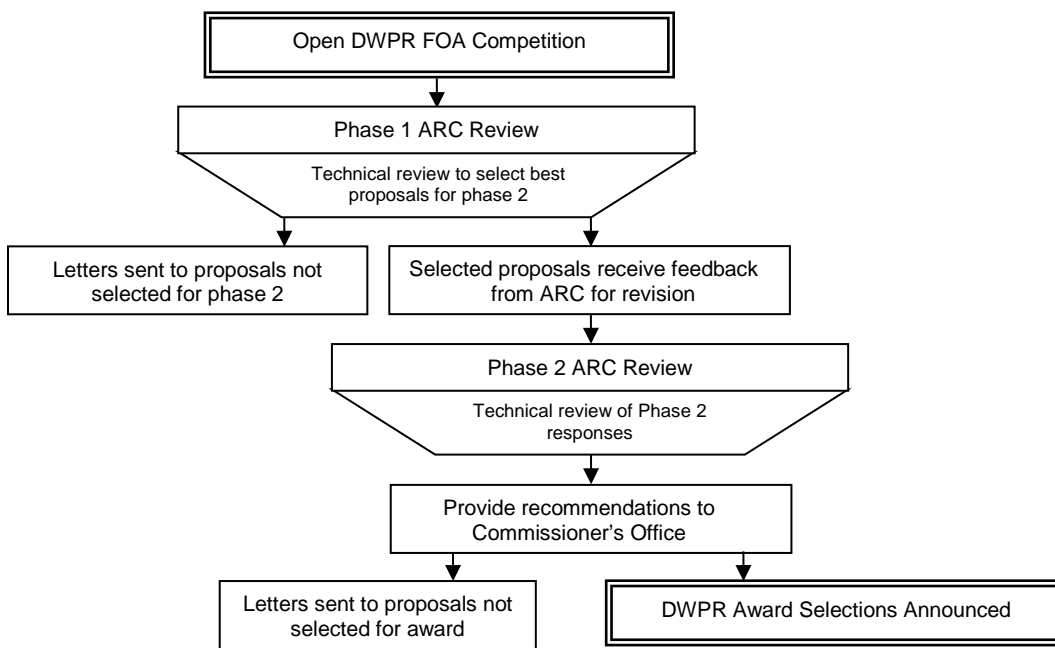


Figure 1. Two phase technical review process for the second-level evaluation.

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 meets the content requirements of the FOA package, including submission of technical and budget proposals, a funding plan, letter(s) of commitment, and related forms.
- The application contains a properly executed SF-424, Application for Financial Assistance, SF424A, Budget Information Non-Construction Programs and form SF-424B, Assurances Non-Construction Programs.
- The application and funding plan meets or exceeds the minimum non-Federal cost share requirements identified in this FOA.

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 Review

Evaluation criteria will comprise the total evaluation weight as stated in the Section E: Application Review Information. Applications will be scored against the evaluation criteria by an Application Review Committee (ARC), made up of experts in relevant disciplines selected from across Reclamation and other federal agencies. The ARC will also review the application to ensure that the proposed project meets the description of eligible projects and meets the objective of this FOA.

The ARC review will be conducted in two phases. In the first phase, all applications will be scored against the evaluation criteria in Section E.1. by the ARC. The highest scoring applications will advance to the second phase. All other applications will receive a notification that their proposal was not selected to advance to the second phase. It is anticipated that notifications will be sent at the end of March 2017.

The ARC will provide comments and feedback on all proposals selected for the second phase. Applicants will be asked to review the comments and address them in either a memorandum or letter within 14 calendar days. The ARC will review the responses and reevaluate and score the applications against the evaluation criteria and make final recommendations to the management team.

It is highly recommended that applicants with proposals advanced to the second phase address the ARC comments and/or questions, and submit adequate responses. If Reclamation does not receive a response, the original application score will be used for final ranking and recommendation.

In addition to addressing the ARC comments, applicants whose proposals are advanced to the second phase will be required to submit detailed supporting documentation for all costs (including any cost-share and in-kind contributions) identified in the budget proposal. Failure to provide all requested supporting documentation may result in the application being removed from further consideration.

E.2.3. Red-Flag Review

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

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.

E.2.5. Pre-Award Clearances and Approvals

After completion of the Managerial Review, Reclamation will notify applicants whose proposals have been selected for award consideration. Reclamation will also complete a business evaluation and responsibility determination. During these evaluations, the Grants Officer will also 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

If the results of all pre-award reviews and clearances are satisfactory, an award of funding will be made once the agreement is finalized (approximately one to three months from the date of initial selection). If the results of pre-award reviews and clearances are unsatisfactory, consideration of funding for the project may be withdrawn.

E.3. Federal Award Performance Integrity Information System

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 United States Code [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 potential award recipients and unsuccessful applicants in May 2017 or slightly later if necessary. Within one to three months after that date, 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

All projects being considered for award funding will require compliance with 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, CWA, ESA, 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. Intangible Property (2 CFR 200.315)

(a) Title to intangible property (see §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 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 means when:

(i) Research findings 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 particular person in a research study.

F.3. Reporting Requirements and Distribution

If the applicant is awarded an agreement as a result of this FOA, the applicant will be required to submit the following reports during the term of the agreement.

F.3.1. Financial Reports

Form SF-425—Federal Financial Report must be submitted on at least a quarterly basis and with the final project report.

F.3.2. Interim Program Performance Reports

The specific terms and conditions pertaining to the reporting requirements will be included in the financial assistance agreement.

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Reports shall be submitted quarterly by the Project Manager and will be used by Reclamation to ensure that the goals and objectives of the project are being met. The following should be included in each quarterly report:

- For each project or activity within a task, identify the start date and anticipated completion date and describe the work conducted within the reporting period
- Describe any significant accomplishments as well as any unanticipated delays encountered during the reporting period
- Discuss whether the activities comprising the agreement are on schedule to meet expected completion date. If not, discuss the actions being take 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 sufficient 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 a minimum of 2 PowerPoint slides at the end of 2nd and 4th quarter that summarizes project and any findings up to that date. Do not include any intellectual property or confidential information

F.3.3. Project Presentation

All recipients will be required to make a presentation regarding project achievements at Reclamation's office in Lakewood, Colorado. The project manager presentation should occur when the draft final report is ready to be submitted for Reclamation review. The presentation should inform Reclamation on the project accomplishments, the final results of each task item, and suggestions for future work. This presentation may be open to the public as a webinar and may be recorded and made available on the DWPR website.

F.3.4. Final Project Report

Upon award of an agreement, recipients will be provided information regarding the format to be used in completion of their final project report. Publication guidelines and published final reports from previous projects are at:

www.usbr.gov/research/dwpr. Please note that final project reports are public documents and may be made available on Reclamation's website.

F.4. Releasing Applications

Following awards of funding, Reclamation may post all successful applications on the Reclamation website after conducting any redactions determined necessary by Reclamation, in consultation with the recipient.

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Section G. Agency Contacts

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 Management Contact

Questions regarding application and submission information and award administration may be submitted to the attention of Janeen Koza, Grants Management Specialist, as follows:

By mail: Bureau of Reclamation
Financial Assistance Operations Section
Attn: Janeen Koza
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

By email: jkoza@usbr.gov

By phone: (303) 445-3446

G.2. Reclamation Program Coordinator Contact

Questions regarding applicant and project eligibility and application review may be submitted to the attention of Yuliana Porrás-Mendoza, Program Manager, as follows:

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

By e-mail: yporrasmendoza@usbr.gov

By phone: (303) 445-2265